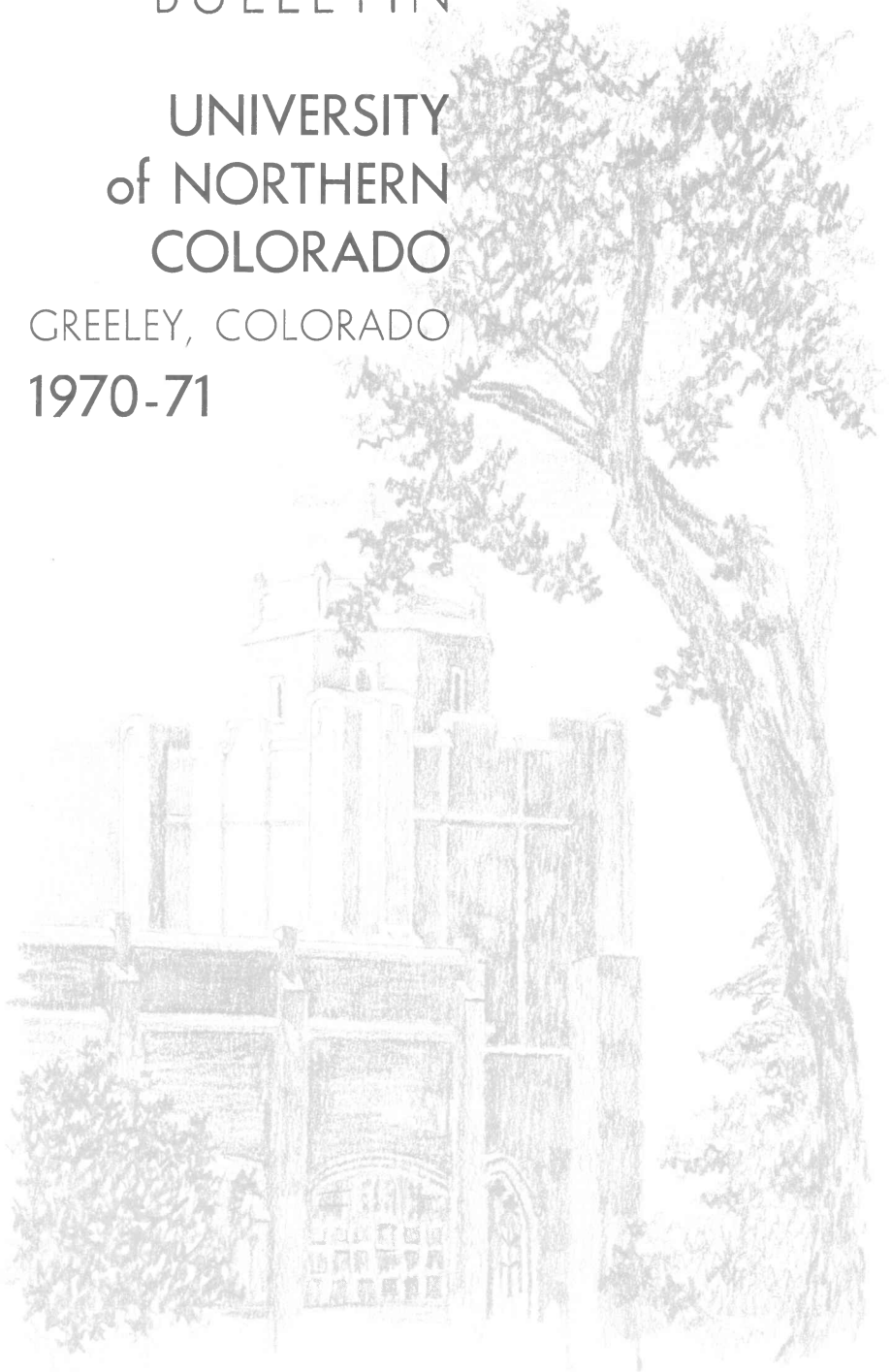


BULLETIN

UNIVERSITY  
of NORTHERN  
COLORADO

GREELEY, COLORADO

1970-71



UNDERGRADUATE CATALOG

Effective May 1, 1970, the name of Colorado State College will be the University of Northern Colorado. The Colorado Legislature approved the name change in the 1970 session and the bill was signed by Governor John A. Love.





BULLETIN

UNIVERSITY OF  
NORTHERN COLORADO

*1970-71 UNDERGRADUATE CATALOG*

**Bulletin Series LXX ●**

**April, 1970 ● Number 3**

Published Monthly. Publications Office, UNC. Entered as Second Class Matter and postage paid at the post office at Greeley, Colorado.

# COLLEGE CALENDAR

## 1970-1971

### SEPTEMBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    | 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 |    |    |    |

### OCTOBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

### NOVEMBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  |
| 8  | 9  | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 |    |    |    |    |    |

### DECEMBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    | 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |    |    |

### JANUARY

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |    |    |    |    |    |    |

### FEBRUARY

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    | 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 |    |    |    |    |    |

### MARCH

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    | 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |    |    |

### APRIL

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |    |

### MAY

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    |    |    | 1  |
| 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |    |    |    |    |    |

### JUNE

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |    |

### JULY

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |    |    |    |    |    |    |

### AUGUST

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    | 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |    |    |

### Summer Quarter—1970

June 15-16—Registration

June 17—Classes Begin\*

July 4—Independence Day—Holiday

July 20-25—Mid-term Week

August 15—Commencement—10:00 a.m.

August 19-20-21—Final Examinations

### Fall Quarter—1970

September 14—Laboratory school opens

September 18—New students report

September 21-22—Registration

September 23—Classes begin

October 24—Homecoming

October 26-30—Mid-term week

November 14—Parents Day

November 25—Thanksgiving Vacation (begins at noon)

November 30—Classes resume

December 8—Commencement—10:00 a.m.—No classes

December 9-11—Final Examinations

December 18—Laboratory school closes

### Winter Quarter—1971

January 4-5—Registration

January 6—Classes begin

January 29-30—Mid-Year Education Conference

February 8-12—Mid-term week

March 13—Commencement—10:00 a.m.

March 12, 15, 16—Final Examinations

### Spring Quarter—1971

March 22-23—Registration

March 24—Classes begin

April 26-30—Mid-term week

May 28—Insignia Day

May 29—Commencement—10:00 a.m.

May 30—Memorial Day

May 31—Memorial Day vacation—No classes

June 1—Classes resume

June 2-4—Final Examinations

### Summer Quarter—1971

June 14-15—Registration

June 16—Classes begin

July 4—Independence Day

July 5—Independence Day vacation—No classes

July 19-23—Mid-term week

August 17—Commencement 10 a.m.—No classes

August 18-20—Final Examinations

# TABLE OF CONTENTS

|   | <b>Page</b> |
|---|-------------|
| College Calendar .....                      | II          |
| Freman Admissions Timetable .....           | IV          |
| Transfer Students Admission Timetable ..... | IV          |
| General Information .....                   | 1-4         |
| Academic Services .....                     | 5-6         |
| Student Personnel Services .....            | 7-12        |
| Student Activities .....                    | 13-15       |
| Financial Information .....                 | 16-21       |
| Academic Information .....                  | 22-30       |
| Undergraduate Program Requirements .....    | 31-40       |
| Degree Programs .....                       | 41-132      |
| Course Descriptions .....                   | 133-253     |
| Board of Trustees .....                     | 254         |
| General Administration .....                | 254-257     |
| Instructional Staff .....                   | 258-278     |
| Laboratory School Assignments .....         | 279         |
| Emeritus Faculty .....                      | 280-281     |
| Index .....                                 | 282-284     |

## Freshman Admissions Timetable

**Applications**—Applications may be filed any time after the beginning of the senior year in high school and not later than 30 days prior to registration day. The application must be accompanied by a \$10.00 transcript and evaluation fee. This fee is non-refundable.

**Test Scores**—The American College Test (ACT) should be taken early enough so that the test results may be considered at the time the application is filed. An October or December test date is recommended. Junior year test scores will be accepted.

**Scholarship and Financial Aid Applications:** The Colorado Preliminary Application for Financial Aid (available through local High School Counselors) should be submitted through the High School Counselor to the Director of Financial Aid by March 1. This form is used for consideration for Scholarships, Student Loans and Grants. A student must have been officially admitted to the College before the offer of scholarships or a financial aid package becomes final.

**PLEASE NOTE**—All applicants for Financial Aid must submit the Family Financial Statement of the American College Testing Program in order to be considered for Financial Aid.

## Transfer Student Admissions Timetable

**Applications**—All applications and two official transcripts from each college or university attended must be filed 30 days prior to the quarter for which the transfer student wishes to enroll. The application must be accompanied by a \$10.00 transcript and evaluation fee. This fee is non-refundable.

**IMPORTANT**—All undergraduate students, whether full or part-time, must make application for admission and be officially admitted in order to take course work. There is no “unclassified” or “special student” status for undergraduate students.

This catalog is a reservoir of programs and courses approved for offering at Colorado State College. The listing of a program or course in the catalog does not constitute a guarantee or a contract that the program will be offered or that the courses listed will be taught during the period of time covered by this catalog. Consult the schedule of classes for a listing of specific courses to be offered, in case of question consult your advisor or Department Chairman.

Course descriptions in back of Catalog marked with asterisks (\*) may be used to meet the 18 hours of electives in general education.

# GENERAL INFORMATION

**Functions of the College**—Colorado State College provides balanced curricula to allow the student to develop into an effective citizen, to increase his capacity to use the processes of critical, reflective and creative thinking, and to increase his level of personal maturity. Within this framework professional and pre-professional courses are provided to enable each student to become a useful and productive member of society.

Colorado State College has a tradition and a national reputation in the preparation of teachers, offers a variety of majors in many academic disciplines, and is dedicated to the continuing advancement of knowledge.

**Accreditation**—Colorado State College has been a member of the North Central Association of College and Secondary Schools since 1916.

The college is a member of the National Council for Accreditation of Teacher Education for the preparation of elementary teachers, secondary teachers, and school service personnel, with the doctorate degree as the highest degree approved.

The college is a member of the American Association of Colleges for Teacher Education, the American Council on Education, the Council of Graduate Schools in the United States, the Midwest Conference on Graduate Study and Research, the Western Association of Graduate Schools, and American Association of State Colleges and Universities.

The college is also a member of the National League for Nursing, the American Chemistry Society, and an associate member of the National Association of the Schools of Music.

**Graduate School**—Colorado State College offers advanced programs of professional work leading to the Master of Arts degree, Specialist in Education degree, Doctor of Education degree, and the Doctor of Philosophy degree. Graduate study was first offered during the Summer Session of 1913, and the first master's degree was conferred in June, 1914. In 1929 the Board of Trustees authorized the college to provide a program leading to the doctor's degree, and in 1952 the specialist's degree was approved.

To secure a Graduate School Catalog, write to the Dean of the Graduate School, Colorado State College, Greeley, Colorado 80631.

**History**—The history of Colorado State College closely parallels much of the growth and development of the Greeley Union Colony. The Colony was organized in 1870 by Nathan C. Meeker, traveler and newspaper correspondent, and was named after Horace Greeley.

When the Colony was eighteen years old, a movement was started to establish a normal school to supply teachers for the community and state. The law creating the State Normal School was signed on April 1, 1889, and the cornerstone of the first building was laid on June 13, 1890. Classes were started October 6, 1890, with a staff of the principal, four instructors, and 96 students. Certificates were granted upon the completion of the two-year course.

In 1911 the name was changed to Colorado State Teachers College by the state legislature. The college was then offering four years of undergraduate work and granting the Bachelor of Arts degree. In 1935 the name of Colorado State College of Education was adopted to recognize the fully developed graduate program which was started in 1913. Early in 1957 the state legislature approved shortening the name to Colorado State College, effective October, 1957.

**Government**—The college is under the jurisdiction of the Trustees of the State Colleges in Colorado, a governing board consisting of seven members appointed by the Governor of the State. Funds for the operations of the college come from general appropriations of the legislature, student tuition and fees, and special federal and philanthropic grants.

## 2 / GENERAL INFORMATION

**Location**—Colorado State College is in Greeley, a city of approximately 35,000. Greeley is 52 miles north of Denver and 52 miles south of Cheyenne, Wyoming. Estes Park is 51 miles west. The front range of the Rocky Mountains is 30 miles west of the campus. The elevation of Greeley is 4,648 feet, and the climate is invigorating and conducive to study.

**Laboratory Schools**—The college maintains a Laboratory School which includes Ernest Horn Elementary School and College High School, with grades seven through twelve. For information on tuition and fees consult the Director of the Laboratory School.

The campus Special Education School, a cooperative project of School District No. 6 (Greeley, Evans and Ashton) and the college, is a laboratory school enrolling physically and mentally handicapped and emotionally disturbed children. College students observe and do student teaching in this school. For information consult the Chairman of Special Education.

A Nursery School is maintained under the direction of the Department of Home Economics. Please consult the department chairman for further information.

**Campus**—The 243-acre college campus is in a beautiful residential area in the southern part of Greeley. The campus is south of the main business district and is in three parts—East, Greeley, and College Park. Residence halls for men and women are located on the East and College Park campuses and residences for women on the Greeley Campus. Permanent college-owned apartments for married students and families are on the East Campus.

Athletic fields for major outdoor sports are on the East Campus, while recreational activity areas extend over all three campuses.

The \$3,175,000 College Center lies between the Greeley and College Park campus areas. Future plans of the college are to have the majority of single student residences and academic buildings on the 156-acre College Park Campus. Presently Ross Hall, the science complex; Bishop-Lehr, the laboratory school; and the new \$2,900,000 education-classroom building, McKee Hall, are on the College Park Campus. Three new coeducational residence halls on the College Park Campus—McCowen Hall, Harrison Hall and 13-story Turner Hall—can house 1,660. Capacity for housing in apartments, dormitories, and college-owned houses is 3,320.

A new \$5,000,000 library-classroom building is currently under construction on the College Park Campus.

Architectural plans are now being completed for a new physical education building and a new general classroom building for the arts and sciences, both to be located on the College Park campus. These buildings are scheduled for construction during 1970-71, at costs in excess of two million dollars each. The first phase of a new apartment style coeducational dormitory is also being planned. Ultimately this structure would house an additional 1,000 students, and it is hoped that initial construction will take place in 1971.

The total physical plant of the campus includes 61 buildings, exclusive of college-owned fraternity and sorority houses.

The college also owns a mountain campus of 80 acres and five buildings adjacent to the city of Estes Park. This area, used for field trips by college classes, includes some of the most spectacular scenery in the Rockies.

**Alumni Association**—The Alumni Association of Colorado State College was re-established February 11, 1965. A non-profit corporation organization independent of the college, the Association is governed by a 21-man Board of Directors and has as its purpose the creation and encouragement of activities which are mutually beneficial to the college and its alumni. Local clubs are established in areas where 10 or more alumni indicate an interest. Regular Membership is available to any person who has enrolled in the college. Friends of the college may apply for an Associate Membership. For additional information, please contact the Alumni Office, Colorado State College.

**Insurance Institute**—The function of the Insurance Institute is to formulate insurance courses and other insurance programs in cooperation with the School of Business and insurance industry and to act as coordinator of these courses and programs. Special emphasis is placed on undergraduate work in insurance and on in-service training for insurance industry personnel in academic work leading to advanced professional designations.

**Public Services**—Coordinated through the Department of Public Services and Development, the college provides several types of services for students, schools, and communities. The services include off-campus classes and correspondence study, placement of graduates in professional positions, helping to plan and host various types of conferences on campus, scheduling staff members and students for speaking engagements, and assisting schools and communities with their educational problems. Recently the college has established the Colorado State College Foundation to help provide funding for college programs.

**Rocky Mountain Special Education Instructional Materials Center**— An integral part of the special education program at Colorado State College is the new Rocky Mountain Special Education Instructional Materials Center. This facility is one of 14 such centers in the United States which grew out of two applications submitted to the U.S. Office of Education in 1964. The Center's chief function is to provide for acquisition and lending services of special education instructional materials to educators in a five-state area. The states within this area include Montana, Wyoming, Colorado, Utah and New Mexico.

Special education students at the Greeley campus will find the Center's storage of materials and data processing of annotated bibliographical listings most helpful in their studies and research. The Center is most anxious to put within the reach of students and educators alike an ever-expanding wealth of the latest in instructional materials.

**Off-Campus Instruction**—One of the many services the college provides for Colorado is an extensive program of off-campus instruction. Three types of programs are offered to help non-resident students and to help certify and upgrade teachers for the public schools. These three programs are (1) off-campus classes, (2) tele-lecture courses, and (3) correspondence study.

Off-campus classes are offered in various sections of the state primarily as in-service courses to the teachers and the school systems.

Tele-Lecture is a means of providing off-campus instruction in a number of sites widely separated and distant from the campus. Through the use of tape recorded lectures the professor is able to teach classes in several communities simultaneously. Visual materials and textbooks are used to supplement the taped lectures. Two-way communication is achieved through the use of amplified telephone conference calls which connect all class groups with the professor on the campus and with other class groups. The conference calls permit interaction between the individual student, other students, and the professor. All Tele-Lecture courses are offered for three quarter hours credit with approximately two hours per week devoted to taped lecture material and one hour per week to amplified telephone lecture and interaction with class groups.

The college provides correspondence courses for the convenience of students who want to earn undergraduate college credit but cannot do so through classes on or off the campus.

Complete information on off-campus classes, Tele-Lecture courses and correspondence study may be obtained from the Office of Continuing Education, Colorado State College.

**Placement Services**—The Placement Center of Colorado State College offers its services to all persons who have completed course work at Colorado State College and who enroll for the service. The placement season extends from July 1 through June 30. Credentials will be filed for a period of five years from the end of the placement season during which an enrollment was completed. Unless materials are updated within a five-year span, they will be destroyed. This policy permits better service and provides current information which employers request.

Employment is not guaranteed but the Placement Center acts as an effective liaison with all educational institutions, business, and governmental agencies. An opportunity is provided for the prospective employer and the prospective employee to get together; a continuing service for the student to gain information and experience pertaining to career objectives; broad knowledge of the types of jobs available; experience in interviewing and in the writing of letters of application; and acceptance of a position as a part of the student's overall general education.

More than 70,000 vacancy notices are received throughout the year, with the largest number coming in January to June for positions in September. Personal interview schedules are publicized in advance in academic departments, residence halls, the *Mirror*, student center, and on the Placement Center's bulletin board.

#### 4 / GENERAL INFORMATION

Many employers are unable to make a personal visit but list their vacancies throughout the year. Students and alumni are recommend to these employers who advise us of their needs, and credentials are furnished.

The office carries on numerous activities which include automated nominations; processing vacancy notices; mailing out credentials; conferring with prospective employers and applicants for positions. Vacancy lists are published and mailed to off-campus enrollees, and listings are placed in the Placement Center library for use by enrollees on campus. Personal interviews are conducted in six modern and private interview rooms. One of the main functions is the counseling of candidates whenever assistance is needed in regard to placement. The office attempts to maintain close relationship with former graduates who may desire to change positions or to make professional advancements in the field of education.



# ACADEMIC SERVICES

There is a variety of academic services available to faculty and students and educators in the field which assist them in their academic endeavors. These services are administered by the Dean of College Academic Services and include Library Services, Instructional Materials Center and KCBL-FM, the Educational Planning Service, the Bureau of Research, the Computer and Data Processing Center, and the Office of Special Programs.

**Library Facilities**—The main college library in Carter Hall contains approximately 270,000 volumes, including microfilms, periodicals, government documents, pamphlets, and reference materials. The book stacks are open to all students and other patrons. Study facilities are available in the stack areas as well as in other areas of Carter Hall.

A new general library is under construction on the College Park Campus, planned to meet the needs of a fast-growing student body and faculty. Occupancy is scheduled for sometime during 1971.

The music library is located in Frasier Hall 249. Selected volumes including certain reference materials together with music recordings, scores and study facilities are available.

A Science Reading Room is located in Ross Hall 113. Certain current periodicals and selected science and math materials are available, together with study facilities in a well-lighted room.

The Educational Resources Center is located in McKee Hall. Certain education materials, textbooks (K-12), curriculum guides, and testing materials are available for the student who is preparing to teach. The surroundings are new, comfortable and colorful.

The College Laboratory School libraries (K-6 and 7-12) are located in Bishop-Lehr Hall. The best of children's and young adult literature has been gathered in approximately 22,000 volumes for the laboratory school student and faculty use. College students preparing to teach should find this facility and its outstanding collection worth examining.

**Instructional Materials Center**—Services provided by the Instructional Materials Center cover the range of educational media. The Center provides a media consulting service for faculty and others.

Faculty film requests and orders are processed by this department. A library of 2,000 films, 900 filmstrips, several hundred audio recordings and numerous video tapes is available. All audio-visual equipment and films for the college and community are centrally located, supplied, and maintained in the Center. Student projectionists are provided for faculty members who desire this help.

Audio production studios provide disc and tape recording services, as well as a campus public address system. A graphics production staff is also available in the Center, for the creation and reproduction of visual and photographic instructional materials. Through the facilities of CSC-TV, a television production studio is also available. A campus-wide six-channel distribution system allows for convenient playback of video tape or distribution of locally originated live telecasts.

**Educational Planning Service**—Consultant services for school districts and educational institutions are provided through the Educational Planning Service, which is organized to utilize the experience and specialized knowledge of the entire Colorado State College faculty. Services to schools and colleges include curriculum planning, administration and organization problems, planning educational facilities and planning for higher education. The Educational Planning Service is a self-supporting non-profit activity with the fees for services set on a cost basis.

**Bureau of Research**—Consultative services are provided to the college, individual faculty members, doctoral students, public schools and other educational organizations. Services include aid in preparing statistical designs, drafting of proposals for research funds and grants, dissemination of research reports, and aid in other phases of research and development. College and public school organizations are assisted in planning test programs, large scale research projects, innovative projects, and program evaluation.

**Computer and Data Processing Center**—The Computer and Data Processing Center is a service arm of Colorado State College. It supports both administrative data processing and academic automatic data processing programs at all levels of the institution. The facilities are available to all faculty, staff, and students of the College. Members of the Center staff provide consulting service and assistance to all users.

**Office of Special Programs**—The Dean of College Academic Services serves as liaison officer between the college and all federal offices, as well as private foundations, which provide financial support to educational programs. This office serves as an information clearing house in that it receives and disseminates information about special programs to interested faculty and students. The Dean reviews and processes all proposals for projects, receives all grants and loans, and administers them through the various project directors.

**KCBL-FM**—The radio voice of Colorado State College. This 10-watt educational radio station is licensed to the Associated Students and is staffed by students interested in broadcasting. While quality music is the primary source of programming, emphasis is also given to the broadcasting of programs dealing with student life, programming from and about foreign countries, programs of general cultural and educational interest, and selected athletic events. KCBL-FM broadcasts at 91.3 megacycles on the FM frequencies. A monthly program guide describes the program offerings and is available free of charge.

# STUDENT PERSONNEL SERVICES

All out-of-class activities and services for students are administered by the Department of Student Personnel under the direction of the Dean of Students. These include pre-college counseling, application for admission, veterans counseling, matriculation and guidance examinations, registration for courses, record

keeping, application for graduation, transcription of records, student health services, testing, counseling of a personal nature as well as academic guidance, remedial programs, living accommodations, recreational and social events, student employment, and student loans and scholarships.

**Counseling Services**—Counseling services are available for all students of the college at the Counseling Center. These services provide an opportunity for students to receive help in determining and understanding their aptitudes and interests in order that they might select a course of study in keeping with their needs and desires. Help is also available for students who are having difficulty with course work or who present other types of problems which arise in college life, such as those of a personal nature involving social situations, physical and mental health, finances, or housing.

**Student Employment**—A large number of the students of the college have part-time employment on-campus to help defray their expenses. Other jobs are available in Greeley business places and homes. Each student employed on the college campus must maintain a satisfactory grade average. Inquiries concerning employment should be addressed to the Director of Financial Aid, Colorado State College.

**Transcripts**—Students may obtain official transcripts of their Colorado State College academic records on payment of \$1.00 per copy, payable in advance. Requests should be addressed to Records, Colorado State College.

**Education of War Service Personnel**—All ex-service personnel entering under the veterans' education and training program must present a Certificate of Eligibility valid for use at Colorado State College. This certificate must be presented to the Veterans Counselor in the Office of Financial Aids at the time of registration. Further information concerning Veterans' Affairs may be obtained from the Director of Financial Aid, Colorado State College.

**Photographs**—A college photographer will take pictures of all new students on registration day. These pictures are for official files.

## Health Services

**The Student Health Center** offers examination, treatment, and limited dispensary facilities with registered nurses in attendance at all time during the college day and with physicians available at specific office hours and for emergencies.

**Off-Campus Services** are available to all full-time students through a contract with the Medical Staff of the Weld County General Hospital. A student may go to the office of any physician included in the contract or, if necessary, the physician may make a home or hospital call. No surgical benefits are included. To obtain service, the student must show his current I.D. card. A list of physicians, their telephone numbers, and the services provided are listed in a yellow pamphlet distributed at registration. Doctor's charges are paid at the end of each quarter within the limits provided in the contracts. Students who are on off-campus assignments, outside the boundaries of Weld County, are provided comparable services in the area of their assignment. Instructions for this service are explained in the pamphlet.

**A Student Group Hospitalization and Accident Insurance Policy** which provides medical and surgical care for a low cost per student per quarter for all full-time students is contracted for by the college. Dependent coverage is available on an optional basis the first quarter of enrollment each school year, full annual premium required.

A **Student Health Services Brochure** is provided which may be consulted for further details regarding all services described above.

**Copies of Medical Records** will be sent to another institution for a \$2.00 fee.

## Housing

**Student Residence Halls**—Room and board accommodations are available in college residence halls for undergraduate or graduate students on a contract basis for the full school year consisting of the fall, winter and spring quarters. **STUDENTS ARE NOT PERMITTED TO BREAK THIS CONTRACT UNLESS THEY ARE WITHDRAWING FROM COLORADO STATE COLLEGE OR ARE GETTING MARRIED.** Residence in these halls provides social, educational, and cultural advantages to the student. Each hall is under the supervision of a director chosen for his or her experience and interest in the personal and social growth of college-age students.

**EXCEPT FOR GREELEY RESIDENTS, FIRST-YEAR FRESHMAN STUDENTS ARE REQUIRED TO LIVE IN THE RESIDENCE HALLS.**

**Residence Regulations**—Colorado State College does not require women to maintain hours in their place of residence, except for first quarter freshman. All other women who are in good social and academic standing may request key privileges to their residences. All residence halls close no later than 11:00 p.m. on Sunday through Thursday and by 1:00 a.m. on Friday and Saturday nights, except that students with key privileges may enter later.

Turner Hall housing sophomore, junior, and senior men and women is operated as an apartment type living unit.

Desirable study conditions are to be maintained by all students at all times in residence halls, college-owned housing, and off-campus private homes.

**Linen and Bedding**—Students provide their own personal linens and towels. The college furnishes and launders college-owned bedding in the residence halls and college-owned houses.

**Dining Rooms**—Students living in the residence halls have their meals in the dining rooms maintained on the campus. Rates are established on a room and board basis. These rates may vary slightly depending upon location and size of the room as well as upon any marked fluctuations in food costs. Such changes are authorized by the Board of Trustees. Notification of changes in rates is given at least 30 days in advance of any school quarter. For upperclassmen living in Turner Hall, a special meal option is available to them by signing up for meals at the time they make their application for the hall.

**Application for the Rooms**—Application blanks may be obtained from the Housing Office. The completed application for housing, with a \$50.00 deposit, must be returned to the Director of Housing, Colorado State College. If you decide not to attend Colorado State College, and a written statement is received by the Housing Office, the policy in regard to refunds will be as follows: **FALL QUARTER:** Cancellations received prior to August 15, \$25.00 will be refunded. Cancellations received on or after August 15, **NO REFUND OF DEPOSIT.** **WINTER QUARTER:** Cancellations received prior to November 15, \$25.00 will be refunded. Cancellations received on or after November 15, **NO REFUND OF DEPOSIT.** **SPRING QUARTER:** Cancellation received prior to February 15, \$25.00 will be refunded. Cancellations received on or after February 15, **NO REFUND OF DEPOSIT.** **SUMMER QUARTER:** Cancellations received before May 15, \$25.00 will be refunded. Cancellations received on or after May 15, **NO REFUND OF DEPOSIT.** **THERE ARE NO REFUNDS FOR APPLICATIONS MADE AND THEN CANCELLED AFTER AUGUST 15; NOVEMBER 15; FEBRUARY 15; MAY 15.** If a student living in a residence hall should withdraw from the college in any quarter, he forfeits his room deposit of \$50.00, is charged for the room rent for the balance of the quarter, and is allowed a refund only on the dining hall charges on a pro-rated basis.

If all provisions of the contract have been complied with and no damage charges have been assessed, the \$50.00 deposit will be refunded at the end of the school year. If the resident elects to re-apply for a room in the residence halls for the following year, his deposit will not be refunded but will be transferred to the renewal application. *Off-Campus Housing*—The Director of Housing will assist students who are not required to live in residence halls to obtain housing in the city of Greeley. Board is available in the residence halls on a contract basis for students living off campus.

The Housing Office assists students who cannot find college housing by maintaining current lists of private rooms, apartments and houses that are available in the Greeley area. Since these listings change quite rapidly as the different units are rented, prepared lists are not furnished by mail. Students seeking off-campus residence are advised to arrive on campus early.

Only those persons who agree to the Colorado Fair Housing Act of 1959 are eligible to be listed with Colorado State College.

Undergraduate students are required to live in college housing with the following exceptions: (1) students 21 years of age or over (2) students who have successfully completed more than 45 credit hours; (3) students whose parents or guardians live in the Greeley vicinity; (4) married students. Those students not living in college housing are expected to conduct themselves in accordance with the standards of the college and community. Colorado State College does not approve off-campus housing.

**Married Student Housing Facilities**—There are 90 temporary apartment units in the Jackson Field Housing Project for students with families. These furnished apartments are provided with heat, electricity and water.

There are an additional 98 permanent two-bedroom furnished apartments available for students and their immediate families. These apartments are located on college-owned property near the residence halls on the east campus between 17th and 18th Streets. Applications for rentals are made to the Director of Housing, Colorado State College. A \$50.00 deposit must accompany an application for all married housing units.

There are a limited number of Faculty apartments located on 19th Street between 8th and 9th Avenues.

## Loan Funds

Loan funds available to students are administered by a Committee on Loans which determines from time to time the policies and regulations under which loans may be made to students and approves all loans. All applications for loan funds are to be addressed to the Director of Financial Aid, Colorado State College.

Colorado State College participates in the American College Testing Program for the determination of financial need. All students seeking financial assistance are required to submit a copy of the Family Financial Statement (FFS) to the Iowa office of ACT by February 15, designating Colorado State College as one of the recipients. The FFS forms may be obtained by contacting the local High School Counselor or the Director of Financial Aid at Colorado State College.

**National Defense Education Act Student Loan Program**—Colorado State College has been approved as a participant in the National Defense Student Loan Program authorized by the Federal Government. Loans are available to high school seniors and college students in need of financial assistance to be able to attend college. Repayment provisions are especially favorable to graduates in teacher education who enter the teaching profession. Address inquiries to the Director of Financial Aid, Colorado State College.

**Nursing Student Loan Program**—Colorado State College has been approved as a participant in the Nursing Student Loan Program authorized by the Bureau of Health Professions. Loans are available to high school seniors and college students in need of financial assistance and are or will be enrolled as a full-time student in the Nursing Program. All inquiries concerning this program should be made to the Director of Financial Aid.

## 10 / STUDENT PERSONNEL SERVICES

**College Loan Fund**—Sixteen college loan funds with aggregate resources of more than \$131,000 are available to help worthy students. Applications for loans may be made through the Director of Financial Aid, Colorado State College.

All loans are completed on personal, unsecured notes bearing a low rate of interest. Over-all living costs, job prospects, potential earning power, and the credit experience of the student are carefully considered by the committee. More than 6,000 students have utilized the loan funds since 1911.

The funds are William Porter Herrick Memorial, Sarah Platt Decker Memorial, Rotary, WTK, Fortnightly Music Club, Kendel Music, Altrusa, Shyn, Sigma Upsilon Graduate, Panhellenic, High School Loan Fund, Merriman Memorial Fund, Andrew P. Bengston and Gertrude Bengston Memorial, Phi Delta Kappa, Associated Students, and Alfred L. and Carena L. Jex Fund.

**United Student Aid Fund Loan Program**—Colorado State College is collaborating with the United Student Aid Fund Loan Program whereby qualified students may obtain loans at cost from their local banks in most states. These loans are available to sophomores, juniors, seniors, and graduate students. For a student who qualifies under Federal Law, the Federal Government will pay the seven per cent interest until repayments are due to begin. A fee of one-half of one per cent a year of the amount of the loan for the term of the loan is paid in advance by the student. Application forms are available at the Office of the Director of Financial Aid, Colorado State College.

**Federal Low-Interest Bank Loans**—Colorado State College also participates in the Federal Low-Interest Bank Loan Program which is the same type of program as the United Student Aid Fund Loan Program. The maximum is increased to \$1,500.00 for undergraduate and graduate students. In the State of Colorado, the program is administered by the Regional Office of Education in Denver for the State and the Federal Government. Outside the State of Colorado, students should contact their State Department of Education to find out whether they are cooperating with United Student Aid Fund, Inc. or have their own administering agency. In the latter case, it will be necessary to obtain an application form used by the local administering unit designated by their state of residence. Additional information is available at the Office of the Director of Financial Aid, Colorado State College.

## Scholarships and Awards

Several scholarships and awards have been established for students of the college. To keep scholarships in force, the recipient must maintain a minimum cumulative grade average as follows: freshmen, 2.5; sophomores, juniors and seniors, 2.75. Unless otherwise noted, applications for scholarships should be made to the Director of Financial Aid, Colorado State College.

**Colorado State College Awards**—Colorado State College awards a limited number of scholarships to graduates of Colorado high schools and junior colleges who deserve such recognition and are especially interested in becoming teachers. These scholarships are awarded on the basis of academic achievement, but the amount of the award is based on need as determined from the Family Financial Statement of the American College Testing Program and can be used only as a credit toward the cost of tuition.

To keep these scholarships in force, the recipient must maintain a grade average meeting the standards established by the Scholarship Committee and must uphold all requirements of good citizenship.

Applications for these awards must be received by the Director of Financial Aid, Colorado State College, not later than March 15.

**Air Force ROTC College Scholarship Program**—Scholarships include full tuition, fees, a quarterly book allowance of \$25, and \$50 a month. Selected cadets participating in the four year AFROTC program are eligible.

**The Pearl Beaver Gleason Scholarship Fund**—This fund was established by the wills of Mr. and Mrs. Halton H. Friend in memory of Mrs. Friend's mother, to assist each year a deserving and distinguished young undergraduate woman in teacher education. The scholarship may provide a stipend up to \$1,000 to be used for tuition, fees, books and materials, room and board, and/or personal expenses while attending Colorado State College. Applications must be directed to the Director of Financial Aid, Colorado State College, prior to March 15 for the following academic year. This scholarship is awarded to a Colorado resident whose father is deceased.

**The Eleanor S. and Alma J. Dickerson Scholarships**—This fund was established by Dr. Oliver M. Dickerson, Professor Emeritus of History and Political Science and former Chairman of the Division of Social Studies at Colorado State College to assist worthy students during their senior year in the field of social sciences. Two scholarships will be awarded each year and may provide a stipend of \$500 each. Qualified recipients of the scholarships will be chosen by the Scholarship Committee on the basis of scholastic achievement, personality and promise of future growth.

**The Jule Statton Doubenmier Scholarship Fund**—This fund was established by his many friends as a memorial to J. S. "Dobby" Doubenmier, former professor of physical education at Colorado State College and the director of intramural athletics. The Scholarship Committee of the College selects the man or woman to receive the scholarship for each school year. The scholarship is normally awarded to an upperclassman who has been enrolled in the college for at least one year.

**The Agnes Wood Garnsey Memorial Scholarship**—The American Association of University Women, Greeley Branch, has established a memorial to Agnes Wood Garnsey in the form of an annual scholarship. The scholarship in the amount of \$150 a year is granted to a worthy junior woman for use during her senior year. The recipient is chosen by the Colorado State College Scholarship Committee on the basis of scholarship, leadership, and service to the College.

**The Marvin E. George Memorial Fund**—This Memorial Fund has been established by the Greeley Elks Chorus and friends of Marvin E. George, former professor of music at Colorado State College. This fund provides financial aid to a meritorious upperclassman enrolled as a music education major at Colorado State College. The money can be used for tuition, fees, books, materials, room and board, and/or personal expenses while attending Colorado State College. Applications should be made to the Dean, School of Music, Colorado State College.

**The Lyman B. Graybeal Student Teaching Scholarship Fund**—This fund has been established by Lyman B. Graybeal, Colorado State College Professor Emeritus of Education, former head of Secondary Education and Director of Student Teaching, and the late Grace Graybeal, to assist student teachers. Officials of the College will select one or more student teachers a year.

**The Kenneth J. Hansen Memorial Scholarship**—A fund has been established by his friends and family in memory of Kenneth J. Hansen, former professor and head of the Department of Business Education at Colorado State College. The Scholarship Committee selects annually a deserving upperclassman who has been enrolled in the college for at least a year. The award is to be used at Colorado State College and preference is given to a student majoring in business education.

**The House of Neighborly Service Scholarship**—The House of Neighborly Service Fund has been established as a trust fund, the income of which is to be used to assist a Spanish-American student at Colorado State College, who is a resident of Weld County. The scholarship will be granted on an annual basis as income from the trust fund is available.

**Walter D. Humphrey Memorial Scholarship**—Friends of the late Walter D. Humphrey, a graduate of Colorado State College and for many years a teacher and principal in the Denver Public Schools, have established a scholarship in his honor. Income from funds will be used for the scholarship for a student interested in entering the teaching profession. Preference will be given to students who are Denver residents.

**Martin Luther King Memorial Scholarship**—A fund was established as a memorial to Dr. Martin Luther King by the College and Colorado State College Foundation. The scholarship will be awarded annually to perpetuate the ideals and goals of the Negro leader. The scholarship will go to any high school graduate on the basis of ability and leadership potential and an interest in furthering human relations.

**The Helen MacCracken Scholarship**—A fund has been established by Mrs. Helen MacCracken, a former professor of science at Colorado State College, to provide financial aid to a meritorious student enrolled at Colorado State College studying elementary science education. Inquiries should be made of the Associate Dean, Sciences and Mathematics, Colorado State College.

**The Della B. McDonald Memorial Scholarship**—This fund was established by the will of Della B. McDonald, a long time resident of the city of Greeley. It provides that the income from the Trust Fund be used as scholarships to assist deserving students attending Colorado State College.

**The Miriam Mitchell Memorial Scholarship Fund**—The Miriam Mitchell Memorial Scholarship Fund was established by the will of Miriam Mitchell to assist deserving young women who are resident citizens of the State of Colorado to defray the expenses of attending Colorado State College. A number of scholarships are awarded annually from this fund, and a recipient may qualify for each year she is attending college as a full-time undergraduate student. Normally, a scholarship is not awarded before the sophomore year.

**The Carl G. Melander Vocal Scholarship Award**—A fund was established as a memorial to Carl G. Melander, former professor of music at Colorado State College. The fund provides for private instruction in singing for deserving and talented young singers. Recipients are chosen by the voice faculty of the School of Music, and the instruction is given by a member of the School of Music faculty.

**The Emily C. Newman Scholarship Fund**—This fund was established by the will of Emily C. Newman, pioneer homesteader and teacher in northern Colorado. It provides financial assistance to well-qualified and deserving freshmen applicants from Weld and Morgan counties, Colorado.

**Nursing Scholarship Program**—Colorado State College has been approved as a participant in the Nursing Scholarship Program. These scholarships are awarded on the basis of financial need and a recipient may receive a maximum of \$1,500 for a school year.

**The Roof Memorial Scholarship**—The Roof Memorial Scholarship assists deserving men and women students to defray expenses of attending Colorado State College. A number of scholarships are awarded annually from the income of this fund. The recipients must be full-time undergraduate students. Normally awards are not made before the sophomore year.

**The Edith M. Selberg Science Scholarship**—A fund has been instituted by Lambda Sigma Tau, honorary science fraternity, in honor of Professor Emeritus Edith M. Selberg, to provide financial aid to a meritorious member of Lambda Sigma Tau. The scholarship is tenable for one year.

**The Soroptomist Club of Greeley Scholarship**—An annual scholarship of \$150 has been established by the Soroptomist Club of Greeley to be awarded to a young woman enrolled at Colorado State College in a teacher certification program with a major in special education. The scholarship is good for one year and will normally be granted to a junior or senior student.

**The John S. Welling Scholarship**—A fund was established by his friends and family in memory of John S. Welling, former professor of social studies at Colorado State College. The Scholarship Committee annually selects a deserving sophomore student who is majoring in social science. The award is to be used for college expenses at Colorado State College.



# STUDENT ACTIVITIES

All campus organizations must apply each year through the Student Council to the Department of Student Personnel for charter approval. When organizations are recognized by the Student Council and the Department of Student Personnel, facilities of the campus set aside for such purposes may be used by the groups. The Activities Manager in the College Center is in charge of student activities.

**College Center**—All student activities are housed in the College Center. Located on 19th Street between 10th and 11th Avenues, the Center is designed to be the hub of campus community life. Most College Center facilities are open to all faculty, staff, students and visitors on a regular weekly schedule. The Center staff is coordinated by a Director, assisted by the Activities Manager, Food Services Manager, Book Store Manager, Recreation Supervisor, and Building Services Supervisor.

**Eligibility for Student Activities and Athletics**—Students who do not maintain acceptable grade averages will not be permitted to participate in varsity athletics, dramatics, debate, and other extracurricular activities of the college, nor are they eligible to be employed on the campus.

**Student Government**—Student government and activities on the campus are administered by the members of the Associated Students under the sponsorship of the Department of Student Personnel. The Associated Students elect in the Spring Quarter a student governing body, the Student Congress. The Student Congress serves in the succeeding school year.

Students registered for seven or more quarter hours of credit on the campus are entitled to all regular college services and privileges accorded to this group.

Membership in the Associated Students permits students to attend most cultural, social, dramatic and athletic events without additional charge. Two student publications, the *Mirror*, weekly newspaper, and the *Cache la Poudre*, annual yearbook, are provided without charge to members. Facilities of the College Center are also available to members.

**Associated Women Students**—All women students are members of the Associated Women Students. This organization supports the many projects which further the growth and betterment of women's activities at the college. The organization is very active in assuring a friendly welcome to each new woman student.

**Athletics**—The intercollegiate athletic activities of the college are governed by a Board of Athletic Control on which both students and faculty are represented. Intercollegiate athletic programs are scheduled in football, basketball, baseball, field and track, wrestling, swimming, gymnastics, tennis, and golf. Gunter Hall, Jackson Field, and the West Campus fields afford the facilities for the major indoor and outdoor sports.

Colorado State College is a member of the Rocky Mountain Athletic Conference, and is bound by the rules of that body in governing eligibility of athletics and the conduct of students at or in connection with athletic events.

The intramural programs for men and women are important offerings of the School of Health, Physical Education and Recreation. These programs are open to all students, with a wide variety of team, individual, and dual sports on a competitive yet informal and voluntary basis. It is hoped that all students will take advantage of the opportunity to actively participate in these programs. In addition, a co-recreational program is offered in several activities, and physical education indoor and outdoor facilities are made available for weekend recreational use by students.

The competitive athletic program for women offers many values beyond those of the intramural program. Competition is afforded with women from other colleges in basketball, volleyball, field hockey, softball, tennis, badminton, gymnastics, swimming, and track and field.

**Forensics**—Students have an opportunity to participate in a comprehensive program of intercollegiate debate and public discussion. The college is a member of the Colorado-Wyoming Intercollegiate Forensic League and has the Colorado Beta chapter of Pi Kappa Delta, national forensic society. Under faculty supervision, students participate in regional and national programs.

**Publications**—Students interested in journalism have an opportunity for expression in two campus publications owned and published by the students. The *Mirror* is a weekly newspaper, and the *Cache la Poudre* is the student annual.

**Little Theatre of the Rockies**—The Little Theatre of the Rockies presents several outstanding plays during the school year. Students may try out for parts in the plays or work as stage carpenters, electricians, property managers, etc.

**Clubs and Honorary Fraternities**—Each School of the college sponsors honorary fraternities and clubs of various types which are of special interest to students majoring or minoring in the School. These organizations provide an opportunity for students and faculty members to become better acquainted.

Qualified students are eligible to become members of numerous honorary and service fraternities. Organizations open to both men and women include:

- Alpha Phi Gamma, national journalism fraternity;
- Alpha Psi Omega, national drama fraternity;
- \*Delta Phi Delta, national art fraternity;
- Gamma Theta Upsilon, national geography honorary;
- Lambda Sigma Tau, national science fraternity;
- Orchesis, modern dance organization;
- \*Phi Sigma Iota, national foreign language fraternity;
- \*Phi Alpha Theta, national history fraternity;
- Phi Mu Alpha Sinfonia, national music fraternity;
- Pi Kappa Delta, national forensic fraternity;
- \*Pi Omega Pi, national business education fraternity;
- Kappa Delta Pi, national education fraternity.

The following honorary and service fraternities are for men:

- Alpha Phi Omega, national scouting service fraternity;
- Arnold Air Society, honorary AFROTC society;
- Blue Key, national service fraternity;
- Kappa Kappa Psi, national band fraternity;
- Phi Delta Kappa, national professional education fraternity;
- Intercollegiate Knights, national service organization.

Women's honorary and service organizations include:

- Angel Flight, National Service Auxiliary of Arnold Air Society;
- Chandelle, junior women's honorary;
- Delta Omicron, national music fraternity;
- Gold Key, senior women's honor society;
- Pi Lambda Theta, national education fraternity;
- Spur, national service fraternity;
- Tau Beta Sigma, national band fraternity.

\*Members of the Assoc. of College Honor Societies.

**Social Organizations**—At Colorado State College there are eight national social sororities and seven national social fraternities.

**Sororities**  
 Alpha Delta Pi  
 Alpha Gamma Delta  
 Alpha Xi Delta  
 Alpha Phi  
 Alpha Sigma Alpha  
 Delta Zeta  
 Sigma Kappa  
 Sigma Sigma Sigma

**Fraternities**  
 Acacia  
 Alpha Kappa Lambda  
 Sigma Alpha Epsilon  
 Sigma Chi  
 Sigma Phi Epsilon  
 Tau Kappa Epsilon  
 Theta Xi

No student is eligible for pledging until he or she has been enrolled at Colorado State College for one quarter, except for male transfer students, who are eligible for pledging the first quarter of enrollment if they are not admitted on a probationary status.

Panhellenic Council, composed of two representatives from each sorority, and the Inter-Fraternity Council, composed of three representatives from each fraternity, function as coordinating agencies for their respective groups, governing pledging and initiation and maintaining a high plane of inter-sorority and inter-fraternity relations on the campus. The councils sponsor several awards to the member organizations including awards for high scholastic achievement.

**Religious Program**—The college emphasizes the values of a religious life and encourages students to attend churches of their choice. Greeley is noted as a city of churches. Most denominations are represented by an active church. There are several student religious groups on the campus.

**Music Organizations**—The music program is an important part of college life. Qualified students are eligible to participate in the choirs, the college bands, the college orchestra, and the Greeley Philharmonic Orchestra. During the academic year, the School of Music presents special programs.

# FINANCIAL INFORMATION

## Quarterly Tuition and Fees

Required Tuition and Student Services Fees are incurred and collected during each quarterly registration period. Charges are assessed for the total of partial or full programs whether arranged for credit or audit. Assessments are uniform for each quarter and depend on the assigned status of the student as a resident or non-resident of Colorado.

### On-Campus Instruction

#### FALL, WINTER, OR SPRING QUARTERS

Six Credit Hours or less:

|                                    | Colorado Resident | Non-Resident |
|------------------------------------|-------------------|--------------|
| Per Credit Hour of Enrollment..... | \$ 12.00          | \$ 12.00     |
| More than six credit hours:        |                   |              |
| Tuition .....                      | 85.00             | 235.00       |
| Student Services Fees .....        | 38.00             | 38.00        |
| Total .....                        | \$123.00          | \$273.00     |

#### SUMMER QUARTER

Six Credit Hours or less:

|                                     | Colorado Resident | Non-Resident |
|-------------------------------------|-------------------|--------------|
| Per Credit Hour of Enrollment ..... | \$ 12.00          | \$ 12.00     |
| More than six credit hours:         |                   |              |
| Tuition .....                       | 85.00             | 235.00       |
| Student Services Fees .....         | 30.00             | 30.00        |
| Total .....                         | \$115.00          | \$265.00     |

### Off-Campus Instruction\* (Extension—Continuing Education Services)

|                            | Tuition Per<br>Credit Hour |  |
|----------------------------|----------------------------|--|
| Group Instruction .....    | \$ 12.00                   | (Multiply credit hour unit by number of credit hours of enrollment.) |
| Correspondence Study ..... | 12.00                      |  |
| Research Study Credit*     |                            |  |
| Doctoral Programs .....    | 12.00                      |  |

\*Residence status is not determined for or applied to these unit programs.

Payment of Tuition and the Student Services Fee entitles the registrant to instruction and a number of campus services.

On campus in the academic year a student enrolled for six or fewer credit hours is entitled to the services of the Student Health Center, library privileges, normal course materials, the student newspaper and the use of College Center facilities.

On campus or on student teaching assignment in the academic year, a student enrolled for seven or more credit hours is entitled to obtain every regular college service accorded to full-time registrants. In addition to the services above listed, the student is issued an identification card or validation stamp which provides for admission to campus athletic events, performing arts plays and productions, which provides for selected lectures and other public events specified for admission under the I.D. card. The college annual, Cache la Poudre, will be issued also each spring quarter to a student in residence who has enrolled for seven or more credit hours in each of the three quarters of the academic year. Full-time students are also covered by a student health services program. Details of this coverage may be obtained from the Student Health Center.

During the Summer Quarter, the Student Services Fees do not provide for contractual medical treatment. They are committed for use in an expanded and varied program of campus social, recreational and instructional activities as well as carrying the cost of the campus health offices.

The right of a student to classification as a resident for tuition payment purposes in a state institution of higher education is determined under state policy—Colorado Revised Statutes 1963 and Session Laws of Colorado 1967 as amended. Administrative procedures which fix status before or at the time of registration have been approved by the Trustees of the State Colleges in Colorado. If, following a registration and payment of tuition, the status conferred on a student is questioned for revision, appeal may be made on a specific form and the case will be reviewed by the College Committee on Residence Status. The determination by the committee following the review is final. All matters concerning residency status rulings shall be filed with the Office of the Registrar, where referrals will appropriately be made to the College Committee on Residence Status.

In planning a full program of courses, the typical single student on campus should be prepared to meet costs of approximately the following amounts:

|   | <b>Status</b>          |                            |
|---|------------------------|----------------------------|
|   | <b>Resident<br/>of</b> | <b>Non-Resident<br/>of</b> |
| <b>FALL, WINTER, AND SPRING QUARTERS</b>                | <b>Colorado</b>        | <b>Colorado</b>            |
| Tuition and Student Services Fee.....                   | \$ 369.00              | \$ 819.00                  |
| Books and Supplies (estimated).....                     | 240.00                 | 240.00                     |
| Board and Room (average).....                           | 860.00                 | 860.00                     |
| *Personal Expenses .....                                | 350.00                 | 350.00                     |
| <hr/>   |                        |                            |
| Total Expenses Academic Year<br>of Three Quarters ..... | \$1,819.00             | \$2,269.00                 |
| <br>  |                        |                            |
| <b>SUMMER QUARTER, EXCLUSIVELY</b>                      |                        |                            |
| Tuition and Student Services Fee.....                   | \$ 115.00              | \$ 265.00                  |
| Books and Supplies .....                                | 80.00                  | 80.00                      |
| Board and Room .....                                    | 290.00                 | 290.00                     |
| *Personal Expenses .....                                | 115.00                 | 125.00                     |
| <hr/>   |                        |                            |
| Total, Full Quarter .....                               | \$ 600.00              | \$ 760.00                  |

### Incidental Extra Fees Applicable Under Specified Conditions

|   |       |
|---|-------|
| Certified Statement of Issuance of Teaching Certificate and/or diploma.....   | 1.00  |
| Change of Program: Assessed for each add-drop slip processed.....   | 2.00  |
| Extension of Credit: Assessed if and when a deferred payment program is concluded to be effective within a quarter.....   | 3.00  |
| Assessed charges are due and payable at registration in each quarter. Deferments are arranged only for sufficient cause and only for payments by installments within the quarter. Any action which has the effect of postponing a cash collection beyond the date on which a charge is due will automatically invoke the applicable extension of credit charge. No registration is permitted without a down payment of at least one-third of total charges. No deferment is issued for a limited course program or for a campus residence of one month or less. |       |
| Late Application for Graduation.....  | 10.00 |
| Late Registration Fee: Assessed for registration after scheduled registration time .....  | 5.00  |
| Assessed for each added day of late registration .....  | 2.00  |
| (Late fee payment and late registration fees will be coordinated to prevent double assessment.)   |       |
| Late Fee Payment: Assessed for a fee payment completed on the first day following the day scheduled for regular fee payment .....   | 5.00  |
| Assessed for each added day of late fee payment .....   | 2.00  |

\*Amounts given for personal expenses are the estimated normal expenses incurred for clothing, sundries, entertainment, etc. Travel, unusual expenses of a wardrobe or auto maintenance should be added. Family expenses follow the regular family budget elsewhere maintained except for quoted college expenses. Graduate fees, music fees and certain incidental fees below must also be added to the above estimates where applicable.

## 18 / FINANCIAL INFORMATION

|  |         |
|--|---------|
| Meal ticket replacement .....  | 5.00    |
| Official Transcript of College Records, per copy .....   | 1.00    |
| Optional Student Health Insurance Coverage Summer Quarter Only .....   | 10.00   |
| (Full-time students for 1969-70 academic year have prepaid coverage for the Summer Quarter)  |         |
| Proficiency Examination .....  | 2.00    |
| Reading Improvement Programs:  |         |
| 1. Reading Center Diagnosis .....  | 40.00   |
| 2. Reading Center Group Tutoring, per clock hour .....   | 2.50    |
| 3. College Study Skills Laboratory Registration, per quarter .....   | 10.00   |
| Special Billing: Assessed when an itemized invoice of an account is requested by the student or a supporting agency .....              | 1.00    |
| Special Examination: Assessed when permission is granted to take an examination at a time other than regularly scheduled .....         | 5.00    |
| Special Program Fees such as bowling, skiing, field trips, golf, etc. ....   | At Cost |
| Special tests by the Counseling Service .....  | 5.00    |
| Student Identification Card Replacement .....  | 5.00    |
| Transcript Evaluation Fee for applications for the baccalaureate and masters' degrees and graduate student certification program ..... | 10.00   |
| Placement Center Charges   |         |
| (The placement year begins July 1 and ends June 30)  |         |
| Initial Enrollment .....   | 10.00   |
| Re-enrollment (Teacher Education) .....  | 10.00   |
| Re-enrollment (Liberal Arts or Industrial Placement) .....   | 5.00    |
| First and subsequent copies of teacher placement credentials mailed when applicant has not re-enrolled, per copy .....                 | 2.00    |
| First and subsequent copies of industrial placement credentials mailed when applicant has not re-enrolled, per copy .....              | 1.00    |
| Telephone calls, telegrams, postage for Air Mail and Special Delivery are billed at actual cost.                                       |         |

## Fees Added for Graduate Study

Doctoral Research Studies\* (assessed to each doctoral applicant in successive quarters of enrollment up to six quarters) for a total (minimum-maximum) of \$300.00. This fee is assessed as follows:

|   |         |
|---|---------|
| First quarter .....   | \$25.00 |
| Second quarter .....  | 25.00   |
| Third quarter .....   | 50.00   |
| Fourth quarter .....  | 75.00   |
| Fifth quarter .....   | 75.00   |
| Sixth quarter .....   | 50.00   |
| Doctoral Research Abstract Publication (assessed at the time when the study is accepted) .....  | 40.00   |
| Specialist in Education Research Studies* (assessed to each applicant in successive quarters of enrollment up to three quarters) for a total (minimum-maximum) of \$75.00. In sequence of registrations, the fee is payable as follows: |         |
| First quarter .....   | 25.00   |
| Second quarter .....  | 25.00   |
| Third quarter .....   | 25.00   |

\*Enrollees in the doctoral or the specialist program pay all tuition and fees applicable to each regularly registered student in each quarter of attendance plus the applicable fees listed above.

Doctoral candidates, when requesting registration for research credit (usually during the quarter in which the study is accepted) will pay \$12.00 tuition per quarter hour of research credit recorded in lieu of the tuition and Student Services Fee.

Any unclassified graduate student who possesses the Master of Arts degree and who subsequent to enrollment elects to enter the Specialist in Education degree program or the Doctor of Education degree program will be charged research studies fees commensurate with the amount of unclassified credit made.

|  |       |
|--|-------|
| Binding and mailing Master's Thesis, Practicum or Doctoral Research Study (4 copies required) .....  | 16.00 |
| Comprehensive Examination Retesting Fee .....  | 10.00 |
| Foreign Language Examination required for doctoral program fee .....   | 10.00 |
| Writing Laboratory for Graduate Students (required of students assigned to the laboratory following tests) .....                           | 10.00 |
| Graduate Record Examinations: Advanced Test in Social Science, Natural Science, and Humanities (for specialist and doctoral students)..... | 5.00  |

## Fees for Music Instruction

|  |         |
|--|---------|
| Individual music lessons, per quarter                          |         |
| Music Majors .....   | \$12.50 |
| Other college students .....                                   | 15.00   |
| Persons not enrolled in the college or affiliated schools..... | 25.00   |

## Policy on Reassessments, Refunds, Retentions on Withdrawal

By action of the Trustees of Colorado State College, adjustments in tuition or fees are permitted after registration only under specified conditions. In most circumstances, when allowed, changes in a course of study resulting in an increased or decreased registration for credit hours will not affect the charges initially assessed. When on a net basis, not more than two courses are dropped or added within the grace period of one week, the Change of Program Fee alone is applied. Program rebuilding, if advised and approved, will require a reassessment of charges.

To be eligible for a refund of any kind, the student must present a formal, approved Notice of Withdrawal or an Add-Drop Slip at the Accounting Office. The Records Office and Housing Office in the Department of Student Personnel will provide information on the application procedures required. Refunds are not prorated; rather, they are made in terms of the below policy statements and the Residence Hall Lease.

Refunds allowed against paid Tuition and Student Services Fees upon withdrawal are provided as follow:

- On programs of three credit hours or less, none.
- On programs of four through six credit hours, one-half if withdrawal occurs in the first two weeks following registration; thereafter none.
- On programs of seven or more credit hours, three-fourths if withdrawal is before the close of the second week, one-half if before the close of the third week, one-fourth if before the close of the fourth week, and thereafter none.

Refunds allowed against assessed quarterly board and room charges and annual apartment rentals are permitted under the terms of the Residence Halls Lease. The Housing Office, when consulted at withdrawal, will provide information on the computations applied. Deposit refunds are calculated separately and apart from board and room charges and are remitted or credited only after all requirements of a withdrawal in good standing are met.

Incidental fees are not refunded for any cause at any time.

## Residence Hall Charges

All rates quoted shall apply to the Summer and Fall Quarter of 1970 and the Winter and Spring Quarters of 1971, but are subject to a continuous provision of the Trustees that the college reserves the right to change Tuition, Fees and other charges on notice not later than thirty days prior to the beginning of any school quarter. All prices quoted include applicable taxes.

|   | <b>Quarterly</b> |                |
|---|------------------|----------------|
|   | <b>Minimum</b>   | <b>Maximum</b> |
| <b>All Residence Halls</b>  |                  |                |
| Single student occupancy, two persons per room.....   | \$283.00         | \$298.00       |
| Occupancy, single person per room (available in summer quarter only) .....  | 333.00           | 333.00         |
| <b>Board Service Only</b>   |                  |                |
| Is available at the Residence Halls on a contract basis for students living off-campus.   |                  |                |
| <b>Turner Hall, (Apartment style accommodations)</b>  |                  |                |
| Room only   |                  |                |
| per person per quarter .....  |                  | \$125.00       |
| Board only (including tax)  |                  |                |
| Breakfast only .....  |                  | \$ 47.00       |
| Lunch only .....  |                  | 78.00          |
| Dinner only .....   |                  | 94.00          |
| Family facilities (limited to the student and three dependents; not available for single students) summer only per family, 10 weeks ..... | \$235.00         | \$250.00       |
| Apartments, Student-Family Development, East Campus (includes furnishings and utilities) .....  | \$105.00         | \$105.00       |
| Apartments, Jackson Village .....   | 42.00            | 50.00          |
| All rentals are restricted to student families.   |                  |                |

**Partial Session—Summer Session Only**

|  | <b>Per Week</b> |
|--|-----------------|
| <b>Board and Room Men or Women's Residence</b> |                 |
| Occupancy, single person per room .....        | \$35.00         |
| Occupancy, two persons to a room .....         | 31.00           |

Occupancy, where permitted for an approved partial session of eight weeks or less, shall be at the above per week rates. Sessions of nine or more weeks shall be assessed at the full session (10 week) service rate quoted above.

Address the Housing Office, Department of Student Personnel, when applying for any type of campus housing. A deposit of \$50.00 must be advanced to confirm a reservation. If it is decided not to attend Colorado State College, and a written statement is received by the Housing Office to that effect, the policy in regard to refunds will be as follows:

**FALL QUARTER:** When cancellations are received prior to August 15, \$25.00 will be refunded. Cancellations received on or after August 15, or no notice of intent to forego attendance at the college result in a full forfeiture of the deposit. **WINTER QUARTER:** When cancellations are received prior to November 15, \$25.00 will be refunded. Cancellations received on or after November 15 or no notice of intent to forego attendance at the college result in a full forfeiture of the deposit. **SPRING QUARTER:** When cancellations are received prior to February 15, \$25.00 will be refunded. Cancellations received on or after February 15 or no notice of intent to forego attendance at the college result in a full forfeiture of the deposit. **SUMMER QUARTER:** Cancellations received prior to May 15, \$25.00 will be refunded. Cancellations received on or after May 15 or no notice of intent to forego attendance at the college result in a full forfeiture of the deposit. A housing deposit for a student who is in assigned college housing will be held during all consecutive reservation periods and the full period of residence. Penalties assessed for damages to property, when incurred, will be deducted from the housing deposit and any remaining balance returned by mail in approximately sixty days after campus residence terminates.

A residence halls lease (housing contract) cannot be terminated unless the student withdraws from college or marries. When a student withdraws from college and vacates a college residence prior to the end of a school quarter, he forfeits the deposit and receives no credit on the rental for a room or apartment. Refunds on charges for board are provided by calculating all days remaining in the quarter and the account is then credited or refunded from the balance assessed.



## Major Facilities Provided in College Housing

A resident of a college residence hall or fraternity-sorority residence is expected to provide for his own towels and personal linens. The college furnishes and launders college-owned sheets, pillowcases, mattress pads, blankets, certain couch covers and drapes. Residence halls contain all furniture required; the student is not encouraged to provide supplements to the college pieces available. All residence hall rooms contain Centrex-connected telephones at no added cost. Board service is provided cafeteria style and scheduled for twenty meals per week. Board and room during the academic year for single students is provided and priced with no deviations from the standard plan authorized.

A resident of a student-family apartment is offered a skeleton set of furnishings in the Temporary Housing Project (Pre-Fabs). Permanent apartments contain all furniture required. All utilities are provided for apartments except telephones. During Summer Quarters, married student and student-family apartments are available in designated, converted residence halls with all facilities adequate for housekeeping. Consult the Housing Office for added information when desired.

# ACADEMIC INFORMATION

**Undergraduate Program**—Two degree programs, the Bachelor of Arts and the Bachelor of Science, are offered. Undergraduate degree programs are organized under three basic areas: Arts and Sciences, Teaching Professions (Teacher Education), and Applied and Professional Studies. The Teaching Professions program prepares for teacher certification at the elementary or secondary levels in Colorado and other states.

**Second Baccalaureate Degree**—To qualify for a second baccalaureate degree, students must complete at least three additional quarters of academic work, with a minimum of 45 quarter hours taken after the first degree has been completed. Students must maintain an average of "C" (2.0) or better in the courses taken for the second baccalaureate in order to receive the degree. Students with questions concerning a second baccalaureate degree should confer with the Registrar, Director of Admissions, and/or the Chairman of the Department in which the degree will be taken.

**Undergraduate Course Load**—The normal undergraduate course load for a quarter is 15 hours of academic credit. This does not include the physical education activity courses required in the freshman and sophomore years. Upon approval a student may carry an overload which consists of more than 17 academic credit hours, if the student has a college scholastic average of "B" or better. Extra hours for other students who have good records, but below "B", will be considered individually. All requests for permission to carry more than the normal undergraduate course load must have the approval of the Assistant Dean of Students, the Dean of Men, or the Dean of Women. Graduation requirements and the academic standing of the student will be considered by the Assistant Dean of Students in making the decision.

Students are limited to a 18 hour maximum load when they are enrolled for 18 hours of student teaching.

**Graduate Study**—To secure a Graduate Catalog, write to the  
Dean of the Graduate School  
Colorado State College  
Greeley, Colorado 80631

**Effective Dates of this Catalog**—The effective dates of this catalog are from June 1, 1970, to May 31, 1971. Students enrolling for the first time at the college during these effective dates will follow the regulations and requirements in this catalog until their graduation, if such graduation is within six years. Any request to graduate under a different catalog other than the catalog in effect at the time a student enrolls must be approved by the Registrar.

## **Academic Standing**

The scholastic standing of all students is computed on the basis of courses attempted at this college only. For determining scholarship rank in the awarding of honors, the honor point system is used. The honor point average is a quotient obtained by dividing the total number of honor points earned by the total number of hours attempted (that is, those for which grades of "A," "B," "C," "D," or "F" are recorded). All grades earned by a student at Colorado State College become a permanent part of the student's academic record and are computed in the cumulative average. Courses in which a passing grade of "D" or above has been earned at Colorado State College may not be retaken for credit. If a course which was previously failed at Colorado State College is retaken, both the "F" and the second grade remain on the record and are computed in the cumulative average.

An undergraduate either currently or formerly enrolled is either:

1. In good standing
2. On probation
3. Suspended

"Good standing" signifies that the student is eligible to continue, return, or transfer elsewhere. It covers good standing in respect to both grades and conduct.

"Probation" is an intermediate status between good standing and suspension or dismissal and refers to any student whose college attendance does not meet scholastic conditions as set forth on the following pages.

"Suspended" represents an involuntary separation of the student from the college. It implies and may state a time limit when a student's return is acceptable.

**Regulations Governing Academic Probation and Dismissal**—A student will be placed on academic probation if he fails to attain the designated quarter or cumulative average within the following classifications:

For students with fewer than 90 quarter hours of credit (including transfer credit):

Freshmen students are required to maintain a cumulative grade point average of 1.5 during the freshman year and attain a 1.75 cumulative grade point average by the close of the freshman year. A freshman student achieving less than 1.75 in any quarter will be placed on academic probation for the succeeding quarter. Any freshman student attaining less than 1.5 in any quarter or less than 1.75 at the end of the freshman year may be suspended.

Sophomore students are required to maintain a minimum cumulative grade point average of 1.75 during the sophomore year and must attain a cumulative grade point of 2.0 by the close of their sophomore year. A sophomore achieving less than 2.0 in any quarter will be placed on academic probation for the succeeding quarter. Any sophomore attaining less than 1.75 in any quarter or less than 2.0 at the close of the sophomore year may be suspended.

For students with more than 90 quarter hours of credit (including transfer credit):

A junior or senior student will be placed on academic probation whenever his cumulative or quarterly average is less than 2.0 based on the courses he has taken at this college. Any junior or senior student attaining less than 1.75 in a quarter or less than 2.0 cumulative during the junior and senior year may be suspended.

*Academic Suspension.* Academic suspension may result in the failure to remove probationary status or in the failure to attain or maintain the minimum quarterly or cumulative grade average as listed in the preceding paragraphs.

A student placed on academic suspension may not enroll at Colorado State College without approval of the Committee on Scholastic Standing. He may not seek such approval until after the lapse of one academic quarter.

**Readmission of Students Who Have Been Dismissed for Academic Reasons**—A student who has been required to withdraw from the college for academic reasons and is petitioning for readmission must account definitely for the expenditure of his time in a profitable way since leaving the college and should give good reasons for believing that he will improve upon his previous record if readmitted. Such a student is not eligible to be considered for readmission until after the lapse of at least one quarter, not counting the summer quarter. Application for readmission must be made in writing to the Assistant Dean of Students, Colorado State College.

**Academic Class Status**—A minimum cumulative grade point average of 2.0 is required for graduation.

A student is a freshman until he has completed and passed 45 quarter hours of course credit. He is a sophomore after completing and passing 45 quarter hours of credit until he has completed and passed 90 quarter hours of course credit. A student is a junior after passing 90 quarter hours of credit until he has completed and passed 135 quarter hours of credit. A senior is a student who has passed 135 quarter hours until he is graduated with a baccalaureate degree. A student must have a cumulative grade point average of 2.0 and a 2.0 average in the area in which he expects to student teach when he applies for a student teaching assignment.

**Grading System**—Alphabetical grades are used: "A" indicates superior work; "B" indicates work above average; "C" indicates average work; "D" indicates work below average, but passing; "F" indicates failure. Other marks used are "Inc." incomplete; "W" approved withdrawal; "TF" unapproved withdrawal; "WF" failing

at withdrawal; "IF" condition not removed. An "Inc." must be removed within the first four weeks of the succeeding quarter or it automatically becomes a grade of "IF." A grade of "S" or "U" indicates satisfactory or unsatisfactory work.

No student's grade can be changed after the first two weeks of the quarter following the receipt of the original grade by the Recorder.

**Computing Grade Averages**—Prior to September, 1966, the College computed grades on a five-point system. After the above date, grades are computed on a four-point system: Each of the letters of the marking system has a numerical value. The letter "A" has a value of four (4) points; "B" has a value of three (3) points; "C" has a value of two (2) points; "D" a value of one (1) point; and no points are given for an "F." If all the student's marks were "C's," he would have a grade average of 2.0. If one-half of his marks were "C's," and the other half "D's," the numerical value of his grade average would be 1.5. A grade of "S" does not carry any points nor is such a grade computed in the grade point average. However the credit hours do count toward credits earned.

**Quarter System**—The school year is divided into four quarters: Fall, Winter, Spring and Summer.

**Quarter Credit Hour**—All credit toward graduation is computed in "quarter credit hours." The term "quarter credit hour" means a subject given one day a week through a quarter of approximately eleven weeks.

**Program Planning**—Programs outlining specific courses must be planned with the student's adviser. The student is responsible for arranging the necessary meetings with his adviser and for getting course program approval from his adviser.

**Majors and Minors**—At the time of the first registration, a student must declare his major and minor fields of study and be assigned by the major school or department to a faculty adviser in his major school or department who helps him plan his program of studies. If a student wishes to change to another major or minor field at a later date, he must obtain the approval of all schools or departments concerned. Majors and minors which may be obtained at the college are listed within the appropriate area (Arts and Sciences, Teaching Professions or Applied and Professional Studies) of this catalog. Specific courses required for the majors and minors are listed by school and department in the course listing section of this catalog.

Students who major in teacher education programs may select a minor in either a teacher education or non-teaching area. Students who major in a non-teaching program, may pursue a minor only in non-teaching areas. Education methods courses and Student Field Experiences courses completed by non-teaching majors will not count toward credit for graduation requirements.

**Proficiency Examinations**—Proficiency examinations in certain required courses in a student's major or minor may be taken to determine whether or not the student may be excused from these courses and in some cases to provide evidence for teacher certification.

**Credit Offered**—Courses offered during Fall, Winter, Spring and Summer quarters will carry the credit designated in the catalog. A student may register for a class for no credit by paying appropriate tuition fees. No audit or visitors cards are issued.

**Course Numbers**—The course numbers are divided into five groups: (a) 1 to 99 are primarily for first and second year students; (b) 100 to 199 are primarily for third and fourth year students; (c) 200 to 299 are primarily for fourth year and graduate students; (d) 300 to 399 are for graduate students. Qualified seniors may be admitted to 300 level course by special permission; (e) 400 to 499 courses are for doctoral and specialist candidates only.

**Course Descriptions**—Courses offered in each school or department are listed and described. The course description gives the course number and title, the quarter hours of credit offered, explanation of the content of the course, and other information needed for planning a program.

**Schedule of Classes**—The college publishes a Schedule of Classes Bulletin which lists courses being offered during Fall, Winter and Spring Quarters. Courses offered in the Summer Quarter are listed in the Summer Bulletin.

**Late Enrollment**—No student will be permitted to enroll in a course after the first week of the Fall, Winter, Spring and Summer quarters. This regulation applies to new registrations and to students wishing to change programs.

Attendance at the first day of every class is of utmost importance to the student, the faculty, and the staff; hence all students are expected to register at the designated time and attend the first meeting of each class.

If any student thinks that his late registration fee should be refunded, he should state his reasons either in writing or personally to the Assistant Dean of Students, Colorado State College. (See Financial Information section for late registration fee rate.)

**Attendance**—Regular attendance in all classes will be assumed and encouraged. The instructor will determine the relationship between class attendance and the objectives of his class and the way in which he will evaluate attendance as a factor in the achievement of the student.

The instructor has the responsibility to inform students of his policies as these policies relate to the students' grades. The student also has the responsibility of knowing the policies in each course.

**Withdrawal from Class**—When a student registers for a class, he is considered to be a member of that class. If he should wish to withdraw from the class, he must first clear the withdrawal on the withdrawal form at the Records Office. No withdrawals from class are permitted during the last two weeks of a quarter. Withdrawal deadlines for each quarter are posted in the Schedule of Classes.

**Final Examinations**—A final examination in each class is to be taken by the student on the dates officially announced. Students granted permission to take a final examination at times other than officially scheduled must pay a fee.

The schedule of final examinations is printed in the Schedule of Classes published each year. Final examinations are usually scheduled during the last three days of the quarter.

## Citizenship Standards

Codes of conduct are listed in college publications and are communicated through groups and organizations of the college community by meetings, publications, and contracts. It is the student's obligation to conduct himself as a responsible citizen and to abide by the college's stated rules and regulations. In developing responsible student conduct, counseling, guidance, and admonition, as well as disciplinary proceedings are used. Student conduct involving minor infractions of college regulations will subject the student to disciplining probationary action by the college. Student conduct involving major infractions of college regulations will subject the student to suspension or expulsion from the institution.

## Advanced Placement

Colorado State College offers advanced placement and/or credit for graduating high school seniors who have participated in special college-level courses in the high school and who have satisfactorily passed the appropriate Advanced Placement Examinations conducted by the College Entrance Examination Board. Applications and advanced placement test results must be forwarded to the Office of Admissions, Colorado State College.

## Admission Policy

**Admission and Retention**—Admission and retention policies at Colorado State College are based on the premise that academic ability and achievement, health and physical fitness, personal and social qualities, and speech skills are important factors in the preparation of teachers as well as students of the Arts and Sciences, and Applied and Professional Studies programs.

**Academic Ability and Achievement**—A high school graduate or a person holding a high school equivalency certificate may be admitted to Colorado State College for a Teaching Professions, Arts and Sciences or Applied and Professional Studies program if the transcript of his high school record accompanying his application indicates he has the academic ability to do college work successfully. All applications for admission must be received one month prior to registration.

Minimal requirements for admission of both resident and non-resident freshmen are:

1. Graduation from an accredited high school with a minimum of 15 secondary school units. Graduates from high schools not accredited will be examined for admission purposes.
2. Of the 15 units required, 10 must be chosen from the following academic fields: English (minimum of three units), foreign languages, mathematics, science, and social studies.
3. Rank in the upper one-half of the high school graduating class or scores above the national average on the American College Test.
4. All new students are required to submit scores from the American College Test (ACT). Entrance examination results should be submitted as early as possible so admission status can be determined without delay. Information regarding the ACT examination may be obtained from high school principals or counselors.

The Committee on Admissions uses additional information such as secondary school grades, trend in quality of high school performance, and principal—counselor recommendations in assessing the probability of satisfactory performance in the academic program of the college.

A person 19 years of age or over who is not a high school graduate may be admitted to a Teaching Professions, an Arts and Sciences or an Applied and Professional Studies program if the results of an examination taken at least one month prior to the day of registration show he has the academic ability to do college work successfully.

A student transferring from another college may be admitted if he has a "C" average academic record and is in good standing at the college from which he is transferring. His application must be received one month prior to registration.

**Health**—Prior to final admission and following a medical examination by a qualified medical practitioner, a student shall submit to the Student Health Service of the college a health report which is acceptable to the staff of the Student Health Service indicating the student is in good physical and mental health, has no communicable disease, and has no defects or deficiencies which would hinder satisfactory progress in his chosen curriculum.

**Personal and Social Qualities**—A student seeking admission to Colorado State College is expected to possess personal and social qualities befitting the curriculum he wishes to study, in keeping with the objectives and traditions of the college, and desirable for the vocation he plans to enter. After admission to the college, he is expected to develop and express these qualities in the classroom, at social and athletic events, in residence, and in community affairs—both on and off campus.

**Speech Skills**—A student is expected to have such speech skills as will enable him to progress satisfactorily in his chosen curriculum and to perform adequately when in his later vocation.

**Transfer Credit**—Students graduating from a junior college or transferring two years of college work may have to spend more than two years at Colorado State College to complete the requirements for graduation in certain major fields. If the junior college program corresponds to the requirements of the first two years in the same plan of study at Colorado State College, graduation in two additional years is possible in most cases. Credit earned at a junior college after completion of the sophomore year or beyond 90 quarter hours of credit will not be transferable. Not more than 45 quarter hours of credit may be transferred for one year's attendance at a junior college.

Colorado State College *does not* accept credit from other colleges and universities in which grades below "C" have been earned.

Since 1949 Colorado State College has accepted in transfer a maximum of 90 quarter hours of academic credit if and when a complete and official transcript shows that a prospective transfer student has been granted an Associate of Arts degree from an accredited college. (Credit for "D's" is accepted in this instance if such grades are an integral part of the Associate of Arts degree.)

Many specialized courses do not transfer to Colorado State College. College foreign language credit may be transferred provided a student has satisfactorily completed one full year in one language.

**Policy Pertaining to Acceptance of Undergraduate Transfer Credit from Nonaccredited Colleges**—Colorado State College allows no transfer of credit from non-accredited colleges and universities outside the State of Colorado.

Transfer of credit may be allowed transfer students from nonaccredited institutions of higher learning in Colorado if these institutions have been rated "C" or above in the Report of Credit Given by Educational Institutions, American Association of Collegiate Registrars and Admission Officers. This acceptance will be individually determined in accordance with existing policies of Colorado State College.

**Transfer Credit Deadline**—Transcripts from other colleges and universities that contain credit necessary for completion of degree requirements at Colorado State College must be received by the College prior to the quarter of graduation.

**Minimum Residence Requirements**—At least 45 quarter hours of credit must be earned in courses taken on the campus at Greeley to meet the minimum residence requirement for an undergraduate degree including some work in the major field to be determined by the School or department. Course work taken off the campus, both correspondence and off-campus courses, cannot be counted as residence credit in meeting the requirement of 45 quarter hours of credit which must be earned in classes on the Colorado State College campus.

**Matriculation Requirements**—A new student, whether freshman or transfer, shall complete during the first quarter on campus certain prescribed tests and the photographic and identification procedures. Guidance in the choice of major and minor fields, selection of courses, need for study skills, and need for counseling stems from the testing program. Matriculation requirements include (1) filing an acceptable application for admission, including high school record and two transcripts from each previous college attended, (2) filing an acceptable health record, (3) completing the matriculation tests, and (4) clearing the photographic and identification procedures.

**Failure to Meet Admission or Retention Standards**—A student who fails to meet any of the above standards may be denied admission to the college and/or his chosen curriculum, or if already admitted he may (1) be asked to change his curriculum, (2) be asked to withdraw, (3) be suspended, or (4) be dismissed.

## Admissions Procedures

### New Freshman Students

1. Get an Application for Admission from your high school principal. Out-of-state students write to the Office of Admissions, Colorado State College.

2. Fill in Part I of the Application for Admission and have the high school office complete the form and send it to the Office of Admissions. Applications may be filed any time after the beginning of the senior year in high school and not later than 30 days prior to registration day.

The application must be accompanied by a \$10.00 transcript and evaluation fee. This fee is non-refundable.

3. Make arrangements to take the American College Test (ACT).

4. Upon receipt of the application, the college will inform you of your admission status and will send you a form for reserving a room in a college residence hall.

5. Additional information regarding the College orientation—Pre-Registration program will be mailed prior to the opening of college to those applicants entering Fall Quarter.

### Transfer Students

1. File with the Office of Admissions, Colorado State College: (a) An Application for Admission including high school record; (b) two official transcripts of all credits earned at other colleges or universities; (c) an application for transfer of credit; (d) a report of health examinations; (e) CSC Statistical Information Form.

The application must be accompanied by a \$10.00 transcript and evaluation fee. This fee is non-refundable.

In order to insure an evaluation for admission, these materials must be sent to the Office of Admissions, Colorado State College, 30 days in advance of the quarter for which the transfer student wishes to enroll. Necessary forms may be obtained from the Office of Admissions, and the letter of inquiry should state specifically that the student is an undergraduate transfer student. (*Graduate Students: Please consult the Graduate catalog for details concerning graduate students.*)

### International Students

**English Proficiency:** The Test of English as a Foreign Language (TOEFL) is required by Colorado State College for all students with a native language other than English. The TOEFL test is given periodically at testing centers throughout the world. Arrangements to take this test can be made by writing to the following address:

Test of English as a Foreign Language  
Educational Testing Service  
Princeton, New Jersey, U.S.A. 08540

The application for admission and all credentials, including the TOEFL score, should be mailed in time to reach Colorado State College not later than 60 days prior to registration day. Students are advised to begin their studies at Colorado State College with the first quarter of the academic year which begins in September.

## Off-Campus Instruction

A total of 45 quarter hours of credit may be taken by correspondence or extension in courses numbered under 300 to be applied toward a bachelor's degree. This maximum of 45 hours of credit includes Colorado State College correspondence work, Colorado State College extension work taken prior to January 1, 1948, and correspondence and extension work transferred from other colleges and universities.

The number of hours of Colorado State College off-campus credit is only limited by the 45 hours graduation residence requirements. Students not pursuing nor applying off campus or correspondence credits toward a Colorado State College degree are not limited in the number of these credits. Colorado State College correspondence courses must be completed, graded and recorded the quarter before the student expects to graduate. Please refer to page — for graduation requirements.

A student pursuing an undergraduate degree program at Colorado State College who desires to earn credit which he expects to apply to that program by taking extension, off-campus, or correspondence courses from institutions other than Colorado State College, must request written permission to take the specific courses *before* enrolling. The request for permission must be accompanied by a copy of the course description, an indication of where it is to be held, the number



of sessions to be held, the length of each session, the hours of credit for the course, and the name, title, and position of the person offering the course. A course must be taught by a regular full-time faculty member on the staff of the college or university granting the credit and upon whose official transcript the course will appear. General education course requirements are subject to the approval of the Registrar, and major and minor requirements must have the additional approval of the school or department involved.

Students must obtain a current copy of the Correspondence Bulletin or the Off-Campus Bulletin for complete information and regulations concerning correspondence and off-campus courses. These bulletins are available from the Colorado State College Office of Continuing Education.

## Graduation Requirements

1. A student must meet the General Requirements, Professional Education (if applicable), major and minor requirements as required by the academic schools or departments of the college.

2. A student must have earned 186 quarter hours of credit; 180 quarter hours are "academic" credit. Six quarter hours must be in physical education activity courses. One quarter hour of the physical education activity credit is to be earned in each of six quarters. Physical education activity courses are those numbered from 1 to 60 in the School of Health, Physical Education and Recreation. (Men students should read the information in regard to the acceptance of Colorado State College Air Force ROTC enrollment in lieu of physical education activity courses.)

3. A student must have a minimum residence of 45 quarter hours on the Colorado State College campus. Colorado State College off-campus work is unlimited, but cannot be counted as residence credit in meeting the 45 quarter hours on-campus requirements. In addition, 30 of the last 45 credit hours of a degree program must be earned while enrolled in on-campus courses at Colorado State College.

4. Forty-five quarter hours of correspondence and/or extension courses from Colorado State College and/or any other institution is the maximum that will be accepted toward graduation. All correspondence courses and/or transfer work must be completed, received, graded, and recorded prior to the quarter of graduation.

5. Transcripts from all colleges and universities that contain credit necessary for completion of degree requirements must be received by the Registrar prior to the quarter of graduation. Transcripts will not be available with current courses completed until two weeks after that quarter (Summer quarter included).

6. A student must have a Colorado State College cumulative grade point average of at least 2.0.

7. A student must have completed the matriculation tests as required by Colorado State College.

8. Students who have had an Identification photograph taken at Colorado state College have met the photograph requirement. Other students must furnish a recent photograph (approximately 3" x 4") for the Records files.

9. The student must apply for graduation, and his application be processed and evaluated by the Registrar's Office and the major and minor schools or departments. Application for graduation must be made upon completion of 135 quarter hours of academic credit applicable to the degree from Colorado State College. No applications for graduation will be accepted after 4:00 p.m. Friday of the second week of the quarter in which the student expects to graduate.

10. The college catalog used on first classification may be used for a period of six years. After six years the student must re-apply for graduation, have his record re-evaluated and he must meet all requirements in the current catalog.

11. Requirements for graduation are checked in accordance with the requirements in one particular college catalog—that is, a student may not choose a major from one catalog and a minor from another catalog.

12. Participation in Graduation Exercises is the final requirement for graduation. It is compulsory for all graduating students to participate in Graduation Exercises unless formally excused. Graduating students may obtain forms in the Registrar's Office for requesting an excuse from Graduation Exercises.

13. Any college work earned more than 15 years prior to the time the baccalaureate degree is granted at Colorado State College may not be applicable toward a degree.

14. It is the student's obligation to keep the Registrar's Office informed at all times of any change in graduation plans, including; any change in the proposed quarter of graduation after the application was filed, any change of address, etc.

# UNDERGRADUATE PROGRAM REQUIREMENTS

Four-year undergraduate programs leading to the Bachelor of Arts or Bachelor of Science degree are offered by the following schools:

School of Arts  
School of Arts and Sciences  
School of Business  
School of Education  
School of Health, Physical Education and Recreation  
School of Music  
School of Nursing

In addition, two-year and four-year programs leading to commissions in the U. S. Air Force reserve or active duty commissions are available through the Division of Aerospace Studies.

## Freshman and Sophomore Requirements

All students during the freshman and sophomore years must complete at least 60 quarter hours of General Education courses and six hours of physical education activity courses.

1. General Education—Communications, General Psychology, Humanities, Personal Living, Sciences, and Social Sciences (a minimum of 60 quarter hours).

2. Physical Education Activity—A series of one-hour courses to be taken for a total of six hours, one course per quarter. Male students may substitute Air Force ROTC training courses for physical education activity courses.

## General Education

The courses listed here are required of all students who are studying for a Bachelor of Arts degree. These courses will be taken in the freshman and sophomore years.

### Freshman Year

| Course No. | Course Title                        | Hours | Credit |
|------------|-------------------------------------|-------|--------|
| COM        | 1—Elementary Composition I .....    | 3     | 3      |
| COM        | 2—Elementary Composition II .....   | 3     | 3      |
| COM        | 3—Principles of Speech .....        | 3     | 3      |
| PSY        | 20—General Psychology .....         | 3     | 3      |
| HPER       | 61—Personal and Family Health ..... | 3     | 3      |
| SCI        | 3—Physical Science .....            | 3     | 3      |
| SCI        | 4—Biological Science .....          | 3     | 3      |
| SCI        | 5—Earth Science .....               | 3     | 3      |

### Sophomore Year

|                                   |   |   |   |
|-----------------------------------|---|---|---|
| HUM                               | 1—Introduction—The Greek and Roman Periods.....   | 3 | 3 |
| HUM                               | 2—The Middle Ages and the Renaissance .....       | 3 | 3 |
| HUM                               | 3—The Eighteenth to the Twentieth Century.....    | 3 | 3 |
| Two of the following six courses: |   |   |   |
| GEOG                              | 10—World Geography .....                          | 5 | 5 |
| ANT                               | 20—General Anthropology .....                     | 5 | 5 |
| ECON                              | 30—Introductory Economics .....                   | 5 | 5 |
| PSCI                              | 40—National Government of the United States ..... | 5 | 5 |
| SOC                               | 50—Principles of Sociology .....                  | 5 | 5 |
| HIST                              | 75—Unit Survey of United States History .....     | 5 | 5 |
| or                                |   |   |   |
| The following three courses:      |   |   |   |
| HIST                              | 25—Western Civilization I .....                   | 3 | 3 |
| HIST                              | 26—Western Civilizations II .....                 | 3 | 3 |

## 32 / UNDERGRADUATE PROGRAM REQUIREMENTS

|      |  |       |
|------|--|-------|
| HIST | 27--Western Civilization III .....   | 3     |
|      | Electives* .....   | 18    |
|      | Course descriptions in back of Catalog marked with asterisks (*) may be used to meet the 18 hours of electives in general education. |       |
| HPER | -Physical Education Activity Courses (6 quarters, numbers 1-60) .....  | 6     |
|      |  | 64-66 |

\*To be sure that North Central Association accreditation standards are met, students must elect eighteen additional quarter hours in general education courses. (Consult your advisor.)

\*\*Male students may substitute Air Force ROTC Corps Training courses for physical education activity courses.

## Challenge System

Students may challenge by examination any or all Freshman and Sophomore general required courses. Examinations are scheduled for specific dates during the year. The dates are posted in the Schedule of Classes and in the Office of the Registrar and the Director of Admissions. The special challenge examinations can be scheduled for individuals on dates other than those set by the Counseling and Testing Office.

Successful challenges provide exemption from courses, but they do not grant an award or credit.

No student may challenge by examination a course for which he is enrolled or registered. A student may only challenge an examination once unless approval is granted by the Dean of the School in which the course is offered.

The student must be certain that he completes a minimum of 60 hours of General Education prior to graduation. It will be necessary to select liberal arts courses as the electives if a deficiency exists in this requirement.

## Physical Education Activity Courses

A total of six quarters of physical education activity courses is required. Courses meeting these requirements are numbered 1 to 60 inclusive. Courses may be repeated only with the approval of departmental faculty members. Credit may be earned in only one course each quarter.

All freshman students should enroll in HPER 10, Orientation to Physical Education Activities, their first quarter on campus. A high level of competency demonstrated in this class by the student may result in an exemption of two quarters of the physical education requirement. Advisement concerning the rest of the requirement will be given in this course.

Medical excuses for exemption from all or part of the physical education activity requirement of the General Education Program are issued only by the Student Health Service.

Students initiating their undergraduate program after reaching age 30 will be held for three quarters of physical education activity instead of the six quarters specified in the General Education requirements. Students reaching age 40 during any part of their undergraduate program will not be held for any remaining quarters of physical education activity. Majors and minors in physical education, health and safety education, and recreation are exceptions to the above and will be expected to complete all physical education activity requirements.

## Majors and Minors

Every student selects one academic or professional field around which he plans his undergraduate program of courses. This field is known as his major. In general, requirements for the major include at least 48 quarter hours of work specified by the department offering the major. This is in addition to the required General Education courses.

Some departments also require selection of a minor consisting of at least 27 quarter hours in a field other than the major. Descriptions of exact requirements for majors and minors will be found in the appropriate school or department section of the undergraduate catalog.

Majors and/or minors may be selected from the following areas of study:

|                      |   |
|----------------------|---|
| Anthropology         | Minority Studies:                                     |
| Biological Science   | Hispano Studies                                       |
| Business             | Black Studies   |
| Business Education   | Music   |
| Chemistry            | Music Education                                       |
| Dance Education      | Nursing   |
| Dietetics            | Outdoor Education                                     |
| Earth Science        | Physical Education (Men)                              |
| Economics            | Physical Education (Women)                            |
| Educational Media    | Physical Science                                      |
| Elementary Education | Physics   |
| Elementary Science   | Political Science                                     |
| English              | Preschool Education                                   |
| Fine Arts            | Psychology  |
| French               | Recreation  |
| Geography            | Science   |
| German               | Social Science  |
| History              | Sociology   |
| Home Economics       | Spanish   |
| Industrial Arts      | Special Education                                     |
| Journalism           | Speech  |
| Mathematics          | Theatre Arts  |
| Medical Technology   | Aerospace Studies (see special<br>information p. 131) |

### Teacher Education

Colorado State College offers preparation at the baccalaureate level for pre-school, elementary, junior high, and senior high school teaching. The satisfactory completion of an approved program earns institutional recommendation for certification as a teacher. Such recommendation presupposes the successful completion of the three basic components of Teacher Education: 1. General Education; 2. Professional Education; and 3. Subject Matter Specialization.

### Certification

Colorado State College offers numerous teacher preparation programs at the baccalaureate level. The satisfactory completion of any one of these programs earns institutional recommendation for certification as a teacher. Such recommendation presupposes the successful completion of the three basic components of Teacher Education: 1. General Education; 2. Professional Education; and 3. Subject Matter Specialization.

### Advanced Teacher Education Program

Only students of definite profession promise are admitted to the Advanced Teacher Education (ATE) program and allowed to pursue teacher education curricula at an advanced level. Admission is based upon scholarship, personality, character and the physical characteristics requisite to successful teaching.

All students who entered as freshmen and have attended Colorado State College for two years must have completed the General Education Program to obtain full admission to ATE Program.

As soon as a student has acquired no fewer than 70 quarter hours, he should make written application to the Teacher Education Committee requesting formal admission to ATE Program. The necessary application forms are available in the School of Education Office. The application forms require a declaration of majors and minors to be pursued. Students who select a teacher education major and a liberal arts minor must not expect to be recommended for teaching in the liberal arts minor. Departmental endorsement for ATE Program admission must be

## 34 / UNDERGRADUATE PROGRAM REQUIREMENTS

sought for each major declared by the student. If the student changes or adds teaching areas he must make new application to the Teacher Education Committee for permission to pursue curricula in the area(s).

Transfer students seeking ATE Program admission are required to enroll in at least one course in the major and one course in education the first quarter in residence. Final admission will be determined by the Teacher Education Committee after the student's first quarter in residence. Transfer students possessing no fewer than 85 quarter hours should apply for the ATE Program in the School of Education Office during the registration period of their first quarter on campus.

The satisfactory completion of professional education courses which are listed below are open only to students who have been formally admitted to ATE Program. Transfer students may receive some exceptions on the basis of evaluation of transcripts from previously attended colleges or universities except as noted below:

### Professional Education:

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| EDHP       | 101--Basic Concepts of Education .....                                       | 5     | 5      |
| EDHP       | 295--Philosophy of Education .....   | 3     | 3      |
| *ELED      | 139--Introduction to Student Field Work (for elementary certification) ..... | 2     | 2      |
| *EDCI      | 140--Introduction to Student Field work (for elementary certification) ..... | 2     | 2      |
| *EDCI      | 141--Methods of Teaching (for secondary certification only) .....            | 3     | 3      |
| PSY        | 140--Educational Psychology .....  | 5     | 5      |
| (*)*SFE    | --Student Field Experience .....   | 18    | 18     |

\*These specific courses MUST be satisfactorily completed at COLORADO STATE COLLEGE

(\*)No student shall be allowed to do Student Field Work while on ATE Program probation.

### Major(s) or Minor(s):

There must be satisfactory completion of courses designated by the school or department concerned to earn recommendation for student field work, graduation, and certification. For transfer students this may also be on the basis of the evaluation of transcripts from previously attended colleges and universities.

If at any time after admission to ATE Program, a department or school wishes to revoke its endorsement of a candidate, a statement of desire for removal of the candidate must be presented to the Teacher Education Committee for its consideration.

When scholarship with respect to the major is considered by a department concerning progress in the major, attention is restricted to the required courses in that major.

Any student admitted to ATE Program who is placed on probation or suspended by the college is automatically afforded the same status with respect to ATE Program. Students suspended and later readmitted to the college must reapply for admission to ATE Program.

Any student who has had his admission to ATE Program revoked or who has been denied admission to ATE Program may request a hearing from the Chairman of the Teacher Education Committee. The hearing shall be scheduled within ten days of the date the request is filed provided the college is in session at that time. The results of the hearing held by the Review Sub-Committee of the Teacher Education Committee shall then be transmitted in writing to the student within 24 hours. If the results are not satisfactory to the student he may then submit his request for a hearing before the Teacher Education Committee. The student shall be notified in writing within 24 hours of the next scheduled committee meeting and will be requested to appear in person for presentation of his case. The results of the hearing shall then be transmitted in writing to the student within 24 hours. If the student so desires he may continue his appeal to the Academic Appeals Board by contacting the Dean of the College.

Application forms and directions for admission to the Advanced Teacher Education Program may be secured from the School of Education Office.

### Student Field Experience

Student field assignments are made in cooperating schools in the state and, on a limited basis, in the campus laboratory schools. Assignments for student field work are made with the approval of the Coordinator of Student Field Experiences

upon the recommendation by the student's major department and the Teacher Education Committee.

Students applying for assignments should be prepared to finance one quarter's work outside commuting distance from the campus. Although consideration is given to each student's individual circumstances, students should be prepared to move to the areas of the assignment regardless of marital status, campus or community commitments.

The minimum field experience requirement for graduation with institutional recommendation for a teaching certificate is 18 quarter hours of student field work. A minimum of nine hours of student field work must be in a major field. Only a very limited amount of student field work is offered during the Summer Quarter.

If a student needs a required course which is scheduled only during the quarter in which the student will be doing full-time off-campus student field work, he will be exempted from that requirement. Exemption from a course does not reduce the number of hours required for graduation, however.

College policy does not allow students in the field to be salaried for the same experience for which he is receiving credit. Any payment to the student by the district in which he is assigned shall only be approved by the Coordinator of Student Field Experiences, if by refusing such payment it precludes the student from gaining meaningful educational experience and that the same assignment requires payment to the certified personnel in the district. Any payment(s) to the student in the field shall be approved in writing, in advance, by the Coordinator of Student Field Experiences.

There are prerequisites to a student field assignment. The following requirements must be completed before the beginning of student field work:

1. Completed at least two quarters as a full-time student on the college campus.
2. Completed the following courses or their equivalent: PSY 140 and EDHP 101.
3. Completed a minimum of 18 quarter hours in Elementary Teacher Education courses including READ 110, ELED 112 and 139 if applying for student field work at the elementary educational level. At least one quarter must intervene between the completion of READ 110, ELED 112 and 139 and the beginning of student field work.
4. Completed EDCI 140 and 141 or equivalent experience in all subject matter areas, major and minor wherein secondary school student field work is contemplated. No student is permitted to do student field work in secondary areas without appropriate methods and observation.
5. A classification of Junior or Senior.
6. A grade of "C" at Colorado State College in the required courses in the major and in the minor if the student plans field work in his minor, as well as having a cumulative average of "C" at Colorado State College. Students with minimally acceptable grades often have difficulty in gaining a departmental recommendation for student field work and/or securing a student field assignment. Many districts are reluctant to accept students for field work who do not possess at least an above average grade point average in the prospective area of student field work as well as in cumulative grades.
7. Been admitted to ATEP in the major(s) or minors in which he will be doing student field work. A student shall be prohibited from student field work while that student is on ATEP or academic probation.
8. Been approved by the Teacher Education Committee for student field work upon the recommendation of the appropriate department or school.

**Application for Student Teaching**—Persons wishing to do student teaching must make application in the Student Teaching Office within the first two weeks of the quarter prior to the quarter in which they wish to do student teaching.

Students making application for student teaching must secure the approval and signature of their advisor.

*Internship* students must meet all of the above-mentioned prerequisites and also complete certain other requirements as may be set by the Teacher Education Committee before beginning the intern assignment.

## Pre-Professional Courses

Courses applicable to pre-law, pre-medicine, pre-dentistry, and pre-engineering are designed for students interested in beginning their course work at Colorado State College. Variations in course requirements for these areas are made to conform to the requirements of the college the student will attend to complete his academic work. Students interested in pre-law should consult with the Dean of Arts and Sciences. For guidance within the area of pre-medicine, pre-dentistry, and pre-engineering, students should see the Associate Dean of Sciences and Mathematics.

# The Honors Program

**Eugene D. Koplitz, Associate Dean**

**Program Description**—The Honors Program at Colorado State College was conceived and created in 1957 as an experimental program for the purpose of enriching the lives of students who perform at high academic levels. Continuous evaluations and revisions of the program are made for improving the structure and organization.

**Admission Requirements**—A student of outstanding academic ability and one who possesses fine personal characteristics may be invited by the Honors Council to enter the Honors Program at the end of his freshman year at Colorado State College. Sophomores, who in the selection process were overlooked for one reason or another, may apply directly to the Dean of the Honors Program by submitting a letter, placing a telephone call or making an office appointment. Selection is limited to approximately the highest five percent of the freshman class. Other evidence of academic ability (such as scores made on standardized tests), and evidence of good character and personality will be considered. No student will be admitted who ranks below the 90th percentile in his standing in the class as measured by grades obtained in courses taken at Colorado State College. Students considered for admission to the Honors Program must have completed three full quarters of work (ordinarily 45 credit hours) at Colorado State College.

A transfer student who has completed 45 quarter hours of work (Sophomore status) and wishes to participate in the Honors Program may apply for admission after his first, second, or third quarter of work at Colorado State College. He must be recommended by a faculty member in his field and possess a 3.25 accumulative grade point average or better.

A student who completed 45 quarter hours of work at Colorado State College and in either the first, second or third quarter of his sophomore year and attains a 3.25 accumulative grade point average may apply for admission to the Honors Program. A recommendation from a faculty member in his field should accompany the request. All applications are reviewed by the Dean of the Honors Program.

**Program Enrichment**—The program of an Honors Student is individually planned in the light of the student's particular background, abilities and needs. An Honors Student, therefore, may be excused from certain specifically required general education courses except those which may be necessary for teacher certification. An Honors Student excused from a required course, however, must substitute another course offered by the same department. Such a substitution may be made upon the recommendation of the student's adviser, but only with the advice and consent of the department or school responsible for the course in question. Appropriate notice of such a substitution shall be forwarded to the Registrar's Office as soon as possible by the student's adviser.

**Sophomore Honors**—During the sophomore year, each academic department offers a program of special seminars, symposia-forums, and projects (ID 51, 52, and 53) during the Fall, Winter and Spring quarters. The content and activities of the course varies greatly from one department to another. Each academic department



is responsible for providing the kind of activity which will enrich the educational experience of the honor student in his particular discipline. Basically, the course is structured in terms of the student's needs and interests and carries one, two or three hours credit per quarter. Scheduling the time and place for the meetings of each section of Sophomore Honors is done during the first general meeting. In a number of instances the class meets at the home of the professor who is in charge of the course.

Persons responsible for Sophomore Honors (ID 51, 52, 53) for fall, winter and spring quarters are as follows: Biology—Bert O. Thomas, Professor of Zoology and Chairman, Department of Biological Sciences; Business—Hugo A. Anderson and Joseph B. Clithero, Assistant Professors of Business; Chemistry—James O. Schreck, Assistant Professor of Chemistry; English—Edward A. Kearns, Instructor in English; Fine Arts—John Mariani, Professor of Art and Chairman, Department of Fine Arts; Foreign Language—Frank E. Keppler, Instructor in German and Chairman, Department of Foreign Language; History—Marcia Willcox, Instructor in History; Home Economics—Martha Poolton, Associate Professor and Chairman, Department of Home Economics; Mathematics—Forest Fisch, Professor and Chairman, Department of Mathematics; Music—Joseph Himmel, Associate Professor of Music; Nursing—Elaine McMinn, Dean of the School of Nursing; Social Science—John Mickey, Associate Professor of Anthropology—Sociology; Physical Education—Doris Steffy, Professor of Physical Education; Special Education—Bill Gearheart, Associate Professor of Special Education; Elementary Education—Peggy Henry, Assistant Professor of Elementary Education; Speech Communication—Journalism—Michael M. Fewel, Instructor in Speech.

**Junior Honors**—In the junior year each Honors Student enrolls in a Junior Honors Project: ID 151 (Fall), 152 (Winter), 153 (Spring), in his major field. The aim of the course is to increase the student's familiarity with the literature of his field and/or the current issues in his field. The department or school concerned may assign the student to an individual professor or to a seminar group conducted by one or more professors. The suggested guide for the Junior Honors Project is as follows: First Quarter, Define the problem; Second Quarter, Develop the research methods and procedures; Third Quarter, Gather the Data. This course carries regular college credit at the rate of one hour per quarter. If the student wishes to spend a larger portion of his academic time on his project he may pick up two or three cards and enroll for more than one hour credit per quarter. Generally a student does not enroll for more than three hours per year for his Junior Honors Project.

**Senior Honors**—ID 251 carries regular college credit at the rate of one hour per quarter for a total of three credits for his junior year. Students will sign up for the course each quarter.

In the senior year, each Honor Student enrolls in a Senior Honors Project (ID 251) under the direction of a professor of his own choosing (the professor should be chosen toward the end of the student's sophomore year or the first quarter of his junior year). Generally the professor is not responsible for more than three Honors Students at a time. The professor advises the student concerning different aspects of his subject or project for study, the result of which shall be an acceptable written report handed in at least three weeks before the Honors Student graduates. Juniors shall be invited to hear papers read which were completed by Senior Honors Students. The suggested guide for the Senior Honors Project is as follows: First Quarter, Analyze and interpret the data; Second Quarter, First Draft; Third Quarter, Final Draft. ID 251 carries regular college credit at the rate of one hour per quarter for a total of three credits; the course does not necessarily have to be taken in consecutive quarters if it happens that the student will be working with the project for more than three quarters each in his Junior and Senior years. For example, a student might concentrate on his project over a period of one quarter at the rate of three quarter hours of credit, or he may organize his time in other ways. It is preferred that the final draft be turned in three weeks before the graduation date.

During the summer term of the junior year, Honors Students are offered the opportunity to study abroad. Fifteen hours of credit are given for this study in Europe, which may be substituted for Social Sciences and Humanities requirements. A detailed description of the European Study for Honors Students is printed and is available in brochure form by writing to: Dr. Dean Arnold, Professor of History, School of the Arts and Sciences, Colorado State College, Greeley, Colorado 80631.

Accumulative grade averages of Honors Students shall be reviewed at the end of each academic year by the Honors Council. In general, an Honors Student shall be expected to register for a full-time program and to maintain better than a 3.20 accumulative average as well as a comparable average in the major and minor fields. If the student drops below this standard he should consult the Dean regarding his status. Guidance and counsel will be given at that time.

**Graduation with Honors**—Students receiving an invitation to participate in the Honors Program, those applying directly for admission to the program, or those recommended to the program by faculty members of a particular department may graduate with Honors providing the student has completed courses designated as "honors courses" and has completed a thesis or a creative project. The level of distinction will also be indicated on the student's permanent transcript of credit and his diploma. The level of performance and description designations are as follows: 3.20-3.49 *Cum laude*; 3.50-3.79 *Magna cum laude*; 3.80-4.00 *Summa cum laude*.

## Department of Minority Studies

The Department of Minority Studies is composed of the faculty and students who are interested in establishing a program of minority studies at Colorado State College. It has two co-chairman, one elected by the Black Student Union and one elected by United Mexican American Students. The department functions within the School of Experimental Studies. Its main objective is to develop an interdisciplinary program in Minority Studies for students who wish to prepare themselves for various professions including teaching. In addition it will work with departments and schools to establish courses and experiences in the academic areas.

### Interdisciplinary and Individual Studies

Interdisciplinary Studies are offered in appropriate areas and levels of instruction. These courses may be offered through the coordinated efforts of two or more disciplines or by one department (Vocational Education) offering courses that are appropriate to several courses of study. (see below)

Individual studies are available in most disciplines. This type study involves a great amount of self-directed study on the part of the individual student under the guidance of an instructor. The following policies concerning registration apply:

1. The study must be an original project that can be completed only by independent study.

2. The study must be limited to four hours per quarter.

3. The study must be approved in the quarter before enrollment for the course.

4. Application for enrollment in either 222 or 322 must be made in writing to the Dean of the School. The application must have the approval, evidenced by signature, of the instructor who will direct the study, the student's adviser, and the Dean of the School in which the study is to be done.

5. The application must consist of a letter to the Dean of the School concerned stating the reasons for requesting approval for enrollment and an outline of the study describing the problem, the method of solution, the relationship of the study to the student's major field of interest, and the expected date of completion. The letter must state the subject matter field and the course number (222 or 322) and the local address. The student must also provide his student number and class (Freshman, Junior, Master's, Doctors', etc.) in the application letter.

6. No application forms will be used since one of the requirements for the successful completion of in writing and to organize information. The letter and outline will provide some evidence of the student's ability to work independently and report his ideas clearly.

7. No application will be approved for the purpose of substitution for a regular course.

8. An individual study must be done on the campus under the constant supervision of the instructor.

9. The class card will be made by Dean of the Graduate School, for ID 222-322.

10. The student's permanent record will indicate the subject matter field in which the study is made (Individual Studies-German).

## INTERDISCIPLINARY STUDIES

### VOCATIONAL EDUCATION

**General Information**—Colorado State College is recognized as an approved state institution for the training of vocational teachers, counselors, and administrators, as well as designated for the training of vocational para-professional personnel. In 1968, a Department of Vocational Education was created to serve the expanding programs on-campus. The department provides a series of interdisciplinary vocational education courses which have been cooperatively planned with the State Board for Community Colleges and Occupational Education—the state agency which credentials all vocational personnel. These courses are based on the requirements for vocational credentials as outlined in the new Colorado State Plan. The major responsibility for vocational teacher preparation, as in the past, is left to the various schools and departments. The interdisciplinary department of vocational education does not offer a degree but supports existing programs to prepare vocational teachers, counselors, and administrators.

*All undergraduates planning to obtain a vocational teaching credential should register their work experience and professional program with the Department of Vocational Education.* Students needing assistance in gaining related work experience or assistance in seeking a vocational teaching position should contact the Coordinator of Occupational Experiences in the department. The department has established a Career Development Center to assist students and teachers in research and curriculum development. The Center is also responsible for the first-year graduate follow-up of all vocational teachers employed in the State of Colorado.

#### Requirements for Vocational Teaching Credentials

The requirements for vocational teaching credentials include approved work experience, a bachelor's degree in a recognized vocational program and from an approved institution, and *at least nine quarter college credit hours in vocational education.* The course IDVE 210 "Foundations of Vocational Education" is required for all majors seeking vocational credentials.

Vocational teaching *credentials* are issued by the State Board for Community Colleges and Occupational Education. The applications may be secured from the Vocational Education offices located in the Career Development Center in Cranford #12. Teaching *certificates* are issued by the State Department of Education and the applications are obtained in the School of Education

#### State Approved Interdisciplinary Courses in Vocational Education

| Course No. | Course Title   | Hours Credit |
|------------|--|--------------|
| IDVE 200   | Directed Occupational Experience .....                     | Max.-8       |
| IDVE 210   | Foundations of Vocational Education (ATE) .....            | 3            |
| IDVE 220   | Cooperative Education and Coordination Techniques .....    | 3            |
| IDVE 230   | Occupational Analysis and Program Development .....        | 3-5          |
| IDVE 240   | Adult Vocational Education .....                           | 3            |
| IDVE 250   | Vocational Education for Learners With Special Needs ..... | 3            |
| IDVE 270   | Individual Studies in Vocational Education .....           | Max.-4       |

## MINORITY STUDIES (Minor)

### Hispano Studies

The minority studies program consists of a minor in either Black Studies or Hispano Studies. These minors may be used in conjunction with a Teacher Education or Arts and Sciences major. Students who contemplate using one of these Programs as their minor should check with their major departments.

## 40 / UNDERGRADUATE PROGRAM REQUIREMENTS

### Required Courses:

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| ANT        | 299—Spanish and Mexican American Cultures in American Southwest | 3     |        |
| HIST       | 181—The Hispano in the American Southwest                       | 3     |        |
| ID         | 150—Race, Poverty, and Change in Urban America                  | 3     |        |
| ID         | 175—Human and Race Relations                                    | 4     |        |

13

Students majoring in the teaching professions are required to take EDCI 251, Problems in Teaching Minority Groups, 3 Credit Hours, in addition to the Professional Education Core and to have Student Field Experience with Hispano Students.

### Electives:

| Course No. | Course Title                                  | Hours | Credit |
|------------|---|-------|--------|
| ANT        | 82—Folk Cultures                              | 4     |        |
| ANT        | 242—Archaeology of Mexico                     | 4     |        |
| GEOG       | 237—Middle America                            | 3     |        |
| HIST       | 233—Colonial Latin American History           | 5     |        |
| HIST       | 234—History of Latin America                  | 5     |        |
| HIST       | 236—Contemporary Mexico and the Caribbean     | 3     |        |
| PSCI       | 211—Government and Politics of Latin America  | 4     |        |
| *SPAN      | 115—Survey of Spanish-American Literature I   | 3     |        |
| *SPAN      | 116—Survey of Spanish-American Literature II  | 3     |        |
| *SPAN      | 117—Survey of Spanish-American Literature III | 3     |        |
| *SPAN      | 230—A Panorama of Mexican Literature          | 3     |        |
| ANT        | 281—Acculturation                             | 4     |        |
| PSCI       | 252—Minority Politics                         | 3     |        |
| PSY        | 283—Psychology of Prejudice                   | 3     |        |
| SOC        | 74—Social Problems                            | 3     |        |
| SOC        | 85—Problems of Intergroup Relations           | 4     |        |
| SP         | 285—Rhetoric of Social Protest                | 3     |        |

\*Prerequisite: 2 years of college Spanish.

Knowledge of the Spanish language is recommended for the minor in Hispano Studies.

## Black Studies

### Required Courses:

| Course No. | Course Title                                   | Hours | Credit |
|------------|--|-------|--------|
| ENG        | 175—Afro-American Literature                   | 4     |        |
| HIST       | 277—History of the Black Man in America I      | 3     |        |
| HIST       | 278—History of the Black Man in America II     | 3     |        |
| HIST       | 279—History of the Black Man in America III    | 3     |        |
| ID         | 150—Race, Poverty, and Change in Urban America | 3     |        |
| ID         | 175—Human and Race Relations                   | 4     |        |

20

Students majoring in the teaching professions are required to take EDCI 251, Problems in Teaching Minority Groups, 3 Credit Hours, in addition to the Professional Education Core and to have Student Field Experience with Black Students.

### Electives:

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| ANT        | 230—Africa South of the Sahara I: East and South Africa | 4     |        |
| ANT        | 231—Africa South of the Sahara II: Niger-Congo Area     | 4     |        |
| FA         | 121—Influence of African Sculpture on Modern Art        | 3     |        |
| GEOG       | 226—Africa  | 5     |        |
| HIST       | 240—History of Africa to 1899                           | 5     |        |
| HIST       | 241—History of Africa from 1899                         | 5     |        |
| PSCI       | 213—Political Systems of Sub-Saharan Africa             | 4     |        |
| PSCI       | 252—Minority Politics                                   | 3     |        |
| PSY        | 283—Psychology of Prejudice                             | 3     |        |
| SP         | 285—Rhetoric of Social Protest                          | 3     |        |

# SCHOOL OF ARTS AND SCIENCES

**A. M. Winchester, Dean**

**Harley F. Glidden, Associate Dean for Sciences  
and Mathematics**

The School of Arts and Sciences includes a four-year offering of courses in various departments leading to the Bachelor of Arts degree. The offerings are designed to give broad, diversified educational opportunities and at the same time to provide the ground work for preparation in the professions such as law, medicine, teaching, etc.

Each student regularly admitted to the School of Arts and Sciences is required to complete a minimum of 60 quarter hours of study in the General Education subjects, plus six quarters of physical education activity. He must also select a major subject for concentration and must meet all the requirements of his major department. Those wishing to be recommended for certification to teach in secondary schools must also complete at least 31 quarter hours of Advanced Teacher Education courses as prescribed by the School of Education during their junior and senior years.

Majors may be selected from the following academic areas:

|   |  |
|---|--|
| Anthropology  | Mathematics                                |
| Biological Sciences   | Medical Technology                         |
| Botany  | Physical Science                           |
| Chemistry   | Physics                                    |
| Earth Sciences  | Political Science                          |
| Economics   | Science (elementary school teaching)       |
| English   | Science (junior high school teaching)      |
| French  | Social Science (secondary school teaching) |
| Geography   | Sociology                                  |
| German  | Spanish                                    |
| History   | Speech                                     |
| History and Social Science<br>(junior high school teaching) | Theatre Arts                               |
| Journalism  | Zoology                                    |

The requirements for each major are listed by departments, but a minimum of 48 quarter hours is required for a major and 27 quarter hours for a minor. The student must select a major and fulfill all requirements for the major as set forth in the catalog.

## Anthropology

**John R. Mickey, Chairman**

**Associate Professor:** B. Mickey

**Assistant Professors:** Adams, Fay, J. Mickey

**Instructors:** Coberly, Denning

The Department of Anthropology offers a major and a minor.

Following are the requirements for the major:

1. Satisfactory completion of all General Education requirements. (Anthropology majors must take two of the following: GEOG 10, ECON 30, PSCI 40, SOC 50. The student should consult his assigned adviser.)

## 2. Courses selected from each of the following areas:

|   | <i>Hours Credit</i> |
|---|---------------------|
| I. General Anthropology .....   | 5                   |
| ANT 20 .....  |                     |
| II. Cultural Anthropology .....   | 7                   |
| Selected from ANT 23, 80, 82, 100, 129, 221, 224, 227, 228,<br>230, 231, 232, 233, 285, 299 ..... |                     |
| III. Archaeology .....  | 7                   |
| Selected from ANT 140, 141, 240, 241, 242, 243, 245, 246, 247 .....                               |                     |
| IV. Linguistics & Physical Anthropology .....   | 4                   |
| Selected from ANT 61, 250, 251 .....  |                     |
| V. Theory .....   | 7                   |
| Selected from ANT 200, 270, 280, 281, 283, 284 .....  |                     |
| VI. Electives .....   | 18                  |
|   | 48                  |

3. In addition, a minor of 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

4. Electives sufficient to complete requirements for the Bachelor of Arts degree.

Following are the requirements for the minor:

1. Two of the following courses: GEOG 10, ECON 30, PSCI 40, SOC 50. The student should consult his assigned adviser.

2. Courses selected from each of the following areas:

|   | <i>Hours Credit</i> |
|---|---------------------|
| I. General Anthropology .....   | 5                   |
| ANT 20 .....  |                     |
| II. Cultural Anthropology .....   | 4                   |
| Selected from ANT 23, 80, 82, 100, 129, 221, 224, 227, 228,<br>230, 231, 232, 233, 285, 299 ..... |                     |
| III. Archaeology .....  | 4                   |
| Selected from ANT 140, 141, 240, 241, 242, 243, 245, 246, 247 .....                               |                     |
| IV. Linguistics & Physical Anthropology .....   | 4                   |
| Selected from ANT 61, 250, 251 .....  |                     |
| V. Theory .....   | 7                   |
| Selected from ANT 200, 270, 280, 281, 283, 284 .....  |                     |
| VI. Advanced Electives .....  | 3                   |
|   | 27                  |

For students interested in being certified for teaching of the social sciences, the Department of Anthropology recommends a major in Social Science (see page 68).

## Biological Sciences (Biology, Botany, Zoology)

**Bert O. Thomas, Chairman**

**Professors:** Stamper, Thomas, Winchester

**Associate Professors:** Gapter, Rich, G. Schmidt, Thorpe

**Assistant Professors:** Buss, Fitzgerald, Lindauer, Plakke, Roe

**Instructor:** Leafgren

The Department of Biological Sciences offers a major in botany, a major in zoology, and a major and a minor in biological sciences.

Following are the requirements for the botany major:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>           | <i>Hours Credit</i> |
|-------------------|-------------------------------|---------------------|
| BIO               | 1—Principles of Biology ..... | 5                   |
| BIO               | 2—Principles of Botany .....  | 5                   |

|     |   |    |
|-----|---|----|
| BIO | 3—Principles of Zoology .....                                 | 5  |
| BIO | 152—Genetics .....  | 5  |
| BIO | 260—Microbiology .....  | 5  |
| BOT | 222—General Plant Physiology .....                            | 5  |
| BOT | 223—Morphogenesis of the Nonvascular Plants .....             | 4  |
| BOT | 224—Morphogenesis of the Vascular Plants .....                | 4  |
| BOT | 227—Plant Taxonomy .....                                      | 5  |
| BOT | 240—Plant Ecology .....                                       | 5  |
| BIO | 297—Literature of Research .....                              | 1  |
| BIO | 298—Seminar on Research .....                                 | 1  |
|     | Electives to be selected with approval of major adviser ..... | 10 |

60

3. One minor of 27 or more quarter hours in chemistry, physics, or mathematics. Courses in the selected minor that are asterisked (\*) may be counted toward fulfillment of the General Education requirements.

4. A minimum of 15 quarter hours in *each* of the above fields (chemistry, physics, or mathematics) not selected as a minor.

5. It is recommended that a foreign language be included.

6. Botany majors should substitute equivalent hours in biology or botany for SCI 3 and 4. They may substitute equivalent hours in earth sciences for SCI 5.

7. Electives to complete requirements for graduation.

Following are the requirements for the zoology major:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| BIO               | 1—Principles of Biology .....                                 | 5                   |
| BIO               | 2—Principles of Botany .....                                  | 5                   |
| BIO               | 3—Principles of Zoology .....                                 | 5                   |
| BIO               | 152—Genetics .....  | 5                   |
| BIO               | 260—Microbiology .....  | 5                   |
| ZOO               | 117—Human Physiology .....                                    | 5                   |
| ZOO               | 225—Comparative Morphogenesis of the Veterbrates I .....      | 4                   |
| ZOO               | 226—Comparative Morphogenesis of the Veterbrates II .....     | 4                   |
| ZOO               | 210—Entomology .....  | 5                   |
| ZOO               | 219—Animal Ecology .....                                      | 5                   |
| BIO               | 297—Literature of Research .....                              | 1                   |
| BIO               | 298—Seminar on Research .....                                 | 1                   |
|                   | Electives to be selected with approval of major adviser ..... | 10                  |

60

3. One minor of 27 or more quarter hours in chemistry, physics, or mathematics. Courses in the selected minor that are asterisked (\*) may be counted toward fulfillment of the General Education requirements.

4. A minimum of 15 quarter hours in *each* of the above fields (chemistry, physics, or mathematics) not selected as a minor.

5. It is recommended that a foreign language be included.

6. Zoology majors should substitute equivalent hours in biology or zoology for SCI 3 and 4. They may substitute equivalent hours in earth sciences for SCI 5.

7. Electives to complete requirements for graduation.

Following are the requirements for the minor:

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| BIO               | 1—Principles of Biology .....   | 5                   |
| BIO               | 2—Principles of Botany .....  | 5                   |
| BIO               | 3—Principles of Zoology .....   | 5                   |
| BIO               | 152—Genetics .....  | 5                   |
|                   | Electives to be selected with approval of student's minor adviser ..... | 7                   |

27

1. Biological science minors should substitute equivalent hours in biology, botany, or zoology for SCI 4. It is recommended that CHEM 40 or PHYS 50 be substituted for SCI 3 and equivalent hours in earth science for SCI 5.

Students interested in being certified for teaching biological science in the secondary school must complete the following:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. Advanced Teacher Education (ATE) 31 hours, plus SCED 140, two hours credit, SCED 141, three hours credit, and BIO 295, one hour credit.
3. Courses in the major

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| BIO        | 1—Principles of Biology .....   | 5     | 5      |
| BIO        | 2—Principles of Botany .....  | 5     | 5      |
| BIO        | 3—Principles of Zoology .....   | 5     | 5      |
| BIO        | 152—Genetics .....  | 5     | 5      |
| BIO        | 260—Microbiology .....  | 5     | 5      |
| BOT        | 222—General Plant Physiology .....  | 5     |        |
|            | or  |       |        |
| ZOO        | 117—Human Physiology .....  | 5     | 5      |
| BOT        | 223—Morphogenesis of the Nonvascular Plants .....   | 4     |        |
|            | and   |       |        |
| BOT        | 224—Morphogenesis of the Vascular Plants .....  | 4     |        |
|            | or  |       |        |
| ZOO        | 225—Comparative Morphogenesis of the Vertebrates I .....  | 4     |        |
|            | and   |       |        |
| ZOO        | 226—Comparative Morphogenesis of the Vertebrates II .....   | 4     | 8      |
| BOT        | 227—Plant Taxonomy .....  | 5     |        |
|            | or  |       |        |
| ZOO        | 210—Entomology .....  | 5     | 5      |
| BOT        | 240—Plant Ecology .....   | 5     |        |
|            | or  |       |        |
| ZOO        | 219—Animal Ecology .....  | 5     | 5      |
| BIO        | 297—Literature of Research .....  | 1     | 1      |
| BIO        | 298—Seminar on Research .....   | 1     | 1      |
|            | Electives in biology, botany, or zoology to be selected with approval<br>of student's major adviser ..... | 10    |        |
|            |   | <hr/> | 60     |

4. To fill the options listed above and the electives, courses must be chosen to include a minimum of 15 quarter hours in courses with the prefix BOT and 15 quarter hours in courses with the prefix ZOO.

5. A minor of 27 or more quarter hours is required. Chemistry or physics is recommended. If a chemistry minor is chosen, the student may substitute courses in biology, botany, or zoology for the chemistry requirements. Courses in the selected minor that are asterisked (\*) may be used as part of the 60 hours of required General Education.

6. CHEM 40 or 44, 41 or 45, 42 or 141.

7. Biological science majors may substitute PHYS 50 for SCI 3. For SCI 4 they should substitute equivalent hours in biology, botany, or zoology. For SCI 5 they may substitute equivalent hours in earth science.

8. Additional hours of electives to complete 180 quarter hours of academic credit required for graduation.

Biological science minors interested in being certified for teaching in the secondary school must complete the minor listed on page 43.

## Chemistry

**John A. Beel, Chairman**

**Professors:** Beel, Koch, Woerner

**Associate Professors:** Tomasi, Fields

**Assistant Professors:** James, Meilahn, Pringle, Schreck

The Department of Chemistry offers three majors, one of which is American Chemical Society accredited, and three minors, including one for Medical Technology majors and one for Home Economics majors. In addition, a Physical Science major is offered jointly with the Physics Department.



Following are the requirements for the majors:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. Courses in the major

| Course No. | Course Title                                | Hours | Credit |
|------------|---|-------|--------|
| CHEM       | 40--Principles of Chemistry I .....         | 5     |        |
|            | or  |       |        |
| CHEM       | 44--Principles of Chemistry IA .....        | 5     | 5      |
| CHEM       | 41--Principles of Chemistry II .....        | 5     |        |
|            | or  |       |        |
| CHEM       | 45--Principles of Chemistry IIA .....       | 5     | 5      |
| CHEM       | 46--Qualitative Analysis .....              |       | 5      |
| CHEM       | 141--Organic Chemistry I .....              |       | 5      |
| CHEM       | 142--Organic Chemistry II .....             |       | 5      |
| CHEM       | 145--Quantitative Analysis I .....          |       | 5      |
| CHEM       | 243--Organic Chemistry III .....            |       | 5      |
| CHEM       | 244--Laboratory in Organic Chemistry .....  |       | 1      |
| CHEM       | 248--Inorganic Chemistry I .....            |       | 3      |
| CHEM       | 249--Inorganic Chemistry II .....           |       | 3      |
| CHEM       | 280--Organic Qualitative Analysis .....     |       | 3      |
| CHEM       | 281--Physical Chemistry I .....             |       | 5      |
| CHEM       | 282--Physical Chemistry II .....            |       | 5      |
| CHEM       | 283--Physical Chemistry III .....           |       | 5      |
| CHEM       | 284--Instrumental Methods of Analysis ..... |       | 5      |
| CHEM       | 285--Chemical Literature .....              |       | 1      |
|            |   |       | 66     |

3. A minimum of 27 quarter hours of mathematics including MATH 31, 32, 33, and 34.

Courses in mathematics that are asterisked\* may be used as part of the 60 hours of required General Education.

4. Physics 65, 66, 67.
5. One year of foreign language (preferably German).
6. Electives to complete requirements for graduation.

Those students planning a career in chemistry must familiarize themselves with the professional training requirements of the American Chemical Society. These requirements will be met by completing the above program in the proper sequence in addition to six quarter hours of senior research or six quarter hours of advanced courses in chemistry listing CHEM 283 as prerequisite. A reading knowledge of German is also required. Students completing this program will be certified to the American Chemical Society as meeting its Minimum Standards.

## Medical Technology

This major is administered by the Department of Chemistry.

The four-year program leading to the Bachelor of Arts degree in Medical Technology requires the student to earn a total of 180 academic quarter hours, plus six quarter hours of physical education activity courses. A minimum of 138 quarter hours will be earned on the campus of Colorado State College during the first three years and 48 quarter hours of Medical Technology will be earned during the senior year (July to June) at the Weld County General Hospital under the supervision of the clinical staff. The courses in Medical Technology are open only to majors in Medical Technology. The general college policies regarding registration and grading will be followed.

The on-campus program is coordinated by the Department of Chemistry.

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. Courses in the major

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| MTEC       | 250--Urinalysis and Clinical Microscopy .....             |       | 3      |
| MTEC       | 251--Basal Metabolism and Electrocardiography .....       |       | 1      |
| MTEC       | 252--Hematology .....                                     |       | 9      |
| MTEC       | 253--Pretransfusion Tests and Blood Bank Procedures ..... |       | 5      |
| MTEC       | 254--Clinical Chemistry .....                             |       | 13     |
| MTEC       | 255--Serology .....                                       |       | 3      |
| MTEC       | 256--Medical Microbiology .....                           |       | 12     |
| MTEC       | 257--Histologic Technique .....                           |       | 2      |
|            |   |       | 48     |

3. One minor of 27 or more quarter hours is required. The minor is a Medical Technology Chemistry Minor.

Courses in the selected minor that are asterisked\* may be used as part of the 60 hours of required General Education.

4. Thirty-eight quarter hours are required by the American Society of Clinical Pathologists and the staff of the Weld County General Hospital in the following courses: BIO 250, BIO 260, CHEM 147, PHYS 61, 62, BIO 1, 3, ZOO 117.

5. Five hours of college mathematics.

6. Twenty-three quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

## Chemistry

| Course No. | Course Title   | Hours | Credit    |
|------------|--|-------|-----------|
| CHEM       | 40—Principles of Chemistry I .....   | 5     |           |
|            | or   |       |           |
| CHEM       | 44—Principles of Chemistry IA .....  | 5     | 5         |
| CHEM       | 41—Principles of Chemistry II .....  | 5     |           |
|            | or   |       |           |
| CHEM       | 45—Principles of Chemistry IIA .....   | 5     | 5         |
| CHEM       | 42—Introductory Organic Chemistry .....  | 5     |           |
|            | and  |       |           |
| CHEM       | 46—Qualitative Analysis .....  | 5     |           |
|            | and  |       |           |
| CHEM       | 145—Quantitative Analysis I .....  | 5     |           |
|            | or   |       |           |
| CHEM       | 141—Organic Chemistry I .....  | 5     |           |
|            | and  |       |           |
| CHEM       | 142—Organic Chemistry II .....   | 5     |           |
|            | and  |       |           |
| CHEM       | 243—Organic Chemistry III .....  | 5     | 15        |
|            | Chemistry electives to be selected<br>with approval of student's minor adviser ..... |       | 2         |
|            |  |       | <u>27</u> |

## Chemistry Minor for Medical Technology

| Course No. | Course Title                         | Hours | Credit    |
|------------|--------------------------------------|-------|-----------|
| CHEM       | 40—Principles of Chemistry I .....   | 5     |           |
|            | or                                   |       |           |
| CHEM       | 44—Principles of Chemistry IA .....  | 5     | 5         |
| CHEM       | 41—Principles of Chemistry II .....  | 5     |           |
|            | or                                   |       |           |
| CHEM       | 45—Principles of Chemistry IIA ..... | 5     | 5         |
| CHEM       | 46—Qualitative Analysis .....        | 5     |           |
| CHEM       | 141—Organic Chemistry I .....        | 5     |           |
| CHEM       | 142—Organic Chemistry II .....       | 5     |           |
| CHEM       | 145—Quantitative Analysis I .....    | 5     |           |
|            |                                      |       | <u>30</u> |

Students interested in being certified for teaching chemistry in the secondary school must complete the following:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Advanced Teacher Education, 31 hours, Plus SCED 140, two hours credit, and SCED 141, three hours credit.

3. Courses in the major

| Course No. | Course Title                         | Hours | Credit |
|------------|--------------------------------------|-------|--------|
| CHEM       | 40—Principles of Chemistry I .....   | 5     |        |
|            | or                                   |       |        |
| CHEM       | 44—Principles of Chemistry IA .....  | 5     | 5      |
| CHEM       | 41—Principles of Chemistry II .....  | 5     |        |
|            | or                                   |       |        |
| CHEM       | 45—Principles of Chemistry IIA ..... | 5     | 5      |
| CHEM       | 46—Qualitative Analysis .....        | 5     |        |

|      |   |   |           |
|------|---|---|-----------|
| CHEM | 141—Organic Chemistry I .....   | 5 |           |
| CHEM | 142—Organic Chemistry II .....  | 5 |           |
| CHEM | 145—Quantitative Analysis I .....   | 5 |           |
| CHEM | 243—Organic Chemistry III .....   | 5 |           |
| CHEM | 248—Inorganic Chemistry I .....   | 3 |           |
| PHYS | 60—Introductory Physics—Mechanics .....                                     | 4 |           |
| PHYS | 61—Introductory Physics—Heat, Sound and Light .....                         | 4 |           |
| PHYS | 62—Introductory Physics—Electricity and Magnetism .....                     | 4 |           |
|      | <i>or</i>   |   |           |
| PHYS | 65—General Physics—Mechanics .....  | 5 |           |
| PHYS | 66—General Physics—Electricity .....  | 5 |           |
| PHYS | 67—General Physics—Sound, Light, and Heat .....                             | 5 | 12-15     |
|      | Chemistry electives to be selected with approval of student's adviser ..... |   | 5-8       |
|      |   |   | <u>58</u> |

4. One minor of 27 or more quarter hours. It is recommended that this minor be in Mathematics.

Courses in the selected minor that are asterisked (\*) may be used as part of the 60 hours of required General Education.

5. Additional hours of electives to complete 180 quarter hours of academic credit required for graduation.

Following are the requirements for the minor for persons planning to teach in the secondary school:

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| CHEM              | 40—Principles of Chemistry I .....  | 5            |               |
|                   | <i>or</i>   |              |               |
| CHEM              | 44—Principles of Chemistry IA .....   | 5            | 5             |
| CHEM              | 41—Principles of Chemistry II .....   | 5            |               |
|                   | <i>or</i>   |              |               |
| CHEM              | 45—Principles of Chemistry IIA .....  | 5            | 5             |
| CHEM              | 46—Qualitative Analysis .....   |              | 5             |
| CHEM              | 42—Introductory Organic Chemistry .....   | 5            |               |
|                   | <i>or</i>   |              |               |
| CHEM              | 141—Organic Chemistry I .....   | 5            | 5             |
|                   | Chemistry electives to be selected with approval of student's minor adviser ..... |              | 7             |
|                   |   |              | <u>27</u>     |

## Science Minor for Home Economics Majors

This minor consists of three or four quarters of chemistry and microbiology (BIO 260) and electives with approval of the minor adviser to complete 27 hours.

## Earth Sciences (Astronomy, Geology, Meteorology, Oceanography)

**K. Lee Shropshire, Acting Chairman**

Assistant Professors: Cobb, Dietz, Hopkins, Shropshire

The Department of Earth Sciences offers a major and a minor. Students must select astronomy, geology, or meteorology as a field of concentration. Requirements for the major in each of these field of concentration follow.

### A. Concentration in Astronomy

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>                               | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| AST               | 261—Principles of Astronomy I: Solar System ..... |              | 4             |
| AST               | 262—Principles of Astronomy II: Stellar .....     |              | 3             |

|      |  |    |
|------|--|----|
| GEOL | 101—Principles of Geology I .....  | 5  |
| GEOL | 102—Principles of Geology II .....   | 5  |
| MET  | 181—Principles of Meteorology I .....  | 4  |
| MET  | 182—Principles of Meteorology II .....   | 4  |
| PHYS | 65—General Physics—Mechanics .....   | 5  |
| PHYS | 66—General Physics—Electricity .....   | 5  |
| PHYS | 67—General Physics—Sound, Light, and Heat .....  | 5  |
| PHYS | 68—Modern Physics .....  | 4  |
| PHYS | 165—Mechanics I .....  | 4  |
| PHYS | 166—Electricity and Magnetism I .....  | 4  |
| PHYS | 167—Optics I .....   | 4  |
|      | Astronomy, physics, and/or mathematics electives to be selected with approval of student's major adviser ..... | 24 |
|      |  | 80 |

3. The following courses in supporting areas (these requirements may vary somewhat, depending on the background and needs of the individual student): BIO 1, mathematics including MATH 34.

4. Completion of the above outlined program will satisfy the General Education requirement in science. Earth sciences major should not take SCI 3, 4, or 5.

5. Additional electives to complete the 180 quarter hours of academic credit required for graduation.

#### B. Concentration in Geology

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Courses in the major

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| AST        | 261—Principles of Astronomy I: Solar System .....                               | 4     |        |
| AST        | 262—Principles of Astronomy II: Stellar .....                                   | 3     |        |
| GEOL       | 101—Principles of Geology I .....   | 5     |        |
| GEOL       | 102—Principles of Geology II .....  | 5     |        |
| GEOL       | 103—Principles of Geology III .....   | 5     |        |
| GEOL       | 104—Principles of Geology IV .....  | 5     |        |
| MET        | 181—Principles of Meteorology I .....   | 4     |        |
| MET        | 182—Principles of Meteorology II .....  | 4     |        |
| OCN        | 151—Principles of Oceanography .....  | 3     |        |
|            | Geology electives to be selected with approval of student's major adviser ..... | 24    |        |
|            |   | 62    |        |

3. The following courses in supporting areas (these requirements may vary somewhat, depending on the background and needs of the individual student): BIO 1, 3, CHEM 40 or 44, 41 or 45, PHYS 65, 66, 67, 68, mathematics including MATH 33.

4. Completion of the above outlined program will satisfy the general education requirement in science. Earth Sciences majors should not take SCI 3, 4, or 5.

5. Additional electives to complete the 180 quarter hours of academic credit required for graduation.

#### C. Concentration in Meteorology

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Courses in the major

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| AST        | 261—Principles of Astronomy I: Solar System .....  | 4     |        |
| AST        | 262—Principles of Astronomy II: Stellar .....  | 3     |        |
| GEOL       | 101—Principles of Geology I .....  | 5     |        |
| GEOL       | 102—Principles of Geology II .....   | 5     |        |
| MET        | 181—Principles of Meteorology I .....  | 4     |        |
| MET        | 182—Principles of Meteorology II .....   | 4     |        |
| OCN        | 151—Principles of Oceanography .....   | 3     |        |
| PHYS       | 65—General Physics—Mechanics .....   | 5     |        |
| PHYS       | 66—General Physics—Electricity .....   | 5     |        |
| PHYS       | 67—General Physics—Sound, Light, and Heat .....  | 5     |        |
| PHYS       | 68—Modern Physics .....  | 4     |        |
| PHYS       | 165—Mechanics I .....  | 4     |        |
| PHYS       | 166—Electricity and Magnetism I .....  | 4     |        |
| PHYS       | 167—Optics I .....   | 4     |        |
|            | Meteorology, physics, and/or mathematics electives to be selected with approval of student's major adviser ..... | 24    |        |
|            |  | 83    |        |

3. The following courses in supporting areas (these requirements may vary somewhat depending on the background and needs of the individual student): BIO 1, CHEM 40 or 44, 41 or 45, mathematics including MATH 34.

4. Completion of the above outlined program will satisfy the General Education requirement in science. Earth Sciences majors should not take SCI 3, 4, or 5.

5. Additional electives to complete the 180 quarter hours of academic credit required for graduation.

Following are the requirements for the minor:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| AST               | 166—General Astronomy .....  | 4                   |
| GEOL              | 106—General Geology .....  | 4                   |
| MET               | 186—General Meteorology .....  | 4                   |
| OCN               | 156—General Oceanography .....   | 3                   |
|                   | Earth Science electives to be selected with approval of student's<br>minor adviser ..... | 12                  |
|                   |  | 27                  |

Students interested in being certified for teaching earth science in the secondary school must complete the following:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Advanced Teacher Education, 31 hours, plus SCED 140, two hours credit, and SCED 141, three hours credit.

3. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| ESCI              | 1—Introduction to Earth Science .....   | 3                   |
| AST               | 261—Principles of Astronomy I: Solar System .....   | 4                   |
| AST               | 262—Principles of Astronomy II: Stellar .....   | 3                   |
| GEOL              | 101—Principles of Geology I .....   | 5                   |
| GEOL              | 102—Principles of Geology II .....  | 5                   |
| GEOL              | 103—Principles of Geology III .....   | 5                   |
| GEOL              | 104—Principles of Geology IV .....  | 5                   |
| MET               | 181—Principles of Meteorology I .....   | 4                   |
| MET               | 182—Principles of Meteorology II .....  | 4                   |
| OCN               | 151—Principles of Oceanography .....  | 3                   |
| ESCI              | 299—Seminar in Earth Science .....  | 2                   |
|                   | Electives from a single area of specialization within the Earth<br>Sciences —to be selected with approval of student's major adviser..... | 8                   |
|                   |   | 51                  |

4. The following courses in supporting areas (these requirements may vary somewhat depending on the background and needs of the individual student): BIO 1, 2, CHEM 40 or 44, 41 or 45, PHYS 60, 61, 62, mathematics including MATH 25.

5. Completion of the above outlined program will satisfy the General Education requirement in science. Earth Sciences majors should not take SCI 3, 4, or 5.

6. Additional electives to complete the 180 quarter hours of academic credit required for graduation.

Following are the requirements for the minor for persons planning to teach in the secondary school:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| AST               | 166—General Astronomy .....  | 4                   |
| ESCI              | 1—Introduction to Earth Science .....  | 3                   |
| GEOL              | 106—General Geology .....  | 4                   |
| MET               | 186—General Meteorology .....  | 4                   |
| OCN               | 156—General Oceanography .....   | 3                   |
|                   | Earth Science electives to be selected with approval of student's<br>minor adviser ..... | 9                   |
|                   |  | 27                  |

# Economics

**Orvel L. Trainer, Chairman**

**Professor: Trainer.**

**Instructors: Garrison, Mahanty, Palmer.**

## Economics Major

The following is the required program:

1. General Education totaling 60 quarter hours, plus six quarters of physical education activities courses.
2. The following required courses in the major (49 quarter hours).

| <i>Course No.</i> | <i>Course Title</i>                      | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| ECON              | 30—Introductory Economics .....          | 5            | 5             |
| ECON              | 102—Contemporary Economic Problems ..... | 3            | 3             |
| ECON              | 120—History of Economic Thought .....    | 3            | 3             |
| ECON              | 200—Seminar in Economic Thought .....    | 3            | 3             |
| ECON              | 201—Intermediate Economic Theory .....   | 3            | 3             |
| ECON              | 202—Money and Banking .....              | 5            | 5             |
| ECON              | 241—Public Finance .....                 | 5            | 5             |
| RSM               | 204—Descriptive Statistics .....         | 4            | 4             |

31

3. Electives in advanced courses in economics.
4. Minor in Mathematics.
5. Electives to complete the 180 hours of academic credit required for graduation.

In lieu of SS 81, 82, & 83 Economics majors will take two of the following: Geography 10, Anthropology 20, Political Science 40 or Sociology 50. Consult your advisor.

## Economics Minor

1. Twenty-seven quarter hours in Economics.
2. The following is the required program:

| <i>Course No.</i> | <i>Course Title</i>                      | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| ECON              | 30—Introductory Economics .....          | 5            | 5             |
| ECON              | 102—Contemporary Economic Problems ..... | 3            | 3             |
| ECON              | 120—History of Economic Thought .....    | 3            | 3             |
| ECON              | 201—Intermediate Economic Theory .....   | 3            | 3             |
|                   | Advanced Electives .....                 | 13           | 13            |

27

In lieu of SS 81, 82, & 83, Economics minors will take two of the following: Geography 10, Anthropology 20, Political Science 40 or Sociology 50. Consult your advisor.

For students interested in being certified for teaching Social Science in the public schools, the Department of Economics recommends the Social Science Major.

# English

**Thomas E. Boyle, Chairman**

**Professors: Carriar, Cross, F. Frease, Harrison, Starr.**

**Associate Professors: Boyle, Freeman.**

**Assistant Professors:** Brand, Brewer, C. Frease, Huff, Jones, Myers, Princic, Thompson, Wilson.

**Instructors:** Agan, Applegate, Bratton, Dion, Finnegan, Hanselmann, Havill, Heiser, Kearns, Lackie, Luere, Mackey, Meyer, Peercy, Richardson, Speckmann, Stallings, Varner, Witwer.

## English Major

The following is the required program:

1. General Education totaling 60 quarter hours, plus six quarters of physical education activity.

2. Course requirements listed below.\*

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| ENG        | 11—Introduction to Poetry .....                                   | 3     | 3      |
| ENG        | 12—Introduction to Prose .....                                    | 3     | 3      |
| ENG        | 80—Survey of English Literature from the Beginnings to 1660 ..... | 4     | 4      |
| ENG        | 81—Survey of English Literature from 1660 to 1832 .....           | 4     | 4      |
| ENG        | 82—Survey of English Literature from 1832 to the Present .....    | 4     | 4      |
| ENG        | 85—American Literature to the Civil War .....                     | 4     | 4      |
| ENG        | 86—American Literature Since the Civil War .....                  | 4     | 4      |
| ENG        | 90—Shakespeare: Early Plays .....                                 | 3     | 3      |
| ENG        | 91—Shakespeare: Later Plays .....                                 | 3     | 3      |
| ENG        | 210—Advanced Expository Writing .....                             | 3     | 3      |
| ENG        | 211—The English Language .....                                    | 5     | 5      |

Electives chosen from the following courses .....

|    |     |  |   |
|----|-----|--|---|
| a. | ENG | 109, 110, or 111—Creative Writing .....                  | 2 |
| b. | ENG | 148—English Literature from the Beginnings to 1500 ..... | 3 |
| c. | ENG | 149—English Literature from 1500 to 1660 .....           | 3 |
| d. | ENG | 150—The Restoration and Eighteenth Century .....         | 3 |
| e. | ENG | 151—The Romantic Movement .....                          | 3 |
| f. | ENG | 152—Victorian Prose and Poetry .....                     | 3 |
| g. | ENG | 153—Contemporary English and American Literature .....   | 4 |
| h. | ENG | 175—Afro-American Literature .....                       | 4 |
| i. | ENG | 212—Generative-Transformational Grammar .....            | 4 |
| j. | ENG | 230—Greek and Comparative Mythology .....                | 4 |
|    | or  |  |   |
|    | ENG | 289—Literature of the Old Testament .....                | 3 |
|    | or  |  |   |
|    | ENG | 290—Literature of the New Testament .....                | 3 |
| k. | ENG | 231—The Short Story .....                                | 3 |
|    | or  |  |   |
|    | ENG | 232—Techniques of the Novel .....                        | 5 |
| l. | ENG | 235—Contemporary American Drama .....                    | 3 |
|    | or  |  |   |
|    | ENG | 236—Modern Drama Since Ibsen .....                       | 3 |
| m. | ENG | 239—Forms and Meanings of Poetry .....                   | 4 |
| n. | ENG | 255—Elizabethan Drama Exclusive of Shakespeare .....     | 4 |
| o. | ENG | 256—Literary Criticism .....                             | 3 |
| p. | ENG | 257—History of Ideas in Literature .....                 | 3 |

62

3. One minor of 27 quarter hours.

4. Electives to complete the 180 hours of academic credit required for graduation.

5. Students who intend to enter the teaching profession are required to take ENG 212—Generative-Transformational Grammar, 4 hours and EED 226—Literature and Materials in the Secondary Schools, 5 hours. For such students, the English elective requirement is reduced to 13 hours. Further, such students are required to complete at least two English courses with a minimum of C before being admitted to the ATE program. Thirty-one hours in Advanced Teacher Education are required, plus EDCI 140, 2 hours credit, and EDCI 141, 4 hours credit. Students should also allow one intervening quarter between the completion of EED 226, EDCI 140, EDCI 141 and the beginning of student teaching.

## English Minor

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| ENG 11     | Introduction to Poetry .....                                   | 3     | 3      |
| ENG 12     | Introduction to Prose .....                                    | 3     | 3      |
| ENG 80     | Survey of English Literature from the Beginnings to 1660 ..... | 4     | 4      |
| ENG 81     | Survey of English Literature from 1660 to 1832 .....           | 4     | 4      |
| ENG 82     | Survey of English Literature from 1832 to the Present .....    | 4     | 4      |
| ENG 85     | American Literature to the Civil War .....                     | 4     | 4      |
| ENG 86     | American Literature Since the Civil War .....                  | 4     | 4      |

### One of the following courses:

|         |   |   |   |
|---------|---|---|---|
| ENG 210 | Advanced Expository Writing .....         | 3 | 3 |
| ENG 211 | The English Language .....                | 5 | 5 |
| ENG 212 | Generative-Transformational Grammar ..... | 4 | 4 |

29-31

Students who intend to enter the teaching profession are required to take EED 226-Literature and Materials in the Secondary Schools—5 hours in place of either ENG 210, 211 or 212.

\*English majors who have begun their program before 1969 will follow their original program; for ENG 11 and 12 they will substitute ENG 10; for ENG 80, 81 and 82 they will substitute five of the following courses: ENG 148, 149, 150, 151, 152, and 153 (15-16 hours); for ENG 60 and 61 they will substitute ENG 85 and 86; for ENG 50 they will substitute ENG 91.

English minors who have begun their program before 1969 should consult the head of the department for substitutions.

## Foreign Languages

**Frank E. Keppeler, Chairman**

**Professor:** Graham.

**Assistant Professors:** Baer, Brown, Colby, Freyschlag.

**Instructors:** Carter, Freyre, Keppeler, Owechko.

The Department of Foreign Language offers teaching and non-teaching majors and minors in French, German, and Spanish, and a minor in Russian.

## French Major

Requirements for a French Major are as follows:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity. (Foreign Language majors are urged to take ANT 20 or SOC 50 or HIST 30, 31, and 32. Student should consult his assigned adviser.)

2. All work in French must be beyond the first-year level. The following courses or their equivalents are required for the major:

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| FR 5       | Intermediate French I .....   | 4     | 4      |
| FR 6       | Intermediate French II .....  | 4     | 4      |
| FR 7       | Intermediate French III .....   | 4     | 4      |
| FR 105     | Survey of French Literature I .....                                     | 4     | 4      |
| FR 106     | Survey of French Literature II .....                                    | 4     | 4      |
| FR 107     | Survey of French Literature III .....                                   | 4     | 4      |
|            | Electives in French (to be chosen with the consent of the advisor ..... | 24    | 24     |

48

3. In addition, a minor of at least 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

4. Electives sufficient to complete requirements for the Bachelor of Arts degree.



## French Minor

Requirements for a French Minor are as follows:

| <i>Course No.</i>   | <i>Course Title</i>   | <i>Hours</i> | <i>Credit</i> |
|---|---|--------------|---------------|
| FR  | 5—Intermediate French I .....                                 | 4            | 4             |
| FR  | 6—Intermediate French II .....                                | 4            | 4             |
| FR  | 7—Intermediate French III .....                               | 4            | 4             |
| Courses selected from the following: (Choose one and/or both of the following series) |   |              |               |
| FR  | 110—Intermediate French Conversation .....                    | 3            | 3             |
| FR  | 111—Intermediate French Composition .....                     | 3            | 3             |
| FR  | 112—Intermediate French Syntax and Stylistics .....           | 3            | 3             |
|   |   |              | 9             |
| OR  |   |              |               |
| FR  | 105—Survey of French Literature I .....                       | 4            | 4             |
| FR  | 106—Survey of French Literature II .....                      | 4            | 4             |
| FR  | 107—Survey of French Literature III .....                     | 4            | 4             |
|   |   |              | 12            |
| FR  | 200—Problems in Oral French .....                             | 3            | 3             |
|   | Electives to be chosen with permission of minor advisor ..... | 3-6          | 3-6           |
|   |   |              | 30            |

## German

Requirements for a German Major are as follows:

- General Education totaling 60 academic quarter hours, plus six quarters of physical education activity. (Foreign Language majors are urged to take ANT 20 or SOC 50 or HIST 30, 31, and 32. Student should consult his assigned adviser.)
- All work in German must be beyond the first-year level. The following courses or their equivalents are required for the major:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| GER               | 5—Intermediate German I .....  | 4            | 4             |
| GER               | 6—Intermediate German II .....   | 4            | 4             |
| GER               | 7—Intermediate German III .....  | 4            | 4             |
| GER               | 105—Survey of German Literature I .....                                  | 3            | 3             |
| GER               | 106—Survey of German Literature II .....                                 | 3            | 3             |
| GER               | 107—Survey of German Literature III .....                                | 3            | 3             |
| GER               | 135—Intermediate German Conversation .....                               | 4            | 4             |
| GER               | 141—Goethe .....   | 3            | 3             |
|                   | Electives in German (to be chosen with the consent of the advisor) ..... | 20           | 20            |
|                   |  |              | 48            |

- In addition, a minor of at least 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

- Electives sufficient to complete requirements for the Bachelor of Arts degree.

## German Minor

Requirements for a German Minor are as follows:

| <i>Course No.</i>                      | <i>Course Title</i>                        | <i>Hours</i> | <i>Credit</i> |
|--|--|--------------|---------------|
| GER                                    | 5—Intermediate German I .....              | 4            | 4             |
| GER                                    | 6—Intermediate German II .....             | 4            | 4             |
| GER                                    | 7—Intermediate German III .....            | 4            | 4             |
| GER                                    | 135—Intermediate German Conversation ..... | 4            | 4             |
| GER                                    | 136—Advanced German Composition .....      | 4            | 4             |
| Ten hours selected from the following: |  |              |               |
| GER                                    | 105—Survey of German Literature I .....    | 3            | 3             |
| GER                                    | 106—Survey of German Literature II .....   | 3            | 3             |
| GER                                    | 107—Survey of German Literature III .....  | 3            | 3             |

## 54 / SCHOOL OF ARTS AND SCIENCES

|     |  |       |
|-----|--|-------|
| GER | 141—Goeth .....                                | 3     |
| GER | 143—Faust .....                                | 3     |
| GER | 226—Nineteenth Century German Literature ..... | 3     |
| GER | 227—Twentieth Century German Literature .....  | 3     |
|     |  | <hr/> |
|     |  | 30    |

## Russian Minor

Requirements for a Russian Minor are as follows:

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| RUS        | 1—Elementary Russian I .....                                 | 5     | 5      |
| RUS        | 2—Elementary Russian II .....                                | 5     | 5      |
| RUS        | 3—Elementary Russian III .....                               | 5     | 5      |
| RUS        | 5—Intermediate Russian .....                                 | 4     | 4      |
| RUS        | 6—Intermediate Russian Composition and Conversation I .....  | 4     | 4      |
| RUS        | 7—Intermediate Russian Composition and Conversation II ..... | 4     | 4      |
| RUS        | 135—Russian Conversation .....                               | 3     | 3      |
|            |  | <hr/> |        |
|            |  |       | 30     |

## Spanish Major

Requirements for a Spanish Major are as follows:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity. (Foreign Language majors are urged to take ANT 20 or SOC 50 or HIST 30, 31, and 32. Student should consult his assigned adviser.)

2. All work in Spanish must be beyond the first-year level. The following courses or their equivalents are required for the major:

| Course No.  | Course Title  | Hours | Credit |
|---|---|-------|--------|
| SPAN  | 5—Intermediate Spanish I .....                      | 4     | 4      |
| SPAN  | 6—Intermediate Spanish II .....                     | 4     | 4      |
| SPAN  | 7—Intermediate Spanish III .....                    | 4     | 4      |
| SPAN  | 115—Survey of Spanish-American Literature I .....   | 3     | 3      |
| SPAN  | 116—Survey of Spanish-American Literature II .....  | 3     | 3      |
| SPAN  | 117—Survey of Spanish American Literature III ..... | 3     | 3      |
| SPAN  | 155—Survey of Spanish Literature I .....            | 3     | 3      |
| SPAN  | 156—Survey of Spanish Literature II .....           | 3     | 3      |
| SPAN  | 157—Survey of Spanish Literature III .....          | 3     | 3      |
| SPAN  | 210—Spanish Civilization .....                      | 3     | 3      |
| Electives in Spanish (to be chosen with the consent of the advisor) ..... |   | 15    | 15     |
|   |   | <hr/> |        |
|   |   |       | 48     |

3. In addition, a minor of at least 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

4. Electives sufficient to complete requirements for the Bachelor of Arts degree.

## Spanish Minor

Requirements for a Spanish Minor are as follows:

| Course No.  | Course Title                     | Hours | Credit |
|---|----------------------------------|-------|--------|
| SPAN  | 5—Intermediate Spanish I .....   | 4     | 4      |
| SPAN  | 6—Intermediate Spanish II .....  | 4     | 4      |
| SPAN  | 7—Intermediate Spanish III ..... | 4     | 4      |
| Electives to be chosen with permission of minor advisor ..... |                                  | 18    | 18     |
|   |                                  | <hr/> |        |
|   |                                  |       | 30     |

## French Major (Teaching)

Requirements for a French Major are as follows:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity. (Foreign Language majors are urged to take ANT 20 or SOC 50 or HIST 30, 31, and 32. Student should consult his assigned adviser.)

2. Advanced Teacher Education, 31 hours, plus EDCI 140 (2 hours) and EDCI 141 (3 hours) in the School of Education.

3. All work in French must be beyond the first-year level. The following courses or their equivalents are required for the major:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| FR                | 5—Intermediate French I .....  | 4            | 4             |
| FR                | 6—Intermediate French II .....   | 4            | 4             |
| FR                | 7—Intermediate French III .....  | 4            | 4             |
| FR                | 105—Survey of French Literature I .....                                  | 4            | 4             |
| FR                | 106—Survey of French Literature II .....                                 | 4            | 4             |
| FR                | 107—Survey of French Literature III .....                                | 4            | 4             |
| FR                | 110—Intermediate French Conversation .....                               | 3            | 3             |
| FR                | 111—Intermediate French Composition .....                                | 3            | 3             |
| FR                | 112—Intermediate French Syntax and Stylistics .....                      | 3            | 3             |
| FR                | 200—Problems in Oral French .....  | 3            | 3             |
| FR                | 210—French Civilization .....  | 3            | 9             |
|                   | Electives in French (to be chosen with the consent of the advisor) ..... | 9            |               |
|                   |  |              | 48            |

4. In addition, a minor of at least 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

5. Electives sufficient to complete requirements for the Bachelor of Arts degree.

6. Before being permitted to apply for student teaching, a Foreign Language Major must have successfully passed the department proficiency examination in the language where application is made.

## French Minor (Teaching)

Requirements for a French Minor are as follows:

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| *FR               | 5—Intermediate French I .....   | 4            | 4             |
| *FR               | 6—Intermediate French II .....  | 4            | 4             |
| *FR               | 7—Intermediate French III .....   | 4            | 4             |
| *FR               | 110—Intermediate French Conversation .....                                | 3            | 3             |
| FR                | 111—Intermediate French Composition .....                                 | 3            | 3             |
| FR                | 112—Intermediate French Syntax and Stylistics .....                       | 3            | 3             |
| FR                | 200—Problems in Oral French .....   | 3            | 3             |
|                   | Electives in French (to be chosen with permission of minor advisor) ..... | 6            |               |
|                   |   |              | 30            |

\*Students who have the equivalent of these courses may choose substitutes with the consent of their minor advisor.

## German Major (Teaching)

Requirements for a German Major are as follows:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity. (Foreign Language majors are urged to take ANT 20 or SOC 50 or HIST 30, 31, and 32. Student should consult his assigned adviser.)

2. Advanced Teacher Education, 31 hours, plus EDCI 140 (2 hours) and EDCI 141 (3 hours) in the School of Education.

3. All work in German must be beyond the first-year level. The following courses or their equivalents are required for the major:

| <i>Course No.</i> | <i>Course Title</i>            | <i>Hours</i> | <i>Credit</i> |
|-------------------|--------------------------------|--------------|---------------|
| GER               | 5—Intermediate German I .....  | 4            | 4             |
| GER               | 6—Intermediate German II ..... | 4            | 4             |

|     |  |          |
|-----|--|----------|
| GER | 7—Intermediate German III .....  | 4        |
| GER | 105—Survey of German Literature I .....                                  | 3        |
| GER | 106—Survey of German Literature II .....                                 | 3        |
| GER | 107—Survey of German Literature III .....                                | 3        |
| GER | 135—Intermediate German Conversation .....                               | 4        |
| GER | 136—Advanced German Composition .....                                    | 4        |
| GER | 137—Advanced German Grammar .....  | 4        |
| GER | 141—Goethe .....   | 3        |
| GER | 200—Problems in Oral German .....  | 3        |
|     | Electives in German (to be chosen with the consent of the adviser) ..... | 9        |
|     |  | <hr/> 48 |

4. In addition, a minor of at least 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

5. Electives sufficient to complete requirements for the Bachelor of Arts degree.

6. Before being permitted to apply for student teaching, a Foreign Language Major must have successfully passed the department proficiency examination in the language where application is made.

## German Minor (Teaching)

Requirements for a German Minor are as follows:

| Course No. | Course Title                               | Hours | Credit |
|------------|--|-------|--------|
| *GER       | 5—Intermediate German I .....              | 4     | 4      |
| *GER       | 6—Intermediate German II .....             | 4     | 4      |
| *GER       | 7—Intermediate German III .....            | 4     | 4      |
| *GER       | 135—Intermediate German Conversation ..... | 4     | 4      |
| GER        | 136—Advanced German Composition .....      | 4     | 4      |
| GER        | 137—Advanced German Grammar .....          | 4     | 4      |
| GER        | 141—Goethe .....                           | 3     | 3      |
| GER        | 200—Problems in Oral German .....          | 3     | 3      |

\*Students who have the equivalent of these courses may choose substitutes with the consent of their minor advisor.

## Russian Minor (Teaching)

Requirements for a Russian Minor are as follows:

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| RUS        | 1—Elementary Russian I .....                                 | 5     | 5      |
| RUS        | 2—Elementary Russian II .....                                | 5     | 5      |
| RUS        | 3—Elementary Russian III .....                               | 5     | 5      |
| RUS        | 5—Intermediate Russian .....                                 | 4     | 4      |
| RUS        | 6—Intermediate Russian Composition and Conversation I .....  | 4     | 4      |
| RUS        | 7—Intermediate Russian Composition and Conversation II ..... | 4     | 4      |
| RUS        | 135—Russian Conversation .....                               | 3     | 3      |

---

30

## Spanish Major (Teaching)

Requirements for a Spanish Major are as follows:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity. (Foreign Language majors are urged to take ANT 20 or SOC 50 or HIST 30, 31, and 32. Student should consult his assigned adviser.)

2. Advanced Teacher Education, 31 hours, plus EDCI 140 (2 hours) and EDCI 141 (3 hours) in the School of Education.

3. All work in Spanish must be beyond the first-year level. The following courses or their equivalents are required for the major:

| Course No. | Course Title                   | Hours | Credit |
|------------|--------------------------------|-------|--------|
| SPAN       | 5—Intermediate Spanish I ..... | 4     | 4      |

|      |   |          |
|------|---|----------|
| SPAN | 6—Intermediate Spanish II .....   | 4        |
| SPAN | 7—Intermediate Spanish III .....  | 4        |
| SPAN | 110—Advanced Spanish Grammar .....  | 4        |
| SPAN | 125—Advanced Spanish Composition .....                                    | 3        |
| SPAN | 135—Spanish Conversation .....  | 4        |
| SPAN | 145—Spanish Pronunciation .....   | 4        |
| SPAN | 200—Problems in Oral Spanish .....  | 3        |
| SPAN | 210—Spanish Civilization .....  | 3        |
|      | Electives in Spanish (to be chosen with the consent of the advisor) ..... | 15       |
|      |   | <hr/> 48 |

4. In addition, a minor of at least 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

5. Electives sufficient to complete requirements for the Bachelor of Arts degree.

6. Before being permitted to apply for student teaching, a Foreign Language Major must have successfully passed the department proficiency examination in the language where application is made.

## Spanish Minor (Teaching)

Requirements for a Spanish Minor are as follows:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| *SPAN             | 5—Intermediate Spanish I .....   | 4                   |
| *SPAN             | 6—Intermediate Spanish II .....  | 4                   |
| *SPAN             | 7—Intermediate Spanish III .....   | 4                   |
| SPAN              | 110—Advanced Spanish Grammar .....   | 4                   |
| SPAN              | 125—Advanced Spanish Composition .....                                     | 3                   |
| *SPAN             | 135—Advanced Spanish Conversation .....                                    | 4                   |
| SPAN              | 145—Spanish Pronunciation .....  | 4                   |
|                   | Electives in Spanish (to be chosen with permission of minor advisor) ..... | 3                   |
|                   |  | <hr/> 30            |

\*Students who have the equivalent of these courses may choose substitutes with the consent of their minor advisor.

## Geography

**Kevin C. Kearns, Chairman**

**Associate Professor:** Lehrer.

**Assistant Professors:** Dietz, Halvorson, K. Kearns.

**Instructors:** Cox, Howard, Scott.

## Geography Major

The following is the required program:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity. (Students majoring or minoring in geography will take two of the following courses: ANT 20, ECON 30, PSCI 40, or SOC 50.)

2. The following required courses in the major:

| <i>Course No.</i> | <i>Course Title</i>                            | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| GEOG              | 20—Physical Geography I .....                  | 3                   |
| GEOG              | 21—Physical Geography II .....                 | 3                   |
| GEOG              | 22—Cultural Geography I .....                  | 3                   |
| GEOG              | 23—Cultural Geography II .....                 | 3                   |
| GEOG              | 48—Anglo-America .....                         | 5                   |
| GEOG              | 64—Maps and Their Uses .....                   | 2                   |
|                   | Electives in Advanced Regional Courses .....   | 14                  |
|                   | Electives in Advanced Systematic Courses ..... | 15                  |
|                   |  | <hr/> 48            |

3. At least one minor of 27 quarter hours. Courses in the selected minor that are asterisked\* may be used as part of the 60 hours of required General Education.

4. Electives to complete the 180 hours of academic credit required for graduation.

## Geography Minor

| Course No. | Course Title  | Hours Credit |
|------------|---|--------------|
| GEOG       | 10—World Geography .....                                    | 5            |
| GEOG       | 48—Anglo-America .....                                      | 5            |
| GEOG       | 64—Maps and Their Uses .....                                | 2            |
|            | Electives in Advanced Regional Geography.....               | 5            |
|            | Electives in Advanced Systematic Geography.....             | 5            |
|            | Electives in Advanced Regional or Systematic Geography..... | 5            |
|            |   | 27           |

For concentrations in the teaching of Geography, see the course requirements listed under Social Science Major and Social Science Minor.

## History

### Berry Rothaus, Chairman

**Professors:** Arnold, Boeck, Larson, Reynolds.

**Associate Professor:** Byerly.

**Assistant Professors:** Cornebise, Kerkham, Knott, Lonsdale, Powers, Rothaus, Rowe.

**Instructors:** Bowser, Stroup, M. Willcoxon, Worrall.

The Department of History offers a major and a minor.

Following are the requirements for the major:

1. Satisfactory completion of all General Education requirements. (History majors must take two of the following : ANT 20, GEOG 10, ECON 30, PSCI 40, SOC 50).

2. The following courses in the major (64 quarter hours).

|   | Hours Credit |
|---|--------------|
| I. World History I, II, III .....             | 12           |
| HIST 30, 31, 32                               |              |
| II. United States History I, II, III .....    | 9            |
| HIST 70, 71, 72                               |              |
| III. The Far East .....                       | 4            |
| HIST 169                                      |              |
| IV. Introduction to Historical Research ..... | 3            |
| HIST 200                                      |              |
| V. Advanced Electives in History .....        | 36           |
|   | 64           |

3. In addition, a minor of 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

4. The Department of History recommends that prospective history majors take a foreign language.

5. Electives sufficient to complete the 180 quarter hours for the Bachelor of Arts Degree, plus six quarters of physical education activity.

1. The following are the requirements for the minor (36 hours):

|  | Hours Credit |
|--|--------------|
| I. World History I, II, III .....          | 12           |
| HIST 30, 31, 32                            |              |
| II. United States History I, II, III ..... | 9            |
| HIST 70, 71, 72                            |              |

|   |       |
|---|-------|
| III. The Far East .....                 | 4     |
| HIST 169                                |       |
| IV. Advanced Electives in History ..... | 11    |
|   | <hr/> |
|   | 36    |

2. Students minoring in History will take two of the following basic courses to fulfill the 9 quarter hour General Education requirement: ANT 20, ECON 30, GEOG 10, PSCI 40 and SOC 50.

The Department of History offers a major and minor for those who are interested in being certified for teaching.

Following are the requirements for the major:

1. Satisfactory completion of all General Education requirements.
2. Courses in the major (72 hours):

|  | <i>Hours Credit</i> |
|--|---------------------|
| I. World History I, II, III .....  | 12                  |
| HIST 30, 31, 32  |                     |
| II. United States History I, II, III .....   | 9                   |
| HIST 70, 71, 72  |                     |
| III. The Far East .....  | 4                   |
| HIST 169   |                     |
| IV. Introduction to Historical Research .....  | 3                   |
| V. Advanced Electives in History .....   | 28                  |
| VI. Social Science—Twenty-five quarter hours in the five introductory Social Science areas (ANT 20, ECON 30, GEOG 10, PSCI 40 and SOC 50), of which sixteen will be applied to the History major, and nine quarter hours will be applied to fulfilling the General Education requirements. |                     |

3. In addition, a minor of 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

4. Advanced Teacher Education, 31 quarter hours plus EDCI 140, two quarter hours credit, and EDCI 141, three quarter hours credit. (See “Advanced Teacher Education—History” below for special requirements and prerequisites for admission.)

5. Electives sufficient to complete the 180 quarter hours required for graduation, plus six quarters of physical education activity.

### Advanced Teacher Education—History

1. The faculty of the History Department will not consider any student's application for the ATE program until he has passed at least twenty-one hours in history, and until he has passed at least eight hours of history at Colorado State College. General Education courses are not counted for the major.

2. To be admitted to ATE one must have a grade point average of at least 2.0 in the major. In figuring the grade point average in the major, only courses taken at Colorado State College are counted excluding the General Education courses or their substitutes.

3. Before one may register for EDCI 140 and EDCI 141 one must have completed EDHP 101 and PSY 140, and the following courses or their equivalents in the relevant major:

### History Major

|   | <i>Hours Credit</i> |
|---|---------------------|
| I. World History I, II, III .....                                 | 12                  |
| HIST 30, 31, 32   |                     |
| II. United States History I, II, III .....                        | 9                   |
| HIST 70, 71, 72   |                     |
| III. Two of the introductory courses in the social sciences ..... | 10                  |
| IV. Advanced Electives in History .....                           | 3                   |
|   | <hr/>               |
|   | 34                  |

4. Before one may register for SFE 251, Student Teaching, all majors in History must have completed at least 40 hours in the major.

1. The following are the requirements for the minor (36 hours):

|  | <i>Hours Credit</i> |
|--|---------------------|
| I. World History I, II, III .....          | 12                  |
| HIST 30, 31, 32                            |                     |
| II. United States History I, II, III ..... | 9                   |
| HIST 70, 71, 72                            |                     |
| III. The Far East .....                    | 4                   |
| HIST 169                                   |                     |
| IV. Advanced Electives in History .....    | 11                  |
|  | 36                  |

## Mathematics

**Donald D. Elliott, Chairman**

**Professors:** Fisch, Popejoy

**Associate Professors:** Cavanagh, D. Schmidt

**Assistant Professors:** Anders, Elliott, Fuelberth, Heiny, R. Johnson, McNerney, Richardson, Rumford, Sanders, Schweers, Tolar

The Department of Mathematics offers a major and a minor.

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>   |       | <i>Hours Credit</i> |
|-------------------|---|-------|---------------------|
| MATH              | 31*—Calculus with Analytic Geometry I .....   | 5     |                     |
| MATH              | 32*—Calculus with Analytic Geometry II .....  | 4     |                     |
| MATH              | 33*—Calculus with Analytic Geometry III .....   | 4     |                     |
| MATH              | 34*—Calculus with Analytic Geometry IV .....  | 4     |                     |
| MATH              | 122—Introduction to Modern Algebra I .....  | 4     |                     |
| MATH              | 123—Introduction to Modern Algebra II .....   | 4     |                     |
|                   | <i>or</i>   |       |                     |
| MATH              | 221—Modern Algebra I .....  | 3     |                     |
| MATH              | 222—Modern Algebra II .....   | 3     |                     |
| MATH              | 223—Modern Algebra III .....  | 3     | 8-9                 |
| MATH              | 232—Advanced Calculus I .....   | 4     |                     |
| MATH              | 233—Advanced Calculus II .....  | 4     |                     |
|                   | <i>or</i>   |       |                     |
| MATH              | 235—Introductory Analysis I .....   | 4     |                     |
| MATH              | 236—Introductory Analysis II .....  | 4     | 8                   |
|                   | Electives in mathematics numbered 100 or above selected with approval of the Mathematics Department ..... | 14-15 |                     |
|                   |   | 48    |                     |

\*Qualified students may be exempted by examination.

3. One minor of 27 quarter hours preferably in physics. Courses in the selected minor that are asterisked\* may be used as part of the 60 hours of required General Education.

4. Electives to complete requirements for graduation.

Following are the requirements for the minor:

| <i>Course No.</i> | <i>Course Title</i>   |    | <i>Hours Credit</i> |
|-------------------|---|----|---------------------|
| MATH              | 31*—Calculus with Analytic Geometry I .....   | 5  |                     |
| MATH              | 32*—Calculus with Analytic Geometry II .....  | 4  |                     |
| MATH              | 33*—Calculus with Analytic Geometry III .....   | 4  |                     |
| MATH              | 34*—Calculus with Analytic Geometry IV .....  | 4  |                     |
|                   | Electives in mathematics numbered 24 or higher, at least eight of which must be in courses numbered 100 or higher ..... | 13 |                     |
|                   |   | 30 |                     |

\*Qualified students may be exempted by examination.



Students interested in being certified for teaching mathematics in the elementary school must complete the following:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. Advanced Teacher Education 31 hours, plus EDCI 140, two hours credit, and EDCI 141, three hours credit. #
3. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| MATH 31°          | —Calculus with Analytic Geometry I .....  | 5                   |
| MATH 32°          | —Calculus with Analytic Geometry II .....   | 4                   |
| MATH 33°          | —Calculus with Analytic Geometry III .....  | 4                   |
| MATH 101          | —Basic Mathematical Logic .....   | 3                   |
| MATH 102          | —Theory of Sets .....   | 3                   |
| MATH 122          | —Introduction to Modern Algebra I .....   | 4                   |
| MATH 123          | —Introduction to Modern Algebra II .....  | 4                   |
| MATH 141          | —Introduction to Modern Geometry I .....  | 4                   |
| MATH 150          | —Elementary Probability Theory .....  | 4                   |
|                   | Electives: MATH 1, 2, 3, 24, 25, or any MATH or MED courses<br>numbered 100 or higher. (Elementary Education majors cannot<br>count MATH 1 or 2 in this major.) ..... | 13                  |
|                   |   | 48                  |

Students not taking it otherwise must take ELED 112 in addition to the 48-hour major. While this major is intended primarily for persons preparing to teach at the elementary level, it may be taken by persons wishing to teach at the junior high school level. In no case will the Department of Mathematics recommend persons completing the Elementary Emphasis for teaching at the senior high level until they have met the requirements for the Secondary Emphasis.

#Elementary Education majors follow the requirements as listed for that major.

Students interested in being certified for teaching mathematics in the secondary school must complete the following:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. Advanced Teacher Education 31 hours, plus EDCI 140, two hours, credit, and EDCI 141, three hours credit.
3. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| MATH 31°          | —Calculus with Analytic Geometry I .....  | 5                   |
| MATH 32°          | —Calculus with Analytic Geometry II .....   | 4                   |
| MATH 33°          | —Calculus with Analytic Geometry III .....  | 4                   |
| MATH 34°          | —Calculus with Analytic Geometry IV .....   | 4                   |
| MATH 101          | —Basic Mathematical Logic .....   | 3                   |
| MATH 102          | —Theory of Sets .....   | 3                   |
| MATH 122          | —Introduction to Modern Algebra I .....   | 4                   |
| MATH 123          | —Introduction to Modern Algebra II .....  | 4                   |
| MATH 141          | —Introduction to Modern Geometry I .....  | 4                   |
| MATH 142          | —Introduction to Modern Geometry II .....   | 4                   |
| MATH 150          | —Elementary Probability Theory .....  | 4                   |
|                   | Electives: Courses numbered 100 or higher in mathematics or<br>mathematics education selected with approval of the Department<br>of Mathematics ..... | 5                   |
|                   |   | 48                  |

\*Qualified students may be exempted by examination.

4. One minor of at least 27 quarter hours. Courses in the selected minor that are asterisked (\*) may be used as part of the 60 hours of required General Education program.
5. Electives to complete requirements for graduation.

Following are the requirements for the minor for persons planning to teach:

| <i>Course No.</i> | <i>Course Title</i>                       | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| MATH 31°          | —Calculus with Analytic Geometry I .....  | 5                   |
| MATH 32°          | —Calculus with Analytic Geometry II ..... | 4                   |

|      |     |  |          |
|------|-----|--|----------|
| MATH | 101 | —Basic Mathematical Logic .....  | 3        |
| MATH | 102 | —Theory of Sets .....  | 3        |
| MATH | 122 | —Introduction to Modern Algebra I .....  | 4        |
| MATH | 141 | —Introduction to Modern Geometry I .....   | 4        |
|      |     | Electives in mathematics or mathematics education courses numbered<br>24 or higher.# ..... | 7        |
|      |     |  | <hr/> 30 |

\*Qualified students may be exempted by examination.

#It is recommended that a course be selected from among MATH 123, 142, 150, 203, 280, MED 284.

The Mathematics Department adheres to the policy that a student who applies for student teaching in mathematics or who seeks the recommendation of the Department as a prospective teacher of mathematics shall be required to take the methods course in the Mathematics Department.

## Physics

### Wallace Aas, Chairman

**Associate Professors.** Aas, Fry, Hamerly.

**Assistant Professor:** Ellingson

The Department of Physics offers a major and a minor. In addition, a Physical Science major is offered jointly with the Chemistry Department.

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. Courses in the major

| Course No. | Course Title   | Hours | Credit   |
|------------|--|-------|----------|
| PHYS       | 65—General Physics—Mechanics .....                               | 5     | 5        |
| PHYS       | 66—General Physics—Electricity .....                             | 5     | 5        |
| PHYS       | 67—General Physics—Sound, Light, and Heat .....                  | 5     | 5        |
| PHYS       | 165—Mechanics I .....  | 4     | 4        |
| PHYS       | 166—Electricity and Magnetism I .....                            | 4     | 4        |
| PHYS       | 167—Optics I .....   | 4     | 4        |
| PHYS       | 264—Thermodynamics .....   | 4     | 4        |
| PHYS       | 265—Mechanics II .....   | 3     | 3        |
| PHYS       | 266—Electricity and Magnetism II .....                           | 3     | 3        |
| PHYS       | 267—Optics II .....  | 4     | 4        |
| PHYS       | 268—Atomic Physics .....   | 5     | 5        |
| PHYS       | 269—Nuclear Physics I .....                                      | 5     | 5        |
|            | Electives to be selected with approval of student's adviser..... | 4     | 4        |
|            |  |       | <hr/> 55 |

3. A mathematics minor of 27 or more quarter hours (through calculus). Courses in the selected minor that are asterisked\* may be used as part of the 60 hours of required General Education.

4. Substitute PHYS 68, Modern Physics, for SCI 3 requirement.
5. CHEM 40 or 44 and CHEM 41 or 45.
6. Electives to complete requirements for graduation.

Following are the requirements for the minor:

| Course No. | Course Title   | Hours | Credit   |
|------------|--|-------|----------|
| PHYS       | 65—General Physics—Mechanics .....   | 5     | 5        |
| PHYS       | 66—General Physics—Electricity .....   | 5     | 5        |
| PHYS       | 67—General Physics—Sound, Light, and Heat .....                                    | 5     | 5        |
| PHYS       | 165—Mechanics I  |       |          |
|            | or   |       |          |
| PHYS       | 166—Electricity and Magnetism I .....  | 4     | 4        |
|            | Physics electives to be selected with approval of student's<br>minor adviser ..... |       | 8        |
|            |  |       | <hr/> 27 |

Substitute PHYS 68, Modern Physics, for SCI 3 requirement.

Students interested in being certified for teaching physics in the secondary school must complete the following:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. Advanced Teacher Education, 31 hours, plus SCED 140, two hours credit, and SCED 141, three hours credit.
3. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| PHYS              | 65—General Physics—Mechanics .....   | 5            |               |
| PHYS              | 66—General Physics—Electricity .....   | 5            |               |
| PHYS              | 67—General Physics—Sound, Light, and Heat .....  | 5            |               |
| PHYS              | 165—Mechanics I .....  | 4            |               |
| PHYS              | 166—Electricity and Magnetism I .....  | 4            |               |
| PHYS              | 162—Electrical Measurements .....  | 5            |               |
| PHYS              | 268—Atomic Physics   |              |               |
|                   | <i>or</i>  |              |               |
| PHYS              | 269—Nuclear Physics I .....  | 5            |               |
|                   | Physics electives of 200 number or higher to be selected<br>with approval of student's adviser ..... |              | 15            |
|                   |  |              | 48            |

4. A minimum of 27 quarter hours of mathematics to include calculus through MATH 34. Courses in mathematics that are asterisked (\*) may be used as part of the 60 hours of required General Education.

5. CHEM 40 or 44, 41 or 45 and 46.

6. Additional hours of electives to complete 180 quarter hours of academic credit required for graduation.

7. Substitute PHYS 68, Modern Physics, for SCI 3 requirement.

Following are the requirements for the minor for persons interested in teaching physics in the secondary school:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| PHYS              | 65—General Physics—Mechanics .....   | 5            |               |
| PHYS              | 66—General Physics—Electricity .....   | 5            |               |
| PHYS              | 67—General Physics—Sound, Light, and Heat .....                                    | 5            |               |
| PHYS              | 165—Mechanics I  |              |               |
|                   | <i>or</i>  |              |               |
| PHYS              | 166—Electricity and Magnetism I .....  | 4            |               |
|                   | Physics electives to be selected with approval of student's<br>minor adviser ..... |              | 8             |
|                   |  |              | 27            |

Substitute PHYS 68, Modern Physics, for SCI 3 requirement.

## Physical Science

The Departments of Chemistry and Physics cooperate in offering an interdepartmental major in physical science.

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>                             | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| PHYS              | 65—General Physics—Mechanics .....              | 5            |               |
| PHYS              | 66—General Physics—Electricity .....            | 5            |               |
| PHYS              | 67—General Physics—Sound, Light, and Heat ..... | 5            |               |
| PHYS              | 165—Mechanics I .....                           | 4            |               |
| PHYS              | 166—Electricity and Magnetism I .....           | 4            |               |
| CHEM              | 40—Principles of Chemistry I .....              | 5            |               |
|                   | <i>or</i>                                       |              |               |
| CHEM              | 44—Principles of Chemistry IA .....             | 5            | 5             |
| CHEM              | 41—Principles of Chemistry II .....             | 5            |               |
|                   | <i>or</i>                                       |              |               |
| CHEM              | 45—Principles of Chemistry IIA .....            | 5            | 5             |

## 64 / SCHOOL OF ARTS AND SCIENCES

|      |   |    |
|------|---|----|
| CHEM | 46—Qualitative Analysis .....           | 5  |
| CHEM | 141—Organic Chemistry I .....           | 5  |
|      | <i>and</i>                              |    |
| CHEM | 142—Organic Chemistry II .....          | 5  |
|      | <i>and</i>                              |    |
| CHEM | 243—Organic Chemistry III .....         | 5  |
|      |   | 15 |
|      | <i>or</i>                               |    |
| CHEM | 42—Introductory Organic Chemistry ..... | 5  |
|      | <i>and</i>                              |    |
| CHEM | 145—Quantitative Analysis I .....       | 5  |
|      | <i>and</i>                              |    |
| CHEM | 281—Physical Chemistry I .....          | 5  |
|      |   | 15 |
|      | Physics Electives (200 course) .....    | 5  |
|      |   | 58 |

3. One minor of 27 or more quarter hours, preferably in mathematics. Courses in the selected minor that are asterisked\* may be used as part of the 60 hours of required General Education.

4. Substitute PHYS 68, Modern Physics, for SCI 3 requirement.

5. Electives to complete requirements for graduation.

Students interested in being certified for teaching physical science in the secondary school must complete the following:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Advanced Teacher Education, 31 hours, plus SCED 140, two hours credit, and SCED 141, three hours credit.

3. Courses in the major

| <i>Course No.</i> | <i>Course Title</i>                             | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| PHYS              | 65—General Physics—Mechanics .....              | 5            |               |
| PHYS              | 66—General Physics—Electricity .....            | 5            |               |
| PHYS              | 67—General Physics—Sound, Light, and Heat ..... | 5            |               |
| PHYS              | 165—Mechanics I .....                           | 4            |               |
| PHYS              | 166—Electricity and Magnetism I .....           | 4            |               |
| CHEM              | 40—Principles of Chemistry I .....              | 5            |               |
|                   | <i>or</i>                                       |              |               |
| CHEM              | 44—Principles of Chemistry IA .....             | 5            | 5             |
| CHEM              | 41—Principles of Chemistry II .....             | 5            |               |
|                   | <i>or</i>                                       |              |               |
| CHEM              | 45—Principles of Chemistry IIA .....            | 5            | 5             |
| CHEM              | 46—Qualitative Analysis .....                   | 5            | 5             |
| CHEM              | 141—Organic Chemistry I .....                   | 5            |               |
|                   | <i>and</i>                                      |              |               |
| CHEM              | 142—Organic Chemistry II .....                  | 5            |               |
|                   | <i>and</i>                                      |              |               |
| CHEM              | 243—Organic Chemistry III .....                 | 5            |               |
|                   |   | 15           |               |
|                   | <i>or</i>                                       |              |               |
| CHEM              | 42—Introductory Organic Chemistry .....         | 5            |               |
|                   | <i>and</i>                                      |              |               |
| CHEM              | 145—Quantitative Analysis I .....               | 5            |               |
|                   | <i>and</i>                                      |              |               |
| CHEM              | 281—Physical Chemistry I .....                  | 5            |               |
|                   |   | 15           | 15            |
|                   | Physics Electives (200 course) .....            | 5            |               |
|                   |   | 58           |               |

4. Twenty-seven or more quarter hours Mathematics Minor required. Courses in the selected minor that are asterisked\* may be used as part of the 60 hours of required General Education.

5. Substitute PHYS 68, Modern Physics, for SCI 3 requirement.

6. Additional hours of electives to complete 180 quarter hours of academic credit required for graduation.

# Political Science

**Richard Perchlik, Chairman**

**Professors:** Christensen, Perchlik

**Assistant Professors:** Bookman, Klein, Knapp, Mazurana

## Political Science Major

The following is the required program:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity. (Students majoring or minoring in political science will take two of the following courses: GEOG 10, ANT 20, ECON 30, or SOC 50.)

2. The following required courses in the major:

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| a. PSCI           | 41—United States Government I.....  | 3            |               |
| PSCI              | 42—United States Government II.....   | 3            |               |
| PSCI              | 43—United States Government III.....  | 3            |               |
| b.                | Electives in political science to include at least one course<br>from each of the following groups..... | 36           |               |
|                   | Group A.—United States Government   |              |               |
| PSCI              | 50—Legislative Processes.....   | 3            |               |
| PSCI              | 171—State and Local Government.....   | 5            |               |
| PSCI              | 172—Problems in United States Government.....   | 3            |               |
| PSCI              | 180—Public Opinion and Pressure Groups.....   | 4            |               |
| PSCI              | 185—The President and the Bureaucracy.....  | 3            |               |
| PSCI              | 252—Minority Politics.....  | 3            |               |
| PSCI              | 279—Political Parties.....  | 3            |               |
|                   | Group B.—International Relations  |              |               |
| PSCI              | 76—International Relations.....   | 4            |               |
| PSCI              | 177—American Foreign Policy.....  | 3            |               |
| PSCI              | 275—The United Nations.....   | 3            |               |
| PSCI              | 276—Foundations of International Politics.....  | 4            |               |
| PSCI              | 277—Soviet Foreign Policy.....  | 3            |               |
| PSCI              | 280—Regional and Supranational Political Organizations.....   | 4            |               |
|                   | Group C.—Political Theory   |              |               |
| PSCI              | 162—Political Belief-Systems I.....   | 3            |               |
| PSCI              | 163—Political Belief-Systems II.....  | 3            |               |
| PSCI              | 164—Political Belief-Systems III.....   | 3            |               |
| PSCI              | 260—American Political Belief-Systems.....  | 3            |               |
|                   | Group D.—Comparative Government   |              |               |
| PSCI              | 73—European Political Systems.....  | 4            |               |
| PSCI              | 210—Government and Politics of Asia.....  | 4            |               |
| PSCI              | 211—Government and Politics of Latin America.....   | 4            |               |
| PSCI              | 212—The Politics of the Developing Areas.....   | 4            |               |
| PSCI              | 213—Political Systems of Sub-Saharan Africa.....  | 4            |               |
| PSCI              | 214—Government and Politics of the Soviet Union.....  | 4            |               |
| c. PSCI           | 200—Research and Inquiry in Political Science.....  | 3            |               |
|                   |   |              | <b>48</b>     |

3. One minor of at least 27 quarter hours. Courses in the selected minor that are asterisked\* may be used as part of the 60 hours of required General Education program.

4. Electives to complete 180 quarter hours of academic credit.

## Political Science Minor

| <i>Course No.</i> | <i>Course Title</i>                 | <i>Hours</i> | <i>Credit</i> |
|-------------------|-------------------------------------|--------------|---------------|
| PSCI              | 41—United States Government I.....  | 3            |               |
| PSCI              | 42—United States Government II..... | 3            |               |

|      |   |          |
|------|---|----------|
| PSCI | 43—United States Government III .....   | 3        |
|      | Electives in political science selected with the approval<br>of the Department of Political Science ..... | 18       |
|      |   | <hr/> 27 |

For students interested in being certified for teaching Social Science in the public schools, the Department of Political Science recommends the Social Science Major.

## Science Education

**Robert B. Sund, Acting Chairman**

**Professors:** Decker, Glidden, Neal, Sund  
**Associate Professors:** Crockett, K. Olson, Trowbridge  
**Assistant Professors:** McClurg, McCormack

The Science Education Department administers an interdepartmental major and minor in Elementary Science and an interdepartmental major in Junior High School Science.

## Elementary Science Major

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Advanced Teacher Education, 31 hours, including EDCI 252, Internship in Advanced Student Teaching, four hours credit, plus SCED 150, Observation and Participation in Elementary School Science, three hours credit.

3. Courses in the major

| Course No. | Course Title   | Hours | Credit   |
|------------|--|-------|----------|
| AST        | 166—General Astronomy .....                                      |       | 4        |
| BIO        | 1—Principles of Biology .....                                    |       | 5        |
| BIO        | 2—Principles of Botany .....                                     |       | 5        |
| BIO        | 3—Principles of Zoology .....                                    |       | 5        |
| CHEM       | 40—Principles of Chemistry I .....                               | 5     |          |
|            | <i>and</i>   |       |          |
| CHEM       | 41—Principles of Chemistry II .....                              | 5     |          |
|            | <i>or</i>  |       |          |
| PHYS       | 60—Introductory Physics—Mechanics .....                          | 4     |          |
|            | <i>and</i>   |       |          |
| PHYS       | 61—Introductory Physics—Heat, Sound, and Light.....              | 4     | 8-10     |
| GEOL       | 106—General Geology .....  |       | 4        |
| MET        | 186—General Meteorology .....                                    |       | 4        |
| ZOO        | 219—Animal Ecology .....   | 5     |          |
|            | <i>or</i>  |       |          |
| BIO        | 206—Conservation of Natural Resources .....                      | 4     | 4-5      |
| BIO        | 152—Genetics .....   |       | 5        |
| SCI        | 109—Science for Elementary Teachers .....                        | 3     |          |
|            | <i>or</i>  |       |          |
| SCI        | 203—Elementary Biological Science .....                          | 3     | 3        |
| SCED       | 270—Teaching Science in the Elementary School.....               |       | 3        |
|            | Electives to be selected with approval of student's adviser..... |       | 0-3      |
|            |  |       | <hr/> 58 |

### Recommended Electives:

| Course No. | Course Title                            | Hours | Credit |
|------------|---|-------|--------|
| BIO        | 250—Cell Physiology .....               |       | 5      |
| BIO        | 251—Evolution .....                     |       | 3      |
| BIO        | 254—Aquatic Biology .....               |       | 5      |
| BOT        | 203—Biology of Microorganisms .....     |       | 4      |
| BIO        | 260—Microbiology .....                  |       | 5      |
| CHEM       | 42—Introductory Organic Chemistry ..... |       | 5      |
| GEOL       | 101—Principles of Geology I .....       |       | 5      |

|      |   |   |
|------|---|---|
| MET  | 282—Climatology .....                                   | 3 |
| OCN  | 151—Principles of Oceanography .....                    | 3 |
| OCN  | 156—General Oceanography .....                          | 3 |
| PHYS | 62—Introductory Physics—Electricity and Magnetism ..... | 4 |
| SCI  | 109—Science for Elementary Teachers .....               | 3 |
| SCI  | 203—Elementary Biological Science .....                 | 3 |
| SCI  | 205—Physical Science Concepts .....                     | 3 |
| SCI  | 210—Earth Science for Elementary Teachers .....         | 4 |
| BIO  | 206—Conservation of Natural Resources .....             | 4 |
| SCI  | 209—Aviation and Space Flight .....                     | 4 |
| ZOO  | 117—Human Physiology .....                              | 5 |
| ZOO  | 219—Animal Ecology .....                                | 5 |

4. One minor of 27 or more quarter hours. It is recommended that this minor be in Elementary Education. Courses in the selected minor that are asterisked\* may be used as part of the 60 hours of required General Education.

5. Additional hours of electives to complete 180 quarter hours of academic credit required for graduation.

## Junior High School Science Major

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Advanced Teacher Education, 31 hours, plus SCED 140, two hours credit, and SCED 141, three hours credit.

3. Courses in the major

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| BIO        | 1—Principles of Biology .....   | 5     | 5      |
| BIO        | 2—Principles of Botany .....  | 5     | 5      |
| BIO        | 3—Principles of Zoology .....   | 5     | 5      |
| CHEM       | 40—Principles of Chemistry I .....  | 5     |        |
|            | or  |       |        |
| CHEM       | 44—Principles of Chemistry IA .....   | 5     | 5      |
| CHEM       | 41—Principles of Chemistry II .....   | 5     |        |
|            | or  |       |        |
| CHEM       | 45—Principles of Chemistry IIA .....  | 5     | 5      |
| PHYS       | 60—Introductory Physics—Mechanics .....   | 4     |        |
| PHYS       | 61—Introductory Physics—Heat, Sound, and Light .....  | 4     |        |
| GEOL       | 106—General Geology (If an Earth Sciences Minor is elected, replace<br>GEOL 106 with four hours of additional electives.) ..... | 4     |        |
|            | Electives* .....  | 14    |        |
|            |   |       | 56     |

4. One minor of at least 27 quarter hours. Courses in the selected minor that are asterisked\* may be used as part of the 60 hours of required General Education program.

5. Sufficient electives to complete 180 quarter hours of academic credit required for graduation.

\*Other courses are recommended for adequate preparation in the junior high school science area:

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| AST        | 166—General Astronomy .....                             | 4     |        |
| BIO        | 152—Genetics .....                                      | 5     |        |
| BIO        | 250—Cell Physiology .....                               | 5     |        |
| BIO        | 251—Evolution .....                                     | 3     |        |
| BOT        | 203—Biology of Microorganisms .....                     | 4     |        |
| BIO        | 260—Microbiology .....                                  | 5     |        |
| CHEM       | 42—Introductory Organic Chemistry .....                 | 5     |        |
| GEOL       | 101—Principles of Geology I .....                       | 5     |        |
| MET        | 186—General Meteorology .....                           | 4     |        |
| MET        | 282—Climatology .....                                   | 3     |        |
| MET        | 284—Physical Meteorology .....                          | 3     |        |
| PHYS       | 62—Introductory Physics—Electricity and Magnetism ..... | 4     |        |
| BIO        | 206—Conservation of Natural Resources .....             | 4     |        |
| ZOO        | 117—Human Physiology .....                              | 5     |        |

Following are the requirements for the minor:

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| SCI        | 109—Science for Elementary Teachers .....                              | 3     |        |
| SCI        | 203—Elementary Biological Science .....                                | 3     |        |
| SCI        | 205—Physical Science Concepts .....                                    | 4     |        |
| BIO        | 206—Conservation of Natural Resources .....                            | 4     |        |
| SCED       | 270—Teaching Science in the Elementary School .....                    | 3     |        |
|            | Electives to be selected with approval of student's minor adviser..... | 10    |        |
|            |  |       | 27     |

Note: If a student's major is Arts and Sciences in Elementary Education, substitute a subject matter course for SCED 270.

#### Recommended Electives:

| Course No. | Course Title                          | Hours | Credit |
|------------|---------------------------------------|-------|--------|
| AST        | 166—General Astronomy .....           | 4     |        |
| BIO        | 251—Evolution .....                   | 3     |        |
| BIO        | 1—Principles of Biology .....         | 5     |        |
| BIO        | 2—Principles of Botany .....          | 5     |        |
| BIO        | 3—Principles of Zoology .....         | 5     |        |
| GEOL       | 106—General Geology .....             | 4     |        |
| MET        | 186—General Meteorology .....         | 4     |        |
| SCI        | 208—Elementary Science Workshop ..... | 3     |        |
| ZOO        | 114—Ornithology .....                 | 3     |        |

## Social Science

The Departments of Anthropology, Economics, Geography, History, Political Science, and Sociology cooperate in offering an interdepartmental major and minor in Social Science.

Requirements for the major are as follows:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. Courses in the major as specified below:

|  | Hours | Credit |
|--|-------|--------|
| a. Introductory courses in five social science fields (GEOG 10, ANT 20, ECON 30, PSCI 40, SOC 50). Since two of these courses are counted toward the General Education requirements, only 16 hours of credit from this group will apply toward the major ..... | 16    |        |
| b. Advanced electives in one, two, or three social science areas. For the areas selected, the following courses must be taken: ANT 280 or 281, ECON 220, GEOG 48, PSCI 76 or 275, SOC 211 or 291 .....   | 35    |        |
| c. HIST 70, 71, 72 (U. S. History) .....   | 9     |        |
| d. HIST 30, 31, 32 (World History) .....   | 12    |        |
|  |       | 72     |

3. In addition, a minor of 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

4. Electives sufficient to complete requirements for the Bachelor of Arts degree.

Following are the requirements for the minor:

Thirty-six quarter hours in the areas of anthropology, economics, geography, political science and sociology. The student, with advisement, will select *one* or *two* of these areas. In each instance, the student will be required to take the introductory course in the area or areas selected.

Introductory courses are listed below:

| Course No. | Course Title                            | Hours | Credit |
|------------|---|-------|--------|
| GEOG       | 10—World Geography .....                | 5     |        |
| ANT        | 20—General Anthropology .....           | 5     |        |
| ECON       | 30—Introductory Economics .....         | 5     |        |
| PSCI       | 40—National Government of the U.S. .... | 5     |        |
| SOC        | 50—Principles of Sociology .....        | 5     |        |



Students interested in being certified for teaching the social sciences in secondary schools must complete all the requirements for the Social Science major and also the following:

1. Advanced Teacher Education, 31 hours, plus EDCI 140 (2 hours) and EDCI 141 (3 hours) in the School of Education.
2. No Social Science major may apply for admission to Advanced Teacher Education until he has passed at least 21 quarter hours of social science and/or history courses, at least eight hours of which must have been taken at Colorado State College.
3. To be admitted to ATE, the student must have at least a 2.0 average in those courses counting toward his major which were taken at Colorado State College.
4. Before taking EDCI 140 and EDCI 141, the student must have completed EDHP 101, PSY 140, and the following courses or their equivalents:

|  | <i>Hours Credit</i> |
|--|---------------------|
| All five introductory social science courses ..... | 25                  |
| HIST 70, 71, 72 (United States History) .....      | 9                   |
|  | 34                  |

5. Before being permitted to apply for student teaching, a Social Science major must have completed successfully at least 40 hours in the major.

6. A minor may be selected from the School of Arts and Sciences or from the School of Health, Physical Education and Recreation, Business, Fine Arts, or Special Education.

Students interested in being certified for teaching history and social sciences in the junior high school must complete all the requirements for the major and those for Advanced Teacher Education as outlined above. To assist in preparation for junior high school teaching, the following courses are prescribed:

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| GEOG              | 48—Anglo-America .....  | 5                   |
| GEOG              | 250—Geography of Colorado .....   | 2                   |
| PSCI              | 171—State and Local Government .....  | 5                   |
| PSCI              | 275—The United Nations .....  | 3                   |
| SOC               | 74—Social Problems .....  | 3                   |
| SOC               | 104—Marriage and the Family .....   | 4                   |
| HIST 30, 31, 32   | —World History .....  | 12                  |
| HIST 70, 71, 72   | —United States History .....  | 9                   |
| HIST              | 150—History of Colorado .....   | 3                   |
| HIST              | 253—Great Men in American History .....   | 3                   |
| SSED              | 231—Instructional Materials for the Social Studies in the Junior High Schools ..... | 2                   |
|                   | Other advanced electives in the social sciences .....                               | 6                   |

## Sociology

**Gary G. Willoughby, Chairman**

**Associate Professor:** Quammen

**Assistant Professor:** Willoughby

**Instructors:** Barasch, Bartell, Cleere, Jones, Spencer

The Department of Sociology offers a major and a minor.

Following are the requirements for the major:

1. Satisfactory completion of all General Education requirements. (Sociology majors must take two of the following: GEOG 10, ANT 20, ECON 30, PSCI 40. The student should consult his assigned adviser.)

2. Courses selected from each of the following areas:

|                                     | <i>Hours Credit</i> |
|-------------------------------------|---------------------|
| I. Principles of Sociology .....    | 5                   |
| SOC 50                              |                     |
| II. Social Theory .....             | 8                   |
| SOC 211, 212                        |                     |
| III. Methodology and Research ..... | 4                   |
| SOC 271                             |                     |

70 / SCHOOL OF ARTS AND SCIENCES

|   |          |
|---|----------|
| One course from each of the following areas: .....                | 12       |
| IV. Social Psychology .....                                       |          |
| Selected from SOC 91, 207, 222, 291 .....                         |          |
| V. Social Institutions .....                                      |          |
| Selected from SOC 104, 203, 281, 288, 295 .....                   |          |
| VI. Social Organization and Process .....                         |          |
| Selected from SOC 154, 190, 205, 231, 293, 294 .....              |          |
| VII. Social Disorganization .....                                 |          |
| Selected from SOC 74, 85, 102, 112, 202, 232, 242, 252, 260 ..... |          |
| VIII. Advanced Electives .....                                    | 19       |
|   | <hr/> 48 |

3. In addition, a minor of 27 quarter hours within the School of Arts and Sciences. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

4. Electives sufficient to complete requirements for the Bachelor of Arts degree.

Following are the requirements for the minor:

1. Two of the following courses: GEOG 10, ANT 20, ECON 30, PSCI 40. The student should consult his assigned adviser.

2. Courses selected from each of the following areas:

|   | <i>Hours Credit</i> |
|---|---------------------|
| I. Principles of Sociology .....                                  | 5                   |
| SOC 50 .....  |                     |
| One course from each of the following areas: .....                | 12                  |
| IV. Social Psychology .....                                       |                     |
| Selected from SOC 91, 207, 222, 291 .....                         |                     |
| V. Social Institutions .....                                      |                     |
| Selected from SOC 104, 203, 281, 288, 295 .....                   |                     |
| VI. Social Organization and Process .....                         |                     |
| Selected from SOC 154, 190, 205, 231, 293, 294 .....              |                     |
| VII. Social Disorganization .....                                 |                     |
| Selected from SOC 74, 85, 102, 112, 202, 232, 242, 252, 260 ..... |                     |
| VIII. Advanced Electives .....                                    | 10                  |
|   | <hr/> 27            |

For students interested in being certified for teaching of the social sciences, the Department of Sociology recommends a major in Social Science (see page 68.)

## Speech Communication and Journalism

**Donald L. Holley, Chairman**

**Professors:** Ray DeBoer, Hartman, Holley.

**Associate Professors:** Ahlberg, Crawford.

**Assistant Professors:** D'Angelo, Krupar, Stewart.

**Instructors:** Ruth DeBoer, Fewel, Leonard, Smith, Warnemunde.

The Department of Speech Communication and Journalism offers majors in speech communication and in journalism.

The following are the requirements for the speech communication major:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Speech core totaling 50 quarter hours.

|   | <i>Hours Credit</i> |
|---|---------------------|
| a. Required courses in speech core:     |                     |
| 1. Communication Theory .....           | 10                  |
| SP 66, 260, 290 .....                   |                     |
| 2. Public Discussion .....              | 10                  |
| SP 62, 111, 189 .....                   |                     |
| 3. Voice Science .....                  | 4                   |
| SP 16 .....                             |                     |
| 4. Survey of Speech Communication ..... | 3                   |
| SP 80 .....                             |                     |
| b. Speech communication electives ..... | 23                  |
|   | <hr/> 50            |

3. One cognate area totaling at least 25 quarter hours.
4. Electives to complete 180 quarter hours of academic credit plus six quarters of physical education activity.

Select one of the five following cognate areas:

**1. English Cognate**

| <i>Course No.</i> | <i>Course Title</i>             | <i>Hours</i> | <i>Credit</i> |
|-------------------|---------------------------------|--------------|---------------|
| ENG               | 11—Introduction to Poetry ..... |              | 3             |
| ENG               | 12—Introduction to Prose .....  |              | 3             |

Three of the following five course: one must be either ENG 85 or ENG 86.

|     |  |   |    |
|-----|--|---|----|
| ENG | 80—Survey of English Literature from the Beginning to 1660 ..... | 4 |    |
| ENG | 81—Survey of English Literature from 1660 to 1832 .....          | 4 |    |
| ENG | 82—Survey of English Literature from 1832 to the Present .....   | 4 |    |
| ENG | 85—American Literature to the Civil War .....                    | 4 |    |
| ENG | 86—American Literature Since the Civil War .....                 | 4 | 12 |
| ENG | 210—Advanced Expository Writing .....                            |   | 3  |
| ENG | 211—History of the English Language .....                        |   | 5  |
| EED | 226—Literature and Materials in the Secondary School .....       |   | 5  |
|     |  |   | 31 |

**2. Mass Communications Cognate**

| <i>Course No.</i> | <i>Course Title</i>                             | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| SP                | 188—Introduction to Radio Production .....      |              | 3             |
| SP                | 208—Introduction to Television Production ..... |              | 4             |
| THEA              | 214—Stage Lighting .....                        |              | 2             |
| JOUR              | 95—Introduction to Journalism .....             |              | 2             |
| JOUR              | 96—Newsriting .....                             |              | 3             |
| EM                | 210—Television in Education .....               |              | 3             |
| PSCI              | 180—Public Opinion and Pressure Groups .....    |              | 4             |
| SOC               | 291—Social Psychology .....                     |              | 3             |
| JOUR              | 299—The Press and Current Affairs .....         |              | 3             |
|                   |   |              | 27            |

**3. Psychology-Sociology Cognate**

| <i>Course No.</i> | <i>Course Title</i>                               | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| SP                | 218—Theories of Group Process .....               |              | 3             |
| SP                | 285—Rhetoric of Social Protest .....              |              | 3             |
| PCG               | 280—Personality Dynamics .....                    |              | 3             |
| PCG               | 285—Mental Hygiene and Emotional Adjustment ..... |              | 3             |
| SOC               | 85—Problems in Inter-Group Relations .....        |              | 4             |
| SOC               | 291—Social Psychology .....                       |              | 3             |
|                   | *Electives in Psychology and Sociology .....      |              | 7             |
|                   |   |              | 26            |

\*Electives in psychology and sociology must be selected from: PCG 101, PCG 200, PCG 293, PCG 294, and PCG 184.

**4. Social Science Cognate**

| <i>Course No.</i> | <i>Course Title</i>                                | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| SP                | 280—American Public Address Before 1890 .....      |              | 3             |
| SP                | 281—*American Public Address After 1890 .....      |              | 3             |
| PSCI 41,42,43     | United States Government (I, II, or III) .....     |              | 3             |
| PSCI              | 180—Public Opinion and Pressure Groups .....       |              | 4             |
| HIST 70,71,72     | History of the United States (I, II, or III) ..... |              | 3             |
|                   | Electives in social sciences .....                 |              | 10            |
|                   |  |              | 26            |

\*Student may substitute SP 285.

**5. Theatre Arts Cognate**

| <i>Course No.</i> | <i>Course Title</i>                 | <i>Hours</i> | <i>Credit</i> |
|-------------------|-------------------------------------|--------------|---------------|
| THEA              | 13—Introduction to Stagecraft ..... |              | 3             |
| THEA              | 63—Acting I (Internals) .....       |              | 4             |

|      |                                    |    |
|------|------------------------------------|----|
| THEA | 163-Acting II (Externals) .....    | 3  |
| THEA | 126-Beginning Play Direction ..... | 4  |
| THEA | 165-Beginning Scene Design .....   | 3  |
|      | *Electives in Theatre Arts .....   | 8  |
|      |                                    | 25 |

\*THEA 112 is required for students in the Advanced Teacher Education Program.

The following speech minors are offered:

1. **Speech minor** for elementary education majors

| Course No. | Course Title                               | Hours | Credit |
|------------|--|-------|--------|
| SP         | 16-Voice and Speech Improvement .....      |       | 4      |
| SP         | 62-Public Speaking .....                   | 4     |        |
|            | or   |       |        |
| SP         | 189-Group Discussion .....                 | 3     | 3-4    |
| THEA       | 112-Creative Dramatics .....               | 3     |        |
|            | or   |       |        |
| JOUR       | 96-Newsriting .....                        | 3     | 3      |
| SP         | 117-Oral Interpretation .....              |       | 3      |
| SP         | 260-General Semantics .....                |       | 4      |
| SP         | 275-Introduction to Phonetics .....        |       | 3      |
|            | Theatre Arts Electives .....               | 6     | 6      |
|            | or   |       |        |
|            | Speech Communication-Jour. Electives ..... | 6     | 6      |
|            |  |       | 26-27  |

2. **Speech minor** for majors in disciplines other than elementary education includes a total of 35 quarter hours (28 listed in the speech core plus 7 hours of speech communication electives).

**Major With Teacher Preparation**

Students interested in being certified for teaching speech communication in secondary schools must complete all the requirements for the speech communication major plus the following:

1. Advanced Teacher Education, 31 quarter hours; plus EDCI 140, 2 hours credit; and EDCI 141, 3 hours credit.

2. To be admitted to ATE, the student must have at least a 2.0 average in those courses counting toward his major which were taken at Colorado State College.

3. a. The student must also meet North Central Association requirements in English. Speech teachers are required to have no fewer than 24 quarter hours of English to be qualified to teach "speech" in a North Central affiliated high school.

b. Students may earn the 24 quarter hours of English via two possible routes:

|  |          |
|--|----------|
| 1) Credit for Humanities courses ..... | 6 hours  |
| Credit for COM I and II .....          | 6 hours  |
| Additional English courses .....       | 12 hours |

24 quarter hours

2) Complete the English cognate area as set up by the Speech Communication Department or complete the English minor as described by the English Department.

4. Theatre 63 and Theatre 126 should be substituted for 8 of the 22 quarter hours in speech communication electives.

Students majoring in speech communication are expected to participate in some speech communication activities such as debate, oral interpretation, radio, television, discussion, persuasive speaking (oratory), drama, etc.

## Journalism Major

The following are the requirements for the journalism major,

1. General Education totaling 60 academic hours, plus six quarters of physical education activity, as specified for all undergraduate programs.

2. Journalism courses totaling 50 quarter hours.

| <i>Course No.</i> | <i>Course Title</i>                                | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| JOUR              | 95—Introduction to Journalism .....                | 2            |               |
| JOUR              | 96—Newswriting .....                               | 3            |               |
| JOUR              | 97—Advanced Newswriting .....                      | 3            |               |
| JOUR              | 106—Journalism Internship .....                    | 6            |               |
|                   | (Six quarters practical work on CSC publications)  |              |               |
| JOUR              | 150—Editing and Layout .....                       | 4            |               |
| JOUR              | 197—Feature and Depth Writing for Newspapers ..... | 2            |               |
| JOUR              | 244—Community Relations .....                      | 3            |               |
| JOUR              | 297—Master Journalists and Their Times .....       | 3            |               |
| JOUR              | 298—Ethics and Libel .....                         | 3            |               |
| JOUR              | 299—The Press and Current Affairs .....            | 3            |               |
| FA                | 104—Commercial Design and Poster .....             | 2            |               |
| IA                | 145—Publication Production .....                   | 5            |               |
| BUS               | 162—Advertising .....                              | 3            |               |
| PSCI              | 180—Public Opinion and Pressure Groups .....       | 4            |               |
| SP                | 260—Introduction to General Semantics .....        | 4            |               |
|                   |  | <hr/>        |               |
|                   |  |              | 50            |

3. Select one minor from among English, business education, history, political science, physical education; or select one cognate from among radio-television, social science, the arts, or business; to total 27 quarter hours.

The cognate areas are:

**Radio-Television Cognate**

| <i>Course No.</i> | <i>Course Title</i>                                       | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| SP                | 188—Introduction to Radio Production .....                | 3            |               |
| SP                | 208—Introduction to Television Production .....           | 4            |               |
| SP                | 16—Voice and Speech Improvement .....                     | 4            |               |
| SP                | 62—Public Speaking .....                                  | 4            |               |
| EM                | 210—Television in Education .....                         | 3            |               |
| THEA              | 214—Stage Lighting .....                                  | 2            |               |
| JOUR              | 106—Journalism Internship—Radio .....                     | 3            |               |
|                   | (Three quarters of 1 hour each or 3 hours in one quarter) |              |               |
|                   |   | <hr/>        |               |
|                   |   |              | 27            |

**Social Science Cognate\***

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| HIST              | 71—United States History II .....   | 3            |               |
| HIST              | 72—United States History III .....  | 3            |               |
| GEOG              | 212—Economic Geography .....  | 5            |               |
| SOC               | 74—Social Problems .....  | 3            |               |
| PSCI              | 171—State and Local Government .....  | 5            |               |
|                   | Electives in one of these areas: diplomatic history, contemporary history, economic history and problems, sociology, government or foreign policy ..... | 8            |               |
|                   |   | <hr/>        |               |
|                   |   |              | 27            |

\*If selecting this cognate, student takes the General Education requirements of ECON 30, PSCI 40 and SOC 50.

**The Arts Cognate**

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| IA                | 240—Graphic Arts Design and Layout .....   | 3            |               |
|                   | Electives recommended for the student interested in home economics are HEC 1, 40, 51, 91, 92, 111, 121, 171. Electives recommended for the student interested in industrial arts are IA 142, 241, 242, 243, plus twelve additional hours ..... | 24           |               |
|                   |  | <hr/>        |               |
|                   |  |              | 27            |

**Business Cognate**

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| BUS               | 20-Principles of Accounting I .....   |              | 4             |
| BUS               | 60-Marketing .....  |              | 3             |
| BUS               | 81-Salesmanship .....   |              | 3             |
| BUS               | 262-Advertising Strategy .....  |              | 3             |
|                   | Electives to fit student interest taken in one or more fields from<br>marketing, shorthand, accounting, management, or data processing..... |              | 14            |
|                   |   |              | 27            |

4. Electives to complete 180 quarter hours. Among these electives must be at least nine hours in one liberal arts study area, beyond requirements in that area specified for General Education and for the journalism major.

Students interested in being certified for teaching journalism in the secondary schools must complete the requirements for the journalism major listed above, with these changes:

1. Gain admittance to Advanced Teacher Education with a minimum of 2.0 grade point average in courses taken here in the major and after having taken about one-half or more of the courses in the major.
2. Complete or be enrolled for 34 quarter hours in professional education courses, including EDHP 101, PCG 140, EDCI 140 and 141, JOUR 201, and SFE 251.
3. Substitute for electives allowed in the major field this course: EM 208, Design and Construction of Audio-Visual Materials, 3 quarter hours.
4. Complete, along with the journalism major, one minor in English, social science, business education, or other closely related field to journalism, as that minor is described by that department.

Requirements for a student taking a major in one field and electing journalism as a minor are:

**Journalism Minor**

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| JOUR              | 95-Introduction to Journalism .....                               |              | 2             |
| JOUR              | 96-Newsriting .....   |              | 3             |
| JOUR              | 97-Advanced Newsriting .....                                      |              | 3             |
| *JOUR             | 201-Methods of Teaching Journalism in the Secondary School .....  |              | 3             |
| LA                | 145-Publication Production .....                                  |              | 5             |
| BUS               | 162-Advertising .....   |              | 3             |
| SP                | 260-General Semantics .....                                       |              | 4             |
|                   | Electives in journalism, English, speech, or social science ..... |              | 4             |
|                   |   |              | 27            |

JOUR 150 recommended as elective credit.

\*This course taken only if going into teacher education.

**Theatre Arts**

**Welby B. Wolfe, Chairman**

**Professors:** J. Willcoxon, W. Wolfe.  
**Assistant Professors:** Girault, Layne, Norton.  
**Instructor:** C. Quinn.

The Department of Theatre Arts offers a major and a minor.

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. One of the following sequences of courses in the major.

## ACTING SEQUENCE

| <i>Course No.</i> | <i>Course Title</i>                                    | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| THEA              | 13—Introduction to Stagecraft .....                    |              | 3             |
| SP                | 16—Speech and Voice Improvement .....                  |              | 4             |
| THEA              | 63—Acting I (Internals) .....                          |              | 4             |
| THEA              | 75—Stage Movement I .....                              |              | 1             |
| THEA              | 76—Stage Movement II .....                             |              | 1             |
| THEA              | 77—Stage Movement III .....                            |              | 1             |
| THEA              | 110—Stage Make-up .....                                |              | 2             |
| THEA              | 126—Beginning Play Direction .....                     |              | 4             |
| THEA              | 163—Acting II (Externals) .....                        |              | 3             |
| THEA              | 230—History of the Theatre I .....                     |              | 3             |
| THEA              | 231—History of the Theatre II .....                    |              | 3             |
| THEA              | 232—History of the Theatre III .....                   |              | 3             |
| THEA              | 261—Serious Styles of Acting .....                     |              | 2             |
| THEA              | 262—Comic Styles of Acting .....                       |              | 2             |
| THEA              | 263—Problems in Acting Conventions .....               |              | 2             |
|                   | Electives in Theatre Arts or dramatic literature ..... |              | 10            |
|                   |  |              | <hr/> 48      |

or

## PLAY DIRECTION SEQUENCE

| <i>Course No.</i> | <i>Course Title</i>                                       | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| THEA              | 13—Introduction to Stagecraft .....                       |              | 3             |
| SP                | 16—Speech and Voice Improvement .....                     |              | 4             |
| THEA              | 63—Acting I (Internals) .....                             |              | 4             |
| THEA              | 112—Creative Dramatics .....                              |              | 3             |
| THEA              | 113—Stagecraft .....                                      |              | 3             |
| THEA              | 126—Beginning Play Direction .....                        |              | 4             |
| THEA              | 165—Beginning Scene Design .....                          |              | 3             |
| THEA              | 206—Techniques of Play Direction .....                    |              | 3             |
| THEA              | 214—Stage Lighting .....                                  |              | 2             |
| THEA              | 226—Practicum in Play Direction .....                     |              | 2             |
| THEA              | 230—History of the Theatre I .....                        |              | 3             |
| THEA              | 231—History of the Theatre II .....                       |              | 3             |
| THEA              | 232—History of the Theatre III .....                      |              | 3             |
| THEA              | 233—Children's Theatre Production .....                   |              | 3             |
| THEA              | 296—Individual Practicum in Advanced Play Direction ..... |              | 4             |
|                   | Electives in Theatre Arts or dramatic literature .....    |              | 1             |
|                   |   |              | <hr/> 48      |

or

## TECHNICAL THEATRE SEQUENCE

| <i>Course No.</i> | <i>Course Title</i>                                    | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| THEA              | 13—Introduction to Stagecraft .....                    |              | 3             |
| THEA              | 63—Acting I (Internals) .....                          |              | 4             |
| THEA              | 113—Stagecraft .....                                   |              | 3             |
| THEA              | 120—Beginning Stage Costuming .....                    |              | 3             |
| THEA              | 126—Beginning Play Direction .....                     |              | 4             |
| THEA              | 165—Beginning Scene Design .....                       |              | 3             |
| THEA              | 213—Advanced Staging Techniques .....                  |              | 4             |
| THEA              | 214—Stage Lighting .....                               |              | 2             |
| THEA              | 220—Stage Costuming .....                              |              | 4             |
| THEA              | 230—History of the Theatre I .....                     |              | 3             |
| THEA              | 231—History of the Theatre II .....                    |              | 3             |
| THEA              | 232—History of the Theatre III .....                   |              | 3             |
| THEA              | 265—Advanced Scene Design .....                        |              | 3             |
|                   | Electives in Theatre Arts or dramatic literature ..... |              | 6             |
|                   |  |              | <hr/> 48      |

or

## GENERAL THEATRE SEQUENCE

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
|                   | A major sequence in Theatre Arts to be individually arranged<br>with advisor ..... |              | 48            |

3. In addition, at least one minor of 27 quarter hours. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

4. Electives sufficient to complete the requirements for the Bachelor of Arts degree.

5. Students majoring in Theatre Arts are required to participate in departmental theatre productions for a minimum of eleven quarters, or a departmentally approved equivalent.

Students contemplating graduate work in Theatre Arts are encouraged to take elective courses in dramatic literature and two years of a foreign language.

For students interested in being certified for teaching Drama, the Department of Theatre Arts requires the following sequence in the major:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.

2. Advanced Teacher Education, 29 hours, plus EDCI 140, two hours credit, and EDCI 141, three hours credit.

3. The following sequence of courses in the major:

### TEACHING PROFESSION SEQUENCE

| Course No. | Course Title                                    | Hours | Credit |
|------------|---|-------|--------|
| THEA       | 13—Introduction to Stagecraft .....             | 3     |        |
| SP         | 16—Speech and Voice Improvement .....           | 4     |        |
| THEA       | 63—Acting I (Internals) .....                   | 4     |        |
| THEA       | 112—Creative Dramatics .....                    | 3     |        |
| THEA       | 113—Stagecraft .....                            | 3     |        |
| THEA       | 120—Beginning Stage Costuming .....             | 3     |        |
| THEA       | 126—Beginning Play Direction .....              | 4     |        |
| THEA       | 163—Acting II (Externals) .....                 | 3     |        |
| THEA       | 165—Beginning Scene Design .....                | 3     |        |
| THEA       | 206—Techniques of Play Direction .....          | 3     |        |
| THEA       | 214—Stage Lighting .....                        | 2     |        |
| THEA       | 216—Senior Seminar in Dramatic Production ..... | 2     |        |
| THEA       | 226—Practicum in Play Direction .....           | 2     |        |
| THEA       | 230—History of the Theatre I .....              | 3     |        |
| THEA       | 231—History of the Theatre II .....             | 3     |        |
| THEA       | 232—History of the Theatre III .....            | 3     |        |
| THEA       | 233—Children's Theatre Production .....         | 3     |        |
|            | Electives in dramatic literature .....          | 6     |        |

57

4. In addition, at least one minor of 27 quarter hours. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

5. Meet the minimum requirements set up by the North Central Association for teachers of Drama. Consult your advisor.

6. Electives sufficient to complete the requirements for the Bachelor of Arts degree.

7. Students majoring in the Teaching Profession sequence of Theatre Arts are required to participate in departmental theatre productions for a minimum of ten quarters, or a departmentally approved equivalent.

Following are the requirements for the minor:

### Theatre Arts Minor

| Course No. | Course Title                          | Hours | Credit |
|------------|---------------------------------------|-------|--------|
| THEA       | 13—Introduction to Stagecraft .....   | 3     |        |
| THEA       | 63—Acting I (Internals) .....         | 4     |        |
| THEA       | 130—Introduction to the Theatre ..... | 3     |        |
|            | Electives in Theatre Arts .....       | 17    |        |

27



For students interested in being certified for teaching Drama, the Department of Theatre Arts requires the following sequence in the minor:

## Theatre Arts Minor (Teaching)

| <i>Course No.</i> | <i>Course Title</i>                   | <i>Hours Credit</i> |
|-------------------|---------------------------------------|---------------------|
| THEA              | 13—Introduction to Stagecraft .....   | 3                   |
| THEA              | 63—Acting I (Internals) .....         | 4                   |
| THEA              | 113—Stagecraft .....                  | 3                   |
| THEA              | 126—Beginning Play Direction .....    | 4                   |
| THEA              | 130—Introduction to the Theatre ..... | 3                   |
| THEA              | 163—Acting II (Externals) .....       | 3                   |
| THEA              | 165—Beginning Scene Design .....      | 3                   |
|                   | Electives in Theatre Arts .....       | 4                   |
|                   |                                       | 27                  |

In addition, students minoring in the Teaching Profession sequence are required to complete EDCI 141, three hours credit, in the minor field.

All students minoring in Theatre Arts are required to participate in departmental theatre productions for a minimum of two quarters.

# SCHOOL OF THE ARTS

William R. Erwin, Jr., Dean

The School of the Arts offers a four-year program of studies for the Bachelor of Arts degree in the areas of Fine Arts, Home Economics, and Industrial Arts. All the departments offer majors which lead to preparation for the teaching profession and also for non-teaching pursuits.

The school gives interested individuals an opportunity to acquire professional competence (specialized and general culture) in the following majors for the Bachelor of Arts degree:

Dietetics  
Family Life and Consumer Education  
Fine Arts  
Fine Arts (with teacher preparation)  
Food and Nutrition (with teacher preparation)  
Home Economics  
Home Economics Education (with teacher preparation)  
Industrial Arts  
Industrial Arts (with teacher preparation)  
Preschool Education (with teacher preparation)

## Fine Arts

John I. Mariani, Chairman

**Professors:** Ball, Mariani.

**Associate Professor:** W. Green.

**Assistant Professors:** Blubaugh, D. Johnson, Moody, Pinkston, Schumacher.

**Instructors:** Cordiner, Durr, B. Johnson, Licka, Loder, Myers, Welsh.

THE DEPARTMENT OF FINE ARTS OFFERS THE FOLLOWING MAJORS AND MINORS:

The following is the required major:

1. General Education totaling 60 academic quarter hours, plus six quarter hours of physical education activity courses. (One quarter hour each in six quarters.)

2. The following required courses in the major:

| Course No. | Course Title                                  | Hours Credit |
|------------|---|--------------|
| FA         | 1—Drawing .....                               | 3            |
| FA         | 2—Figure Drawing .....                        | 3            |
| FA         | 5—Design Fundamentals .....                   | 3            |
| FA         | 6—Design and Color .....                      | 3            |
| FA         | 7—Design in Three Dimensions .....            | 3            |
| FA         | 10—Art and Aesthetics .....                   | 2            |
| FA         | 11—Evolution of Art .....                     | 3            |
| FA         | 12—Art Since 1945 .....                       | 3            |
| FA         | 17—Introduction to Pottery .....              | 3            |
| FA         | 58—Introduction to Sculpture .....            | 3            |
| FA         | 59—Printmaking .....                          | 3            |
| FA         | 103—Introduction to Watercolor Painting ..... | 2            |
| FA         | 115—Crafts: Design on Fabrics .....           | 5            |
|            | either/or                                     |              |
| FA         | 116—Crafts: Design with Materials .....       | 5            |
| FA         | 120—Introduction to Oil Painting .....        | 3            |

3. Complete two of the following areas of emphasis and additional electives for a minimum of 84 quarter hours in the major:

**Ceramics**

|    |                                      |   |
|----|--------------------------------------|---|
| FA | 117—Pottery .....                    | 3 |
| FA | 217—Pottery: Advanced Throwing ..... | 3 |
| FA | 227—Glaze Formulation .....          | 3 |

**Crafts**

|    |   |   |
|----|---|---|
| FA | 100—Weaving .....                               | 3 |
| FA | 115—Crafts: Design on Fabrics .....             | 5 |
| FA | 116—Crafts: Design with Materials .....         | 5 |
| FA | 170—Introduction to Silversmithing .....        | 4 |
| FA | 171—Cast Jewelry Designing and Techniques ..... | 4 |
| FA | 200—Techniques of Creative Weaving .....        | 3 |
| FA | 216—Creative Jewelry .....                      | 4 |
| FA | 219—The Silk Screen Printing Process .....      | 3 |
| FA | 270—Advanced Jewelry and Silversmithing .....   | 4 |

**Commercial Art**

|    |  |   |
|----|--|---|
| FA | 13—Lettering .....                         | 2 |
| FA | 23—Poster Design and Production .....      | 2 |
| FA | 53—Display and Exhibition Techniques ..... | 2 |
| FA | 54—Drawing and Painting Techniques .....   | 3 |
| FA | 104—Commercial Design and Poster .....     | 2 |

**History**

|    |  |   |
|----|--|---|
| FA | 121—Influence of African Sculpture On Modern Art ..... | 3 |
| FA | 221—Art History I .....                                | 3 |
| FA | 222—Art History II .....                               | 5 |
| FA | 223—Survey of Art .....                                | 5 |
| FA | 253—Medieval Art History .....                         | 3 |
| FA | 258—The Arts of the United States .....                | 3 |

**Painting**

|    |                                     |   |
|----|-------------------------------------|---|
| FA | 203—Watercolor Painting .....       | 5 |
| FA | 220—Oil Painting .....              | 5 |
| FA | 225—Figure Painting .....           | 5 |
| FA | 232—Contemporary Oil Painting ..... | 5 |

**Printmaking**

|    |                                    |   |
|----|------------------------------------|---|
| FA | 109—Intermediate Printmaking ..... | 3 |
| FA | 110—Lithography .....              | 3 |
| FA | 205—Monoprints .....               | 2 |
| FA | 209—Advanced Printmaking .....     | 3 |

**Sculpture**

|    |   |   |
|----|---|---|
| FA | 107—Sculpture I .....                     | 5 |
| FA | 108—Sculpture II .....                    | 5 |
| FA | 207—Functional Sculpture .....            | 3 |
| FA | 208—Sculpture in Metal and Plastics ..... | 3 |

4. Electives to complete requirements for graduation.

**Fine Arts Minor**

| Course No. | Course Title                       | Hours Credit |
|------------|------------------------------------|--------------|
| FA         | 1—Drawing .....                    | 3            |
| FA         | 2—Figure Drawing .....             | 3            |
| FA         | 5—Design Fundamentals .....        | 3            |
| FA         | 6—Design and Color .....           | 3            |
| FA         | 7—Design in Three Dimensions ..... | 3            |
| FA         | 10—Art and Aesthetics .....        | 2            |
| FA         | 11—Evolution of Art .....          | 3            |
| FA         | 12—Art Since 1945 .....            | 3            |

Elect 13 additional quarter hours to complete 36 quarter hours required for a minor from the following courses:

|    |   |   |
|----|---|---|
| FA | 17—Introduction to Pottery .....              | 3 |
| FA | 58—Introduction to Sculpture .....            | 3 |
| FA | 59—Printmaking .....                          | 3 |
| FA | 103—Introduction to Watercolor Painting ..... | 2 |

80 / SCHOOL OF THE ARTS

|    |   |   |
|----|---|---|
| FA | 115—Crafts: Design on Fabrics .....     | 5 |
|    | either/or                               |   |
| FA | 116—Crafts: Design with Materials ..... | 5 |
| FA | 120—Introduction to Oil Painting .....  | 3 |

In both majors and minors students must complete FA 1, 2, 5, 6, 7, 10, 11 (or equivalents) before continuing in other Fine Arts courses.

## Fine Arts Major (With Teacher Preparation)

The following is the required major:

1. General Education totaling 60 academic quarter hours, plus six quarter hours of physical education activity courses. (One quarter hour each in six quarters.)

2. Advanced Teacher Education, 36 quarter hours, including EDCI 140, Introduction to Student Teaching, two hours credit, EDCI 141, Methods of Teaching in the Secondary School (Fine Arts), three hours credit, and SFE 251, Student Teaching, 18 hours credit.

3. The following required courses in the major:

| <i>Course No.</i> | <i>Course Title</i>                           | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| FA                | 1—Drawing .....                               | 3            | 3             |
| FA                | 2—Figure Drawing .....                        | 3            | 3             |
| FA                | 5—Design Fundamentals .....                   | 3            | 3             |
| FA                | 6—Design and Color .....                      | 3            | 3             |
| FA                | 7—Design in Three Dimensions .....            | 3            | 3             |
| FA                | 10—Art and Aesthetics .....                   | 2            | 2             |
| FA                | 11—Evolution of Art .....                     | 3            | 3             |
| FA                | 12—Art Since 1945 .....                       | 3            | 3             |
| FA                | 17—Introduction to Pottery .....              | 3            | 3             |
| FA                | 58—Introduction to Sculpture .....            | 3            | 3             |
| FA                | 59—Printmaking .....                          | 3            | 3             |
| FA                | 103—Introduction to Watercolor Painting ..... | 2            | 2             |
| FA                | 115—Crafts: Design on Fabrics .....           | 5            | 5             |
|                   | either/or                                     |              |               |
| FA                | 116—Crafts: Design with Materials .....       | 5            | 5             |
| FA                | 120—Introduction to Oil Painting .....        | 3            | 3             |
| FA                | 139*—Philosophy of Art Education .....        | 2            | 2             |

\*Must be completed prior to EDCI 140 and EDCI 141.

Complete electives from the following areas of emphasis for a minimum of 54 total hours in the major.

### Ceramics

|    |                                      |   |
|----|--------------------------------------|---|
| FA | 117—Pottery .....                    | 3 |
| FA | 217—Pottery: Advanced Throwing ..... | 3 |
| FA | 227—Glaze Formulation .....          | 3 |

### Crafts

|    |   |   |
|----|---|---|
| FA | 100—Weaving .....                               | 3 |
| FA | 115—Crafts: Design on Fabrics .....             | 5 |
| FA | 116—Crafts: Design with Materials .....         | 5 |
| FA | 170—Introduction to Silversmithing .....        | 4 |
| FA | 171—Cast Jewelry Designing and Techniques ..... | 4 |
| FA | 200—Techniques of Creative Weaving .....        | 3 |
| FA | 218—Creative Jewelry .....                      | 4 |
| FA | 219—The Silk Screen Printing Process .....      | 3 |
| FA | 270—Advanced Jewelry and Silversmithing .....   | 4 |

### Commercial Art

|    |  |   |
|----|--|---|
| FA | 13—Lettering .....                         | 2 |
| FA | 23—Poster Design and Production .....      | 2 |
| FA | 53—Display and Exhibition Techniques ..... | 2 |
| FA | 54—Drawing and Painting Techniques .....   | 3 |
| FA | 104—Commercial Design and Poster .....     | 2 |

### History

|    |  |   |
|----|--|---|
| FA | 121—Influence of African Sculpture on Modern Art ..... | 3 |
| FA | 221—Art History I .....                                | 3 |
| FA | 222—Art History II .....                               | 5 |
| FA | 223—Survey of Art .....                                | 5 |
| FA | 253—Medieval Art History .....                         | 3 |
| FA | 258—The Arts of the United States .....                | 3 |

**Painting**

|    |                                     |   |
|----|-------------------------------------|---|
| FA | 203—Watercolor Painting .....       | 5 |
| FA | 220—Oil Painting .....              | 5 |
| FA | 225—Figure Painting .....           | 5 |
| FA | 232—Contemporary Oil Painting ..... | 5 |

**Printmaking**

|    |                                    |   |
|----|------------------------------------|---|
| FA | 109—Intermediate Printmaking ..... | 3 |
| FA | 110—Lithography .....              | 3 |
| FA | 205—Monoprints .....               | 2 |
| FA | 209—Advanced Printmaking .....     | 3 |

**Sculpture**

|    |   |   |
|----|---|---|
| FA | 107—Sculpture I .....                     | 5 |
| FA | 108—Sculpture II .....                    | 5 |
| FA | 207—Functional Sculpture .....            | 3 |
| FA | 208—Sculpture In Metal and Plastics ..... | 3 |

## 4. Electives to complete requirements for graduation.

**Endorsement for teaching K through Twelfth grades**

In order to be recommended for endorsement to teach K through Twelfth grades, Fine Arts majors should complete the following minimum requirements in Elementary Art Education:

|    |  |   |
|----|--|---|
| FA | 15—Elementary Earthenware .....                            | 2 |
| FA | 14—Elementary Crafts Design .....                          | 2 |
| FA | 127—Art for Exceptional Children .....                     | 3 |
| FA | 124—Elementary Art .....                                   | 3 |
| FA | 125—Methods of Teaching Art in the Elementary School ..... | 2 |
| FA | 230—Seminar in Elementary Art .....                        | 2 |

14

# Home Economics

**Martha A. Poolton, Chairman**

**Associate Professor:** Poolton.

**Assistant Professors:** Burns, Funderburk.

**Instructors:** Allmon, Davis, Egeness, Jones, Krosky, Oslund, Reeves, Sinkovich, Taylor.

The Department of Home Economics offers the following majors: Dietetic, Family Life and Consumer Education, Food and Nutrition, Home Economics Education, and Preschool Education.

General Requirements for all Home Economics Majors:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity.

2. Recommended selections in the Sophomore year:

A. Dietetic major:           ANT 20  
  SOC 50  
  ECON 30

B. Preschool major:         ANT 20  
  SOC 50

C. Home Economics Education major: (Required for Vocational Home-making Credential Option)

  ECON 30  
  SOC 50

3. Courses as specified in the major selected plus electives to complete 180 quarter hours of academic credit.

NOTE: Students with sufficient background in clothing construction may be exempted from HEC 92, Elementary Clothing Construction by passing a challenge test. Check with the Department for date this test will be given.

## Dietetic Major

Completion of a 12-month dietetic internship following graduation in an approved hospital or institution management program qualifies an individual for membership in the American Dietetic Association. Typical positions for dietitians are found in the areas of hospital dietetics, commercial or college food service management, school lunch program supervision and public health nutrition.

NOTE: With additional study at the graduate level a wider range of administrative positions in dietetics, research or teaching at the college level in food or nutrition courses and research in industrial laboratories are available.

The following courses are required in the major listed according to recommended sequence.

### Freshman Year

| Course No. | Course Title                                    | Hours | Credit |
|------------|---|-------|--------|
| HEC        | 1—Art in Home Living .....                      | 2     |        |
| HEC        | 41—Food Selection and Preparation .....         | 4     |        |
| HEC        | 51—Basic Nutrition .....                        | 3     |        |
| HEC        | 61—Freshman Orientation in Home Economics ..... | 1     |        |
| HEC        | 81—Textile Fundamentals .....                   | 3     |        |
| HEC        | 91—Clothing Selection .....                     | 2     |        |
| HEC        | 92—Elementary Clothing Construction .....       | 3     |        |
| BUS        | 20—Principles of Accounting I .....             | 4     |        |
| CHEM       | 40—Principles of Chemistry I .....              | 5     |        |
| CHEM       | 41—Principles of Chemistry II .....             | 5     |        |
| CHEM       | 42—Introductory Organic Chemistry .....         | 5     |        |

### Sophomore Year

|      |  |   |  |
|------|--|---|--|
| HEC  | 111—Management as Decision Making in Family Living ..... | 3 |  |
| HEC  | 142—Principles of Food Preparation .....                 | 4 |  |
| CHEM | 147—General Biochemistry .....                           | 5 |  |
| ZOO  | 5—General Zoology .....                                  | 5 |  |
| ZOO  | 117—Human Physiology .....                               | 5 |  |
| PSY  | 184—Industrial Psychology .....                          | 3 |  |

### Junior and Senior Year

|     |   |   |  |
|-----|---|---|--|
| PSY | 240—*Psychology of Perception and Learning .....      | 5 |  |
| HEC | 231—Infant and Child Care .....                       | 3 |  |
| HEC | 233—Development and Guidance of the Young Child ..... | 4 |  |
| HEC | 245—Experimental Cookery .....                        | 3 |  |
| HEC | 246—Quantity Cookery .....                            | 4 |  |
| HEC | 247—Institutional Management .....                    | 5 |  |
| HEC | 248—Meal Planning and Service .....                   | 4 |  |
| HEC | 252—Diet Therapy .....                                | 3 |  |
| HEC | 253—Advanced Nutrition .....                          | 3 |  |
| HEC | 256—Infant and Child Nutrition .....                  | 3 |  |
| HEC | 262—Demonstration Techniques .....                    | 2 |  |
| HEC | 274—Equipment Selection and Maintenance .....         | 4 |  |
| BOT | 230—Microbiology .....                                | 5 |  |
| BUS | 80—Introduction to Data Processing .....              | 3 |  |
| BUS | 115—Business Communications .....                     | 3 |  |
| BUS | 253—Personnel Management .....                        | 5 |  |

\*Not required if teaching option is selected.

## Food and Nutrition Option

A student with a concentration in foods and the science minor which is included as part of the dietetic major may wish to seek a position in industry with a food or equipment firm in research or consumer education for which an internship is not essential.

## Teaching Option

Students may elect to include the 31 hours required in Advanced Teacher Education Program plus EDCI 140 and EDCI 141 to obtain a teaching certificate in conjunction with the dietetic major. With this option a student will be qualified to teach in certain types of secondary home economics programs.

Additional courses in the home economics area are required as follows:

| Course No.           | Course Title                           | Hours | Credit |
|----------------------|--|-------|--------|
| HEC                  | 121—Family Relationships .....         | 3     | 3      |
| HEC                  | 171—The Home and Its Furnishings ..... | 5     | 5      |
| HEC 217 (or HEC 219) | —Home Management Residence .....       | 3     | 3      |

## Family Life and Consumer Education Major

This major provides professional opportunities in the areas of social and youth services, or public utility companies and commercial firms which provide information to consumers concerning products and services for the home.

The following courses are required for the major:

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| HEC        | 1—Art in Home Living .....                               | 2     | 2      |
| HEC        | *41—Basic Food Preparation and Service .....             | 4     | 4      |
| HEC        | 51—Basic Nutrition .....                                 | 3     | 3      |
| HEC        | 61—Freshman Orientation .....                            | 1     | 1      |
| HEC        | 92—Fundamentals of Clothing Construction .....           | 3     | 3      |
| HEC        | 111—Management as Decision Making in Family Living ..... | 3     | 3      |
| HEC        | 121—Family Relationships .....                           | 3     | 3      |
| HEC        | 171—The Home and Its Furnishings .....                   | 5     | 5      |
| HEC        | 213—Managing Family Resources .....                      | 3     | 3      |
| HEC        | 215—Consumer Problems of the Family .....                | 3     | 3      |
| HEC        | 223—The Family .....                                     | 3     | 3      |
| HEC        | 231—Infant and Child Care .....                          | 3     | 3      |
| HEC        | 233—Development and Guidance of the Young Child .....    | 4     | 4      |
| HEC        | 239—Parent Education .....                               | 3     | 3      |
| HEC        | 262—Demonstration Techniques .....                       | 2     | 2      |
| HEC        | 266—Instructional Aids in Home Economics .....           | 4     | 4      |
| HEC        | 274—Equipment Selection and Maintenance .....            | 4     | 4      |

\*Prerequisite: CHEM 40

Courses in the following fields are recommended: Anthropology, Biology, Health, Physical Education and Recreation, Psychology, Sociology, Speech Communication-Journalism, and Theater Arts.

Recommended Minor: Speech minor for majors in disciplines other than elementary education. (See Speech Communication-Journalism section of this catalog.)

Note: Certain of the requirements may be met as part of the General Education requirements.

## Textiles and Clothing Option

By electing the textiles and clothing courses offered in the department a student may obtain preparation toward work in apparel merchandising, costume design or textile design, and promotion with pattern or textile firms. Additional electives should be chosen in the related fields of Business, Economics, Fine Arts, Sociology and Psychology.

Recommended Courses: CHEM 41 and CHEM 42 to provide background in textile chemistry.

## Food and Nutrition Major

This major prepares students for positions in commercial test kitchens and technical work in quality control and product development laboratories in the food processing industry or nutrition work in government agencies or industry.

The following courses are required for the major:

84 / SCHOOL OF THE ARTS

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| HEC        | 41—Food Selection and Preparation .....                  | 4     |        |
| HEC        | 51—Basic Nutrition .....                                 | 3     |        |
| HEC        | 111—Management as Decision Making in Family Living ..... | 3     |        |
| HEC        | 121—Family Relationships .....                           | 3     |        |
| HEC        | 142—Principles of Food Preparation .....                 | 4     |        |
| HEC        | 217—Home Management Residence*                           | 3     |        |
| HEC        | 231—Infant and Child Care .....                          | 4     |        |
| HEC        | 233—Development and Guidance of the Young Child .....    | 4     |        |
| HEC        | 245—Experimental Cookery .....                           | 3     |        |
| HEC        | 247—Institutional Management .....                       | 5     |        |
| HEC        | 248—Meal Planning and Service .....                      | 4     |        |
| HEC        | 253—Advanced Nutrition .....                             | 3     |        |
| HEC        | 256—Infant and Child Nutrition .....                     | 3     |        |
| HEC        | 262—Demonstration Techniques .....                       | 2     |        |

\*Upon approval of instructor, HEC 219, Home Management, may be taken as an alternate course.

**Science Minor Required:** A minor of 30 quarter hours to include BOT 230, Microbiology (5); CHEM 40, Principles of Chemistry I (5); CHEM 41, Principles of Chemistry II (5); CHEM 42, Introductory Organic Chemistry (5); CHEM 147, General Biochemistry (5).

Recommended Elective: CHEM 240, Food Analysis (5).

## Home Economics Education Major

With fulfillment of specified requirements under alternate options a student becomes prepared to teach in one or more types of home economics programs in the junior and senior high schools.

1. Education Courses Required: Advanced Teacher Education courses, 31 hours, plus EDCI 140 and EDCI 141. These are taken after approval to enter the Advanced Teacher Education program.

2. The following courses are required of all students in this major; listed in recommended sequence:

### Freshman Year

| Course No. | Course Title                                    | Hours | Credit |
|------------|---|-------|--------|
| HEC        | 1—Art in Home Living .....                      | 2     |        |
| HEC        | 41—Food Selection and Preparation .....         | 4     |        |
| HEC        | 51—Basic Nutrition .....                        | 3     |        |
| HEC        | 61—Freshman Orientation in Home Economics ..... | 1     |        |
| HEC        | 81—Textile Fundamentals .....                   | 3     |        |
| HEC        | 91—Clothing Selection .....                     | 2     |        |
| HEC        | 92—Fundamentals of Clothing Construction .....  | 3     |        |
| CHEM       | 40—Principles of Chemistry I .....              | 5     |        |

### Sophomore Year

|     |  |   |  |
|-----|--|---|--|
| HEC | 111—Management as Decision Making in Family Living ..... | 3 |  |
| HEC | 121—Family Relationships .....                           | 3 |  |
| HEC | 142—Principles of Food Preparation .....                 | 4 |  |
| HEC | 171—The Home and Its Furnishings .....                   | 5 |  |
| HEC | 193—Intermediate Clothing Construction .....             | 4 |  |

### Junior Year

|     |   |   |  |
|-----|---|---|--|
| HEC | 215—Consumer Problems of the Family .....             | 3 |  |
| HEC | 231—Infant and Child Care .....                       | 3 |  |
| HEC | 233—Development and Guidance of the Young Child ..... | 4 |  |
| HEC | 248—Meal Planning and Service .....                   | 4 |  |
| HEC | 262—Demonstration Techniques .....                    | 2 |  |
| HEC | 274—Equipment Selection and Maintenance .....         | 4 |  |

### Senior Year

|     |                                     |   |  |
|-----|-------------------------------------|---|--|
| HEC | 217—Home Management Residence ..... | 3 |  |
|-----|-------------------------------------|---|--|



## Vocational Homemaking Credential Option

In order to qualify for a Vocational Homemaking Credential under the State Board for Community Colleges and Occupational Education, the following courses are required. If these are successfully completed another minor is not required but strongly recommended for the Bachelor of Arts degree.

| Course No. | Course Title                     | Hours | Credit |
|------------|----------------------------------|-------|--------|
| ECON       | 30—Introductory Economics .....  | 5     |        |
| SOC        | 50—Principles of Sociology ..... | 5     |        |

\*Upon approval of instructor, HEC 219, Home Management, may be taken as an alternate course.

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| HEC        | 125—Home Nursing .....   | 2     |        |
| HEC        | 195—Costume Design — Flat Pattern .....                                      | 3     |        |
| HEC        | 215—Consumer Problems of the Family .....                                    | 3     |        |
| IDVE       | 210—Foundations of Vocational Education .....                                | 3     |        |
| HEC        | 263—Intro to Curriculum in Home Economics Education .....                    | 3     |        |
| HEC        | 265—Adult Education & Special Needs in Home Economics Education .....        | 3     |        |
| PSY        | 285—Mental Hygiene and Emotional Adjustment .....                            | 3     |        |
| HEC        | 267—Principles and Practices of Evaluation in Home Economics Education ..... | 3     |        |
| HEC        | 268—Seminar in Home Economics Education .....                                | 2     |        |
|            | Electives in Science Division .....  | 5     |        |

For students who desire to develop occupational programs in vocational home economics, the following courses are recommended:

|      |  |   |  |
|------|--|---|--|
| IDVE | 220—Cooperative Education and Coordination Techniques .....    | 3 |  |
| IDVE | 230—Occupational Analysis and Program Development .....        | 3 |  |
| IDVE | 240—Adult Occupational Education .....                         | 3 |  |
| IDVE | 250—Vocational Education for Learners with Special Needs ..... | 3 |  |

## Preschool Education Major

This major prepares students for positions as Head Start teachers; director and head teacher in preschool or day care centers; for child welfare and social work; and pre-kindergarten instruction in the public schools.

1. Education courses required: Advanced Teacher Education, 31 hours.
2. No minor is required.
3. The following courses are required for the major, listed according to recommended sequence:

### Freshman Year

| Course No. | Course Title                                      | Hours | Credit |
|------------|---|-------|--------|
| HEC        | 51—Basic Nutrition .....                          | 3     |        |
| HPER       | 62—First Aid .....                                | 2     |        |
| HPER       | 91—Rhythms for the Elementary School .....        | 2     |        |
| PSY        | 21—General Psychology and Human Performance ..... | 3     |        |

### Sophomore Year

|      |  |   |  |
|------|--|---|--|
| HEC  | 121—Family Relationships .....             | 3 |  |
| HEC  | 136—Introduction to Preschool .....        | 2 |  |
| BIO  | 53—Heredity and Your Life .....            | 3 |  |
| SP   | 16—Voice and Dietion .....                 | 4 |  |
| SPED | 64—Introduction to Speech Correction ..... | 3 |  |

### Junior Year

|      |   |   |  |
|------|---|---|--|
| HEC  | 231—Infant and Child Care .....                       | 3 |  |
| HEC  | 233—Development and Guidance of the Young Child ..... | 4 |  |
| HEC  | 234—Preschool Curriculum and Methods .....            | 3 |  |
| HEC  | 235—Observation and Participation in Preschool .....  | 3 |  |
| SOC  | 222—The Sociology of Child Development .....          | 3 |  |
| HPER | 101—Health Education in the Elementary School .....   | 2 |  |

**Senior Year**

|      |   |   |
|------|---|---|
| HEC  | 237-Administration of Programs for Young Children ..... | 3 |
| HEC  | 238-Preschool Practicum .....                           | 3 |
| HEC  | 239-Parent Education.....                               | 3 |
| HEC  | 256-Infant and Child Nutrition .....                    | 2 |
| ELED | 227-Kindergarten Education .....                        | 3 |
| PSY  | 280-Psychology of a Healthy Personality .....           | 3 |
| PSY  | 285-Mental Hygiene and Emotional Adjustment .....       | 3 |

**Recommended Electives:**

|     |                                  |   |
|-----|----------------------------------|---|
| ANT | 280-Enculturation .....          | 4 |
| FA  | 14-Elementary Craft Design ..... | 2 |
| MUS | 10-Beginning Class Piano I ..... | 1 |
| MUS | 4-Music Appreciation .....       | 2 |
| MUS | 49-Music Fundamentals .....      | 2 |
| SP  | 112-Creative Dramatics .....     | 3 |

**HONORS PROGRAM**

In the sophomore and junior years students maintaining the required grade point average may participate in the Honors Program.

Refer to the Honors Program and descriptions for Interdisciplinary Courses ID 51, 52, 53 and ID 151.

**MINORS IN HOME ECONOMICS**

**General Home Economics Minor**

| <i>Course No.</i> | <i>Course Title</i>                                   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| HEC               | 1-Art in Home Living .....                            | 3            |               |
| HEC               | 40-Basic Food Preparation and Service .....           | 4            |               |
| HEC               | 51-Basic Nutrition .....                              | 3            |               |
| HEC               | 91-Clothing Selection .....                           | 2            |               |
| HEC               | 92-Fundamentals of Clothing Construction .....        | 3            |               |
| HEC               | 111-Management in Family Living .....                 | 3            |               |
| HEC               | 121-Family Relationships .....                        | 3            |               |
| HEC               | 171-The Home and Its Furnishings .....                | 5            |               |
| HEC               | 233-Development and Guidance of the Young Child ..... | 4            |               |
|                   |   |              | 30            |

**Preschool Minor**

| <i>Course No.</i> | <i>Course Title</i>                                   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| HEC               | 51-Basic Nutrition .....                              | 3            |               |
| HEC               | 136-Introduction to Preschool .....                   | 2            |               |
| HEC               | 231-Infant and Child Care .....                       | 3            |               |
| HEC               | 233-Development and Guidance of the Young Child ..... | 4            |               |
| HEC               | 234-Preschool Curriculum and Methods .....            | 3            |               |
| HEC               | 235-Observation and Participation in Preschool .....  | 3            |               |
| HEC               | 238-Preschool Practicum .....                         | 3            |               |
| Electives .....   |   |              | 6             |
|                   |   |              | 27            |

**Recommended Electives for Preschool Minor:**

|      |   |   |
|------|---|---|
| HEC  | 121-Family Relationships .....                          | 3 |
| HEC  | 237-Administration of Programs for Young Children ..... | 3 |
| HEC  | 239-Parent Education .....                              | 3 |
| ELED | 227-Kindergarten Education .....                        | 3 |
| SP   | 16-Voice and Diction .....                              | 4 |

# Industrial Arts

**Robert G. Hammond, Chairman**

**Professors:** Erwin, Johnson, Olson.

**Associate Professors:** Hammond, Jelden, Lubbers.

**Assistant Professors:** Hein.

**Instructors:** Broughton, Kruger, Morimoto.

## Industrial Arts Major (With Teacher Preparation)

The following is the required program:

1. General education totaling 60 academic quarter hours, plus six quarter hours of physical education activity (one quarter hour per quarter), plus HPER 61, three hours credit.

2. Advanced Teacher Education, 31 hours, plus EDCI 140, two hours credit, and EDCI 141, three hours credit.

3. Required courses in the major:

| <i>Course No.</i> | <i>Course Title</i>                                     | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| IA                | 41—Graphic Arts Fundamentals .....                      | 3                   |
| IA                | 50—Bench Woodwork .....                                 | 3                   |
| IA                | 61—Principles of Drafting .....                         | 3                   |
| IA                | 70—Introduction to General Metal .....                  | 3                   |
| IA                | 72—Gas and Electric Welding .....                       | 3                   |
| IA                | 80—General Electricity .....                            | 3                   |
| IA                | 90—Introduction to Power .....                          | 2                   |
| IA                | 115—General Crafts .....                                | 5                   |
| IA                | 141—Graphic Arts .....                                  | 2                   |
| IA                | 150—Woodworking Technology .....                        | 5                   |
| IA                | 161—Pictorial Drafting .....                            | 2                   |
| IA                | 162—Working Drawings .....                              | 3                   |
| IA                | 164—Industrial Design .....                             | 3                   |
| IA                | 174—Machine Tool Operation .....                        | 2                   |
| IA                | 181—Electro-Mechanical Equipment .....                  | 2                   |
| IA                | 191—Internal Combustion and Reciprocating Engines ..... | 3                   |
| IA                | 220—Course Organization in Industrial Arts .....        | 3                   |
| IA                | 235—History and Philosophy of Industrial Arts .....     | 3                   |
|                   |   | 53                  |

4. Elect 12 additional hours from the following areas of industrial arts: Wood, Metal, Crafts, Drafting, Power, Graphic Arts and Electricity-Electronics (Total IA Major is 65 hours).

5. Free electives to complete 180 quarter hours of academic credit for graduation.

## Industrial Arts Minor

Required courses in the minor:

| <i>Course No.</i> | <i>Course Title</i>                               | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| IA                | 61—Principles of Drafting .....                   | 3                   |
| IA                | 161—Pictorial Drafting .....                      | 2                   |
| IA                | 220—Course Organization in Industrial Arts .....  | 3                   |
| IA                | 236—Principles of General Shop Organization ..... | 3                   |

Elect 19 quarter hours in industrial arts to meet the minor requirement of 30 hours. Suggested courses as follows:

### Crafts

|    |   |   |
|----|---|---|
| IA | 71—Art Metal and Metal Spinning .....     | 3 |
| IA | 115—General Crafts .....                  | 5 |
| IA | 116—General Leathercraft .....            | 3 |
| IA | 118—General Plastics .....                | 3 |
| IA | 271—Advanced Art Metal .....              | 3 |
| IA | 173—Jewelry Design and Construction ..... | 2 |

**Drafting**

|    |                                 |   |
|----|---------------------------------|---|
| IA | 182—Working Drawings .....      | 3 |
| IA | 183—Graphic Solutions .....     | 3 |
| IA | 184—Industrial Design .....     | 3 |
| IA | 281—Architectural Drawing ..... | 3 |
| IA | 282—Machine Drawing .....       | 3 |

**Electricity and Electronics**

|    |  |   |
|----|--|---|
| IA | 80—General Electricity .....                 | 3 |
| IA | 181—Electro-mechanical Equipment .....       | 2 |
| IA | 283—Electronic Hardware and Components ..... | 2 |
| IA | 284—Electronic Circuitry .....               | 3 |
| IA | 285—Basic Radio (AM-FM) .....                | 3 |

**Graphic Arts**

|    |   |   |
|----|---|---|
| IA | 41—Graphic Arts Fundamentals .....                  | 3 |
| IA | 110—Bookbinding .....                               | 3 |
| IA | 141—Graphic Arts .....                              | 2 |
| IA | 142—Photography .....                               | 3 |
| IA | 240—Graphic Arts Design and Layout .....            | 3 |
| IA | 241—Copy Preparation and Camera Procedures .....    | 3 |
| IA | 243—Theory and Practice of Offset Lithography ..... | 3 |

**Metal**

|    |  |   |
|----|--|---|
| IA | 70—Introduction to General Metal .....     | 3 |
| IA | 72—Gas and Electric Welding .....          | 3 |
| IA | 174—Machine Tool Operation .....           | 2 |
| IA | 270—Advanced General Metalwork .....       | 3 |
| IA | 272—Advanced Welding .....                 | 3 |
| IA | 274—Machine Tool Technology .....          | 2 |
| IA | 275—Advanced Machine Tool Technology ..... | 3 |

**Power**

|    |   |   |
|----|---|---|
| IA | 90—Introduction To Power .....                          | 2 |
| IA | 191—Internal Combustion and Reciprocating Engines ..... | 3 |
| IA | 291—External Combustion Engines and Nuclear Power ..... | 3 |
| IA | 292—Reaction Engines .....                              | 2 |
| IA | 293—Direct Energy Conversion .....                      | 2 |
| IA | 294—Transmission of Power .....                         | 3 |

**Wood**

|    |   |   |
|----|---|---|
| IA | 50—Bench Woodwork .....                                 | 3 |
| IA | 150—Woodworking Technology .....                        | 5 |
| IA | 153—Furniture and Cabinet Making .....                  | 3 |
| IA | 154—Woodfinishing .....                                 | 2 |
| IA | 158—Upholstery .....                                    | 2 |
| IA | 157—Woodturning .....                                   | 2 |
| IA | 250—Contemporary Furniture Design and Fabrication ..... | 3 |
| IA | 257—Construction Problems In Wood .....                 | 3 |

**INDUSTRIAL ARTS MAJOR (Non-Teaching)**

The following is the required program:

1. General Education totaling 60 quarter hours as listed below, plus six quarters of physical education activity.

| Course No. | Course Title                                  | Hours | Credit |
|------------|---|-------|--------|
| COM        | 1—Composition .....                           | 3     |        |
| COM        | 2—Advanced Composition .....                  | 3     |        |
| COM        | 3—Speech .....                                | 3     |        |
| HUM        | 1—Greek & Roman periods .....                 | 3     |        |
| HUM        | 2—Middle Ages & Renaissance .....             | 3     |        |
| HUM        | 3—18th to 20th Centuries .....                | 3     |        |
| ECON       | 30—Introductory Economics .....               | 5     |        |
| *ANT       | 20—General Anthropology .....                 |       |        |
| *PSCI      | 40—National Government of U.S. .....          |       |        |
| *SOC       | 50—Principles of Sociology .....              | 5     |        |
| *USH       | 75—Unit Survey of United States History ..... |       |        |

\*Elect one of four courses marked to complete general education requirement.

|      |                                     |   |
|------|-------------------------------------|---|
| SCI  | 4—Biological Science .....          | 3 |
| SCI  | 5—Earth Science .....               | 3 |
| MATH | 23—Intermediate Algebra .....       | 5 |
| MATH | 24—College Algebra .....            | 5 |
| CHEM | 40—Principles of Chemistry I .....  | 5 |
| CHEM | 41—Principles of Chemistry II ..... | 5 |
| PHYS | 60—Mechanics .....                  | 4 |
| PHYS | 61—Sound, Light, & Heat .....       | 4 |
| PSY  | 20—General Psychology .....         | 3 |

2. Industrial Arts core which consists of 61 academic quarter hours as follows:

| <i>Course No.</i> | <i>Course Title</i>                   | <i>Hours Credit</i> |
|-------------------|---------------------------------------|---------------------|
| IA                | 50—Basic Wood Tech. ....              | 3                   |
| IA                | 150—Machine Wood Tech. ....           | 5                   |
| IA                | 61—Principles of Drafting .....       | 3                   |
| IA                | 161—Pictorial Drafting .....          | 2                   |
| IA                | 162—Working Drawings .....            | 3                   |
| IA                | 70—Introduction to Metal .....        | 3                   |
| IA                | 72—Gas & Electric Welding .....       | 3                   |
| IA                | 174—Machine Tool Operation .....      | 2                   |
| IA                | 41—Graphic Arts Fundamentals .....    | 3                   |
| IA                | 141—Graphic Arts .....                | 2                   |
| IA                | 80—Principles of Electricity .....    | 3                   |
| IA                | 181—Electro-Mech. Equipment .....     | 2                   |
| IA                | 283—Elect. Hardware & Comp. ....      | 2                   |
| IA                | 284—Electronic Circuitry .....        | 3                   |
| IA                | 90—Introduction to Power .....        | 2                   |
| IA                | 191—Internal Comb. & Recip. Eng. .... | 3                   |
| IA                | 115—General Crafts .....              | 5                   |
| IA                | 233—Materials of Industry .....       | 3                   |
| BUS               | 257—Production Management .....       | 3                   |
| BUS               | 285—Systems & Procedures .....        | 3                   |
| BUS               | 150—Business Statistics .....         | 3                   |

61

3. Twenty academic quarter hour electives in industrial arts.

4. Thirty-one academic quarter hours of electives. Suggested areas as follows:

- |               |                          |
|---------------|--------------------------|
| Air Science   | Mathematics              |
| Biology       | Philosophy               |
| Botany        | Physics                  |
| Business      | Psychology, Counseling & |
| Chemistry     | Guidance                 |
| Earth Science | Special Education        |
| Economics     | Statistics               |
| Education     | Zoology                  |
| Fine Arts     |                          |

# SCHOOL OF BUSINESS

Ramon P. Heimerl, Dean

The School of Business has two primary objectives: (1) to develop professional competence in functional areas of business administration for those students who will assume responsibilities for leadership in business and (2) to develop professional competence in subject matter areas for those students who will assume responsibilities for leadership in the teaching profession.

To accomplish these objectives, the School of Business offers a four-year program of studies leading to the Bachelor of Science degree in business administration and a four-year program of studies leading to a Bachelor of Arts degree in business education.

## Bachelor of Arts Degree:

Business Education — Specialization in Accounting, Basic Business and Economics, Distributive Education, and Secretarial.

## Bachelor of Science Degree:

Business Administration — Specializations in Accounting, Finance, Management, Marketing, and Administrative Services. Secretarial (two-year non-degree).

**Professors:** Heimerl, Hillestad, Waterman.

**Associate Professors:** Damgaard, Kennedy, Teglovic, Yetka.

**Assistant Professors:** Anderson, Clithero, Corey, Cullor, Duff, Hansen, Harris, McConnell, Schoonover.

**Instructors:** Herbster.

## Bachelor of Arts Degree

### Business Education Major (Teaching)

The following is the required program:

1. General Education totaling 60 academic quarter hours plus six quarters of physical education activity. Majors in this area also must take ECON 30 and BUS 1 as part of the requirement in general education.

2. Teacher Education Program courses as listed on page 93, plus BUED 140 and three hours credit selected from BUED 141, 142, 143, 144, 146. (The specific methods courses required in each of the specializations listed below is indicated for each specialization.)

3. The required courses listed in the Business Core plus the required courses in one of the areas of specialization plus business or business education electives for a total of 75 quarter hours.

4. Nine hours of electives to complete the 180 quarter hours of academic credit required for graduation.

5. A minor is not required.

### Business Core

| Course No. | Course Title                                       | Hours | Credit |
|------------|--|-------|--------|
| BUS        | 10*—Typewriting I .....                            | 0     | 0      |
| BUS        | 20 —Principles of Accounting I .....               | 4     | 4      |
| BUS        | 21 —Principles of Accounting II .....              | 4     | 4      |
| BUS        | 30—Introduction to Business Law .....              | 3     | 3      |
| BUS        | 50 —Principles of Management .....                 | 3     | 3      |
| BUS        | 60 —Marketing .....                                | 4     | 4      |
| BUS        | 80 —Introduction to Business Data Processing ..... | 3     | 3      |
| BUS        | 115 —Business Communications .....                 | 3     | 3      |

|      |       |  |       |
|------|-------|--|-------|
| BUS  | 170** | —Business Finance .....                    | 3     |
| BUS  | 190   | —Introduction to Operations Research ..... | 3     |
| BUS  | 191   | —Business Statistics I .....               | 3     |
| ECON | 102   | —Contemporary Economic Problems .....      | 3     |
|      |       |  | <hr/> |
|      |       |  | 36    |

\*One year of typewriting in high school may be substituted.

\*\*BUS 70 may be substituted for BUS 170 with consent of student's adviser.

## Specialization in Accounting

Note: Business Education majors electing this specialization must complete both BUED 141, Methods and Materials of Teaching Typewriting, one hour credit, and BUED 143, Methods and Materials of Teaching Bookkeeping, one hour credit, in partial fulfillment of requirement two listed above. Approved business experience of at least 2,000 hours is required. An affidavit must be approved by your adviser no later than the end of the second week of the quarter in which you plan to graduate and filed in the school office.

| <i>Course No.</i>   | <i>Course Title</i>                           | <i>Hours Credit</i> |    |
|---|---|---------------------|----|
| BUS   | 11—Typewriting II .....                       | 4                   |    |
| BUS   | 12—Typewriting III .....                      | 4                   |    |
| BUS   | 22—Cost and Managerial Accounting I .....     | 4                   |    |
| BUS   | 81—Data Processing—Unit Record .....          | 3                   |    |
| BUS   | 120—Intermediate Accounting I .....           | 4                   |    |
| BUS   | 121—Intermediate Accounting II .....          | 4                   |    |
| BUS   | 228—Income Tax Accounting I .....             | 3                   |    |
| BUS   | 281—Electronic Data Processing—Fortran .....  | 3                   |    |
| IDVE  | 210—Foundations of Vocational Education ..... | 3                   |    |
| IDVE  | 240—Adult Vocational Education .....          | 3                   |    |
| Electives in Business, Economics, or Business Education ..... |   | 4                   |    |
| <hr/>   |   |                     |    |
|   |   |                     | 39 |

## Specialization in Basic Business and Economics

Note: Business Education majors electing this specialization must complete both BUED 141, Methods and Materials of Teaching Typewriting, one hour credit, and BUED 144, Methods and Materials of Teaching Basic Business Subjects, one hour credit, in partial fulfillment of requirement two listed above.

| <i>Course No.</i>   | <i>Course Title</i>                   | <i>Hours Credit</i> |    |
|---|---------------------------------------|---------------------|----|
| BUS   | 11—Typewriting II .....               | 4                   |    |
| BUS   | 12—Typewriting III .....              | 4                   |    |
| BUS   | 131—Principles of Business Law .....  | 5                   |    |
| BUS   | 240—Introduction to Insurance .....   | 3                   |    |
| BUS   | 271—Investments .....                 | 3                   |    |
| BUED  | 230—Economic Education Seminar .....  | 3                   |    |
| ECON  | 210—History of Economic Systems ..... | 5                   |    |
| ECON  | 277—Government and Business .....     | 3                   |    |
| Electives in Business, Economics, or Business Education ..... |                                       | 9                   |    |
| <hr/>   |                                       |                     |    |
|   |                                       |                     | 39 |

## Specialization in Distributive Education

Note: Business Education majors electing this specialization must complete BUED 146, Methods and Materials of Teaching Distributive Classes, two hours credit, in partial fulfillment of requirement two listed above. Approved business experience of at least 4,000 hours is required. An affidavit must be approved by your adviser no later than the end of the second week of the quarter in which you plan to graduate and filed in the school office.

## 92 / SCHOOL OF BUSINESS

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| BUS        | 61—Salesmanship .....   | 3     |        |
| BUS        | 62—Retailing Promotions .....   | 4     |        |
| BUS        | 161—Retail Management .....   | 4     |        |
| BUED       | 145—Introduction to Distributive Education .....  | 3     |        |
| IDVE       | 210—Foundations of Vocational Education .....   | 3     |        |
| IDVE       | 220—Cooperative Education and Coordination Techniques .....                               | 3     |        |
| IDVE       | 230—Occupational Analysis and Program Development .....                                   | 3     |        |
| IDVE       | 240—Adult Vocational Education .....  | 3     |        |
|            | Electives in Business, Economics, or Business Education planned<br>by major adviser ..... | 13    |        |
|            |   | <hr/> | 39     |

### Specialization in Secretarial

Note: Business Education majors electing this specialization must complete both BUED 141, Methods and Materials of Teaching Typewriting, one hour credit, and BUED 142, Methods and Materials of Teaching Shorthand, one hour credit. Approved business experience of at least 2,000 hours is required. An affidavit must be approved by your adviser no later than the end of the second week of the quarter in which you plan to graduate and filed in the school office.

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| BUS        | 11—Typewriting II .....                                       |       |        |
| BUS        | 12—Typewriting III .....                                      | 4     | -8     |
| BUS        | 13—Secretarial Machines .....                                 |       | 2      |
| BUS        | 17—Intermediate Gregg Shorthand .....                         |       |        |
| BUS        | 18—Advanced Shorthand .....                                   |       |        |
| BUS        | 19—Shorthand Transcription .....                              | 4-12  |        |
| BUS        | 81—Data Processing—Unit Record .....                          |       | 3      |
| BUS        | 110—Secretarial Procedures .....                              |       | 3      |
| BUS        | 114—Records Management .....                                  |       | 2      |
| BUS        | 252—Office Management .....                                   |       | 3      |
| IDVE       | 210—Foundations of Vocational Education .....                 |       | 3      |
|            | Electives in Business, Economics, or Business Education ..... |       | 4      |
|            |   | <hr/> | 24-39  |

### Business Education Minor

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| BUS        | 1—The American Business System .....  |       | 5      |
| BUS        | 10—Typewriting I .....  | (0)   |        |
| BUS        | 11—Typewriting II .....   | (4)   |        |
| BUS        | 12—Typewriting III .....  | (4)   |        |
| BUS        | 16, 17, 18, 19—Beginning Intermediate, Advanced, Gregg Shorthand<br>Transcription<br>or |       | 4-8    |
| BUS        | 20, 21—Principles of Accounting I, II .....   |       | 8-16   |
|            | Electives to complete 27 hours.   |       | <hr/>  |
|            |   |       | 27     |

Most states require courses in methods and materials of teaching specific subjects for certification. Students minoring in Business Education should take BUED 140, 141, and 142 or 143.

### Economic Education Minor

| Course No. | Course Title                             | Hours | Credit |
|------------|--|-------|--------|
| BUS        | 1—The American Business System .....     |       | 5      |
| BUS        | 205—The Consumer in Our Economy .....    |       | 3      |
| BUED       | 230—Economic Education Seminar .....     |       | 3      |
| ECON       | 30—Introductory Economics .....          |       | 5      |
| ECON       | 102—Contemporary Economic Problems ..... |       | 3      |
|            | Electives in Business or Economics ..... |       | 8      |
|            |  | <hr/> | 27     |



The electives must be planned in cooperation with the minor adviser. Elective courses may be chosen from the economic courses listed on page 152, 153, 154, and from the following list: GEOG 203, World Resources and Industries, three hours credit; BUS 60, Marketing, three hours credit; BUS 240, Introduction to Insurance, three hours credit; or HEC 191, Management in Family Living, three hours credit.

## Business Administration Major (Non-Teaching) Bachelor of Science Degree

The following is the required program:

1. General Education totaling 60 academic quarter hours plus six quarters of physical education activity. Majors in this area also must have ECON 30 and BUS 1 as part of the requirement in general education.
2. The required courses listed in the Business Core plus the required courses in one of the areas of specialization plus business electives for a total of 75 quarter hours.
3. Forty-five hours additional course work, of which at least 30 hours must be in courses offered in the School of Arts, the School of Arts and Sciences, the School of Music, and the Department of Psychology Counseling and Guidance.
4. A minor is not required.

### Business Core

| Course No. | Course Title                                    | Hours     | Credit |
|------------|---|-----------|--------|
| BUS 10*    | —Typewriting I .....                            | 0         |        |
| BUS 20     | —Principles of Accounting I .....               | 4         |        |
| BUS 21     | —Principles of Accounting II .....              | 4         |        |
| BUS 30     | —Introduction to Business Law .....             | 3         |        |
| BUS 50     | —Principles of Management .....                 | 3         |        |
| BUS 60     | —Marketing .....                                | 4         |        |
| BUS 80     | —Introduction to Business Data Processing ..... | 3         |        |
| BUS 115    | —Business Communications .....                  | 3         |        |
| BUS 170    | —Business Finance .....                         | 3         |        |
| BUS 190    | —Introduction to Operations Research .....      | 3         |        |
| BUS 191    | —Business Statistics I .....                    | 3         |        |
| ECON 102   | —Contemporary Economic Problems .....           | 3         |        |
|            |   | <b>36</b> |        |

\*One year of typewriting in high school may be substituted.

### Specialization in Accounting

The specialization in accounting and the accounting department are approved under the State Accountancy Law of Colorado. Students who complete all requirements for a degree with this specialization meet the academic requirements for taking the Certified Public Accountant examination in Colorado.

| Course No. | Course Title                             | Hours | Credit |
|------------|--|-------|--------|
| BUS 22     | —Cost and Managerial Accounting I .....  | 4     |        |
| BUS 120    | —Intermediate Accounting I .....         | 4     |        |
| BUS 121    | —Intermediate Accounting II .....        | 4     |        |
| BUS 122    | —Cost and Managerial Accounting II ..... | 4     |        |
| BUS 131    | —Principles of Business Law .....        | 5     |        |
| BUS 221    | —Advanced Accounting .....               | 4     |        |
| BUS 228    | —Income Tax Accounting I .....           | 3     |        |

At least seven hours of additional accounting chosen from among the following:

|         |  |     |   |
|---------|--|-----|---|
| BUS 223 | —Governmental and Institutional Accounting ..... | (4) |   |
| BUS 227 | —Auditing .....                                  | (4) |   |
| BUS 229 | —Income Tax Accounting II .....                  | (3) | 7 |
|         | Electives in Business and Economics .....        |     | 4 |

**Specialization in Administrative Services****Administrative Science Option**

| <i>Course No.</i> | <i>Course Title</i>                          | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| MATH              | 15—Exploring Mathematical Ideas I .....      | 3            |               |
| MATH              | 16—Exploring Mathematical Ideas II .....     | 3            |               |
| BUS               | 22—Cost and Managerial Accounting I .....    | 4            |               |
| BUS               | 122—Cost and Managerial Accounting II .....  | 4            |               |
| BUS               | 192—Business Statistics II .....             | 3            |               |
| BUS               | 256—Business Policies and Management .....   | 3            |               |
| BUS               | 262—Market Analysis and Research .....       | 3            |               |
| BUS               | 281—Electronic Data Processing—Fortran ..... | 3            |               |
| BUS               | 290—Intermediate Operations Research .....   | 3            |               |
| ECON              | 220—Intermediate Economic Theory .....       | 3            |               |
|                   | Business Electives (at 200 level) .....      | 7            |               |
|                   |  |              | 39            |

**Information Science Option**

| <i>Course No.</i> | <i>Course Title</i>                                     | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| BUS               | 22—Cost and Managerial Accounting I .....               | 4            |               |
| BUS               | 81—Data Processing — Unit Record .....                  | 3            |               |
| BUS               | 122—Cost and Managerial Accounting II .....             | 4            |               |
| BUS               | 192—Statistics II .....                                 | 3            |               |
| BUS               | 252—Office Management .....                             | 3            |               |
| BUS               | 253—Personnel Management .....                          | 5            |               |
| BUS               | 281—Electronic Data Processing — Fortran .....          | 3            |               |
| BUS               | 283—Electronic Data Processing—Cobol .....              | 3            |               |
| BUS               | 285—Electronic Data Processing — Advanced Fortran ..... | 3            |               |
| BUS               | 288—Systems and Procedures .....                        | 3            |               |
| BUS               | 289—Advanced Systems Analysis .....                     | 3            |               |
|                   | Business Electives (at 200 level) .....                 | 2            |               |
|                   |   |              | 39            |

The following course is recommended as an elective:

|    |                             |   |
|----|-----------------------------|---|
| SP | 294—Critical Thinking ..... | 4 |
|----|-----------------------------|---|

**Office Administration Option**

| <i>Course No.</i> | <i>Course Title</i>                                    | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| BUS               | 12*—Typewriting III .....                              | 4            |               |
| BUS               | 13 —Secretarial Machines .....                         | 2            |               |
| BUS               | 18*—Advanced Shorthand .....                           | 4            |               |
| BUS               | 19 —Shorthand Transcription .....                      | 4            |               |
| BUS               | 90 —Calculating Machines and Business Arithmetic ..... | 4            |               |
| BUS               | 110 —Secretarial Procedures .....                      | 3            |               |
| BUS               | 114 —Records Management .....                          | 2            |               |
| BUS               | 252 —Office Management .....                           | 3            |               |
| BUS               | 253 —Personnel Management .....                        | 5            |               |
| BUS               | 281 —Electronic Data Processing — Fortran .....        |              |               |
| <i>or</i>         |  |              |               |
| BUS               | 283 —Electronic Data Processing — Cobol .....          | 3            |               |
| SP                | 260 —Introduction to General Semantics .....           | 4            |               |
|                   | Business Electives (at 200 level) .....                | 1            |               |
|                   |  |              | 39            |

The following course is recommended as an elective:

|    |                                   |   |
|----|-----------------------------------|---|
| SP | 108—Parliamentary Procedure ..... | 2 |
|----|-----------------------------------|---|

\*Prerequisites to these courses cannot be taken as part of the specialization.

**Specialization in Finance**

| <i>Course No.</i> | <i>Course Title</i>                 | <i>Hours</i> | <i>Credit</i> |
|-------------------|-------------------------------------|--------------|---------------|
| BUS               | 70—Principles of Finance .....      | 3            |               |
| BUS               | 120—Intermediate Accounting I ..... | 4            |               |

|      |  |    |
|------|--|----|
| BUS  | 240—Introduction to Insurance .....        | 3  |
| BUS  | 256—Business Policies and Management ..... | 3  |
| BUS  | 270—Financial Management .....             | 3  |
| BUS  | 271—Investments .....                      | 3  |
| ECON | 202—Money and Banking .....                | 5  |
| ECON | 241—Public Finance .....                   | 5  |
|      | Electives in Business and Economics .....  | 10 |
|      |  | 39 |

### Specialization in Management

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| BUS               | 22—Cost and Managerial Accounting I .....                                | 4                   |
| BUS               | 122—Cost and Managerial Accounting II .....                              | 4                   |
| BUS               | 192—Business Statistics II .....   | 3                   |
| BUS               | 253—Personnel Management .....   | 5                   |
| BUS               | 256—Business Policies and Management .....                               | 3                   |
| BUS               | 270—Financial Management .....   | 3                   |
| ECON              | 277—Government and Business .....  | 3                   |
|                   | Electives in Business, Economics, and the Behavioral Science Areas ..... | 14                  |
|                   |  | 39                  |

### Specialization in Marketing

| <i>Course No.</i> | <i>Course Title</i>                        | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| BUS               | 22—Cost and Managerial Accounting .....    | 4                   |
| BUS               | 61—Salesmanship .....                      | 3                   |
| BUS               | 161—Retail Management .....                | 4                   |
| BUS               | 162—Advertising .....                      | 3                   |
| BUS               | 192—Business Statistics II .....           | 3                   |
| BUS               | 256—Business Policies and Management ..... | 3                   |
| BUS               | 260—Marketing Strategy .....               | 4                   |
| BUS               | 262—Marketing Analysis and Research .....  | 4                   |
| BUS               | 265—Marketing Problems .....               | 4                   |

Student will elect two of the following courses:

|     |   |           |    |
|-----|---|-----------|----|
| BUS | 261—Sales Management                      | (3) ..... |    |
| BUS | 263—Advertising Strategy                  | (3) ..... |    |
| BUS | 267—Physical Distribution                 | (3) ..... |    |
| BUS | 268—Industrial Marketing                  | (3) ..... |    |
| BUS | 269—International Marketing               | (3) ..... |    |
| BUS | 276—Credit Management                     | (3) ..... | 6  |
|     | Electives in Marketing area courses ..... |           | 1  |
|     |   |           | 39 |

### Secretarial Major (Two-Year Non-Degree Program)

The following program is required:

| <i>Course No.</i> | <i>Course Title</i>                               | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| BUS               | 1—The American Business System .....              | 5                   |
| BUS               | 11—Typewriting II .....                           | 4                   |
| BUS               | 12—Typewriting III .....                          | 4                   |
| BUS               | 13—Secretarial Machines .....                     | 2                   |
| BUS               | 16—Beginning Gregg Shorthand .....                | 4                   |
| BUS               | 17—Intermediate Gregg Shorthand .....             | 4                   |
| BUS               | 18—Advanced Shorthand .....                       | 4                   |
| BUS               | 19—Shorthand Transcription .....                  | 4                   |
| BUS               | 20—Principles of Accounting I .....               | 4                   |
| BUS               | 21—Principles of Accounting II .....              | 4                   |
| BUS               | 30—Introduction to Business Law .....             | 3                   |
| BUS               | 50—Principles of Management .....                 | 4                   |
| BUS               | 80—Introduction to Business Data Processing ..... | 3                   |
| BUS               | 81—Data Processing—Unit Record .....              | 3                   |

## 96 / SCHOOL OF BUSINESS

|     |   |    |
|-----|---|----|
| BUS | 90—Calculating Machines and Business Arithmetic ..... | 4  |
| BUS | 110—Secretarial Procedures .....                      | 3  |
| BUS | 114—Records Management .....                          | 2  |
| BUS | 115—Business Communications .....                     | 3  |
| COM | 1—Elementary Composition I .....                      | 3  |
| COM | 2—Elementary Composition II .....                     | 3  |
| COM | 3—Principles of Speech .....                          | 3  |
| PCG | 20—General Psychology .....                           | 3  |
|     | Business Electives .....                              | 14 |

Minimum 90

## Business Minor

| <i>Course No.</i> | <i>Course Title</i>                   | <i>Hours Credit</i> |
|-------------------|---------------------------------------|---------------------|
| BUS               | 1—The American Business System .....  | 5                   |
| BUS               | 20—Principles of Accounting I .....   | 4                   |
| BUS               | 21—Principles of Accounting II .....  | 4                   |
| BUS               | 30—Introduction to Business Law ..... | 3                   |
| BUS               | 50—Principles of Management .....     | 4                   |
| BUS               | 115—Business Communications .....     | 3                   |
| ECON              | 30—Introductory Economics .....       | 5                   |

Minimum 28

# SCHOOL OF EDUCATION

**Edward J. Kelly, Dean**

**Bruce W. Broderius, Associate Dean**

The School of Education is a professional school offering specialized degree programs in education for the preparation of elementary and secondary school teachers, educational media personnel, and other education specialists for the schooling processes. These programs include offerings on the undergraduate level leading to the Bachelor of Arts and Bachelor of Science degrees.

## **Bachelor of Arts Degree**

Elementary Education

Psychology

Special Education: Teaching the Acoustically Handicapped

Special Education: Mental Retardation

## **Bachelor of Science Degree**

Special Education: Rehabilitation and Related Services

Psychology

The School of Education provides all prospective teachers accepted in the Advanced Teacher Education Program with the professional core of subjects and experiences for the development of professional competencies requisite to successful teaching. Additionally, it provides selected components of the general education program.

## **Curriculum and Instruction**

**Joe Nichols, Acting Chairman**

**Professor:** Morrison.

**Associate Professors:** Broderius, Stoffer.

**Assistant Professors:** Garcia, Nichols.

GRADUATE DEGREE PROGRAM ONLY

## **Educational Administration**

**Arthur R. Partridge, Chairman**

**Professors:** Jardine, Partridge.

**Associate Professors:** Brewster, Luketich, Ritter.

**Assistant Professor:** Montgomery.

GRADUATE DEGREE PROGRAM ONLY

## **College Student Personnel Work**

**Bernard C. Kinnick, Acting Chairman**

**Professors:** Hause, Oppelt, Shaw.

**Associate Professors:** Best, H. Collins, T. Nelson.

**Assistant Professors:** J. K. Bowen, Henderson, Kinnick, McCary, Miller, Smart.  
**Instructors:** Anderson, Foote, Graham, Holst, Linenberger, Stutler.

## GRADUATE DEGREE PROGRAM ONLY

## Educational Media

**D. Harold Bowman, Chairman**

**Professors:** Bowman, Cyphers.  
**Associate Professor:** Hall.  
**Assistant Professor:** Donald Seager.  
**Instructors:** Green, Griggs.

## PROGRAMS IN THE TEACHING PROFESSIONS

### Undergraduate Minor: Educational Media

The purpose of this program is to prepare teachers to work in what has been variously called the comprehensive library, educational media center, instructional materials center or learning resource center. While the title is not significant the concept of teachers trained to handle both print and non-print materials is becoming increasingly important. This is particularly true of the person who works alone in a given building.

#### Required Courses:

|    |   | <i>Hours Credit</i> |
|----|---|---------------------|
| EM | 206—Introduction to Educational Resources .....                         | 5                   |
| EM | 208—Design and Construction of Audio-Visual Materials .....             | 3                   |
| EM | 280—Introduction to Classification and Cataloging .....                 | 3                   |
| EM | 281—Processing Educational Materials .....                              | 3                   |
| EM | 282—Reference Materials for Educational Resource Center .....           | 3                   |
| EM | 283—Evaluation and Selection of Educational Materials .....             | 3                   |
| EM | 287—Organization and Administration of Educational Resource Center..... | 5                   |
|    |   | 25                  |

#### Electives:

|      |  |   |
|------|--|---|
| EM   | 286—Utilization of Educational Resources .....                             | 3 |
| READ | 115—Improvement of Instruction in Literature in the Elementary School..... | 2 |

**Outdoor education** affords students the opportunity to actively participate in learning experiences conducted beyond the classroom. Natural and community resources (including human) are utilized in providing direct, firsthand learning experiences. Undergraduate students are provided an opportunity to participate in the outdoor school programs conducted in the Laboratory School and in Special Education. Course offerings, which have significance for this broad area, are offered in every area of the college. Listed below are two specific courses which are introductory courses in this area:

| <i>Course No.</i> | <i>Course Title</i>                        | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| EM                | 80—Introduction to Outdoor Education ..... | 3                   |
| ID                | 200—Workshop: Outdoor Education .....      | 3                   |

## Elementary Education and Reading

**Alvin O. Mosbo, Chairman**

**Professors:** D. Brown, Claybaugh, Harkness, Kelly, Lewis, Lowry, Mosbo, Neal.  
**Associate Professors:** Glaser, Hunn, Nebel.  
**Assistant Professors:** Arnold, Gunning, Heimgartner, Henry, Trigg, E. Wolfe.  
**Instructors:** Brochu, Krafft, Pauls.

## Elementary Education Major

The following are required:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity courses.
2. The following subject matter courses.

| Course No. | Course Title                                      | Hours | Credit |
|------------|---|-------|--------|
| FA         | 124—Elementary Art .....                          |       | 3      |
| GEOG       | 10—World Geography .....                          |       |        |
|            | or  |       |        |
| GEOG       | 48—Anglo-America .....                            |       | 5      |
| HIST       | 75—Unit Survey of United States History .....     |       | 5      |
| MATH       | 1—Basic Mathematics I .....                       |       | 3      |
| MATH       | 2—Basic Mathematics II .....                      |       | 3      |
| MUS        | 49—Music Fundamentals .....                       |       | 2      |
| PSCI       | 40—National Government of the United States ..... |       | 5      |
|            | Electives in history or social science .....      |       | 4      |

Credit in the above courses will satisfy the social science requirements and the electives in the 60 quarter hour General Education requirement.

3. The following requirements in the Elementary Education Major.

## Professional Core

| Course No. | Course Title                          | Hours | Credit    |
|------------|---------------------------------------|-------|-----------|
| EDHP       | 101—Basic Concepts of Education ..... |       | 5         |
| PSY        | 140—Educational Psychology .....      |       | 5         |
| *SFE       | 250—Elementary Student Teaching ..... |       | 18        |
| EDHP       | 295—Philosophy of Education .....     |       | 3         |
|            |                                       |       | <u>31</u> |

## Elementary Teacher Education

| Course No. | Course Title  | Hours | Credit    |
|------------|---|-------|-----------|
| ELED       | 109—Teaching Handwriting and Spelling in the Elementary School .....            |       | 2         |
| ELED       | 111—Improvement of Instruction in English in the Elementary School .....        |       | 3         |
| ELED       | 112—Improvement of Instruction in Mathematics in the Elementary School .....    |       | 3         |
| ELED       | 113—Improvement of Instruction in Social Studies in the Elementary School ..... |       | 3         |
| ELED       | 139—Introduction to Student Teaching in the Elementary School .....             |       | 2         |
| READ       | 110—Improvement of Instruction in Reading in the Elementary School .....        |       | 3         |
| READ       | 115—Improvement of Instruction in Literature in the Elementary School .....     |       | 2         |
| READ       | 222—Reading in the Primary Grades .....   |       |           |
|            | or  |       |           |
| READ       | 223—Reading in the Intermediate Grades .....                                    |       | 3         |
| FA         | 125—Methods of Teaching Art in the Elementary School .....                      |       | 2         |
| HPER       | 88—Physical Education Activities for the Elementary School .....                |       | 2         |
| HPER       | 101—Health Education in the Elementary School .....                             |       | 2         |
| MUS        | 209—Music Methods and Materials for Elementary Teachers .....                   |       | 2         |
| SCED       | 270—Teaching Science in the Elementary School .....                             |       | 3         |
|            |   |       | <u>32</u> |

\*Student Teaching must be in elementary education in the kindergarten or in grades one through six. Internships are available.

4. An arts and sciences minor (non-teaching minor) in one of the following fields. Anthropology, biological science, Black studies, chemistry, earth science, English, fine arts, foreign language, geography, Hispano studies, history, mathematics, music, physics, political science, social science, sociology, speech.

5. ELED 109, 111, 112, 113, READ 222, and 223 taken at Colorado State College.

6. Completion of EDHP 101, PSY 140, and a minimum of eighteen quarter hours in Elementary Teacher Education courses including READ 110, ELED 112, and 139 before student teaching. A minimum of one quarter must intervene between the completion of READ 110, ELED 112, 139 and the beginning of student teaching.

7. Sufficient electives to complete 180 quarter hours of academic credit.

## Higher Education

**Kenneth Hogan, Chairman**

**Professors:** Hillway, Hogan, Holmes.

**Assistant Professor:** Leach.

GRADUATE DEGREE PROGRAM ONLY.

## History and Philosophy of Education

**Franklin D. Cordell, Acting Chairman**

**Professor:** Bothell.

**Associate Professors:** Sanderson.

**Assistant Professors:** Cordell, Turner, Roat, Krosky.

**Instructors:** Williams.

GRADUATE DEGREE PROGRAM ONLY.

## Psychology, Counseling and Guidance

**Arno H. Luker, Chairman**

**Professors:** Blanchard, Clevenger, Fulbright, Koplitz, Luker, Lutey.

**Associate Professors:** D. Anderson, Lakin, L. Montgomery, Usher.

**Assistant Professors:** Bear, Berreman, Blake, Goff, Logan, Praul, Rave, Schenman, S. Shaw.

**Instructor:** Phillips.

Psychology, Counseling and Guidance offers an undergraduate major and minor in psychology. The minor provides preparation in the general areas of psychology and makes course and program adaptations for needs of students majoring in such areas as Arts and Sciences and Education.

\*Students are admitted to the psychology program at the beginning of the sophomore year. Since only a limited number can be accepted at this time, application for admission should be submitted to the Psychology Department for screening during the last quarter of the freshman year.

## PROGRAMS IN ARTS AND SCIENCES

**\*Bachelor of Arts Degree**

### Psychology Major

The following is the required program:

1. General Education totaling 60 academic hours, plus six quarter hours of physical education activities courses. (In lieu of SS 81, 82, 83, the Psychology major or minor will take two of the following: GEOG 10, ANT 20, ECON 30, PSCI 40, or SOC 50. Consult your advisor.)



2. Second major is highly recommended.
3. The following required courses in the major (60 hours.)

**Freshman Year**

| <i>Course No.</i> | <i>Course Title</i>                               | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| PSY               | 21—General Psychology and Human Performance ..... | 3            | 3             |
| PSY               | 84—Group Processes in Human Relations .....       | 3            | 3             |

**Sophomore Year**

|     |   |   |   |
|-----|---|---|---|
| PSY | 22—Exploration Seminar in Psychology I .....            | 3 | 3 |
| PSY | 170—Introduction to Measurement and Evaluation .....    | 3 | 3 |
| PSY | 175—Introduction to Experimentation in Psychology ..... | 5 | 5 |

**Junior Year**

|     |  |    |    |
|-----|--|----|----|
| PSY | 122—Exploration Seminar in Psychology II ..... | 3  | 3  |
| PSY | 224—Psychology: Field Experiences .....        | 15 | 15 |
|     | PSY Electives .....                            | 7  | 7  |

**Senior Year**

|                            |   |    |    |
|----------------------------|---|----|----|
| PSY                        | 222—Seminar: Psychological Issues ..... | 3  | 3  |
|                            | PSY Electives .....                     | 15 | 15 |
| Minimum total credit hours |   | 60 | 60 |

**PROGRAMS IN THE TEACHING PROFESSIONS****\*Bachelor of Arts Degree****Psychology Major (Teaching)**

The following is the required program:

1. General Education totaling 60 academic quarter hours, plus six quarter hours of physical education activity courses. (In lieu of SS 81, 82, 83, the Psychology major or minor will take two of the following: ANT 20, GEOG 10, ECON 30, or PSCI 40 or SOC 50. Consult your advisor.)
2. Advanced Teachers Education 31 hours.
3. Second teaching major required. Consult your advisor.
4. The following required courses in the major:

**Freshman Year**

| <i>Course No.</i> | <i>Course Title</i>                                | <i>Hours</i> | <i>Credit</i>  |
|-------------------|--|--------------|----------------|
|                   |  |              | <i>PSY ATE</i> |
| PSY               | 21 —General Psychology and Human Performance ..... | 3            | 3              |
| PSY               | 84 —Group Processes in Human Relations .....       | 3            | 3              |

**Sophomore Year**

|     |  |   |   |
|-----|--|---|---|
| PSY | 22 —Exploration Seminar in Psychology I .....            | 3 | 3 |
| PSY | 170 —Introduction to Measurement and Evaluation .....    | 3 | 3 |
| PSY | 175 —Introduction to Experimentation in Psychology ..... | 5 | 5 |

**Junior Year**

|      |   |   |   |
|------|---|---|---|
| PSY  | 122 —Exploration Seminar in Psychology II .....                               | 3 | 3 |
| EDHP | 101 (ATE)—Basic Concepts of Education .....                                   | 5 | 5 |
| EDCI | 140 (ATE)—Introduction to Student Field Work in the<br>Secondary School ..... | 2 | 2 |
| EDCI | 141 (ATE)—Methods of Teaching in the Secondary School .....                   | 3 | 3 |
| PSY  | 140 (ATE)—Educational Psychology .....  | 5 | 5 |
| PSY  | 224 —Field Experience in Psychology .....                                     | 5 | 5 |
|      | PSY Electives .....   | 9 | 9 |

**Senior Year**

|      |          |                                      |       |       |
|------|----------|--------------------------------------|-------|-------|
| PSY  | 222      | —Seminar: Psychological Issues ..... | 3     |       |
| SFE  | 251(ATE) | —Student Field Work .....            |       | 18    |
| EDHP | 295(ATE) | —Philosophy of Education .....       |       | 3     |
|      |          | PSY Electives .....                  | 11    |       |
|      |          |                                      | <hr/> | <hr/> |
|      |          | Total                                | 48    | 36    |

**PROGRAMS IN ARTS AND SCIENCES****Bachelor of Arts Degree****Psychology Minor**

Required courses for the undergraduate minor in psychology are:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| PSY               | 21—General Psychology and Human Performance .....                              |              | 3             |
| PSY               | 222—Seminar: Psychological Issues .....  |              | 3             |
| PSY               | 230—Child and Adolescent Psychology .....                                      |              | 3             |
| PSY               | 240—Psychology of Perception and Learning .....                                |              | 5             |
| PSY               | 280—Psychology of the Healthy Personality .....                                |              | 3             |
| PSY               | 285—Mental Hygiene and Emotional Adjustment .....                              |              | 3             |
|                   | Electives (see list in office of Psychology,<br>Counseling and Guidance) ..... |              | 6             |
|                   |  |              | <hr/>         |
|                   |  |              | 26            |

**PROGRAMS IN THE TEACHING PROFESSIONS****Bachelor of Arts Degree****Psychology Minor**

Required courses for the undergraduate minor in psychology are:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| PSY               | 21—General Psychology and Human Performance .....                              |              | 3             |
| PSY               | 101—Principles and Philosophies of Guidance .....                              |              | 3             |
| PSY               | 170—Introduction to Measurement and Evaluation .....                           |              | 3             |
| PSY               | 222—Seminar: Psychological Issues .....  |              | 3             |
| PSY               | 285—Mental Hygiene and Emotional Adjustment .....                              |              | 3             |
| SFED              | 10—Education of Exceptional Children .....                                     |              | 3             |
|                   | Electives (see list in office of Psychology,<br>Counseling and Guidance) ..... |              | 9             |
|                   |  |              | <hr/>         |
|                   |  |              | 27            |

**Research and Statistical Methodology**

**Beatrice B. Heimerl, Chairman**

**Professor: Schmid.**

**Assistant Professors: B. Heimerl, Houston, Connett.**

**GRADUATE DEGREE PROGRAM ONLY.**

# Special Education

**Tony D. Vaughan, Chairman**

**Professors:** Kolstoe, Lundeen, Vaughan.

**Associate Professors:** Gearheart, Jones, McAlees, McPherson, Owens, Wolfe.

**Assistant Professors:** Bowen, Eldredge, Green, Napier, Reinert, Townsend, Weishahn.

**Instructors:** Adams, Bliler, Crouse, Harrell, Johnson, Lane, Millsagle, Naylor, Schmidt, Taylor, Zeitlow.

The Special Education Department offers several majors at the undergraduate level and affords students the opportunity to qualify for a Colorado Teacher Certificate in the area of the acoustically handicapped or mental retardation. A pre-professional program leading to the Bachelor of Arts degree in speech pathology and audiology is offered, as well as a program leading to the Bachelor of Science degree in Rehabilitation and Related Services. Junior and senior students may take course work in the areas of teaching the visually handicapped, physically handicapped, emotionally disturbed, and in speech correction. This course work may be used for certification in the special areas of teaching when all requirements for certification are met.

The campus Special Education school, a cooperative project of the Greeley Public Schools and Colorado State College, provides a laboratory for observation and student teaching. At the present time, this laboratory school enrolls mentally retarded, physically handicapped, acoustically handicapped, emotionally disturbed, and visually handicapped children. The Special Education facility also includes a speech and hearing clinic, which provides speech correction services and complete audiometric evaluations; an apartment classroom; and provides for testing and measuring exceptional children.

## Special Education Major

The following is the required program:

1. General Education totaling 60 academic quarter hours, plus six quarters of physical education activity.
2. Advanced Teacher Education, 31 hours, plus methods and observation courses.
3. The required courses in the majors as listed.
4. Twenty-four to 32 quarter hours of electives to complete the 180 quarter hours of academic credit required for graduation.
5. An area of concentration of 27 hours outside the field of Special Education.

## Concentration in Mental Retardation

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| SPED 10    | —Education of Exceptional Children .....   | 3     |        |
| SPED 64    | —Introduction to Speech Correction .....   | 3     |        |
| SPED 104   | —Introduction to Measurement of the Handicapped .....                                    | 3     |        |
| SPED 202   | —Counseling Parents of Exceptional Children .....  | 3     |        |
| SPED 210   | —Introduction to Mental Retardation .....  | 4     |        |
| SPED 211   | —Education of Severely Mentally Retarded Children .....                                  | 3     |        |
| SPED 212   | —Curriculum Development and Methodology for Mentally Retarded:<br>Elementary level ..... | 4     |        |
| SPED 213   | —Curriculum Development and Methodology for Mentally Retarded:<br>Secondary level .....  | 4     |        |
| SPED 230   | —Care and Pathology of the Physically Handicapped .....                                  | 3     |        |
| FA 127     | —Craft Techniques .....  | 3     |        |
| HPER 101   | —Health Education in the Elementary School .....   | 2     |        |
| MUS 49     | —Music Fundamentals .....  | 2     |        |
| PSY 230*   | —Psychology of Childhood and Adolescence .....   | 3     |        |
|            | Electives in Special Education .....   | 8     |        |

48

\*If PSY 30 has been taken in the last five years, a Special Education elective may be substituted for PSY 230.

## Concentration in Acoustically Handicapped

### Required courses in the major:

| Course No. | Course Title   | Hours | Credit    |
|------------|--|-------|-----------|
| SPED 10    | —Education of Exceptional Children .....                                       | 3     | 3         |
| SPED 55    | —The Structure of Language .....   | 3     | 3         |
| SPED 104   | —Introduction to the Measurement of the Handicapped .....                      | 3     | 3         |
| SPED 151   | —Speech Foundations for the Deaf and Hard of Hearing .....                     | 3     | 3         |
| SPED 163   | —Introduction to Organic Disorders .....                                       | 3     | 3         |
| SPED 167   | —The Auditory and Speech Mechanisms .....                                      | 4     | 4         |
| SPED 250   | —Pathology and Introduction to Education of the Deaf and Hard of Hearing ..... | 3     | 3         |
| SPED 251   | —Speech Development for Deaf and Hard of Hearing .....                         | 6     | 6         |
| SPED 252   | —Language Development for Deaf and Hard of Hearing .....                       | 6     | 6         |
| SPED 253   | —Methods of Teaching Content Subjects to the Deaf .....                        | 3     | 3         |
| SPED 254   | —Methods of Teaching Reading to the Deaf and Hard of Hearing .....             | 3     | 3         |
| SPED 257   | —Speech Reading .....  | 3     | 3         |
| SPED 258   | —Auditory Training and Hearing Aids .....                                      | 2     | 2         |
| SPED 259   | —Undergraduate Seminar in Education of the Deaf and Hard of Hearing .....      | 3     | 3         |
| SPED 270   | —Basic Audiology .....   | 3     | 3         |
| PSY 230*   | —Psychology of Childhood and Adolescence .....                                 | 3     | 3         |
|            |  |       | <b>54</b> |

\*If PSY 30 has been taken in the last five years, a Special Education elective may be substituted for PSY 230.

Recommended electives to complete the 180 quarter hours of academic credit required for graduation are ELED 109, 111, 113, READ 222, 223, FA 127, Math 1, HPER 88, 101 and SPED 202, 275.

## Concentration in Speech Pathology

The Bachelor of Arts degree in Speech Pathology is pre-professional, and does *not* lead to certification.

No minor is required, but the student must elect a minimum of 14 hours in courses having to do with the normal growth and development of speech, hearing and language. This is necessary to help meet certain national and State of Colorado standards. To qualify for State Certification, it is necessary for the student to earn a Master of Arts degree in Speech Pathology, in addition to approximately 18 hours of General Education courses.

### Course requirements:

| Course No. | Course Title                              | Hours | Credit |
|------------|---|-------|--------|
| SPED 10    | —Education of Exceptional Children .....  | 3     | 3      |
| SPED 64    | —Introduction to Speech Correction .....  | 3     | 3      |
| SPED 160   | —Articulation Disorders I .....           | 4     | 4      |
| SPED 161   | —Voice Disorders I .....                  | 3     | 3      |
| SPED 162   | —Stuttering I .....                       | 3     | 3      |
| SPED 163   | —Introduction to Organic Disorders .....  | 3     | 3      |
| SPED 164   | —Clinical Principles .....                | 3     | 3      |
| SPED 165   | —Acoustics of Speech .....                | 3     | 3      |
| SPED 166   | —Speech and Language Development .....    | 3     | 3      |
| SPED 167   | —The Auditory and Speech Mechanisms ..... | 4     | 4      |
| SPED 264   | —Practicum in Speech Pathology .....      | 6     | 6      |
| SPED 267   | —Diagnosis in Speech Pathology .....      | 3     | 3      |
| SPED 270   | —Basic Audiology .....                    | 3     | 3      |
| SPED 271   | —Speech Audiometry .....                  | 3     | 3      |
| SPED 272   | —Advanced Audiometry .....                | 3     | 3      |
| SP 275     | —Phonetics .....                          | 3     | 3      |

53

Recommended electives are PSY 21, PSY 30, PSY 230, PSY 240, PSY 285, SP 260, SPED 274, SPED 275.

## Concentration in Audiology

The Bachelor of Arts degree in Audiology is pre-professional and does not lead to certification.

No minor is required, but the student must elect a minimum of 14 hours in courses dealing with the normal growth and development of speech, hearing, and language. This is necessary to help meet certain national and State of Colorado standards. To qualify for American Speech and Hearing Association Certification, it is necessary for the student to complete a Master of Arts degree, or its equivalent, in Audiology.

The following is the required program:

| <i>Course No.</i> | <i>Course Title</i>                          | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| SPED              | 10—Education of Exceptional Children .....   | 3            | 3             |
| SPED              | 64—Introduction to Speech Correction .....   | 3            | 3             |
| SPED              | 160—Articulation Disorders I .....           | 4            | 3             |
| SPED              | 165—Acoustics of Speech .....                | 3            | 3             |
| SPED              | 166—Speech and Language Development .....    | 3            | 3             |
| SPED              | 167—Auditory and Speech Mechanisms .....     | 4            | 4             |
| SPED              | 258—Auditory Training and Hearing Aids ..... | 2            | 2             |
| SPED              | 270—Basic Audiology .....                    | 3            | 3             |
| SPED              | 271—Speech Audiometry .....                  | 3            | 3             |
| SPED              | 272—Advanced Audiometry .....                | 3            | 3             |
| SPED              | 274—Practicum in Audiology .....             | 6            | 6             |
| SPED              | 275—Auditory Disorders in Children .....     | 3            | 3             |
| SP                | 275—Phonetics .....                          | 3            | 3             |
| ZOO               | 11—General Zoology—Invertebrate .....        | 5            | 5             |
|                   |  | <hr/>        | 48            |

Recommended electives are IA 80, IA 283, IA 284, ZOO 12, ZOO 112, ZOO 117, PSY 30, PSY 240, PHYS 260.

## Rehabilitation and Related Services Major (Bachelor of Science Degree)

Required courses in the major:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| SPED              | 10—Education of Exceptional Children .....   | 3            | 3             |
| SPED              | 191—Orientation to Rehabilitation and Related Services .....                           | 3            | 3             |
| SPED              | 194—Supervised Field Practice in Rehabilitation and Related Services .....             | 15           | 15            |
| SPED              | 202—Counseling Parents of Exceptional Children .....                                   | 3            | 3             |
| SPED              | 290—Introduction to Rehabilitation Counseling .....                                    | 3            | 3             |
| SPED              | 298—Community Resources in Rehabilitation, Guidance and Counseling .....               | 3            | 3             |
| ANT               | 224—Indians of the Southwest (or other suitable course in cultural anthropology) ..... | 3            | 3             |
| ANT               | 281—Acculturation .....  | 4            | 4             |
| SOC               | 85—Problems of Intergroup Relations .....  | 4            | 4             |
| SOC               | 112—Delinquency .....  | 4            | 4             |
| SOC               | 207—Collective Behavior .....  | 3            | 3             |
| SOC               | 291—Social Psychology .....  | 3            | 3             |
| PSCI              | 40—National Government .....   | 5            | 5             |
| PSCI              | 180—Public Opinion and Pressure Groups .....   | 4            | 4             |
| PSY               | 280—Psychology of the Healthy Personality .....  | 3            | 3             |
|                   |  | <hr/>        | 63            |

One minor of 27 quarter hours outside the field of Special Education (preferably Psychology).

Electives—Sufficient electives to complete the requirement for graduation.

## Student Field Experiences

Robert C. Richardson, Coordinator

**Professors:** Findley, Van Maanen.

**Associate Professor:** Damgaard.

**Assistant Professors:** Bruce, Burron, Febinger, Fielder, Richardson, Weltner.

**Instructors:** Burns, J. Johnson, Westgaard.

It is the responsibility of this office to coordinate all types of student field experiences for all departments of the college. This includes observations, teacher aide work, student teaching, internships, and graduate residencies that take place in the cooperating school districts of Colorado.

| <i>Course No.</i> | <i>Course Title</i>                                      | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| SFE               | 160—Observation In Cooperating Schools .....             | 1-4                 |
| SFE               | 170—Teaching Aide .....                                  | 1-4                 |
| SFE               | 180—Simulation of Teaching .....                         | 3                   |
| SFE               | 220—Special Education Student Teaching: Elementary ..... | 18                  |
| SFE               | 230—Special Education Student Teaching: Secondary .....  | 18                  |
| SFE               | 240—Preschool Student Teaching .....                     | 18                  |
| SFE               | 250—Elementary Student Teaching .....                    | 18                  |
| SFE               | 251—Half-Day Internship: Elementary .....                | 18                  |
| SFE               | 252—Full-Day Internship: Elementary .....                | 18                  |
| SFE               | 253—Advanced Student Teaching: Elementary .....          | 18                  |
| SFE               | 260—Secondary Student Teaching .....                     | 18                  |
| SFE               | 261—Half-Day Internship: Secondary .....                 | 18                  |
| SFE               | 262—Full-Day Internship: Secondary .....                 | 18                  |
| SFE               | 263—Advanced Student Teaching: Secondary .....           | 18                  |

#### **Important Note**

All undergraduate SFE Courses are evaluated on an S-U (Satisfactory-Unsatisfactory) basis rather than the usual A-F scale. No GPA is figured but credit hours of "S" will count toward graduation.

# SCHOOL OF HEALTH, PHYSICAL EDUCATION AND RECREATION

L. C. Butler, Dean

**Professors:** Behling, Cyphers, Everett, Lindahl, R. Montgomery, Steffy, Van Anne.  
**Associate Professors:** Barham, Blasi, Heiss, Rossi, Sage, Shirley, Wright.  
**Assistant Professors:** Benich, Cooke, Ebel, Fri, LaBonde, Malumphy, McKain, McMillen, Mosser, Phillips.  
**Instructors:** Abbott, Beckner, Berry, Clark, Cody, Hedberg, Hildreth, Kelly, Lochner, Neff, Notto, Nowlin, Rodriguez, Rollins, Van Dinter, Zimer.

The School of Health, Physical Education and Recreation performs two primary functions as follow:

1. The professional preparation of teachers, coaches, supervisors, and administrators of Health and Physical Education.
2. The professional preparation of recreation leaders and administrators.

The following specific areas of professional preparation are offered:

- Health Education Major
- Health Education Minor
- Men's Physical Education Major — Secondary Level
- Men's Physical Education Major — Elementary Level
- Men's Physical Education Minor — Secondary Level
- Men's Physical Education Minor — Elementary Level
- Men's Coaching Minor
- Women's Physical Education Major — Secondary Level
- Women's Physical Education Major — Elementary Level
- Women's Physical Education Minor — Secondary Level
- Women's Physical Education Minor — Elementary Level
- Dance Minor
- Recreation Major for Men
- Recreation Major for Women

## Health Education

Bryan E. M. Cooke, Chairman

The Department of Health Education offers a major and a minor.

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours plus six quarters of physical education activity.
2. Advanced Teacher Education, 31 hours.
3. The following required courses in the major:

| <i>Course No.</i> | <i>Course Title</i>                                 | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| HPER              | 62—First Aid .....                                  | 2            |               |
| HPER              | 99—Community Health .....                           | 4            |               |
| HPER              | 101—Health Education in the Elementary School ..... | 2            |               |
|                   | <i>or</i>   |              |               |
| HEPR              | 102—Health Education in the Secondary School .....  | 4            |               |
| HPER              | 122—Physiological Kinesiology .....                 | 3            |               |
|                   | <i>or</i>   |              |               |
| ZOO               | 117—Human Physiology .....                          | 5            |               |

|      |   |   |
|------|---|---|
| HPER | 124—Maturational Kinesiology .....                    | 3 |
|      | <i>or</i>   |   |
| PSY  | 230—Child and Adolescent Psychology .....             | 3 |
| HPER | 142—Modern Concepts of Health and Disease .....       | 3 |
| HPER | 143—Methods and Observation of Health Education ..... | 5 |
| HPER | 205—Issues in Health Education .....                  | 3 |
| HPER | 271—Safety Education .....                            | 3 |
| BIO  | 152—Genetics .....                                    | 5 |
| BOT  | 203—Biology of Microorganisms .....                   | 5 |
| HEC  | 51—Basic Nutrition .....                              | 3 |
| PSY  | 285—Mental Hygiene and Emotional Health .....         | 3 |
|      | Electives as needed to complete a total of 48 hours   |   |

48

4. A teaching minor of 27 quarter hours or more. This minor may be selected outside the School of Health, Physical Education and Recreation, or from within the School of Health, Physical Education and Recreation in either Physical Education or in Dance Education. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

5. Electives sufficient to complete requirements for the Bachelor of Arts degree.

## Health Education Minor

| Course No. | Course Title  | Hours Credit |
|------------|---|--------------|
| HPER       | 62—First Aid .....                                    | 2            |
| HPER       | 99—Community Health .....                             | 4            |
| HPER       | 101—Health Education in the Elementary School* .....  | 2            |
|            | <i>or</i>   |              |
| HEPR       | 102—Health Education in the Secondary School .....    | 4            |
| HPER       | 142—Modern Concepts in Health and Disease .....       | 3            |
| HPER       | 143—Methods and Observation of Health Education ..... | 5            |
| HPER       | 205—Issues in Health Education .....                  | 3            |
| HPER       | 271—Safety Education .....                            | 3            |
| PSY        | 285—Mental Hygiene and Emotional Health .....         | 3            |

\*Elementary School Emphasis (HPER 101) must have 2 hours electives to be approved by major adviser

27

## Physical Education (Men)

George H. Sage, Chairman

### Physical Education Major for Men

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours.
2. The following courses must be substituted for the six quarters of physical education activity required as part of General Education:

| Course No. | Course Title   | Hours Credit |
|------------|--|--------------|
| HPER       | 71—Analysis and Movements of Soccer .....                  | 1            |
| HPER       | 74—Analysis and Movements of Volleyball .....              | 1            |
| HPER       | 80—Analysis and Movements of Badminton .....               | 1            |
| HPER       | 84—Analysis and Movements of Tennis .....                  | 1            |
| HPER       | 85—Analysis and Movements of Tumbling and Gymnastics ..... | 2            |

3. Advanced Teacher Education, 31 hours, plus HPER 144, three hours credit, and HPER 145, two hours credit.

4. The following required courses in the major:

| Course No. | Course Title                                  | Hours Credit |
|------------|---|--------------|
| HPER       | 62—First Aid .....                            | 2            |
| HPER       | 73—Analysis and Movements of Basketball ..... | 2            |
| HPER       | 75—Analysis and Movements of Wrestling .....  | 1            |



SCHOOL OF HEALTH, PHYSICAL EDUCATION AND RECREATION / 109

|      |  |    |
|------|--|----|
| HPER | 76—Analysis and Movements of Football .....  | 2  |
| HPER | 77—Analysis and Movements of Track .....   | 1  |
| HPER | 78—Analysis and Movements of Baseball .....  | 1  |
| HPER | 83—Analysis and Movements of Swimming .....  | 1  |
| HPER | 90—Analysis and Movements of Folk Dance .....  | 2  |
| HPER | 92—Analysis and Movements of American Square and Social Dance .....                    | 2  |
| HEPR | 102—Health Education in the Secondary School .....                                     | 4  |
| HPER | 120—Anatomical Kinesiology .....   | 3  |
| HPER | 121—Mechanical Kinesiology .....   | 3  |
| HPER | 122—Physiological Kinesiology .....  | 3  |
| HPER | 123—Psychological Kinesiology .....  | 3  |
| HPER | 161—Coaching of Football .....   | 2  |
| HPER | 162—Coaching of Basketball .....   | 2  |
| HPER | 163—Coaching of Track and Field .....  | 2  |
| HPER | 164—Coaching of Baseball .....   | 2  |
| HPER | 226—Tests and Measurement in Physical Education.....                                   | 3  |
| HPER | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation ..... | 3  |
| HPER | 250—Administration of Physical Education .....   | 3  |
| HPER | 272—Recreation Leadership .....  | 3  |
|      |  | 50 |

5. HPER 145 and at least 14 hours of the HPER Analysis and Movement classes must be completed before a student may student teach in this field.

6. A teaching minor of 27 quarter hours or more. This minor may be selected outside the School of Health, Physical Education and Recreation, or from with the School of Health Physical Education and Recreation in either Health Education or in Dance Education. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

7. Most states require courses in methods and observation of teaching specific subjects for certification. Students majoring in this field should take Introduction to Student Teaching and Methods of Teaching in their minor.

8. Electives sufficient to complete requirements for the Bachelor of Arts degree.

9. Electives may be used at the students' option and under advisement to complete teaching competencies in Health Education and Driver Education.

## Physical Education Minor for Men (Coaching Emphasis—Secondary Level)

Entry to this minor requires athletic participation at this School and approval by the athletic department. Before enrolling in courses in this minor, secure applications from the School office.

| <i>Course No.</i>                        | <i>Course Title</i>  | <i>Hours Credit</i> |
|--|--|---------------------|
| A minimum of 5 hours elected from: ..... |  | 5                   |
| HPER                                     | 73—Analysis and Movements of Basketball  |                     |
| HPER                                     | 75—Analysis and Movements of Wrestling   |                     |
| HPER                                     | 76—Analysis and Movements of Football  |                     |
| HPER                                     | 77—Analysis and Movements of Track   |                     |
| HPER                                     | 78—Analysis and Movements of Baseball  |                     |
| HPER                                     | 83—Analysis and Movements of Swimming  |                     |
| HPER                                     | 85—Analysis and Movements of Tumbling and Gymnastics                                   |                     |
| A minimum of 4 hours elected from: ..... |  | 4                   |
| HPER                                     | 161—Coaching of Football   |                     |
| HPER                                     | 162—Coaching of Basketball   |                     |
| HPER                                     | 163—Coaching of Track and Field  |                     |
| HPER                                     | 164—Coaching of Baseball   |                     |
| And the following:                       |  |                     |
| HPER                                     | 120—Anatomical Kinesiology .....   | 3                   |
| HPER                                     | 121—Mechanical Kinesiology .....   | 3                   |
| HPER                                     | 122—Physiological Kinesiology .....  | 3                   |
| HPER                                     | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation ..... | 3                   |
| HPER                                     | 270—Administration of Athletics .....  | 3                   |
| HPER                                     | 280—Care of Sports Injuries .....  | 3                   |
|  |  | 27                  |

## Physical Education Minor for Men (Teaching Emphasis—Secondary Level)

1. The following courses must be substituted for the six quarters of physical education activity required as a part of General Education:

| Course No. | Course Title                                  | Hours | Credit |
|------------|---|-------|--------|
| HPER       | 76—Analysis and Movements of Football .....   | 2     |        |
| HPER       | 77—Analysis and Movements of Track .....      | 1     |        |
| HPER       | 78—Analysis and Movements of Baseball .....   | 1     |        |
| HPER       | 90—Analysis and Movements of Folk Dance ..... | 2     |        |

2. Following are the requirements for the minor:

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| HPER       | 62—First Aid .....   | 2     |        |
| HPER       | 71—Analysis and Movements of Soccer .....  | 1     |        |
| HPER       | 73—Analysis and Movements of Basketball .....  | 2     |        |
| HPER       | 74—Analysis and Movements of Volleyball .....  | 1     |        |
| HPER       | 75—Analysis and Movements of Wrestling .....   | 1     |        |
| HPER       | 80—Analysis and Movements of Badminton .....   | 1     |        |
| HPER       | 83—Analysis and Movements of Swimming .....  | 1     |        |
| HPER       | 84—Analysis and Movements of Tennis .....  | 1     |        |
| HPER       | 85—Analysis and Movements of Tumbling and Gymnastics .....                                   | 2     |        |
| HPER       | 92—Analysis and Movements of American Square and Social Dance .....                          | 2     |        |
| HPER       | 120—Anatomical Kinesiology .....   | 3     |        |
| HPER       | 121—Mechanical Kinesiology .....   | 3     |        |
| HPER       | 122—Physiological Kinesiology .....  | 3     |        |
| HPER       | 145—Methods and Observations of Teaching Physical Education<br>in the Secondary School ..... | 2     |        |
| HPER       | 226—Tests and Measurement in Physical Education<br>or  |       |        |
| HPER       | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation .....       | 3     |        |
|            |  | <hr/> | 28     |

3. HPER 145 and at least 14 hours of the HPER Analysis and Movement classes must be completed before a student may student teach in this field.

## Physical Education Major for Men (Elementary School Emphasis)

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours.
2. The following courses must be substituted for the six quarters of physical education activity required as part of General Education:

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| HPER       | 90—Analysis and Movements of Folk Dance .....                       | 2     |        |
| HPER       | 91—Rhythms for the Elementary School .....                          | 2     |        |
| HPER       | 92—Analysis and Movements of American Square and Social Dance ..... | 2     |        |

3. Advanced Teacher Education, 31 hours.

4. The following required courses in the major:

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| HPER       | 62—First Aid .....   | 2     |        |
| HPER       | 71—Analysis and Movements of Soccer .....                  | 1     |        |
| HPER       | 73—Analysis and Movements of Basketball .....              | 2     |        |
| HPER       | 74—Analysis and Movements of Volleyball .....              | 1     |        |
| HPER       | 75—Analysis and Movements of Wrestling .....               | 1     |        |
| HPER       | 77—Analysis and Movements of Track .....                   | 1     |        |
| HPER       | 78—Analysis and Movements of Baseball .....                | 1     |        |
| HPER       | 83—Analysis and Movements of Swimming .....                | 1     |        |
| HPER       | 85—Analysis and Movements of Tumbling and Gymnastics ..... | 2     |        |
| HPER       | 101—Health Education in the Elementary School .....        | 2     |        |
| HPER       | 120—Anatomical Kinesiology .....                           | 3     |        |
| HPER       | 121—Mechanical Kinesiology .....                           | 3     |        |

|      |  |    |
|------|--|----|
| HPER | 122—Physiological Kinesiology .....  | 3  |
| HPER | 123—Psychological Kinesiology .....  | 3  |
| HPER | 124—Maturational Kinesiology .....   | 3  |
| HPER | 144—Methods and Observation of Teaching Physical Education<br>in the Elementary School ..... | 3  |
| HPER | 226—Tests and Measurement in Physical Education.....   | 3  |
| HPER | 232—Adapted Physical Education .....   | 3  |
| HPER | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation .....       | 3  |
| HPER | 272—Recreation Leadership .....  | 3  |
| EM   | 80—Introduction to Outdoor Education .....   | 3  |
|      |  | 47 |

5. HPER 144 and at least 10 hours of the HPER Analysis and Movement classes must be completed before a student may student teach in this field.

6. A teaching minor of 27 quarter hours or more. This minor may be selected outside the School of Health, Physical Education and Recreation, or from within the School of Health, Physical Education and Recreation, in either Health Education or in Dance Education. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

7. Most states require courses in methods and observation of teaching specific subjects for certification. Students majoring in this field should take Introduction to Student Teaching and Methods of Teaching in their minor.

8. Electives sufficient to complete requirements for the Bachelor of Arts degree.

## Physical Education Minor for Men (Elementary Level)

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| HPER              | 62—First Aid .....   | 2                   |
| HPER              | 71—Analysis and Movements of Soccer .....  | 1                   |
| HPER              | 73—Analysis and Movements of Basketball .....  | 2                   |
| HPER              | 74—Analysis and Movements of Volleyball .....  | 1                   |
| HPER              | 77—Analysis and Movements of Track .....   | 1                   |
| HPER              | 78—Analysis and Movements of Baseball .....  | 1                   |
| HPER              | 85—Analysis and Movements of Tumbling and Gymnastics .....                                   | 2                   |
| HPER              | 90—Analysis and Movements of Folk Dance .....  | 2                   |
| HPER              | 91—Rhythms for the Elementary School .....   | 2                   |
| HPER              | 101—Health Education in the Elementary School .....  | 2                   |
| HPER              | 120—Anatomical Kinesiology .....   | 3                   |
| HPER              | 121—Mechanical Kinesiology .....   | 3                   |
| HPER              | 144—Methods and Observation of Teaching Physical Education<br>in the Elementary School ..... | 3                   |
| HPER              | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation .....       | 3                   |
|                   | <i>or</i>  |                     |
| HPER              | 272—Recreation Leadership .....  | 3                   |
|                   |  | 28                  |

1. HPER 144 and at least 8 hours of the HPER Analysis and Movement classes must be completed before a student may student teach in this field.

## Physical Education (Women)

Margaret E. Everett, Chairman

### Physical Education Major for Women

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours.

2. The following courses must be substituted for the six quarters of physical education activity required as part of General Education:

| Course No. | Course Title                                  | Hours | Credit |
|------------|---|-------|--------|
| HPER       | 73—Analysis and Movements of Basketball ..... | 1     | 1      |
| HPER       | 74—Analysis and Movements of Volleyball ..... | 1     | 1      |
| HPER       | 77—Analysis and Movements of Track .....      | 1     | 1      |
| HPER       | 80—Analysis and Movements of Badminton .....  | 1     | 1      |
| HPER       | 95—Analysis of Movement Fundamentals .....    | 1     | 1      |
| HPER       | 98—Analysis of Swimming Techniques .....      | 1     | 1      |

3. Advanced Teacher Education, 31 hours, plus HPER 144, three hours credit, and HPER 145, two hours credit.

4. The following required courses in the major:

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| HPER       | 62—First Aid .....   | 2     | 2      |
| HPER       | 71—Analysis and Movements of Soccer .....  | 1     | 1      |
| HPER       | 72—Analysis and Movements of Hockey .....  | 1     | 1      |
| HPER       | 78—Analysis and Movements of Softball .....  | 1     | 1      |
| HPER       | 84—Analysis and Movements of Tennis .....  | 1     | 1      |
| HPER       | 85—Analysis and Movements of Tumbling and Gymnastics .....                             | 2     | 2      |
| HPER       | 90—Analysis and Movements of Folk Dance .....  | 2     | 2      |
| HPER       | 92—Analysis and Movements of American Square and Social Dance .....                    | 2     | 2      |
| HPER       | 93—Analysis and Movements of Modern Dance .....  | 2     | 2      |
| HPER       | 94—Problems in Dance Composition .....   | 2     | 2      |
| HEPR       | 102—Health Education in the Secondary School .....                                     | 4     | 4      |
| HPER       | 120—Anatomical Kinesiology .....   | 3     | 3      |
| HPER       | 121—Mechanical Kinesiology .....   | 3     | 3      |
| HPER       | 122—Physiological Kinesiology .....  | 3     | 3      |
| HPER       | 123—Psychological Kinesiology .....  | 3     | 3      |
| HPER       | 125—Teaching of Sports .....   | 2     | 2      |
| HPER       | 126—Teaching of Dance .....  | 2     | 2      |
| HPER       | 226—Tests and Measurement in Physical Education .....                                  | 3     | 3      |
| HPER       | 232—Adapted Physical Education .....   | 3     | 3      |
| HPER       | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation ..... | 3     | 3      |
| HPER       | 272—Recreation Leadership .....  | 3     | 3      |
|            | Electives chosen from the following .....  | 4     | 4      |
| HPER       | 127—Coaching and Officiating of Gymnastics .....                                       |       |        |
| HPER       | 128—Coaching and Officiating of Track and Field .....                                  |       |        |
| HPER       | 129—Coaching and Officiating of Field Sports .....                                     |       |        |
| HPER       | 130—Coaching and Officiating of Volleyball .....                                       |       |        |
| HPER       | 131—Coaching and Officiating of Basketball .....                                       |       |        |
| HPER       | 132—Coaching and Officiating of Tennis .....   |       |        |
| HPER       | 133—Coaching and Officiating of Swimming .....   |       |        |

52

5. HPER 144 and 145 and at least 14 hours of the HPER Analysis and Movement classes must be completed before a student may student teach in this field.

6. A teaching minor of 27 quarter hours or more. This minor may be selected outside the School of Health, Physical Education and Recreation, or from within the School of Health, Physical Education and Recreation in either Health Education or in Dance Education. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

7. Electives sufficient to complete requirements for the Bachelor of Arts degree.

## Physical Education Minor for Women (Secondary Level)

1. The following courses must be substituted for the six quarters of physical education activity required as part of General Education:

| Course No. | Course Title                                | Hours | Credit |
|------------|---|-------|--------|
| HPER       | 77—Analysis and Movements of Track .....    | 1     | 1      |
| HPER       | 78—Analysis and Movements of Softball ..... | 1     | 1      |

|      |   |   |
|------|---|---|
| HPER | 84—Analysis and Movements of Tennis .....     | 1 |
| HPER | 90—Analysis and Movements of Folk Dance ..... | 2 |
| HPER | 95—Analysis of Movement Fundamentals .....    | 1 |

2. The following required courses in the minor:

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| HPER              | 62—First Aid .....  | 2            | 2             |
| HPER              | 71—Analysis and Movements of Soccer .....   | 1            | 1             |
| HPER              | 72—Analysis and Movements of Hockey .....   | 1            | 1             |
| HPER              | 73—Analysis and Movements of Basketball .....   | 2            | 2             |
| HPER              | 74—Analysis and Movements of Volleyball .....   | 1            | 1             |
| HPER              | 85—Analysis and Movements of Tumbling and Gymnastics .....  | 2            | 2             |
| HPER              | 92—Analysis and Movements of American Square and Social Dance .....                                 | 2            | 2             |
| HEPR              | 102—Health Education in the Secondary School .....  | 4            | 4             |
| HPER              | 120—Anatomical Kinesiology .....  | 3            | 3             |
| HPER              | 121—Mechanical Kinesiology .....  | 3            | 3             |
| HPER              | 122—Physiological Kinesiology .....   | 3            | 3             |
| HPER              | 145—Methods and Observation of Teaching Physical Education<br>in the Secondary School (Women) ..... | 2            | 2             |
| HPER              | 226—Tests and Measurement in Physical Education .....   | 3            | 3             |
|                   | or  |              |               |
| HPER              | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation .....              | 3            | 3             |
|                   |   | <hr/>        | 28            |

3. HPER 145 and at least 14 hours of the HPER Analysis and Movement classes must be completed before a student may student teach in this field.

## Physical Education Major for Women (Elementary School Emphasis)

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours.

2. The following courses must be substituted for the six quarters of physical education activity required as part of General Education:

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| HPER              | 90—Analysis and Movements of Folk Dance .....                       | 2            | 2             |
| HPER              | 91—Rhythms for the Elementary School .....                          | 2            | 2             |
| HPER              | 92—Analysis and Movements of American Square and Social Dance ..... | 2            | 2             |

3. Advanced Teacher Education, 31 hours.

4. The following required courses in the major:

| <i>Course No.</i> | <i>Course Title</i>  | <i>Hours</i> | <i>Credit</i> |
|-------------------|--|--------------|---------------|
| HPER              | 62—First Aid .....   | 2            | 2             |
| HPER              | 71—Analysis and Movements of Soccer .....  | 1            | 1             |
| HPER              | 72—Analysis and Movements of Hockey .....  | 1            | 1             |
| HPER              | 73—Analysis and Movements of Basketball .....  | 1            | 1             |
| HPER              | 74—Analysis and Movements of Volleyball .....  | 1            | 1             |
| HPER              | 77—Analysis and Movements of Track .....   | 1            | 1             |
| HPER              | 83—Analysis and Movements of Swimming .....  | 2            | 2             |
| HPER              | 85—Analysis and Movements of Tumbling and Gymnastics .....                                   | 2            | 2             |
| HPER              | 95—Analysis of Movement Fundamentals .....   | 1            | 1             |
| HPER              | 101—Health Education in the Elementary School .....  | 2            | 2             |
| HPER              | 120—Anatomical Kinesiology .....   | 3            | 3             |
| HPER              | 121—Mechanical Kinesiology .....   | 3            | 3             |
| HPER              | 122—Physiological Kinesiology .....  | 3            | 3             |
| HPER              | 123—Psychological Kinesiology .....  | 3            | 3             |
| HPER              | 124—Maturational Kinesiology .....   | 3            | 3             |
| HPER              | 144—Methods and Observation of Teaching Physical Education<br>in the Elementary School ..... | 3            | 3             |
| HPER              | 226—Tests and Measurement in Physical Education .....  | 3            | 3             |
| HPER              | 232—Adapted Physical Education .....   | 3            | 3             |
| HPER              | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation .....       | 3            | 3             |
| HPER              | 272—Recreation Leadership .....  | 4            | 4             |
| EM                | 80—Introduction to Outdoor Education .....   | 3            | 3             |
|                   |  | <hr/>        | 47            |

5. HPER 144 and at least 10 hours of the HPER Analysis and Movement classes must be completed before a student may student teach in this field.

6. A teaching minor of 27 quarter hours or more. This minor may be selected outside the School of Health, Physical Education and Recreation, or from within the School of Health, Physical Education and Recreation, in either Health Education or in Dance Education. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

7. Electives sufficient to complete requirements for the Bachelor of Arts degree.

## Physical Education Minor for Women (Elementary Level)

1. Students in this minor must complete the six quarters of physical education activity required as part of General Education.

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| HPER       | 62—First Aid .....   | 2     |        |
| HPER       | 71—Analysis and Movements of Soccer .....  | 1     |        |
| HPER       | 72—Analysis and Movements of Hockey .....  | 1     |        |
| HPER       | 73—Analysis and Movements of Basketball .....  | 1     |        |
| HPER       | 74—Analysis and Movements of Volleyball .....  | 1     |        |
| HPER       | 77—Analysis and Movements of Track .....   | 1     |        |
| HPER       | 85—Analysis and Movements of Tumbling and Gymnastics .....                                   | 2     |        |
| HPER       | 90—Analysis and Movements of Folk Dance .....  | 2     |        |
| HPER       | 91—Rhythms for the Elementary School .....   | 2     |        |
| HPER       | 95—Analysis of Movement Fundamentals .....   | 1     |        |
| HPER       | 101—Health Education in the Elementary School .....  | 2     |        |
| HPER       | 120—Anatomical Kinesiology .....   | 3     |        |
| HPER       | 121—Mechanical Kinesiology .....   | 3     |        |
| HPER       | 144—Methods and Observation of Teaching Physical Education in<br>the Elementary School ..... | 3     |        |
| HPER       | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation .....       | 3     |        |
|            |  |       | 28     |

## Dance Education Minor (Men and Women)

1. For non-physical education majors, the following must be substituted for the six quarters of physical education activity required as part of General Education.

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| HPER       | 90—Analysis and Movements of Folk Dance .....                       | 2     |        |
| HPER       | 92—Analysis and Movements of American Square and Social Dance ..... | 2     |        |
| HPER       | 93—Analysis and Movements of Modern Dance .....                     | 2     |        |

2. Women majoring in physical education and electing this minor must complete four hours of electives under advisement.

3. Men majoring in physical education and electing this minor must complete HPER 93 in addition to the major and minor requirements.

4. The following required courses in the minor:

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| HPER       | 91—Rhythms for the Elementary School .....            | 2     |        |
| HPER       | 94—Problems in Dance Composition .....                | 2     |        |
| HPER       | 96—Rhythmic Analysis and Dance Accompaniment .....    | 2     |        |
| HPER       | 126—Teaching of Dance .....                           | 2     |        |
| HPER       | 155—Modern Dance Techniques .....                     | 4     |        |
| HPER       | 156—Improvisation and Composition Forms .....         | 2     |        |
| HPER       | 256—Workshop in Modern Dance .....                    | 4     |        |
| HPER       | 257—Dance History and Philosophy .....                | 4     |        |
| HPER       | 259—Dance Production in High School and College ..... | 3     |        |
| MUS        | 50—Music Fundamentals for Dancers .....               | 2     |        |

# Recreation

J. Max Shirley, Chairman

## Recreation Major

Following are the requirements for the major:

1. General Education totaling 60 academic quarter hours.
2. For either men or women, courses from HPER 71-87 must be substituted for the six quarters of physical education activity required as part of General Education (the selection must be made with the counsel of the major adviser).
3. The following required courses in the major:

| Course No. | Course Title   | Hours | Credit |
|------------|--|-------|--------|
| HPER       | 62—First Aid .....   | 2     | 2      |
| HPER       | 77—Analysis and Movements of Track .....   | 1     | 1      |
| HPER       | 78—Analysis and Movements of Softball .....  | 1     | 1      |
| HPER       | 83—Analysis and Movements of Swimming .....  | 1     | 1      |
| HPER       | 84—Analysis and Movements of Tennis .....  | 1     | 1      |
| HPER       | 88—Physical Education Activities for the Elementary School .....                       | 2     | 2      |
| HPER       | 90—Analysis and Movements of Folk Dance .....  | 2     | 2      |
| HPER       | 92—Analysis and Movements of American Square and Social Dance .....                    | 2     | 2      |
| HPER       | 97—Introduction to Health, Physical Education, and Recreation .....                    | 2     | 2      |
| HPER       | 172—Social Recreation .....  | 2     | 2      |
| HPER       | 173—Camp Counseling .....  | 3     | 3      |
| HPER       | 235—Educational Interpretations of Health, Physical Education,<br>and Recreation ..... | 3     | 3      |
| HPER       | 251—Administration of Community Recreation .....                                       | 4     | 4      |
| HPER       | 268—Programs in Recreation .....   | 4     | 4      |
| HPER       | 269—Recreation for the Handicapped .....   | 3     | 3      |
| HPER       | 271—Safety Education .....   | 3     | 3      |
| HPER       | 272—Recreation Leadership .....  | 3     | 3      |
| FA         | 127—Craft Techniques .....   | 3     | 3      |
| MUS        | 206—Music and Recreation .....   | 2     | 2      |
| PSY        | 230—Psychology of Childhood and Adolescence .....                                      | 3     | 3      |
| SP         | 112—Creative Dramatics .....   | 3     | 3      |

48

4. One minor of 27 quarter hours, or 27 quarter hours of supporting courses selected with the approval of the major adviser. Courses in the selected minor that are preceded by an asterisk (\*) may be counted toward fulfillment of the General Education requirements.

5. Senior recreation majors will complete HPER 252, Internship in Recreation, 15 hours. Courses HPER 251, 268, 269, and 272 are prerequisites for HPER 252.

6. Electives sufficient to complete requirements for the Bachelor of Science degree.

# SCHOOL OF MUSIC

James E. Miller, Dean

Robert S. James, Administrative Assistant to the Dean

The School of Music is a professional school offering preparation both for the vocal and instrumental performer and for the teacher of music. It also provides courses for the student interested in music as part of his general and cultural education. Faculty and students in the School of Music take a leading part in the cultural activities on the campus. The School of Music is an associate member of the National Association of Schools of Music.

**Bachelor of Arts (non-Teaching)**

Music Major  
Music Minor

**Bachelor of Music (non-teaching) Major**

Music (vocal, instrumental or piano) Major  
Music (combined with Bachelor of Arts Degree in music education) Major

**Bachelor of Arts (teaching)**

Music Education Major (instrumental or vocal, piano and general emphasis)  
Music Education and Elementary Education Majors (a double major)  
Music Education and Music Majors (combined with Bachelor of Music Degree)

**Brass and Percussion Department:** Edwin Baker, Chairman.

**History and Literature Department:** Don Garlick, Chairman.

**Music Education Department:** John Fluke, Chairman

**Piano and Organ Department:** Rupert Goodbrod, Chairman.

**String Department:** Howard Mickens, Chairman.

**Theory and Composition Department:** Dale Dykins, Chairman.

**Voice Department:** Claude Schmitz, Chairman.

**Woodwind Department:** Kenneth Evans, Chairman.

**Professors:** Dykins, Garlick, Goodbrod, Hutcherson, King, J. Miller, Mohr, Schenkman.

**Associate Professors:** Baker, Bartlett, Evans, Fluke, Himmel, James, Mickens, Nofziger, Schmitz, Skinner, Walker.

**Assistant Professors:** Copley, Ginsburg, Goes, Linscome, Menk, Upton.

**Instructors:** Haight, Jamieson, G. Johnson, Lowrey, Maurice, D. Robinson, J. Robinson, W. Smith.

## Bachelor of Arts Degree

### Music Major

1. General Education totaling 60 quarter hours, plus six quarters of physical education activity.

2. A 51-hour major in music as outlined below:

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| MUS        | 1, 2, 3—Sight Singing and Theory I, II, III             | ..... | 12     |
| MUS        | 52, 53, 54—Advanced Sight Singing and Theory I, II, III | ..... | 9      |



|      |   |    |
|------|---|----|
| *MUS | 58, 59, 60—Music Literature and Styles I, II, III ..... | 6  |
| MUS  | 152—Counterpoint .....                                  | 3  |
| MUS  | 153—Homophonic Forms .....                              | 3  |
| MUS  | 158, 159, 160—History of Music I, II, III .....         | 9  |
|      | Electives in Music .....                                | 9  |
|      |   | 51 |

\*May be used as part of the 60 hours of required General Education.

3. One academic minor of 27 quarter hours outside the School of Music.
4. Two years of French or German.
5. One quarter hour of applied music credit must be earned each quarter in residence in the student's major performance area. One quarter hour of credit must be earned each quarter in residence in a musical organization such as Band, Orchestra or Choir.
6. Meet all music performance and recital attendance requirements as listed on page 124.
7. Electives to meet requirements for graduation.

## Music Minor

| <i>Course No.</i> | <i>Course Title</i>                                     | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| *MUS              | 48—Music Appreciation .....                             | 2                   |
| *MUS              | 49—Music Fundamentals I .....                           | 2                   |
| *MUS              | 50—Music Fundamentals II .....                          | 3                   |
| *MUS              | 58, 59, 60—Music Literature and Styles I, II, III ..... | 6                   |
|                   | **Music Performance (Applied) .....                     | 3                   |
|                   | ***Music Performance (Major Ensemble) .....             | 3                   |
|                   | ***Music Electives .....                                | 8                   |
|                   |   | 27                  |

\*Courses 48, 49, 50, 58, 59, 60, applied, and ensemble may be used as part of the 60 hours of required General Education.

\*\*At least three hours of applied music credit must be earned by taking three continuous quarters of individual instruction in a single musical medium.

\*\*\*At least three hours of ensemble credit must be earned by performance in a major musical organization (Concert Band, Varsity Band, Symphonic Wind Band, Laboratory Orchestra, Orchestra, Concert Choir, Oratorio Chorus, Women's Concert Choir, or Varsity Men's Glee Club).

\*\*\*\*To be selected upon consultation with minor adviser.

## Bachelor of Music Degree

### Requirements:

1. General Education totaling 60 quarter hours, which included six hours of Music 58, 59, 60, Music Literature and Styles I, II, III, plus six quarters of physical education activity courses.

| <i>Course No.</i> | <i>Course Title</i>                                     | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| *MUS              | 58, 59, 60—Music Literature and Styles I, II, III ..... | 6                   |
| COM               | 1—Elementary Composition I .....                        | 3                   |
| COM               | 2—Elementary Composition II .....                       | 3                   |
| COM               | 3—Elementary Composition III .....                      | 3                   |
| PSY               | 20—General Psychology .....                             | 3                   |
| HPER              | 61—Personal and Community Health .....                  | 3                   |
| SCI               | 3—Physical Science .....                                | 3                   |
| SCI               | 4—Biological Science .....                              | 3                   |
| SCI               | 5—Earth Science .....                                   | 3                   |
| HUM               | 1—Introduction — The Greek and Roman Periods .....      | 3                   |
| HUM               | 2—The Middle Ages and the Renaissance .....             | 3                   |
| HUM               | 3—The Eighteenth to the Twentieth Century .....         | 3                   |

*Two of the five following courses:*

|      |  |   |
|------|--|---|
| GEOG | 10-World Geography .....               | 5 |
| ANT  | 20-General Anthropology .....          | 5 |
| ECON | 30-Introductory Economics .....        | 5 |
| PSCI | 40-National Government of the US ..... | 5 |
| SOC  | 50-Principles of Sociology .....       | 5 |

*or The following three courses:*

|      |   |     |
|------|---|-----|
| HIST | 25-Western Civilization I .....                   | 3   |
| HIST | 26-Western Civilization II .....                  | 3   |
| HIST | 27-Western Civilization III .....                 | 3   |
|      | **Electives .....                                 | 11  |
| HPER | -Physical Education Activity Courses (1-60) ..... | (6) |

59-60

\*May be used as part of the 60 hours of required General Education.

\*\*To be sure that North Central Association accreditation standards are met, students must elect eleven additional quarter hours in general education courses outside the area of music (consult your adviser).

2. Complete the required courses listed below for the Instrumental, Voice, or Piano Major.

3. Meet all recital attendance requirements as listed on page 124.

4. Two or three credit hours (where applicable) of applied music study shall be carried on during each quarter of residence and culminate in a senior recital.

5. Electives to meet requirements for graduation.

## Instrumental Major

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| MUS        | 1, 2, 3-Sight Singing and Elementary Theory I, II, III .....          | 12    |        |
| MUS        | 10, 11, 12-Beginning Class Piano I, II, III .....                     |       |        |
|            | <i>or</i>   |       |        |
| MUS        | 20, 21, 22-Intermediate Class Piano I, II, III .....                  |       |        |
|            | <i>or</i>   |       |        |
| MUS        | 131, 231-Individual Instruction in Piano .....                        | 6     |        |
| MUS        | 52, 53, 54-Advanced Sight Singing and Theory I, II, III .....         | 9     |        |
| *MUS       | 58, 59, 60-Music Literature and Styles I, II, III .....               | (6)   |        |
| MUS        | 137, 237-Individual Instruction in Composition .....                  | 3     |        |
| MUS        | 152-Counterpoint .....  | 3     |        |
| MUS        | 153-Homophonic Forms .....  | 3     |        |
| MUS        | 154-Instrumentation .....   | 3     |        |
| MUS        | 158, 159, 160-History of Music I, II, III .....                       | 9     |        |
| MUS        | 162, 163, 164-Instrumental Techniques and Conducting I, II, III ..... | 3     |        |
| MUS        | 223-Practicum in Band Conducting and Performance .....                | 3     |        |
|            | <i>or</i>   |       |        |
| MUS        | 224-Practicum in Orchestral Conducting and Performance .....          | 3     |        |
| MUS        | 250-Acoustics of Music .....  | 3     |        |
| MUS        | 253-Polyphonic Forms .....  | 3     |        |
| MUS        | 261-History of Musical Instruments .....                              | 3     |        |
|            | Applied Music .....   | 36    |        |
|            | Major Musical Organizations .....                                     | 12    |        |
|            | Small Ensembles .....   | 12    |        |
|            |   |       | 126    |

\*May be used as part of the 60 hours of required General Education.

## Voice Major

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| MUS        | 1, 2, 3-Sight Singing and Theory I, II, III .....             | 12    |        |
| MUS        | 10, 11, 12-Beginning Class Piano I, II, III .....             |       |        |
|            | <i>or</i>   |       |        |
| MUS        | 20, 21, 22-Intermediate Class Piano I, II, III .....          |       |        |
|            | <i>or</i>   |       |        |
| MUS        | 131, 231-Individual Instruction in Piano .....                | 6     |        |
| MUS        | 52, 53, 54-Advanced Sight Singing and Theory I, II, III ..... | 9     |        |

|      |  |       |
|------|--|-------|
| *MUS | 58, 59, 60—Music Literature and Styles I, II, III .....  | (6)   |
| MUS  | 152—Counterpoint .....                                   | 3     |
| MUS  | 153—Homophonic Forms .....                               | 3     |
| MUS  | 154—Instrumentation .....                                | 3     |
| MUS  | 158, 159, 160—History of Music I, II, III .....          | 9     |
| MUS  | 166, 167—Choral Techniques and Conducting I, II .....    | (2)   |
|      | <i>or</i>  |       |
| MUS  | 224—Practicum in Choral Conducting and Performance ..... | 3     |
| MUS  | 184, 284—Opera Workshop .....                            | 6     |
| MUS  | 201—Stage and Opera Techniques .....                     | 2     |
| MUS  | 213—Choral Literature to 1750 .....                      | 3     |
| MUS  | 214—Choral Literature from 1750 .....                    | 3     |
| MUS  | 242—Vocal Repertoire: German Art Song .....              | 2     |
| MUS  | 243—Vocal Repertoire: French Art Song .....              | 2     |
| MUS  | 244—Vocal Repertoire: 17th & 18th Centuries .....        | 2     |
| MUS  | 253—Polyphonic Forms .....                               | 3     |
|      | *Applied Music .....                                     | 24    |
|      | *Major Musical Organizations .....                       | 12    |
|      | Languages .....  | 42    |
|      |  | <hr/> |
|      |  | 149   |

\*May be used as part of the 60 hours of required General Education.

## Piano Major

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| MUS               | 1, 2, 3—Sight Singing and Theory I, II, III .....             | 12                  |
| MUS               | 52, 53, 54—Advanced Sight Singing and Theory I, II, III ..... | 9                   |
| MUS               | 130, 230—Individual Performance in Voice .....                | 6                   |
| MUS               | 131, 231—Individual Instruction in Piano .....                | 36                  |
| MUS               | 152—Counterpoint .....  | 3                   |
| MUS               | 153—Homophonic Forms .....                                    | 3                   |
| MUS               | 158, 159, 160—History of Music I, II, III .....               | 9                   |
| MUS               | 166, 167—Choral Techniques and Conducting .....               | 2                   |
| MUS               | 189, 289—Piano Ensemble .....                                 | 1                   |
| MUS               | 207—Literature of the Piano .....                             | 3                   |
| MUS               | 219—Improvisation .....                                       | 2                   |
| MUS               | 224—Practicum in Choral Conducting and Performance .....      | 3                   |
| MUS               | 226, 227, 228—Principle of Piano Teaching I, II, III .....    | 6                   |
| MUS               | 242—Vocal Repertoire: German Art Song .....                   | 2                   |
| MUS               | 243—Vocal Repertoire: French Art Song .....                   | 2                   |
| MUS               | 244—Vocal Repertoire: 17th & 18th Centuries .....             | 2                   |
| MUS               | 250—Acoustics of Music .....                                  | 3                   |
| MUS               | 253—Polyphonic Forms .....                                    | 3                   |
|                   | *Major Musical Organizations .....                            | 12                  |
|                   |   | <hr/>               |
|                   |   | 122                 |

Combination Program—It is possible to combine the Bachelor of Arts (Teacher Preparation) in a five-year program. For information, please consult page 122.

\*May be used as part of the 60 hours of required General Education.

## Bachelor of Arts Degree (With Teacher Preparation)

### Music Education Major

#### Requirements:

1. General Education totaling 60 quarter hours, which includes six hours of Music 58, 59, 60, Music Literature and Styles I, II, III, plus six quarters of physical education activity courses.

## 120 / SCHOOL OF MUSIC

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| *MUS       | 58, 59, 60—Music Literature and Styles I, II, III ..... | 6     |        |
| COM        | 1, 2—Elementary Composition I, II .....                 | 6     |        |
| COM        | 3—Principles of Speech .....                            | 3     |        |
| PSY        | 20—General Psychology .....                             | 3     |        |
| HPER       | 61—Personal and Community Health .....                  | 3     |        |
| SCI        | 3—Physical Science .....                                | 3     |        |
| SCI        | 4—Biological Science .....                              | 3     |        |
| SCI        | 5—Earth Science .....                                   | 3     |        |
| HUM        | 1—Introduction—The Greek and Roman Periods .....        | 3     |        |
| HUM        | 2—The Middle Ages and The Renaissance .....             | 3     |        |
| HUM        | 3—The Eighteenth to the Twentieth Century .....         | 3     |        |

Two of the five following courses:

|      |   |   |
|------|---|---|
| GEOG | 10—World Geography .....                | 5 |
| ANT  | 20—General Anthropology .....           | 5 |
| ECON | 30—Introductory Economics .....         | 5 |
| PSCI | 40—National Government of the U.S. .... | 5 |
| SOC  | 50—Principles of Sociology .....        | 5 |

OR the following three courses:

|      |   |     |
|------|---|-----|
| HIST | 25, 26, 27—Western Civilization I, II, III .....  | 9   |
|      | **Electives .....                                 | 11  |
| HPER | —Physical Education Activity Courses (1-60) ..... | (6) |

59-60

\*May be used as part of the 60 hours of required General Education.

\*\*To be sure that North Central Association accreditation standards are met, students must elect eleven additional quarter hours in general education courses outside the area of music (consult your adviser).

### 2. Advanced Teacher Education, 31 hours.

| Course No. | Course Title                          | Hours | Credit |
|------------|---------------------------------------|-------|--------|
| EDHP       | 101—Basic Concepts of Education ..... | 5     |        |
| PSY        | 140—Education Psychology .....        | 5     |        |
| SFE        | 251—Student Teaching .....            | 18    |        |
| EDHP       | 295—Philosophy of Education .....     | 3     |        |

31

3. The required courses listed for the Instrumental Emphasis or the Vocal, Piano and General Emphasis.

4. One hour of applied music credit to be earned each quarter in residence in the student's major performance area and one hour of credit to be earned each quarter in residence in a major musical organization (Concert Band, Varsity Band, Symphonic Wind Band, Laboratory Orchestra, Orchestra, Concert Choir, Oratorio Chorus, Women's Concert Choir, or Varsity Men's Glee Club).

5. Meet all music performance and recital attendance requirements as listed on page 124.

6. Electives to meet requirements for graduation.

7. Meet requirements for Admission to the Advanced Teacher Education Program on page 122.

## Instrumental Emphasis

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| MUS        | 1, 2, 3—Sight Singing and Theory I, II, III .....             | 12    |        |
| MUS        | 10, 11, 12—Beginning Class Piano I, II, III                   |       |        |
|            | or  |       |        |
| MUS        | 20, 21, 22—Intermediate Class Piano I, II, III                |       |        |
|            | or  |       |        |
|            | Electives in music (upon evidence of piano proficiency) ..... | 6     |        |
| MUS        | 13, 14, 15—Beginning Strings I, II, III .....                 | 3     |        |
| MUS        | 40—Introduction to Music Education .....                      | 2     |        |
| MUS        | 52, 53, 54—Advanced Sight Singing and Theory I, II, III ..... | 9     |        |

|      |               |   |          |
|------|---------------|---|----------|
| *MUS | 58, 59, 60    | –Music Literature and Styles I, II, III   | (6)      |
| MUS  | 143           | –Introduction to Teaching General Music in The Elementary and Secondary Schools (ATE) | 3        |
| MUS  | 152           | –Counterpoint   | 3        |
| MUS  | 153           | –Homophonic Forms   | 3        |
| MUS  | 154           | –Instrumentation  | 3        |
| MUS  | 158, 159, 160 | –Music History I, II, III   | 9        |
| MUS  | 162, 163, 164 | –Instrumental Techniques and Conducting I, II, III                                    | 3        |
| MUS  | 165           | –Teaching Instrumental Music (ATE)  | 3        |
| MUS  | 190           | –Clarinet and Saxophone Class   | 1        |
| MUS  | 191           | –Trumpet and French Horn Class  | 1        |
| MUS  | 192           | –Low Brass Class  | 1        |
| MUS  | 194           | –Percussion Class   | 1        |
| MUS  | 195           | –Double Reed Class  | 1        |
| MUS  | 196           | –Voice Class  | 1        |
| MUS  | 197           | –Flute Class  | 1        |
| MUS  | 220           | –Instrument Repair and Care   | 2        |
|      |               | Applied Music   | 11       |
|      |               | Major Musical Organizations   | 11       |
|      |               | **Music Electives (to be selected from courses below)                                 | 8        |
|      |               |   | <hr/> 98 |

**\*\*Music Electives**

|     |     |   |   |
|-----|-----|---|---|
| MUS | 168 | –Senior High School Vocal Methods and Materials           | 1 |
| MUS | 204 | –Principles of Violin and Viola Teaching                  | 2 |
| MUS | 210 | –Music Literature for Elementary Grades                   | 3 |
| MUS | 212 | –Music Activities for Classroom Teachers                  | 3 |
| MUS | 216 | –Methods and Materials for Class Voice                    | 2 |
| MUS | 217 | –Methods and Materials for Class Instrumental Instruction | 3 |
| MUS | 219 | –Improvisation  | 2 |
| MUS | 241 | –Marching Band Techniques                                 | 2 |
| MUS | 259 | –The School Music Program For the Handicapped             | 3 |
| MUS | 261 | –History of Musical Instruments                           | 3 |
| MUS | 266 | –Teaching Music Appreciation                              | 3 |
| MUS | 269 | –History and Literature of Jazz                           | 2 |

\*May be used as part of the 60 hours of required General Education.

**Vocal, Piano and General Emphasis**

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| MUS        | 1, 2, 3–Sight Singing and Theory I, II, III                 |       | 12     |
| MUS        | 10, 11, 12–Beginning Class Piano I, II, III                 | (3)   |        |
|            | and/or  |       |        |
| MUS        | 20, 21, 22–Intermediate Class Piano I, II, III              | (3)   |        |
|            | or  |       |        |
| MUS        | 130, 230–Individual Instruction in Voice (for piano majors) | (3)   |        |
|            | or  |       |        |
| MUS        | 131, 231–Individual Instruction in Piano (for voice majors) | (6)   |        |
| MUS        | 40–Introduction to Music Education                          |       | 2      |
| MUS        | 52, 53, 54–Advanced Sight Singing and Theory I, II, III     |       | 9      |
| *MUS       | 58, 59, 60–Music Literature and Styles I, II, III           | (6)   |        |
| MUS        | 141–Introduction to Teaching Elementary General Music (ATE) |       | 2      |
| MUS        | 142–Teaching Junior High School Music (ATE)                 |       | 2      |
| MUS        | 165–Teaching Instrumental Music. Music (ATE)                |       | 3      |
| MUS        | 152–Counterpoint  |       | 3      |
| MUS        | 153–Homophonic Forms  |       | 3      |
| MUS        | 154–Instrumentation   |       | 3      |
| MUS        | 158, 159, 160–Music History I, II, III                      |       | 9      |
| MUS        | 166, 167–Vocal Techniques and Conducting I, II              |       | 2      |
| MUS        | 168–Senior High School Vocal Methods and Materials          |       | 1      |
| MUS        | 190–Clarinet and Saxophone Class                            |       | 1      |
| MUS        | 193–String Class  |       | 1      |
| MUS        | 198–Brass and Percussion Class                              |       | 1      |
|            | Applied Music   |       | 11     |
|            | Major Musical Organizations                                 |       | 11     |
|            | **Music Electives (to be selected from courses below)       |       | 16     |

**\*\*Music Electives**

|                   |  |     |
|-------------------|--|-----|
| MUS               | 201—Stage and Opera Techniques .....                   | 2   |
| MUS               | 210—Music Literature for Elementary Grades .....       | 3   |
| MUS               | 212—Music Activities for Classroom Teachers .....      | 3   |
| MUS               | 213—Choral Literature to 1750 .....                    | 3   |
| MUS               | 214—Choral Literature from 1750 .....                  | 3   |
| MUS               | 216—Methods and Materials for Class Voice .....        | 2   |
| MUS               | 219—Improvisation .....                                | 2   |
| MUS 226, 227, 228 | —Principles of Piano Teaching I, II, III .....         | 6   |
| MUS               | ***242—Vocal Repertoire: German Art Song .....         | 2   |
| MUS               | ***243—Vocal Repertoire: French Art Song .....         | 2   |
| MUS               | ***244—Vocal Repertoire: 17th and 18th Centuries ..... | 2   |
| MUS               | 266—Teaching Music Appreciation .....                  | 3   |
| MUS               | 184, 284—Opera Workshop .....                          | 1-3 |
| MUS               | 259—The School Music Program for the Handicapped ..... | 3   |

\*May be used as part of the 60 hours of required General Education.

\*\*\*Proficiency level II in piano or voice is required as prerequisite for these courses.

## Admission to the Teaching Education Program

In addition to meeting the general requirements for formal admission to the teacher education program at the close of the sophomore year the student majoring in music must:

1. Demonstrate an acceptable level of performance on his major instrument or voice. Such ability will be evaluated by a jury examination conducted by the music faculty, and through the scheduled performances of the student in the weekly recital series.
2. Pass a proficiency examination in functional piano in which he will demonstrate his ability to play, at sight, piano accompaniments suitable for community and classroom singing.
3. Demonstrate to a jury of the music faculty his ability to read music vocally at sight with the use of solfege.
4. Show acceptable aptitude for music study as demonstrated by his record in the required freshman and sophomore music courses—Sight-singing and Theory, Harmony, and Literature and Styles.
5. Demonstrate to the satisfaction of a reviewing music education committee, professional promise as a teacher.
6. Submit transcript with ATE Admission Application.
7. Meet all music performance and recital attendance requirements as listed on page 124.

## Music Education (B.A.) and Music (B.M.) Degree

### Combined Degrees

Admission to candidacy for the combined Bachelor of Arts and Bachelor of Music degrees is based upon the recommendation of a School of Music faculty reviewing committee. The student who desires to complete the combined degrees must demonstrate outstanding musical talent. Application for admission to the combined degree program must take place prior to the close of the student's second year in college.

#### Requirements:

1. Complete the requirements for the Bachelor of Arts Degree (Teaching).
2. Present a complete graduation recital.
3. Meet all music performance and recital attendance requirements as listed on page 124.

### Instrumental Major

1. Complete a minimum of an additional 24 hours in applied music and 12 hours in large and small ensembles.

## 2. Complete the following courses:

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| MUS               | 223—Practicum in Band Conducting and Performance .....      | 3                   |
|                   | <i>or</i>   |                     |
| MUS               | 224—Practicum in Orchestra Conducting and Performance ..... | 3                   |
| MUS               | 237—Individual Instruction in Composition .....             | 3                   |
| MUS               | 250—Acoustics of Music .....                                | 3                   |
| MUS               | 253—Polyphonic Forms .....                                  | 3                   |
| MUS               | 261—History of Musical Instruments .....                    | 3                   |

**Voice Major**

1. Complete a minimum of an additional 12 hours in applied music.
2. Complete two years of French or German and one additional year of a second language.
3. Complete the following courses:

| <i>Course No.</i> | <i>Course Title</i>                                      | <i>Hours Credit</i> |
|-------------------|--|---------------------|
| MUS               | 201—Stage and Opera Techniques .....                     | 2                   |
| MUS               | 213—Choral Literature to 1750 .....                      | 3                   |
| MUS               | 214—Choral Literature from 1750 .....                    | 3                   |
| MUS               | 225—Practicum in Choral Conducting and Performance ..... | 3                   |
| MUS               | 242—Vocal Repertoire: German Art Song .....              | 2                   |
| MUS               | 243—Vocal Repertoire: French Art Song .....              | 2                   |
| MUS               | 244—Vocal Repertoire: 17th and 18th Centuries .....      | 2                   |
| MUS               | 253—Polyphonic Forms .....                               | 3                   |
| MUS               | 284—Opera Workshop .....                                 | 3                   |

**Music Education and Elementary Education Major****Double Major Program**

The following is the required program:

1. General Education totaling 60 academic quarter hours, plus six quarter hours of physical education activity courses.
2. A 51-hour major in music as outlined below:

| <i>Course No.</i> | <i>Course Title</i>   | <i>Hours Credit</i> |
|-------------------|---|---------------------|
| MUS               | 1, 2, 3—Sight Singing and Theory I, II .....                        | 12                  |
| MUS               | 52, 53—Advanced Sight Singing and Theory I, II, III .....           | 6                   |
| MUS               | 162—Instrumental Techniques and Conducting I .....                  |                     |
|                   | <i>or</i>   |                     |
| MUS               | 166—Choral Techniques and Conducting I .....                        | 1                   |
| MUS               | 10, 11, 12—Beginning Class Piano I, II, III .....                   |                     |
|                   | <i>or</i>   |                     |
| MUS               | 20, 21, 22—Intermediate Class Piano I, II, III .....                |                     |
|                   | <i>or</i>   |                     |
| MUS               | Music Performance (Piano) .....                                     | 3                   |
| MUS               | Music Performance (Individual Instruction) .....                    | 6                   |
| MUS               | Music Performance (Major Ensemble) .....                            | 3                   |
| MUS               | 209—Music Methods and Materials for Elementary Teachers (ATE) ..... | 2                   |

33

3. Conditions for admission to the program: (1) Current registration as a major in Elementary Education or Special Education; (2) Proficiency in music: (a) successful completion of Music 1, 2, 3 (an average grade of "C" or above); (b) successful completion of a proficiency examination in music skills administered by the music faculty.

4. The student teaching assignment shall include nine hours experience in music teaching in the elementary classroom under an approved music supervisor.

5. Meet all music performance and recital attendance requirements as listed on page 124.

6. One hour of applied music credit to be earned each quarter in residence in the student's major performance area and one hour of credit to be earned each quarter in residence in a musical organization such as Band, Orchestra or Choir.

## 7. The following courses in the major:

**Music History and Literature**

(Elect 5-6 hours from the following courses)

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| *MUS       | 48—Music Appreciation .....                             |       | 2      |
| *MUS       | 58, 59, 60—Music Literature and Styles I, II, III ..... |       | 6      |
|            |   |       | (5-6)  |

\*May be used as part of the 60 hours of required General Education.

**Music Theory**

(Elect 5-6 hours from the following courses)

| Course No. | Course Title                                   | Hours | Credit |
|------------|--|-------|--------|
| MUS        | 54—Advanced Sight Singing and Theory III ..... |       | 3      |
| MUS        | 152—Counterpoint .....                         |       | 3      |
| MUS        | 153—Homophonic Forms .....                     |       | 3      |
| MUS        | 154—Instrumentation .....                      |       | 3      |
| MUS        | 219—Improvisation .....                        |       | 2      |
|            |  |       | (5-6)  |

**Music Education**

(Elect 6-7 hours from the following courses)

| Course No. | Course Title  | Hours | Credit |
|------------|---|-------|--------|
| MUS        | 40—Introduction to Music Education I .....  |       | 2      |
| MUS        | 196—Voice Class .....   |       | 1      |
| MUS        | 210—Music Literature for Elementary Grades .....  |       | 3      |
| MUS        | 211—Improvement of Instruction in Music Reading .....   |       | 3      |
| MUS        | 212—Music Activities for Classroom Teachers .....   |       | 3      |
| MUS        | 253—The School of Music Program for the Handicapped<br>(Required of Special Education Double Major) ..... |       | 3      |
| MUS        | 266—Teaching Music Appreciation .....   |       | 3      |
|            |   |       | (6-7)  |

**Recital and Performance Requirements**

All undergraduate students enrolling in the School of Music as majors are required to participate in the following areas: Recital Attendance; Applied Music; and Major Ensemble Performance. Details of these programs are listed below:

**Recital Attendance**

All undergraduate music majors are required to attend all Studio and Department recitals offered by their respective departments.

All undergraduate music majors are required to attend all of the All-School-of-Music convocations and recitals.

All undergraduate music education majors are required to attend at least 8 major concerts and recitals each quarter for 10 quarters (Bachelor of Music major, 11 quarters). Deficiencies in any one quarter may be made up in any other quarter. The last quarter in residence may be used to make up any deficiencies that have occurred during the previous quarters. Graduate and Honor recitals may be used for makeup recitals at any time.

Outside concerts may be approved by the applied instructor IF:

- (1) the student gets his approval PRIOR to the concert,
- (2) brings a copy of the program to the instructor,
- (3) has him sign the program and submits it to the Music Office.



## Applied Music

The music major must demonstrate continuous growth in his ability to perform on his major instrument. Each student will be expected to appear frequently as a soloist in the weekly student recital series. During the senior year he will be presented in joint recital with other graduating seniors. Such proficiency in performance requires continuous study of the major instrument, or voice, under the tutorship of a private teacher.

Credit for all individual music instruction will be entered in the student's registration under the title and course number appearing below:

**100 series**—Introductory work in the fundamentals of the chosen performance medium—technical studies and repertoire will be selected according to the student's need. FOR FRESHMEN AND SOPHOMORES.

**200 series**—Continuation of technical studies for further development of performance competency. Repertoire from the standard literature will be selected. Voice majors will begin to draw from Italian, German and French sources in the art song, opera and oratorio. FOR JUNIORS AND SENIORS.

**300 series**—Music study in performance at this level will assume a technical proficiency sufficient for extensive familiarity with the advanced repertoire, drawing upon all periods and styles of solo performance. FOR GRADUATE STUDENTS.\*

---

\*In some cases, the 100 series may be used to indicate a deficiency in applied music at the graduate level.

- \*130, 230, 330. INDIVIDUAL PERFORMANCE IN VOICE. *One hour credit.*
- \*131, 231, 331. INDIVIDUAL PERFORMANCE IN PIANO. *One hour credit.*
- \*132, 232, 323. INDIVIDUAL PERFORMANCE IN ORGAN. *One hour credit.*
- \*133, 233, 333. INDIVIDUAL PERFORMANCE IN STRINGS. *One hour credit.*
- \*134, 234, 334. INDIVIDUAL PERFORMANCE IN WOODWINDS. *One hour credit.*
- \*135, 235, 335. INDIVIDUAL PERFORMANCE IN BRASS. *One hour credit.*
- \*136, 236, 336. INDIVIDUAL PERFORMANCE IN PERCUSSION. *One hour credit.*
- \*137, 237, 337. INDIVIDUAL INSTRUCTION IN COMPOSITION. *One hour credit.*
- \*138, 238, 338. INDIVIDUAL PERFORMANCE IN HARP. *One hour credit.*

\*May be used as part of the 60 hours of required General Education.

## Major Ensemble Performance

The music major must participate each quarter in the music organization in which his instrument normally belongs—band, orchestra, or choir. Piano and organ majors may select either a vocal or an instrumental organization for a minimum of eight hours. The remaining three quarter hours will be in a piano ensemble.

Credit for all music performance organizations will be entered on the student's registration under the title and course number appearing below:

- 100 series—Freshmen and Sophomores.
- 200 series—Juniors and Seniors.
- 300 series—Graduate Students.

- \*170, 270, 370. SYMPHONIC WIND BAND. *One hour credit.*
- \*171, 271, 371. CONCERT BAND. *One hour credit.*
- \*172, 272, 372. MARCHING BAND. *One hour credit.*
- \*173, 273, 373. VARSITY BAND. *One hour credit.*
- \*174, 274, 374. JAZZ ENSEMBLE. *One hour credit.*
- \*175, 275, 375. SYMPHONY ORCHESTRA. *One hour credit.*
- \*176, 276, 376. CHAMBER ORCHESTRA. *One hour credit.*
- \*177, 277, 377. LABORATORY ORCHESTRA. *One hour credit.*
- \*178, 278, 378. MIXED CONCERT CHOIR. *One hour credit.*
- \*179, 279, 379. ORATORIO CHORUS. *One hour credit.*
- \*180, 280, 380. CHORUS AND ORCHESTRA WORKSHOP. *One hour credit.*
- \*181, 281, 381. WOMEN'S CONCERT CHOIR. *One hour credit.*
- \*182, 282, 382. VARSITY MEN'S GLEE CLUB. *One hour credit.*
- \*183, 283, 383. CHAMBER SINGERS. *One-three hours credit.*
- \*184, 284, 384. OPERA WORKSHOP. *One-three hours credit.*
- \*185, 285, 385. STRING ENSEMBLE. *One hour credit.*
- \*186, 286, 386. BRASS ENSEMBLE. *One hour credit.*
- \*187, 287, 387. WOODWIND ENSEMBLE. *One hour credit.*
- \*188, 288, 388. PERCUSSION ENSEMBLE. *One hour credit.*
- \*189, 289, 389. PIANO ENSEMBLE. *One hour credit.*
- \*199, 299, 399. CHAMBER BRASS CONSORT. *One hour credit.*

\*May be used as part of the 60 hours of required General Education.

# SCHOOL OF NURSING

L. Elaine McMinn, Dean

**Professor:** McMinn.

**Associate Professors:** Sawatzky, Huber, O'Neal.

**Assistant Professors:** Babich, Biegel, Hallan, Kinnick, Payton, Ruybal, Swingle, Thiele, Woods.

**Instructors:** Bossart, Cox, Koch.

**General Information:** The School of Nursing offers a thirteen-quarter program leading to the degree Bachelor of Science in Nursing. The purpose of the program is to prepare qualified college students for beginning practice as professional nurses and to provide the foundation for graduate study in nursing.

The School is accredited by the National League for Nursing and by the Colorado State Board of Nursing. Graduates are eligible to write the Colorado State Board of Nursing examination for licensure as registered nurses.

The following is required for the major:

1. General education totaling 60 academic quarter hours plus six quarters of physical education activity.
2. Nursing courses totaling 85 academic quarter hours.
3. Contributory courses and electives to complete the 180 quarter hours of academic credit required for graduation.
4. A minor is not required.

## A TYPICAL PROGRAM

### Freshman Year

| Course No. | Course Title                              | Hours     | Credit |
|------------|---|-----------|--------|
| COM        | 1 —Elementary Composition I .....         | 3         |        |
| COM        | 2 —Elementary Composition II .....        | 3         |        |
| COM        | 3 —Principles of Speech .....             | 3         |        |
| PSY        | 20 —General Psychology .....              | 3         |        |
| NURS       | 10—History of Nursing .....               | 5         |        |
| *SS        | —Social Science Electives .....           | 5         |        |
| SOC        | 50 —Principles of Sociology .....         | 5         |        |
| CHEM       | 40 —Principles of Chemistry I .....       | 5         |        |
| CHEM       | 41 —Principles of Chemistry II .....      | 5         |        |
| CHEM       | 42 —Introductory Organic Chemistry .....  | 5         |        |
| PHYS       | 50 —Principles of Physics .....           | 5         |        |
| HPER       | —Physical Education Activity Course ..... | 3         |        |
|            |   | <b>47</b> |        |

\*Students may substitute ANT 20, GEOG 10, ECON 30 or USH 75 for PSCI 40.

### Sophomore Year

| Course No. | Course Title  | Hours     | Credit |
|------------|---|-----------|--------|
| HUM        | 1—Introduction. The Greek and Roman Periods .....       | 3         |        |
| HUM        | 2—The Middle Ages and the Renaissance .....             | 3         |        |
| HUM        | 3—The Eighteenth to the Twentieth Century .....         | 3         |        |
| CHEM       | 147—Biochemistry .....                                  | 5         |        |
| ZOO        | 5—Vertebrate Zoology .....                              | 5         |        |
| ZOO        | 112—Mammalian Anatomy .....                             | 5         |        |
| ZOO        | 117—Human Physiology .....                              | 5         |        |
| BIO        | 261—Medical and Public Health Microbiology .....        | 5         |        |
| HEC        | 51—Normal Nutrition .....                               | 3         |        |
| PSY        | 21—General Psychology and Human Performances .....      | 3         |        |
| PSY        | 30—Human Growth Processes and Developmental Tasks ..... | 5         |        |
| HPER       | —Physical Education Activity Courses .....              | 3         |        |
|            |   | <b>48</b> |        |

**Junior Year**

| <i>Course No.</i> | <i>Course Title</i>                                 | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| NURS              | 100—Basic Principles of Nursing (summer only) ..... | 10           |               |
| NURS              | 101—Pharmacology (summer only) .....                | 3            |               |
| NURS              | 102—Maternity Nursing .....                         | 10           |               |
| NURS              | 103—Medical-Surgical Nursing .....                  | 10           |               |
| NURS              | 104—Psychiatric Nursing .....                       | 10           |               |
| NURS              | 105—Human Relations in Nursing .....                | 3            |               |
| HEC               | 252—Nutrition in Disease .....                      | 3            |               |
| PSY               | 142—Teaching Learning Process .....                 | 3            |               |
|                   |   |              | 52            |

**Senior Year**

| <i>Course No.</i> | <i>Course Title</i>                         | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| NURS              | 200—Community Nursing .....                 | 10           |               |
| NURS              | 201—Public Health Sciences .....            | 3            |               |
| NURS              | 202—Nursing of Children .....               | 10           |               |
| NURS              | 203—Advanced Medical-Surgical Nursing ..... | 11           |               |
| NURS              | 204—Trends in Nursing .....                 | 3            |               |
|                   |   |              | 37            |

Electives sufficient to complete requirements for graduation.

**Policy for Admission of Students to the Nursing Major**

**Lower Division**—Applicants seeking admission to the School of Nursing must meet the general admission requirements of the college. It is highly recommended that students planning for a career in nursing include chemistry, physics, and mathematics in the required 15 secondary school units. Studies indicate that students with high grades in mathematics, science and English are most likely to succeed in nursing.

Applicants who have had chemistry in high school may challenge Chemistry 40 and Chemistry 41. Applicants wishing to challenge these courses should do so during the summer preceding fall registration. See challenge system on page 33 of this catalog for further details.

In addition to the general health requirements, applicants to the nursing program must bring the following immunizations up to date before entering college: smallpox, diphtheria, tetanus, typhoid, and polio.

Application is made to the Colorado State College Office of Admissions. Upon admission students planning to major in nursing are enrolled in the required pre-nursing program.

**Upper Division**—After completing 75 hours of the required program students must make application to the School of Nursing to continue the nursing major program. A personal interview with a School of Nursing faculty member is required.

Only those applicants who have met the academic requirements of the college will be considered. Students must have a cumulative grade point average of 2.25. In addition, they must have demonstrated personal and social qualities appropriate for professional nursing. These include: desire and ability to master the knowledge and skills required to practice nursing; strong sense of responsibility; emotional stability; ability to work well with people; and a genuine desire and willingness to help others.

A nursing selection and promotion committee will review each applicant's academic progress, personal adjustment, health status, and suitability for nursing. Educational records, nurse faculty adviser's observations, physical examinations and health records, personal interviews, and all available information about overall college performance are used to determine eligibility. Students who satisfy these requirements will be accepted for the nursing major program.

**Graduate Nurse Students**—Graduates of state approved diploma or associate degree programs who are currently licensed to practice as registered nurses are eligible for admission to the nursing program. The registered nurse student will follow the same admission, progression and curriculum requirements as the basic baccalaureate student. Graduate nurse students may request placement examinations in selected nursing courses after formal admission to Colorado State College. Satisfactory scores on these examinations will result in recorded earned credit towards graduation.

## Policy for Promotion and Graduation of Nursing Students

**Promotion**—Pre-nursing students must have a cumulative average of 2.25 at the end of the sophomore year. An average of C each quarter in the nursing major is required for promotion without condition. A grade below C in any clinical nursing course or an average for a quarter which is less than C places a student on probation for the succeeding quarter.

At the end of each quarter of the nursing major the student's progress is considered by the nursing selection and promotion committee. Accomplishments in theory and practice, relationships with patients and others, and general development are considered. The School of Nursing faculty reserves the right to place on probation or to recommend withdrawal from the nursing major, any student who, in their judgment, fails to satisfy the requirements of scholarship, health, nursing performance, or personal suitability for nursing.

**Graduation**—The degree of Bachelor of Science in nursing will be granted by Colorado State College upon the recommendation of the faculty of the School of Nursing for those who have successfully completed the prescribed curriculum with an average of C or above.

## Policies for Attending Nursing Classes

Attendance is expected at all nursing classes, laboratory and clinical assignments. Excused absence may be granted only upon the permission of the instructor in charge or the Dean of the School. Students who are unable for any reason to report for nursing practice as assigned are required to report to the instructor, or to the School of Nursing office, not less than one hour prior to the time the assignment is scheduled. No unexcused absences are allowed.

Students are responsible to the instructor in charge for making up any work missed due to illness, leave of absence or non-attendance for any reason. The number of excused absences allowed for each course will be determined by the instructor in charge on the basis of the nature of the content and activities missed and the ability of the student. Students who are unable to meet the objectives of a clinical nursing course due to excessive excusable absences will be required to withdraw and repeat the course. If the course is not offered in the succeeding quarter it may be necessary for the student to discontinue further study until the course is offered again.

## Health Policies for Nursing Majors

At the time the student makes application to the nursing major a health examination by a Student Health Service physician is required. The examination shall include the following:

1. Immunizations: small pox, typhoid-paratyphoid, adult tetanus, diphtheria, and polio.
2. A tuberculin skin test.
3. A large chest x-ray at the student's expense.
4. Examination and conference.

During the spring quarter of the senior year all nursing majors planning to graduate shall complete the following:

1. Repeat tuberculin skin test.
2. If the tuberculin skin test is positive, a large chest x-ray.
3. Immunizations shall be brought up to date.

### Additional Expenses for Nursing Majors

In addition to the regular tuition and fees, nursing majors have the following expenses:

| <i>Year</i> | <i>Quarter</i> | <i>Item</i>                                    | <i>Amount*</i> |
|-------------|----------------|--|----------------|
| Sophomore   | Spring         | Uniforms and caps                              | 55.00          |
|             |                | Chest x-ray                                    | 10.00          |
| Junior      | Summer         | White shoes                                    | 10-15.00       |
|             |                | Name pin                                       | .50            |
|             |                | Bandage scissors                               | 1.50           |
|             |                | Watch with second hand<br>(May be inexpensive) | Variable       |
|             |                | School pin                                     | 15.55          |
| Senior      | Spring         | Chest x-ray                                    | 10.00          |

\*Costs listed above are approximate and are subject to change.

Community nursing is offered either the fall, winter, or spring quarter of the senior year. During the quarter students are enrolled in this course they may visit clinics, schools, and patients in their homes. Use and maintenance of a car, a current Colorado driver's license and liability insurance are a requirement. These are at the student's expense.

Students are responsible for their own transportation to all facilities where learning experiences are provided.

Field trips are required in Nursing 104, Psychiatric Nursing, and may be required in other nursing courses. Students should be prepared to share the cost for transportation and to pay for their own meals on these field trips.

# AEROSPACE STUDIES

**Lt. Col. Neil D. Maxwell, Chairman**

**Assistant Professor:** Maj. Pedjoe

**Assistant Professor:** Capt. Neid

**History**—A four-year Air Force ROTC curriculum was established at Colorado State College Fall Quarter, 1951. The ROTC Vitalization Act of 1964 expanded the traditional four-year curriculum to include a two-year curriculum designed primarily for transfer students. Beginning Fall Quarter, 1964, Air Force ROTC became a voluntary course of study.

**General Information**—The Air Force ROTC offers a two-year and a four-year campus program. Both programs are elective and lead to an Air Force commission. Air Force ROTC commissioned graduates enter active duty in the grade of Second Lieutenant with all pay and allowances of that grade.

Physically qualified graduates receive additional pilot or navigator training and the non-flying officer is given an initial duty assignment in a specialty closely related to his academic major.

## AFROTC Curriculum

**Four-Year** — The four-year program requires student participation in the General Military Course (GMC) and the Professional Officer Course (POC), each being a two-year program. During the second year of the GMC, qualified cadets may apply for membership in the POC. Cadets selected by the Professor of Aerospace Studies (PAS) will enter the POC at the beginning of the junior year or six quarters prior to completion of their academic program. Cadets will be commissioned in the Air Force Reserve on completion of: (1) the GMC and POC, (2) a four-week Field Training Course between the junior and senior year, and (3) a college degree.

**Two-Year** — The two-year program requires student participation in six academic undergraduate and/or graduate quarters concurrently with the POC. **Students will compete for selection during Fall and Winter Quarters of the academic year preceeding the year of entrance into the POC.** Students will be commissioned in the Air Force reserve on completion of: (1) a six-week Field Training Course during the summer prior to entering the POC, (2) the POC, and (3) six quarters of undergraduate/graduate academic work, and (4) a college degree.

**Flight Instruction Program**—Pilot qualified students receive 36½ hours of flight instruction and ground school during the senior year of the POC.

**Deferment**—The National Selective Service Act authorizes deferment for full-time students enrolled in the AFROTC program. Students are eligible for deferment beginning Winter Quarter of the Freshman year.

## General Military Course

The General Military Course is a two-year program open to all full-time, undergraduate, male students. Air Force uniforms and textbooks are furnished. Veterans can request waiver of portions of the GMC based on active duty service.

**Freshmen enroll in the following courses:**

| <i>Course No.</i> | <i>Course Title</i>                 | <i>Hours</i> | <i>Credit</i> |
|-------------------|-------------------------------------|--------------|---------------|
| AS                | 11—World Military Systems I .....   |              | 2°            |
| AS                | 12—World Military Systems II .....  |              | 2             |
| AS                | 13—World Military Systems III ..... |              | 2             |

**Sophomores enroll in the following courses:**

|    |                                    |  |    |
|----|------------------------------------|--|----|
| AS | 21—World Military Systems IV ..... |  | 2° |
| AS | 22—World Military Systems V .....  |  | 2  |
| AS | 23—World Military Systems VI ..... |  | 2  |

\*Credit for four of the required six quarter hours of physical education activity courses will be granted if a written request is submitted to the Registrar. These four hours of AFROTC credit do not apply towards the required 180 hours of academic credit.

**Professional Officer Course**

The Professional Officer Course is a two-year program which prepares the student for active duty service as a commissioned officer in the United States Air Force Reserve. The curriculum is continually up-dated to include current technological developments made by the military establishment. All course instruction is student-centered. The Professor of Aerospace Studies selects the most highly qualified applicants for enrollment. Corps Training arranged within the cadet corps on an individual basis.

**Required Professional Officer Courses:**

| <i>Course No.</i> | <i>Course Title</i>                                     | <i>Hours</i> | <i>Credit</i> |
|-------------------|---|--------------|---------------|
| AS                | 216—Growth and Development of Aerospace Power I.....    | 3            |               |
| AS                | 218—Growth and Development of Aerospace Power II .....  | 3            |               |
| AS                | 220—Growth and Development of Aerospace Power III ..... | 3            |               |
| AS                | 256—The Professional Officer I .....                    | 3            |               |
| AS                | 258—The Professional Officer II .....                   | 3            |               |
| AS                | 260—The Professional Officer III .....                  | 3            |               |
| AS                | 263—Flight Instruction .....                            | 3°           |               |

\*AS 263 (Flight Instruction) is required for all pilot trainees; however, enrollment for the ground school class is open to any interested student.

**Staff**—Air Force personnel are assigned by Headquarters, United States Air Force. The Professor of Aerospace Studies (PAS) and instructional staff are highly qualified and are usually combat duty veterans.

**AFROT College Scholarship Program**—The program includes full tuition, fees, a quarterly book allowance of \$25, and \$50 per month. Selected cadets participating in the four year AFROTC program are eligible.



# COURSE DESCRIPTIONS

## AEROSPACE STUDIES

### **AS 11. WORLD MILITARY SYSTEMS I.** *Two hours credit.*

An introductory course to survey the nature and principles of war, national power, and causes of present world conflict including the role of military as an instrument of national policy. Corps Training is conducted as the laboratory portion of the course.

### **AS 12. WORLD MILITARY SYSTEMS II.** *Two hours credit.*

A study exploring the doctrine, organization and mission of the United States Air Force, Army, and Navy and how the Defense Department is organized to effectively use U. S. military power. Corps Training is conducted as the laboratory portion of the course.

### **AS 13. WORLD MILITARY SYSTEMS III.** *Two hours credit.*

A study of the organization and mission of the United States strategic offensive and defensive forces including civil defense, and how these forces provide support in the defense of the United States and the free world. Corp Training is conducted as the laboratory portion of the course.

### **AS 21. WORLD MILITARY SYSTEMS IV.** *Two hours credit.*

A study of the doctrine, organization and mission of the U. S. General Support Forces. The course also includes an introduction to the study of doctrine, organization, and mission of the U. S. Aerospace Support Forces. Corps Training is conducted as the laboratory portion of the course.

### **AS 22. WORLD MILITARY SYSTEMS V.** *Two hours credit.*

A continued study of the doctrine, organization and mission of the U. S. Aerospace Support Forces which includes research and development, education, and training and other support functions. The course also includes an introduction to the trends and implications of the world power struggle in which nations are striving to accomplish their national objectives. Corps Training is conducted as the laboratory portion of the course.

### **AS 23. WORLD MILITARY SYSTEMS VI.** *Two hours credit.*

A continued study of trends and implications of the world power struggle in which nations are striving to accomplish their national objectives through alliances and collective security organizations. It concludes with a survey of the struggle, search, and prospects for peace. Corps Training is conducted as the laboratory portion of the course.

### **AS 216. GROWTH AND DEVELOPMENT OF AEROSPACE POWER I.** *Three hours credit.*

Prerequisite, Enrollment in POC. A survey course about the development of airpower in the United States, including the beginning of manned flight, from Kitty Hawk to Versailles, the Inter-war years, development of an independent Air Force, Korea, and the challenges and changes. Development of communicative skill is a major goal of this course.

### **AS 218. GROWTH AND DEVELOPMENT OF AEROSPACE POWER II.** *Three hours credit.*

Prerequisite, Enrollment in POC. A study of Aerospace power today including concepts, doctrine and employment of aerospace forces; the future of manned aircraft and man's role in a flying air force, types and uses of future aircraft and technological developments; the initial study of astronautics and space age programs, the spatial environment and space orbits and trajectories. The development of communicative skills is a major goal of this course.

### **AS 220. GROWTH AND DEVELOPMENT OF AEROSPACE POWER III.** *Three hours credit.*

Prerequisite, Enrollment in POC. Continuation of the study of astronautics, space operations, and the future development in space. The development of communicative skill is a major goal in this course.

**AS 256. THE PROFESSIONAL OFFICER I.** *Three hours credit.*

Prerequisite, Enrollment in POC. A study of human behavior and human relations as they affect Air Force leadership, and the professional values of military life. The need for discipline, within the military, the study of non-judicial punishment and the courts-martial system are discussed.

**AS 258. THE PROFESSIONAL OFFICER II.** *Three hours credit.*

This course includes the study of military management, surveys planning, organizing, coordinating, directing, and controlling. Individual and group problem-solving techniques are discussed and the study of the Command-Staff team pays particular attention to principals and patterns of organization.

**AS 260. THE PROFESSIONAL OFFICER III.** *Three hours credit.*

Prerequisite, Enrollment in POC. A study of the variables affecting leadership including the trait, the situational and interactional approach. A study of management evaluation and informational sciences. Course concluded with a pre-commissioning briefing for active duty.

**AS 263. FLIGHT INSTRUCTION.** *Three hours credit.*

This course is designed to meet the ground school requirements for a private pilot license. Includes the study of Federal Aviation regulations, meteorology, aerial navigation, radio procedures, flight computer and flying safety practices.

## ANTHROPOLOGY

**\*ANT 20. GENERAL ANTHROPOLOGY.** *Five hours credit.*

The nature and scope of anthropology, organic man, and the nature of culture. Emphasis upon cultural anthropology.

*All of the following Anthropology courses have as a prerequisite ANT 20 or permission of instructor (with exception of ANT 290).*

**\*ANT 23. WORLD ETHNOLOGY.** *Three hours credit.*

Cultural areas of the world with a survey of cultures from selected areas in Asia, Africa, the Americas and Oceania.

**\*ANT 61. PHYSICAL ANTHROPOLOGY.** *Four hours credit.*

This course will emphasize the evolution of man, including the observation of and specific measurement of human skeletal material, both modern and fossil, study of population statistics and comparison of male and female skeletal types.

**\*ANT 80. ETHNOLOGY OF MEXICO AND CENTRAL AMERICA.** *Four hours credit.*

A comparative study of the major Indian peoples of Mexico and Central America, and of the modern peoples in the area whose ancestry and cultural traditions derive in part from pre-Columbian cultures. Emphasis is placed on economic and social characteristics, interethnic relationships, acculturation trends, and current urbanization.

**\*ANT 82. FOLK CULTURES.** *Four hours credit.*

Concentration upon the rural communities of peasant farmers. Communities analyzed from the point of view of the social, religious, economic and political organization, as well as value orientation. Special emphasis on the peasant societies of Middle and South America.

**\*ANT 100. SEMINAR IN MODERN ETHNOLOGY.** *Three to nine hours credit.*

A study and analysis of selected modern ethnographies to present up-to-date materials and problems in various culture areas.

**\*ANT 129. NORTH AFRICA AND THE MIDDLE EAST.** *Three hours credit.*

The culture complex of the Mid-East and North Africa. The background of peasant nomad and feudal societies which have helped to produce the present society.

- \*ANT 140. ARCHAEOLOGY OF NORTH AMERICA.** *Four hours credit.*  
Ancient man in North America, north of Mexico. The development of pre-historic American Indian cultures; a thorough study of the archaeology of the Mississippi Valley, Great Plains, and other pre-Columbian cultures; historical development and interrelations of archaeological horizons.
- \*ANT 141. ARCHAEOLOGY OF THE SOUTHWEST.** *Four hours credit.*  
A study of ancient cultural horizons in the Southwest, up to the Conquest; emphasis on chronology, culture change, and classification. Thorough review of Early Man; the Mogollon, Hohokam, and Pueblo (Anasazi) archaeological cultures.
- \*ANT 200. GREAT IDEAS IN ANTHROPOLOGY-SEMINAR.** *Three to nine hours credit. Consult with instructor before enrolling.*  
The purpose of the course is to provide information about current important ideas in special fields of anthropology. Consult with instructor before enrolling.
- \*ANT 221. NORTH AMERICAN INDIANS.** *Three hours credit.*  
Aboriginal cultures north of Mexico.
- \*ANT 224. INDIANS OF THE SOUTHWEST.** *Three hours credit.*  
Ethnology of the Pueblo, Navajo, Apache, Yuman tribes and the Pima-Papago groups.
- \*ANT 227. SOUTH AMERICAN INDIANS.** *Three hours credit.*  
Aboriginal cultures of South America. Special emphasis on the Inca Empire.
- \*ANT 228. OCEANIA.** *Four hours credit.*  
Peoples of Polynesia, Melanesia and Micronesia.
- \*ANT 230. AFRICA SOUTH OF THE SAHARA I: EAST AND SOUTH AFRICA.** *Four hours credit.*  
Emphasis will be placed on tribal backgrounds and acculturation that is taking place between European and African systems in East and South Africa.
- \*ANT 231. AFRICA SOUTH OF THE SAHARA II: NIGER-CONGO AREA.** *Four hours credit.*  
Emphasis will be placed on tribal backgrounds and acculturation that is taking place between European and African systems in the Niger-Congo drainage systems in Africa.
- \*ANT 232. INDIA AND PAKISTAN.** *Three hours credit.*  
A study of modern ethnic populations of India, Pakistan and Ceylon, as well as a review of their ancient cultural heritage and religion.
- \*ANT 233. SOUTHEAST ASIA.** *Three hours credit.*  
A study of modern ethnic populations and primitive peoples inhabiting Burma, Thailand, Laos, Cambodia and Vietnam, as well as the Philippine Islands and Indonesia.
- \*ANT 240. OLD WORLD ARCHAEOLOGY I.** *Four hours credit.*  
The development of Paleolithic, Mesolithic, Neolithic, and The Age of Metal, Cultures of Europe, Africa, and Asia, emphasizing the interpretation of archaeological data, Pleistocene geology, and chronology.
- \*ANT 241. OLD WORLD ARCHAEOLOGY II.** *Four hours credit.*  
A survey of the prehistoric foundations and cultural development of civilizations in Egypt, the Near East, and the Indus Valley, as revealed by major archaeological discoveries; theories of cultural evolution and diffusion.
- \*ANT 242. ARCHAEOLOGY OF MEXICO.** *Four hours credit.*  
A comparative study of cultural development in ancient Mexico and Central America with emphasis on agricultural beginnings, settlement patterns and urbanization, hieroglyphics, calendrical systems, and religious activities. A thorough examination of Archaic, Toltec, Aztec, and Maya cultures.

**\*ANT 243. ARCHAEOLOGY—FIELD METHODS.** *Two-eight hours credit.*  
Techniques of archaeological investigation; field surveying and recording of excavated materials; proper handling and preservation of specimens in the field and laboratory; etc. Course involves off-campus archaeological research.

**\*ANT 245. PROBLEMS IN SOUTHWEST ARCHAEOLOGY.** *Three hours credit.*

Examination of special problems in the prehistory and early historic development of cultures in the Greater Southwest. Subject emphasis will vary from year to year, according to student interest, but in all cases will involve analysis of published materials and a critical survey of relevant archaeological data.

**\*ANT 246. PROBLEMS IN PLAINS ARCHAEOLOGY.** *Three hours credit.*

Examination of special problems in the prehistory and early historic development of cultures in the Great Plains. Subject emphasis will vary from year to year, according to student interest, but in all cases will involve analysis of published materials and a critical survey of relevant archaeological data.

**\*ANT 247. ARCHAEOLOGY OF SOUTH AMERICA.** *Three hours credit.*

Ancient man, and the development of prehistoric Indian cultures in South America. Discussion of archaeological centers, with analysis of ceramics, stonework, art styles, etc. Particular emphasis will be devoted to the Andean Highlands and its influence on cultures elsewhere.

**\*ANT 250. ANTHROPOLOGICAL LINGUISTICS.** *Four hours credit.*

The study of speech and language within the context of anthropology. Cognitive categories formed through language, the nature of language, cultural focus in language, linguistic change.

**\*ANT 251. PHONEMIC ANALYSIS.** *Four hours credit.*

Phonemic analysis of language; anthropological field methods involving language learning.

**\*ANT 270. SURVEY OF ANTHROPOLOGICAL THEORY.** *Three hours credit.*

Seminar on the development of anthropological theory from Tylor to the present. Includes cultural evolution, diffusion and historical reconstruction, functionalism, and psychologically oriented theories.

**\*ANT 280. ENCULTURATION.** *Four hours credit.*

A study of the patterned interactions by which an individual becomes oriented to his culture, and through which he is prepared to perform adequately as an adult member of his society. Comparison of the enculturation process in selected nonliterate societies.

**\*ANT 281. ACCULTURATION.** *Four hours credit.*

The study of cultures in contact and the influences they have one upon the other.

**\*ANT 283. PRIMITIVE RELIGIONS.** *Three hours credit.*

The religions of the peoples not involved in the Indic complex of Hindu-Buddhist or the Judaic tradition of the Mid-East.

**\*ANT 284. ANTHROPOLOGICAL THEORY I.** *Three hours credit.*

A seminar on the theories of cultural analysis and development of skills for gathering cultural data. Examination of observational and analytical procedures. Recording and analysis of formal and informal behavioral sequences. Formulation of problems of relationships between culture patterns.

**\*ANT 285. PRINCIPLES OF SOCIAL ORGANIZATION.** *Four hours credit.*

Basic principles of social organization in human societies, especially kinship and associated phenomena. Theory and comparative data are drawn primarily from studies of non-western societies including many from Africa, Oceania, and the Americas.

**\*ANT 290. INTRODUCTION TO THE CONCEPT OF CULTURE.** *Three hours credit.*

Seminar on the development and uses of the concept of culture as an important working tool for understanding and interpreting the varieties of human culture. This course is designed for students on an advanced level who need a concept of Cultural Anthropology. May not be taken by students who have had ANT 20.

**\*ANT 299. SPANISH AND MEXICAN-AMERICAN CULTURES IN AMERICAN SOUTHWEST.** *Three hours credit.*

Historical development of Spanish Colonial and Mexican-American Cultures including patterns of family structure, health practices and folk medicine, religious patterns, value systems, etc. Patterns are examined in light of current problems.

## ASTRONOMY

Courses in astronomy are administered by the Department of Earth Sciences.

**AST 166. GENERAL ASTRONOMY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

This course will present the fascinating subject of astronomy to all students who desire a basic understanding of their astronomical environment, the solar system and the universe. A strong background in mathematics is not required. Not open to earth science majors.

**AST 261. PRINCIPLES OF ASTRONOMY I: SOLAR SYSTEM.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

A study of the evolution of the science of astronomy, Newton's Laws and gravitation, the research tools of astronomy, and the observed characteristics of the various members of our solar system. Required of earth sciences majors. Students cannot receive credit for both AST 261 and 166.

**AST 262. PRINCIPLES OF ASTRONOMY II: STELLAR.** *Three hours credit.*

Prerequisite, AST 261. A continuation of the study of astronomy as begun in AST 261. The subjects of stellar distances, brightnesses, spectra, sizes, populations, evolution, energy, the interstellar medium, and cosmology will be investigated. Further attention will also be devoted to our nearest star, the Sun.

**AST 263. OBSERVATIONAL ASTRONOMY.** *Four hours credit. (Two hours lecture, six hours laboratory.)*

Prerequisite, AST 166 or 262. This study is directed toward acquiring the knowledge, observational experience, and skills needed for the operation of a variety of popular modest telescopes, and an appreciation of the design, limitations, and state of development of the finest telescopes.

**AST 264. SPACE SCIENCE.** *Three hours credit.*

Prerequisite, AST 262. A study of man's exploration of space, the anticipated and discovered characteristics of outer space in the vicinity of a variety of astronomical bodies, mainly concentrating on our solar, planetary and lunar neighbors.

**\*AST 265. ASTROPHYSICS.** *Three hours credit.*

Prerequisites, PHYS 68, 165, MATH 34, or consent of instructor. Physics and mathematics applied in an astronomical setting. Emphasis will be placed on the interiors and atmospheres of stars.

**AST 292. ASTRONOMICAL BASIS OF EARTH SCIENCE.** *Three hours credit. (NSF In-Service Institute)*

The Moon, Solar System, Stars, and Cosmology will be emphasized in lecture and laboratory. For the topics outlined above, the age, composition, origin, and methods of study will be investigated.

## BIOLOGY

Courses in biology are administered by the Department of Biological Sciences.

**\*BIO 1. PRINCIPLES OF BIOLOGY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

A study of biological principles from the biosphere to the ultrastructures of the cell. Aspects of ecology, reproduction, genetics, evolution, the structural and functional basis of life, and the coordination of the organism to be studied.

**\*BIO 2. PRINCIPLES OF BOTANY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, BIO 1. A study of plant diversity concerned with morphology, habitats, structure, function, and economic relationships of the plant kingdom.

**\*BIO 3. PRINCIPLES OF ZOOLOGY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, BIO 1. A survey of animal diversity, including principles of structure and function, phylogeny, life cycles and systematics. The relationship of the animal kingdom to man is stressed.

**\*BIO 53. HEREDITY AND YOUR LIFE.** *Three hours credit.*

A course dealing with the principles of heredity as they apply to man, presented on an elementary level which requires no background in science. Topics included are superstitions and facts about human heredity, method of inheritance of common human traits, heredity and race, heredity and environment, effects of radiation on future generations, and eugenics and population problems. Especially appropriate for non-science majors. Credit not allowed toward major or minor in Biological Sciences.

**BIO 152. GENETICS.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 1, 2, 3. A study of the fundamental laws of heredity and their application to plants and animals, with emphasis on the heredity of man.

**\*BIO 206. CONSERVATION OF NATURAL RESOURCES.** *Four hours credit.*

A study of the relation of natural resources to the development of man and his culture. Units of study are organized on soil, water, forest and forest products. Range management, wildlife, and mineral resources are also covered. The emphasis throughout is on their relation to man.

**BIO 218. BIOLOGICAL MICROTECHNIQUE.** *Three hours credit. (Six hours laboratory.)*

Prerequisites, BIO 1, 2, 3. The skills of killing, staining and preparing plant and animal tissues for microscopic study.

**BIO 250. CELL PHYSIOLOGY.** *Five hours credit. (Three hours lecture, four laboratory.)*

Prerequisites, BIO 1, 2, 3, CHEM 42 or 141. A course in general biological principles relating cell structure to function. The topics discussed include genetic control of cell activity, the molecular basis of cell metabolism, energy transformations within the cell, cell division and homeostatic regulation of the cell environment.

**\*BIO 251. EVOLUTION.** *Three hours credit.*

This course is designed as a study of the processes of change of living organisms through time, and to show how genetic variations are related to natural selection and formation of species. Some time is devoted to consideration of the impact of the theory of evolution on the biological sciences since Darwin's time.

**BIO 253. HUMAN GENETICS AND EUGENICS.** *Three hours credit.*

Prerequisite, BIO 152. A survey of the principles of human heredity together with a consideration of their significance in the problems of the world today. The importance of human genetics in marriage counseling and in medical or legal practice is included.

**BIO 254. AQUATIC BIOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 1, 2, 3. A course in the study of fresh water plants and animals of the Rocky Mountain Region. Emphasis will be upon methods of collecting, classification, ecological relations, and economic importance of the fresh water biota. Field trips arranged. *Collecting permits are needed.*

**BIO 260. MICROBIOLOGY.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, CHEM 42 or 141. A basic course in bacteriology with emphasis on the structure, function, physiology and identification of bacteria and their relationships to other organisms.

**BIO 261. MEDICAL AND PUBLIC HEALTH MICROBIOLOGY.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, CHEM 147, ZOO 117. This course places emphasis on the microorganisms of public health significance, their detection, the diseases they cause and treatment of these diseases. The course is primarily designed for students in nursing, pre-medicine, pre-dentistry, and pre-veterinary medicine.

**BIO 295. TECHNIQUES OF BIOLOGICAL PREPARATION.** *One hour credit. (Three hours laboratory.)*

Prerequisite, senior classification. This is a course designed to acquaint the student with the techniques of laboratory preparation and biological investigation. Emphasis is placed on instrumentation and methods of preparing culture media, experimental solutions, and living material. Required of all senior biology majors; to be taken concurrently with SCED 140.

**BIO 297. LITERATURE OF RESEARCH.** *One hour credit.*

Prerequisite, junior classification. A course designed to acquaint the student with the preliminary procedures in scientific research. Techniques of problem delineation, literature survey and synthesis of data are stressed. Credit not allowed for graduate students. This course is a prerequisite for BIO 298.

**BIO 298. SEMINAR IN RESEARCH.** *One hour credit.*

Prerequisites, BIO 297 and junior classification. This is a course designed to acquaint the student with the values and techniques of research in biology. An original research project is required. Credit not allowed for graduate students. (A continuation of the research initiated in BIO 297.)

**\*BIO 299. INVESTIGATIONS IN BIOLOGY.** *Maximum five hours credit.*

Prerequisite, Consent of Instructor. An introduction to the theories and practice of research in the biological sciences. A problem will be selected in one of the following fields: animal ecology, aquatic biology, embryology, bacteriology, mycology, genetics, animal physiology, plant physiology, plant ecology, ornithology, invertebrate zoology, vertebrate zoology, parasitology, vertebrate anatomy, upon consultation with the professor who specializes in that area. Original research will be conducted by the student and final report will be submitted by him to the supervising instructor.

## BOTANY

Courses in botany are administered by the Department of Biological Sciences.

**\*BOT 190. GENERAL PLANT ECOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 1, 2. A general study of plant communities and their relationships with environment, such as soils, climates and other plant communities. This course is suggested for undergraduate biologists and teachers interested in the ecological relationship communities.

**BOT 203. BIOLOGY OF MICROORGANISMS.** *Five hours credit. (Three hours lecture, three hours laboratory.)*

A survey of microorganisms with emphasis on basic principles and techniques of microbiology as well as the role of microorganisms in nature, industry, and disease. Credit not allowed for biology majors.

**BOT 220. ECONOMIC BOTANY.** *Two hours credit.*

A study of the plants that directly affect the welfare of man including plants that supply our food, drugs, fibers, naval stores, wood, dyes, insecticides and other useful products. Each plant source is briefly considered as to its classification, structure and ecological requirements.

**BOT 221. PLANT ANATOMY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 1, 2. A study of the anatomy of plants with emphasis on the seed plants. Careful consideration is given to the various tissues as to their origin, development, and structure as related to their function. Some consideration is given to the evolution of tissues in plants.

**BOT 222. GENERAL PLANT PHYSIOLOGY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, BIO 1, 2, CHEM 42 or 141. A course dealing with the fundamental principles of growth and development, absorption and utilization of water and minerals, photosynthesis, translocation, respiration, and chemical composition of plants.

**BOT 223. MORPHOGENESIS OF THE NONVASCULAR PLANTS.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, BIO 1, 2, 3. Structure, morphogenesis and phylogenetic relationships of the algae, fungi, bryophytes and mosses.

**BOT 224. MORPHOGENESIS OF THE VASCULAR PLANTS.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, BIO 1, 2, 3. Structure, morphogenesis and phylogenetic relationships of the ferns, gymnosperms and angiosperms.

**BOT 227. PLANT TAXONOMY.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, BIO 1, 2. An introductory course concerned with recognition and identification of plants at the species and family levels. Use of keys, manuals, and collecting techniques.

**BOT 229. PRINCIPLES OF PLANT CULTURE.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, BIO 1, 2. A study of greenhouse and garden culture of the higher plants. Emphasis will be on the recognition and control of plant diseases, soil preparation, propagation techniques, and the control of insects.

**BOT 240. PLANT ECOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 1, 2. A study of plant ecosystems and the interrelationships of the organisms therein as they are affected by the factors of the environment. Field studies are made on the plains and in the mountains.

## BUSINESS

**\*BUS 1. THE AMERICAN BUSINESS SYSTEM.** *Five hours credit.*

A general course designed to provide an understanding of how the American business system operates and its place in the economy. The course provides background for more effective use of business services in personal affairs as well as preparation for future business courses.

**BUS 10. TYPEWRITING I.** *No credit. (A fee for a four hour credit course will be assessed.)*

A beginning course in typewriting. Emphasis will be given to both personal and vocational use.

**BUS 11. TYPEWRITING II.** *Four hours credit.*

Prerequisite, BUS 10 with a grade of "C" or better, or a speed of at least 30 w.p.m. The second course in typewriting. Emphasis will be strictly on vocational use. Students who have had two years of high school typewriting or the equivalent may not take this course for credit.



**BUS 12. TYPEWRITING III.** *Four hours credit.*

Prerequisite, BUS 11, with a grade of "C" or better, or a speed of at least 45 w.p.m. The third course in typewriting. Emphasis will be on speed and accuracy building and advanced production procedures.

**BUS 13. SECRETARIAL MACHINES.** *Two hours credit.*

Prerequisite, BUS 12 with a grade of "C" or better. An introduction to machines used in the business world. Emphasis will be on attaining some skill in using various duplicating machines and dictating and transcribing machines.

**BUS 16. BEGINNING GREGG SHORTHAND.** *Four hours credit.*

Prerequisite, BUS 11. Course comprises complete theory of Gregg shorthand. Students who have one year of high school shorthand or the equivalent cannot take this course for credit, but should take BUS 17.

**BUS 17. INTERMEDIATE GREGG SHORTHAND.** *Four hours credit.*

Prerequisite, BUS 16 with a grade of "C" or better, or take dictation at 60 w.p.m. Course comprises intensive review of Gregg shorthand theory. Students who have had two years of high school shorthand or the equivalent may not take this course for credit.

**BUS 18. ADVANCED SHORTHAND.** *Four hours credit.*

Prerequisite, BUS 17 and the ability to take dictation of at least 80 w.p.m., and typing speed of 45 w.p.m. This course is devoted primarily to dictation and transcription.

**BUS 19. SHORTHAND TRANSCRIPTION.** *Four hours credit.*

Prerequisites, BUS 12 and 18, and the ability to take dictation of at least 100 w.p.m. Emphasis is upon rapid and accurate transcription, speed dictation, punctuation, and other office skills.

**BUS 20. PRINCIPLES OF ACCOUNTING I.** *Four hours credit.*

A beginning course in accounting. Students who have previously studied book-keeping or accounting may be exempt from this course with the approval of their adviser. Common business transactions are recorded in various journals, summarized in general and subsidiary ledgers, and the effect of these transactions is reported on classified financial statements.

**BUS 21. PRINCIPLES OF ACCOUNTING II.** *Four hours credit.*

Prerequisite, BUS 20. The emphasis in this course is on principles of accounting as they apply to the measurement and reporting of assets, liabilities, ownership equities, periodic revenues, and periodic expenses.

**BUS 22. COST AND MANAGERIAL ACCOUNTING I.** *Four hours credit.*

Prerequisite, BUS 21. The emphasis in this course is on the accumulation and analysis of financial data for management purposes.

**BUS 30. INTRODUCTION TO BUSINESS LAW.** *Three hours credit.*

A general course in business law designed to emphasize the conceptual approach to business law. The role of law in society and the legal philosophy are seen through the careful study of actual cases and the court decisions rendered. All topics are covered briefly in this introductory course.

**BUS 50. PRINCIPLES OF MANAGEMENT.** *Three hours credit.*

Prerequisite, BUS 1. An analysis of how the manager does his task and what basic science underlies it. This analysis is approached by breaking down the total managerial task into its primary functions of planning, organizing, staffing, directing, and controlling, and organizing the principles techniques, and knowledge of managing around those functions.

**BUS 60. MARKETING.** *Four hours credit.*

Prerequisite, ECON 30. Marketing as an institution and as a managerial variable is studied in this course. Particular attention is placed upon the interdisciplinary contributions made to marketing as they affect the role of the marketing manager.

**BUS 61. SALESMANSHIP.** *Three hours credit.*

An introductory course in the principles and practices of salesmanship. Emphasis is placed on both "in store" and "outside" selling. Selling demonstrations are conducted.

**BUS 62. RETAILING PROMOTIONS.** *Four hours credit.*

Prerequisite, Distributive Education specialization or consent of the instructor. A course designed to familiarize the student with the various methods of retail promotion with emphasis placed on visual merchandising, advertising, show card writing, and other retail promotion techniques.

**BUS 70. PRINCIPLES OF FINANCE.** *Three hours credit.*

This course is designed to provide factual knowledge of the financial institutions in our economy. Course emphasis will be placed upon the integration of the short-term money market, the long-term capital market, and monetary and fiscal management, particularly as these relate to business practices.

**BUS 80. INTRODUCTION TO BUSINESS DATA PROCESSING.** *Three hours credit.*

Prerequisite, BUS 20, or concurrently. This course is designed to familiarize students with the basic concepts and equipment of business data processing. Starting with manual methods, the student is then introduced to mechanical and electronic data processing methods applied to three business operations: order and billing, inventory, and payroll.

**BUS 81. DATA PROCESSING—UNIT RECORD.** *Three hours credit. (Laboratory arranged.)*

Prerequisite, BUS 80. This is a course in using punched card data processing equipment. It is concerned with terminology, concepts, various machines, and applications.

**BUS 90. CALCULATING MACHINES AND BUSINESS ARITHMETIC.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

An office machines course emphasizing the operation and use of printing and rotary calculators. Business arithmetic is studied in its applications to the routine business calculations in retail and wholesale businesses.

**BUS 110. SECRETARIAL PROCEDURES.** *Three hours credit.*

Prerequisites, BUS 12, 13, 114, 19. Advanced instruction in and practical application of the skills and knowledge needed to be a secretary.

**BUS 114. RECORDS MANAGEMENT.** *Two hours credit.*

Prerequisite, BUS 10 with a grade of "C" or better. An introduction to various records systems used in the business world. Practice will be provided in the various filing systems also.

**BUS 115. BUSINESS COMMUNICATIONS.** *Three hours credit.*

Prerequisite, BUS 10. Basic principles and practices in the preparation of business communications are studied and applied.

**BUS 120. INTERMEDIATE ACCOUNTING I.** *Four hours credit.*

Prerequisite, BUS 21 and minimum grade point average of 2.00 in BUS 20 and 21. An advanced course in accounting principles emphasizing the problems of asset and liability valuation and the related problems of measuring income periodically.

**BUS. 121. INTERMEDIATE ACCOUNTING II.** *Four hours credit.*

Prerequisite, BUS 120. A continuation of BUS 120 and, in addition, includes the study of funds-flow reporting.

**BUS 122. COST AND MANAGERIAL ACCOUNTING II.** *Four hours credit.*

Prerequisite, BUS 22. This course gives emphasis to both costing for inventory valuation and income determination and costing for planning and control .

**BUS 131. PRINCIPLES OF BUSINESS LAW.** *Five hours credit.*

Prerequisite, BUS 30. This course in business law is designed to provide the student with a more thorough understanding of the various areas of business

law: contracts, agency, commercial paper, sales, bailments, partnerships, corporations, insurance, security devices, bankruptcy, trusts, and estates. The case approach will be used stressing the Uniform Commercial Code in understanding how the principles of business law are applied.

**BUS 151. JOB ANALYSIS.** *Two hours credit.*

Job analysis is studied as part of a job-study program. Techniques of preparing job analysis forms, collecting information, processing information, and putting the job analysis to work are considered. Job descriptions are developed and analyzed.

**BUS 152. PROCUREMENT.** *Three hours credit.*

Prerequisite, BUS 150. The course deals primarily with the procurement of proper equipment, materials, and supplies for the business firm. Topics discussed include: automation, budgets, procedures, quality, sources of supply, price policies, forward buying, and the legal status of the procurement officer.

**BUS 161. RETAIL MANAGEMENT.** *Four hours credit.*

Prerequisite, BUS 60. A study of the basic principles and techniques of retail merchandising and store operation.

**BUS 162. ADVERTISING.** *Three hours credit.*

An introductory course in advertising including a study of psychological principles, advertising media and types of advertising business organizations. Students participate in the preparation of advertising layouts and radio and TV announcements.

**BUS 170. BUSINESS FINANCE.** *Three hours credit.*

Prerequisite, BUS 21. This course emphasizes the sources of short-term, intermediate-term, and long-term funds for a business. Principles and motives of financial management are stressed.

**BUS 190. INTRODUCTION TO OPERATIONS RESEARCH.** *Three hours credit.*

A course of business-oriented mathematical concepts applicable to analysis and control in business. Control of variables in operations, as used in decision making, in the establishment of standards and limits for performance, to maximize operational efficiency. New mathematical techniques related to statistical measurement of economic activity.

**BUS 191. BUSINESS STATISTICS I.** *Three hours credit.*

Prerequisite, BUS 190 or consent of instructor. A course designed to orient the business student to statistics and its use in business affairs. The major emphasis will be on the nature of statistics, decision based on statistics, and collection of business data.

**BUS 192. BUSINESS STATISTICS II.** *Three hours credit.*

Prerequisite, BUS 191. A continuation of the foundation started in BUS 191. Major emphasis will be on probability, normal distributions, sampling distributions, statistical inference, decision procedures, sampling designs, quality control, and the time series analysis.

**BUS 200. WORKSHOP.** *Maximum of nine hours credit.*

Special workshops or short courses in various content area of business will be offered during summers and other quarters as the need and opportunity arises. These workshops will stress specialized areas of various departments in business. Not more than three of these courses may be applied to any one degree.

**BUS 205. THE CONSUMER IN OUR ECONOMY.** *Three hours credit.*

Prerequisites, BUS. 1, ECON 30. A course designed to look into the theories of consumer behavior and what the consumer can do to improve his position in the American economy. Consumption in general, national income, and government protection of the consumer are general topics discussed.

**BUS 221. ADVANCED ACCOUNTING.** *Four hours credit.*

Prerequisite, BUS 120. This course includes a study of the accounting problems caused by multiple proprietorship—partnerships, corporations, and business combinations.

**BUS 223. GOVERNMENTAL AND INSTITUTIONAL ACCOUNTING.**  
*Four hours credit.*

Prerequisite, BUS 21. Accounting principles and procedures relating to schools, hospitals, and other non-profit institutions and to cities, counties and other governmental units.

**BUS 225. ADVANCED ACCOUNTING PROBLEMS.** *Four hours credit.*

Prerequisites, BUS 121, BUS 221. An advanced course in Accounting problems and theory emphasizing the more complex problems associated with partnerships, parent and subsidiary relationships, consolidations, liquidations, and current developments in accounting practices. Includes as an integral part of the subject matter, a review of recent C.P.A. examinations.

**BUS 227. AUDITING.** *Four hours credit.*

Prerequisite, BUS 121 and 191. This course involves a study of professional ethics and legal responsibility of public accountants, generally accepted accounting principles, and auditing procedures.

**BUS 228. INCOME TAX ACCOUNTING I.** *Three hours credit.*

A study of the basic rules and regulations of Federal income taxation of individuals. Includes as an integral part of the subject matter, tax planning for individuals in such areas as standard vs itemized deductions, joint vs separate returns, importance of distinguishing between deductions for adjusted gross income and deductions from adjusted gross income, and capital gain income vs ordinary income.

**BUS 229. INCOME TAX ACCOUNTING II.** *Three hours credit.*

Prerequisite, BUS 228. A continuation of BUS 228, with emphasis on federal income tax rules applicable to partnerships and corporations.

**BUS 231. REAL ESTATE LAW.** *Two hours credit.*

This course is concerned with basic terminology, concepts, and relationships involving purchaser, seller, broker, builders, lending agencies, administrative groups, and landlord and tenant. Practical aspects of title, building contracts, loans, deeds, liens, restrictions, zoning, eminent domain, escrow, and statutory requirements will be included.

**BUS 233. LIFE INSURANCE LAW AND COMPANY OPERATION.** *Three hours credit.*

In this course the following legal topics as applied to life insurance will be discussed and studied: law of contract and agency, the life insurance contract, policy provisions, the contract in operation, settlement options, and beneficiary designations. Company organization, operation, investments will be studied (CLU Course 2).

**BUS 239. PROPERTY INSURANCE LAW.** *Three hours credit.*

This course provides a review of basic principles of business law and applies them specifically to property and casualty insurance practices and problems. Special attention is given to the law of contracts as applied to insurance contracts, agency insurance, and the law of liability as resulting from negligence. (C.P.C.U. Part IV)

**BUS 240. INTRODUCTION TO INSURANCE.** *Three hours credit.*

This course deals with the basic principles of insurance and risk. Various kinds of insurance are discussed; the primary objective of the course is an orientation to the many kinds of insurance and their purposes.

**BUS 241. LIFE AND HEALTH INSURANCE.** *Three hours credit.*

This course is designed to provide the student with a firm foundation in the many details of life and health insurance. Topics considered will include: individual life contracts, special and annuity contracts, disability income, medical expense insurance, probability in life insurance, reserves, nonforfeiture values, and dividends. (CLU Course 1)

**BUS 242. SOCIAL AND GROUP INSURANCE.** *Three hours credit.*

Prerequisite, BUS 241. This course provides a background in the large area of social insurance and also group insurance. Various kinds of group policies are discussed, including life, health, etc.

**BUS 243. PENSION PLANNING.** *Three hours credit.*

As part of a comprehensive insurance program, the following topics are discussed concerning pension planning: basic features of a pension plan, tax considerations, cost considerations, allocated funding instruments, profit sharing, and tax sheltered annuities. (CLU Course 4)

**BUS 244. INSURANCE AND TAXATION.** *Three hours credit.*

Prerequisite, BUS 241. The effect of income, estate, and gift taxation on an insurance program are discussed in this course. These taxes are considered for the individual and the business enterprise also.

**BUS 245. BUSINESS INSURANCE.** *Three hours credit.*

Prerequisite, BUS 241. Various kinds of insurance for the business firm are studied. The special needs of the individual proprietor, partnerships, and corporations receive attention. Special disability insurance, life insurance on key men, and split dollar plans are discussed. (CLU Course 9)

**BUS 246. ESTATE PLANNING AND LIFE INSURANCE.** *Three hours credit.*

Topics studied include: disposition of property in estates and trusts, administration of estates, federal estate taxation, federal gift taxation, planning through trusts and wills, and the place of life insurance in estate planning. (CLU Course 10)

**BUS 247. ANALYSIS OF INSURANCE FUNCTIONS I.** *Three hours credit.*

This course covers in detail an analysis of the various insurance functions especially applicable to property and casualty insurance. Some of the topics covered will be underwriting practices, loss prevention, rate making, regulation of insurance, types of insurers, reserves necessary, human motivation, professional ethics, and risk management. (C.P.C.U. Part II)

**BUS 248. ANALYSIS OF INSURANCE FUNCTIONS II.** *Three hours credit.*

A continuation of BUS 247. (Second part of C.P.C.U. Part II)

**BUS 252. OFFICE MANAGEMENT.** *Three hours credit.*

Prerequisite, BUS 50. The emphasis in this course is on the functions of the office and office organization; work in the office, office layout, equipment, supplies and forms; personnel problems in the office; and costs and control of office work.

**BUS 253. PERSONNEL MANAGEMENT.** *Five hours credit.*

A study of the principles and techniques of personnel management with attention given to their psychological foundations.

**BUS 256. BUSINESS POLICIES AND MANAGEMENT.** *Three hours credit.*

Prerequisite, Business Core requirements completed. A course for the senior student designed to integrate the various functional areas of business in terms of policy level decision-making. Cases are emphasized.

**BUS 257. PRODUCTION MANAGEMENT.** *Three hours credit.*

A course which emphasizes the methods of production control in industrial processes. The elements of control applied in planning, scheduling, routing of the product-in-process, and the appraisal and measurement of industrial performance as applied by conventional administrative methods, assisted by data processing and computer-controlled processes.

**BUS 260. MARKETING STRATEGY.** *Four hours credit.*

Prerequisite, BUS 60. This course is designed to familiarize the student with operations of marketing organizations. The understandings and administrations of marketing strategy with regard to consumer analysis, product planning, and promotion. Readings and cases will be used.

**BUS 261. SALES MANAGEMENT.** *Three hours credit.*

Prerequisite, BUS 61. A study of sales management, the major problems involved, and the relationship of sales management to the total business operation.

**BUS 262. MARKET ANALYSIS AND RESEARCH.** *Four hours credit.*

Prerequisite, BUS 60 and BUS 192. This course is designed to acquaint the student with the typical marketing problems on which research can be used effectively. Analysis of basic research designs and basic methods of collecting data will be covered. Special emphasis will be placed on motivational research, product research, advertising research, marketing research, consumer-demand research and sales control research. Cases are used for discussions.

**BUS 263. ADVERTISING STRATEGY.** *Three hours credit.*

Prerequisite, BUS 162. A study of current advertising strategy, and the functions of advertising departments and agencies leading into the development and management of a complete advertising program.

**BUS 265. MARKETING PROBLEMS.** *Four hours credit.*

Prerequisites, BUS 260, 262, and senior standing or consent of the instructor. A course dealing with the problems of marketing managers. This senior level course is designed to acquaint the student with current marketing problems. Included will be a study of business cases and/or business games and a current reading of related materials.

**BUS 267. PHYSICAL DISTRIBUTION.** *Three hours credit.*

Prerequisite BUS 60. A systems approach to the marketers' problems of physical distribution; including inventories transportation, warehousing, packaging and order processing.

**BUS 268. INDUSTRIAL MARKETING.** *Three hours credit.*

Prerequisite, BUS 60. This course deals with the marketing of industrial goods. The major topics are: planning products and markets, planning strategy, pricing policies, managing distribution, and managerial control.

**BUS 269. INTERNATIONAL MARKETING.** *Three hours credit.*

Prerequisite, BUS 60. Consideration of the global or multinational aspect of business enterprise and its effect on marketing problems and management. Factors of international marketing will be considered through the various studies of buying and selling processes in the countries of the world.

**BUS 270. FINANCIAL MANAGEMENT.** *Three hours credit.*

Prerequisite, BUS 170. In this course the problems of financing business enterprise are studied. The scope includes working capital financing, budgeting, analyzing financial statements, and intermediate and long-term financing. Cases will be used to illustrate.

**BUS 271. INVESTMENTS.** *Three hours credit.*

Prerequisite, BUS 170 or permission of instructor. The course is designed to provide the individual investor with a working basis for investment policy. A study will be made of topics such as how to develop a logical investment program, how to recognize and minimize investment risks, how to formulate decisions, and how to take advantage of investment opportunities.

**BUS 272. PRINCIPLES OF REAL ESTATE.** *Three hours credit.*

The course is designed to be a beginning course in the real estate area. Theories and practices that have a significant influence on the real estate market both locally and nationally are discussed. The course will be useful to the consumer, the practitioner in real estate, and the general employee in business.

**BUS 276. CREDIT MANAGEMENT.** *Three hours credit.*

This course provides information and understanding of the credit operations of business for both students of business and practicing businessmen. The various kinds of credit (consumer and commercial) are discussed, and the management of credit by business firms is given emphasis in the course.

**BUS 281. ELECTRONIC DATA PROCESSING—FORTRAN.** *Three hours credit. (Laboratory arranged.)*

Prerequisite, BUS 80 or equivalent. This course includes an introduction to electronic computers and to **Fortran** programming. The student's work involves analyzing and developing a program relative to his field of interest.

**BUS 283. ELECTRONIC DATA PROCESSING—COBOL.** *Three hours credit. (Laboratory required.)*

Prerequisite BUS 80 or equivalent. This course includes an introduction to electronic computer operation and to **Cobol** programming. The student's work involves analyzing and developing programs relative to his field of interest.

**BUS 285. ELECTRONIC DATA PROCESSING—ADVANCED FORTRAN.** *Three hours credit. (Laboratory arranged.)*

Prerequisite, BUS 281. Advanced computer programming techniques with special reference to business problems and applications. This course will require approximately 3 hours of lab per week. This course will make repeated use of the principles presented in 281.

**BUS 288. SYSTEMS AND PROCEDURES.** *Three hours credit.*

Prerequisite, BUS 81, and 281. The relationship of systems and procedures to policies and needs of management; job characteristics, management audit; flow charting. Analysis of operations by a study of work simplification, work measurement, work sampling. Current development in human engineering, job design, forms control, records management, and company manuals.

**BUS 289. ADVANCED SYSTEMS ANALYSIS.** *Three hours credit. (Laboratory arranged.)*

Prerequisite, BUS 288. This course introduces the student to the methodology of systems analysis by the use of models and computer simulation. The primary emphasis will be on decision making with special attention devoted to automated applications.

**BUS 290. INTERMEDIATE OPERATIONS RESEARCH.** *Three hours credit.*

Prerequisite, BUS 190 or permission of the instructor. This course is designed to provide theoretical and practical foundations for the use of linear programming as a "systems approach" to management decision making. The course is quantitative analysis distilled from and based on the descriptive and qualitative aspects of management problems.

## BUSINESS EDUCATION

**BUED 140. INTRODUCTION TO BUSINESS EDUCATION. (ATE)** *Two hours credit.*

Prerequisites, EDHP 101, PSY 140 (or concurrently). A beginning course for future business teachers designed to acquaint students with problems of teaching, the business program, philosophy of business education, common methods for business classes, and devices common to many classes. Observation of high school business classes is one of the course requirements.

**BUED 141. METHODS AND MATERIALS OF TEACHING TYPEWRITING. (ATE)** *One hour credit.*

Prerequisites, BUS 12, BUED 140 (or concurrently). A beginning course in the teaching of typewriting with special emphasis on various methods and techniques that have been shown to be useful by research. Materials will also be examined in the course.

**BUED 142. METHODS AND MATERIALS OF TEACHING SHORTHAND. (ATE)** *One hour credit.*

Prerequisites, BUS 19, BUED 140 (or concurrently). An introduction to the teaching of shorthand for business teachers with emphasis on devices, techniques, and materials.

**BUED 143. METHODS AND MATERIALS OF TEACHING BOOKKEEPING. (ATE) *One hour credit.***

Prerequisites, BUS 21, BUED 140 (or concurrently). An introduction to the teaching of bookkeeping. Major emphasis in the course will be on techniques and methods of aiding students in high school. Materials will be examined and evaluated in the class.

**BUED 144. METHODS AND MATERIALS OF TEACHING BASIC BUSINESS SUBJECTS. (ATE) *One hour credit.***

Prerequisites, BUS 1, ECON 30, BUED 140 (or concurrently). A course designed to aid beginning business teachers in the teaching of the basic business subjects of general business, business law, economics, consumer economics, etc. Materials available for such classes will be examined by the class.

**BUED 145. INTRODUCTION TO DISTRIBUTIVE EDUCATION (ATE). *Three hours credit.***

Prerequisites, EDHP 101, PCG (or concurrently). A study of the organization, supervision, and coordination of secondary school, post secondary school, and adult distributive education programs.

**BUED 146. METHODS AND MATERIALS OF TEACHING DISTRIBUTIVE EDUCATION. (ATE) *Two hours credit.***

Prerequisites, BUED 140, 145. A course devoted to the specific methods and techniques relating to the teaching of distributive education. Major emphasis will be placed upon individual instruction and sources of instructional materials.

**BUED 171. EVALUATION IN BUSINESS EDUCATION. (ATE) *Two hours credit.***

Designed to supplement the methods course with a foundation in techniques of evaluation including the preparation and administration of tests in the skill and content areas of business subjects and the use of other evaluative materials in the field.

**BUED 230. ECONOMIC EDUCATION SEMINAR. (ATE) *Three hours credit.***

Prerequisites, ECON 30, 102. A study of the conceptual framework of economic education for potential teachers, administrators, curriculum specialists and guidance personnel.

**BUED 266. DEVELOPMENT OF DISTRIBUTIVE EDUCATION INSTRUCTIONAL MATERIALS. *Two hours credit.***

This course is designed to offer a brief analysis of instructional materials, their courses, and how to use them. Students will develop materials for use in their own instructional programs.

## CHEMISTRY

**\*CHEM 40. PRINCIPLES OF CHEMISTRY I. *Five hours credit. (Four hours lecture, three hours laboratory.)***

This course introduces the student to the principles of chemistry together with some descriptive chemistry to illustrate these principles. It is designed for science majors and minors, as well as for pre-medical, pre-dental, pre-veterinary, pre-engineering, nursing, and home economics students.

**\*CHEM 41. PRINCIPLES OF CHEMISTRY II. *Five hours credit. (Four hours lecture, three hours laboratory.)***

Prerequisite, CHEM 40 or 44. This course is a continuation of the principles of chemistry together with the descriptive chemistry necessary to illustrate these principles. It is designed for the same group of students as CHEM 40 and is necessary to provide a reasonably complete understanding of the basic concepts of chemistry.



**\*CHEM 42. INTRODUCTORY ORGANIC CHEMISTRY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 41 or 45. This course provides an elementary introduction to organic chemistry, including some of the many applications in such fields as food, drug, plastic, dye, and vitamin chemistry. A student cannot receive credit for both CHEM 42 and 141.

**\*CHEM 44. PRINCIPLES OF CHEMISTRY IA.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, one year high school chemistry, three years high school mathematics or MATH 23. The course presents the principles of chemistry rigorously to those students who have a strong background in high school chemistry and mathematics. Descriptive chemistry will be used to illustrate the theoretical basis of modern chemistry. Laboratory work will emphasize quantitative aspects of chemistry.

**\*CHEM 45. PRINCIPLES OF CHEMISTRY IIA.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, CHEM 40 or 44. This course is a continuation of the principles of chemistry together with the descriptive chemistry necessary to illustrate these principles. It is designed for the same group of students as CHEM 44 and is necessary to provide a reasonably complete understanding of the basic concepts of chemistry. Laboratory work will emphasize the quantitative aspects of chemistry.

**\*CHEM 46. QUALITATIVE ANALYSIS.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, CHEM 41 or 45 and MATH 23. In this course, the student is introduced to analytical theory and the methods of detection of common ions. The laboratory work illustrates the class discussion.

**\*CHEM 141. ORGANIC CHEMISTRY I.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 41 or 45. This course is the first of a series of three courses which cover the nomenclature and reactions of the various classes of organic compounds, together with basic electronic aspects of these compounds. The aliphatic and aromatic compounds are integrated in this series. Chemistry majors (Arts and Sciences) may also register for CHEM 244 (one hour) concurrently. A student cannot receive credit for both CHEM 42 and 141.

**\*CHEM 142. ORGANIC CHEMISTRY II.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 141. This course is the second of the series which covers the nomenclature, reactions and electronic theory of the various classes of organic compounds. Aliphatic and aromatic compounds are integrated in this series. Chemistry majors (Arts and Sciences) may also register for CHEM 244 (one hour) concurrently.

**\*CHEM 145. QUANTITATIVE ANALYSIS I.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, CHEM 46. This course provides a discussion of quantitative analytical procedures and emphasizes analytical theory. Gravimetric, volumetric, colorimetric and electrodeposition methods are applied to common substances in the laboratory.

**\*CHEM 147. GENERAL BIOCHEMISTRY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 42 or 142. An introduction to the chemistry of foods, nutrition, and body processes is given.

**\*CHEM 184. INSTRUMENTAL ANALYSIS.** *Three hours credit. (Two hours lecture, three hours laboratory.)*

Prerequisites, CHEM 145 and either CHEM 42 or 141. Lectures and laboratory sessions centered around colorimetry, spectrophotometry, fluorimetry, flame spectrophotometry, infrared spectrophotometry and other selected methods of analysis. For medical technology, biology and earth science majors, as well as others not qualified to take CHEM 284.

**CHEM 240. FOOD ANALYSIS.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, CHEM 42. This course deals with some of the techniques of qualitative and quantitative analysis of foods for certain inorganic and organic constituents.

**CHEM 241. ELEMENTS OF GLASS BLOWING.** *One hour credit. (Three hours laboratory.)*

Demonstrations and practice in the elementary operations of glass blowing; the construction and repair of borosilicate glass laboratory equipment.

**CHEM 242. ORGANIC CHEMISTRY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 42. A course in organic chemistry for students who have had an introductory course in organic chemistry. Aliphatic and aromatic organic compounds are treated with regard to theory and application. Offered summers only.

**CHEM 243. ORGANIC CHEMISTRY III.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 142 or 242. This course is the last of the series which covers the nomenclature, reactions and electronic theory of the various classes of organic compounds. Aliphatic and aromatic compounds are integrated in this series. Chemistry majors (Arts and Sciences) may also register for CHEM 244 (one hour) concurrently.

**CHEM 244. LABORATORY IN ORGANIC CHEMISTRY.** *One hour credit. (Three hours laboratory.) (Maximum three hours credit.)*

Organic preparations and qualitative organic analysis constitute the laboratory work.

**CHEM 245. QUANTITATIVE ANALYSIS.** *Five hours credit. (Three hours lecture, six hour laboratory.)*

Prerequisites, MATH 23 and CHEM 41 or 45. Lectures treat the equilibria existing in solutions of acids, bases, and slightly soluble salts, and the application of such equilibria to gravimetric and acid-base and volumetric precipitation analysis. Laboratory work consists of illustrating these three types of analysis. Students having credit in any quantitative analysis course must obtain permission of instructor before enrolling in this course.

**\*CHEM 246. QUANTITATIVE ANALYSIS II.** *Five hours credit. (Three hours lecture, six hour laboratory.)*

Prerequisite, CHEM 145. Corequisite, CHEM 282. Special attention is given to the analysis of complex mixtures, and the use of certain analytical instruments.

**CHEM 247. ENZYME CHEMISTRY.** *Two hours credit.*

Prerequisite, CHEM 147. A study of the structure and function of enzymes with an emphasis on the kinetics and mechanisms of enzyme-catalyzed reactions.

**CHEM 248. INORGANIC CHEMISTRY I.** *Three hours credit.*

Prerequisite, CHEM 145. This course is an introduction to inorganic chemistry. Literature, atomic structure and chemical bonding will be presented.

**CHEM 249. INORGANIC CHEMISTRY II.** *Three hours credit.*

Prerequisites, CHEM 248, 282, corequisite, CHEM 283. The chemistry of typical inorganic compounds will be presented. Emphasis will be placed on the relationship of bonding and structure to chemical properties.

**CHEM 250. LABORATORY IN INORGANIC CHEMISTRY.** *One hour credit. (Three hours laboratory.)*

Prerequisite, CHEM 248. The student will perform experiments which will explore the structure, bonding and chemical properties of inorganic substances.

- CHEM 280. ORGANIC QUALITATIVE ANALYSIS.** *Three hours credit. (One hour lecture, six hours laboratory.)*  
Prerequisite, CHEM 243. This course is an advanced laboratory course in organic chemistry. The identification of organic compounds by classical and modern spectral methods constitutes the laboratory work. Lecture will consider theory and technique of analysis.
- CHEM 281. PHYSICAL CHEMISTRY I.** *Five hours credit. (Four hours lecture, three hours laboratory.)*  
Prerequisite, CHEM 142, MATH 33, PHYS 67. Corequisite, CHEM 145. This course is an advanced study of the theoretical principles upon which chemistry is based. The properties of the gaseous, liquid, and solid states, the principles of thermodynamics and thermochemistry and the theories of atomic and molecular structure are considered. The laboratory demonstrates the principles developed in the lecture.
- CHEM 282. PHYSICAL CHEMISTRY II.** *Five hours credit. (Four hours lecture, three hours laboratory.)*  
Prerequisite, CHEM 281. This course is a continuation of CHEM 281. The following topics are considered: solutions, homogenous and heterogenous chemical equilibria, and chemical kinetics.
- CHEM 283. PHYSICAL CHEMISTRY III.** *Five hours credit. (Four hours lecture, three hours laboratory.)*  
Prerequisite, CHEM 282. This course is a continuation of CHEM 282. Electrochemistry, ionic equilibria, and colloids are considered.
- CHEM 284. INSTRUMENTAL METHODS OF ANALYSIS.** *Five hours credit. (Three hours lecture, six hours laboratory.)*  
Prerequisites, CHEM 145. Corequisite, CHEM 283. Lectures will consider the theory and techniques of the analysis of chemical systems by various optical, X-ray and electrical methods of analysis. In the laboratory the student will perform analyses using the colorimeter, spectrophotometer, flame photometer, fluorimeter, infrared spectrophotometer and polarograph.
- CHEM 285. CHEMICAL LITERATURE.** *One hour credit.*  
Prerequisite, CHEM 243. This course covers the use of the library and the function of chemical literature. Problems in the use of the library are assigned.
- CHEM 287. PHYSICAL BIOCHEMISTRY.** *Four hours credit. (Three hours lecture, three hours laboratory.)*  
Prerequisites, CHEM 243, 283 (or taken concurrently.) The physical and organic bases of modern biochemistry will be studied. Enzyme chemistry, the physical chemistry of macromolecules, and the molecular organization of the cell will be emphasized.
- CHEM 289. SENIOR RESEARCH.** *Two hours credit. (Minimum four hours credit, maximum six hours credit.)*  
Prerequisites, CHEM 243, 283. An introduction to research in chemistry. The student will initiate and pursue an independent original investigation. A paper and oral presentation of his work are required. Weekly conferences with instructor are required. The student may earn a maximum of six hours credit.
- CHEM 291. STRUCTURE OF MATTER.** *Five hours credit. (NSF Summer Institute.)*  
This course is designed to review and expand the modern concepts of the structure of matter emphasizing the use of the Periodic Table in correlating and predicting properties of matter. The electron orbitals of atoms will be discussed in connection with electrovalent, covalent, and metallic bond formation. The effect of bond types on the physical and chemical properties of matter will be discussed.
- CHEM 292. FUNDAMENTALS OF ORGANIC CHEMISTRY.** *Four hours credit. (Four hours lecture, three hours laboratory.) (NSF Summer Institute.)*  
This course is introductory to the chemistry of carbon. The nomenclature of carbon compounds, the common functional groupings, the chemical characteristics of these groupings together with modern theoretical aspects will be studied.

**CHEM 293. INTRODUCTORY QUANTITATIVE ANALYSIS.** *Four hours credit. (Four hours lecture, three hours laboratory.) (NSF Summer Institute.)*

This basic course will present the fundamentals of analysis emphasizing the important role of analysis in chemistry. Modern instruments will be used whenever possible.

## COMMUNICATIONS

**\*COM 1. ELEMENTARY COMPOSITION I.** *Three hours credit.*

The first of the two quarters of elementary expository writing, with introduction to functional grammar, sentence structure, punctuation, and paragraph organization.

**\*COM 2. ELEMENTARY COMPOSITION II.** *Three hours credit.*

Prerequisite, COM 1. The second quarter of elementary expository writing, with instruction in diction, style, tone, logical thinking, the organization of well-developed reports, and a research paper.

**\*COM 3. PRINCIPLES OF SPEECH.** *Three hours credit.*

A lecture and performance course in fundamentals of voice production, oral reading and public speaking.

## EARTH SCIENCE

**ESCI 1. INTRODUCTION TO EARTH SCIENCE.** *Three hours credit.*

This course is designed to introduce beginning students in the teacher education programs to the broad aspects of the field of Earth Science, to present unifying concepts and principles of the total program, and to introduce students to the teaching of Earth Science.

**ESCI 299. SEMINAR IN EARTH SCIENCE.** *Two hours credit.*

Prerequisite, consent of student's major adviser. The final course for Earth Sciences majors in the teacher education program. It will provide students with an opportunity to investigate and discuss earth science topics of special interest beyond the scope of existing departmental course offerings, as well as problems which might be encountered in teaching earth science in the schools. Special attention will be given to the unifying concepts and principles of earth science.

## ECONOMICS

**\*ECON 30. INTRODUCTORY ECONOMICS.** *Five hours credit.*

An introductory analysis of the American economic system as it affects the average citizen. Considers resources, the market, business organization, labor, money and public finance.

**\*ECON 102. CONTEMPORARY ECONOMIC PROBLEMS.** *Three hours credit.*

Prerequisite, ECON 30. An examination into critical economic problems facing modern society, most of which are in sharp focus within the decade. Particular attention is given to agricultural adjustment, high-level employment maintenance, federal taxation influences, monetary controls, stabilization of prices, obstructions to foreign trade.

**\*ECON 107. GOVERNMENT AND BUSINESS.** *Three hours credit.*

Prerequisite, ECON 30. A study of the relation of American public policy to the challenge of industry, labor, agriculture and inflation-depression periods.

**\*ECON 120. HISTORY OF ECONOMIC THOUGHT. *Three hours credit.***

Prerequisite, ECON 30. This course will trace the evolution of economic thinking from the period of the Old Testament up to the present day. Particular attention will be given the roles played by particular "schools" of economic thinkers, the genesis of their ideas and their contributions.

**ECON 200. SEMINAR IN ECONOMIC THOUGHT. *Three hours credit.***

Prerequisites, ECON 30, 201, 120, or the consent of the instructor. This course is primarily concerned with independent study and limited guided research in the development of economic thought. The group will meet for regular discussions and criticism of their work.

**\*ECON 201. INTERMEDIATE ECONOMIC THEORY. *Three hours credit.***

The purpose of this course is to provide a summary exposition of contemporary economic theory for those students intending to undertake graduate courses in economics. Emphasis is upon value and distribution theory. It is assumed that students will have had an introductory course in economics.

**ECON 202. MONEY AND BANKING. *Five hours credit.***

Prerequisite, ECON 30. A study of the origins and present roles of our monetary system, commercial banking and Federal Reserve System.

**\*ECON 205. RUSSIA'S SOVIET ECONOMY. *Three hours credit.***

A synthesis of available knowledge regarding all major sectors of the Soviet economy, particularly as regards their organization and operation.

**\*ECON 210. INTERNATIONAL ECONOMICS. *Three hours credit.***

Prerequisite, ECON 30. Consideration of the theories, policies and practices related to international economics. The course seeks an understanding of the fundamental causal relationships, basic institutions, and unifying concepts which are found in the world economy.

**\*ECON 215. INTERNATIONAL FINANCE. *Three hours credit.***

Prerequisites, ECON 30, 212, or the consent of the instructor. A study of the financial instruments, institutions and organizations which comprise international finance and which assist international trade.

**\*ECON 220. DEVELOPMENTAL ECONOMICS. *Three hours credit.***

Prerequisites, ECON 30, 201, or the consent of the instructor. A study of the economic factors which aid or impair economic development with primary emphasis placed on evolving national economies and regional economic problems of advanced economies.

**\*ECON 230. EUROPEAN ECONOMIC HISTORY. *Three hours credit.***

Prerequisite, ECON 30. A study of the historical origins of the economic institutions of Europe as related to the development of present European economic life.

**\*ECON 233. ECONOMIC COLONIALISM AND IMPERIALISM. *Three hours credit.***

Prerequisites, ECON 30, 231, or the consent of the instructor. A study of the part played by economic doctrines, theories and practices in the expansionary drives to colonialism and imperialism, with primary emphasis given to modern history.

**\*ECON 235. ECONOMIC HISTORY OF THE UNITED STATES. *Three hours credit.***

A review of the historical changes in the major American economic institutions with emphasis on the post-Civil War period.

**\*ECON 238. HISTORY OF ECONOMIC SYSTEMS: SOCIALISM, COMMUNISM, CAPITALISM, FASCISM. *Three hours credit.***

A survey of socio-economic reform movements, including Utopian schemes, mercantilism, monopolistic capitalism, socialism, communism, fascism and modified capitalism.

## 154 / COURSE DESCRIPTIONS

### **\*ECON 240. STATE AND LOCAL FINANCE.** *Three hours credit.*

The purpose of this course will be to focus attention upon the mechanisms and the goals of public finance as employed by governments on the state and local level in the U. S. economy.

### **\*ECON 241. PUBLIC FINANCE.** *Five hours credit.*

Prerequisite, ECON 30. A study of government financing on the federal, state, and local level as it is reflected in expenditures, revenue sources such as taxes, and the problems and solutions of public debt.

### **\*ECON 246. INDUSTRY STUDIES.** *Three hours credit.*

Prerequisite, ECON 30. This will be a course in the application of basic economic principles. Students should be prepared to do an extensive case study of an industry.

### **\*ECON 248. THE ECONOMICS OF PUBLIC UTILITIES.** *Three hours credit.*

Prerequisite, ECON 30. A study of public-utility concepts in the American business system and the problems relative to effective regulation and growth of these industries.

### **\*ECON 250. NATIONAL INCOME ANALYSIS.** *Three hours credit.*

Prerequisite, ECON 30. This course will incorporate major areas of modern aggregate economics analysis. Income measurement and determination of the level of income will be combined with problems of growth and fluctuations.

### **\*ECON 251. INTRODUCTION TO QUANTITATIVE ECONOMICS.** *Three hours credit.*

Prerequisite, ECON 201 or the consent of the instructor. An introductory course in the use of mathematical techniques in economics. High school algebra and a good background in economic theory would be sufficient preparation.

### **\*ECON 252. EMPIRICAL METHODS IN ECONOMICS.** *Three hours credit.*

Prerequisite, ECON 30 or consent of the instructor. The course will present an examination of national income accounting practices, compilation of economic statistics, index number computation and related topics. Only elementary statistical background will be needed.

### **\*ECON 253. ANALYSIS OF BUSINESS CYCLES.** *Three hours credit.*

Prerequisites, ECON 201, 250 or the consent of the Instructor. The course will present a theoretical and empirical investigation of economic fluctuations.

### **\*ECON 260. LABOR-MANAGEMENT RELATIONS.** *Three hours credit.*

A study into the origins of the labor movement and an examination of the impact of trade unionism on contemporary industrial organization.

### **\*ECON 270. AGRICULTURE ECONOMICS.** *Three hours credit.*

Prerequisite, ECON 30. A study of the economics of agriculture and the relation of agricultural economic factors to the total modern economy.

## EDUCATIONAL ADMINISTRATION

### **EDAD 243. SCHOOL LAW I.** *Three hours credit.*

An examination of the legal responsibilities, rights, and liabilities of classroom teachers and the legal relationships of teachers to students, administrators, school boards, and the public.

## EDUCATIONAL CURRICULUM AND INSTRUCTION

### **EDCI 140. INTRODUCTION TO STUDENT TEACHING IN THE SECONDARY SCHOOL.** (ATE) *Two hours credit.*

Student is assigned to a specific class in his major or minor area under supervision in the Laboratory School. He will meet with the class and the supervising teacher five days per week and arrange for one additional conference hour.

**EDCI 141. METHODS OF TEACHING IN THE SECONDARY SCHOOL.** (ATE) *Three hours credit.*

Prerequisite to student teaching. Taken in the department in which student teaching is done. Includes curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the subject area to the total secondary program. Teaching techniques are a point of emphasis.

**EDCI 150. TEACHING PROBLEMS LABORATORY.** *Three hours credit.*

Designed to assist the preservice teacher in dealing appropriately with problems common to classroom teaching, such as the disruptive student, parent conferences, adapting teaching materials, etc., through the use of simulation, role-playing, films, videotape and other techniques.

**EDCI 222. INDIVIDUAL STUDIES.** *Maximum of four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with instructor and one with the chairman of the department.

**EDCI 251. PROBLEMS IN TEACHING MINORITY GROUPS.** *Three hours credit.*

An in-depth study of minority groups—with special emphasis on the psychological, educational and social needs of the Mexican—American school child of the Southwest. An attempt will also be made to acquaint educators with teaching methods and techniques that seem to work with minority children.

**EDCI 260. PROFESSIONAL RESPONSIBILITIES OF TEACHERS.** (ATE) *Maximum of three hours credit.*

Designed to provide a basic understanding of the roles and responsibilities within the education profession. Includes consideration of professional organizations, teacher rights and responsibilities, personnel policies and working conditions. *Enrollment limited to beginning teachers.*

**EDCI 265. TEACHING FAMILY LIVING.** *Three hours credit.*

Designed to provide an understanding of the development of a curriculum in family living to consider problems relating to narcotics, drug abuse, alcohol and tobacco, and facts and attitudes toward human sexual behavior. Identifies procedures appropriate to the organization, administration, and public relations programs related to such a curriculum.

## HISTORY AND PHILOSOPHY OF EDUCATION

**\*EDHP 101. BASIC CONCEPTS OF EDUCATION.** (ATE) *Five hours credit.*

A conceptual approach to the problems and issues facing educators in contemporary American Society, designed to create an environment in which the student can select and evaluate concepts and information from the many disciplines related to the educational enterprise. Special emphasis is placed upon the sociological, anthropological, historical and structural foundations of American Education. Problems and issues are analyzed as they relate to the classroom teacher at each level.

**EDHP 295. PHILOSOPHY OF EDUCATION.** (ATE) *Three hours credit.*

Prerequisite, EDHP 101. An introductory course in which the student considers the basic problems of knowledge, truth, reality, and value as perceived by the various schools of philosophic thought. The traditional philosophic positions are translated into educational schools of thought and application is made to the specific problems of education.

**EDHP 296. HISTORY OF EDUCATION IN THE UNITED STATES.** *Three hours credit.*

This course is based on material in the most recent texts on the history of education in the United States.

## EDUCATIONAL MEDIA

### EM 80. INTRODUCTION TO OUTDOOR EDUCATION. *Three hours credit.*

Introductory course to orient students to the basic concepts of outdoor education. Natural and community resources are utilized in providing direct learning experiences. Short field trips and participation in outdoor laboratory school programs are provided. The interdisciplinary approach, involving instructors from academic areas and the Laboratory School, will be followed.

### EM 200. STILL PHOTOGRAPHY FOR TEACHERS. *Two hours credit.*

Teachers are introduced to the basic techniques of photography. Primary emphasis will be on taking and using of photographs and slides to aid communication. A minimum background in darkroom procedures is provided.

### EM 206. INTRODUCTION TO EDUCATIONAL RESOURCES. *Five hours credit.*

Introduces students to most of the materials, both print and nonprint, available for instruction; each is demonstrated, and psychological basis for use is discussed as well as its characteristics, advantages and disadvantages; designed to be of value to all interested in education.

### EM 208. DESIGN AND CONSTRUCTION OF AUDIO-VISUAL MATERIALS. *Three hours credit.*

Provides experience in the production of teaching materials using equipment and facilities available to most teachers. Includes preparation and mounting of pictures and the production of graphic materials, slides and recordings.

### EM 210. TELEVISION IN EDUCATION. *Four hours credit.*

Educators are exposed to the use of television as an effective educational tool at all grade levels, and are provided basic instruction in ETV equipment, methods, and administration. Involvement in actual ETV development on the CSC campus will be designed to give practical experience in a working situation.

### EM 280. INTRODUCTION TO CLASSIFICATION AND CATALOGING. *Three hours credit.*

The course considers needs for classification and cataloging. A number of well known classification systems are examined and their relative merits for school use are considered. Fundamentals of the Dewey and Library of Congress systems are studied in greater detail.

### EM 281. PROCESSING EDUCATIONAL MATERIALS. *Three hours credit.*

Continues work on the fundamentals of classification by both the L.C. and Dewey System. Considers construction of a suitable catalog for the school resource center. It will include all necessary processes from the time the materials are acquired until they are ready for circulation.

### EM 282. REFERENCE MATERIALS FOR EDUCATIONAL RESOURCE CENTER. *Three hours credit.*

A discussion of suitable reference materials for elementary and secondary school resource centers. Covers selection of principles and use of reference materials.

### EM 283. EVALUATION AND SELECTION OF EDUCATIONAL MATERIALS. *Three hours credit.*

Discussion of book selection principles and book selection aids for school libraries. Covers reading levels and interests of children and young people. Course discusses suitable trade book materials for both elementary and high school libraries.

### EM 286. UTILIZATION OF EDUCATIONAL RESOURCES. *Three hours credit.*

Considers the selection and utilization of appropriate instructional materials for each of the following situations: (1) individual (self) instruction, (2) small group instruction, and, (3) large group instruction.



**EM 287. ORGANIZATION AND ADMINISTRATION OF EDUCATIONAL RESOURCE CENTER.** *Five hours credit.*

This course includes a consideration of order and circulation procedures, supervising student personnel, the role of the librarian in the development of curriculum and guidance programs, the relationships of the librarian with teachers and administrators and with other local and state agencies.

**ELEMENTARY EDUCATION****ELED 109. TEACHING HANDWRITING AND SPELLING IN THE ELEMENTARY SCHOOL.** (ATE) *Two hours credit.*

A detailed consideration of content, methods, instructional material and evaluation in the fields of handwriting and spelling. The student demonstrates competency in spelling and in manuscript and cursive handwriting.

**ELED 111. IMPROVEMENT OF INSTRUCTION IN ENGLISH IN THE ELEMENTARY SCHOOL.** (ATE) *Three hours credit.*

This course is the basic course in the teaching of English in the elementary school. It considers the scope and nature of an adequate program of instruction in English and is concerned primarily with the identification of content to be taught and methods and materials to be used.

**ELED 112. IMPROVEMENT OF INSTRUCTION IN MATHEMATICS IN THE ELEMENTARY SCHOOL.** (ATE) *Three hours credit.*

A comprehensive analysis of the meaning theory, developmental method of teaching, what to teach, grade placement of content, methods of instruction with major emphasis on how to bring about insightful learning tools of instruction including concrete and semi-concrete materials, and means of evaluating achievement.

**ELED 113. IMPROVEMENT OF INSTRUCTION IN SOCIAL STUDIES IN THE ELEMENTARY SCHOOL.** (ATE) *Three hours credit.*

A detailed basic consideration of objectives, construction and use of units, problem solving, selection and grade placement of content, methodology including the use of concrete experiences, audio-visual materials, group processes, questioning, reading, and techniques of evaluation.

**ELED 139. INTRODUCTION TO STUDENT TEACHING IN THE ELEMENTARY SCHOOL.** (ATE) *Two hours credit.*

Student engages in directed participation in a teaching situation four hours per week under the supervision of a master elementary teacher in the Laboratory School and arranges for one additional conference hour.

**ELED 200. ELEMENTARY EDUCATION WORKSHOP.** *One-three hours credit.*

An opportunity to study problems in elementary education. The area to be covered in any one workshop will be determined by the workshop subtitle. No sub-title may be repeated for credit.

**ELED 227. KINDERGARTEN EDUCATION.** (ATE) *Three hours credit.*

A course covering the research, theory, and best practices for the education in kindergartens of four and five-year-old children. Organization, housing, and equipping of new kindergartens, the readiness program for first grade, and parent education will have pertinent handlings within the course.

**ENGLISH****\*ENG 11. INTRODUCTION TO POETRY.** *Three hours credit.*

A reading and thorough understanding of selected major poems and plays, American and European, modern and ancient.

**\*ENG 12. INTRODUCTION TO PROSE.** *Three hours credit.*

The reading of selected short stories, one novel, and articles about fiction.

**\*ENG 80. SURVEY OF ENGLISH LITERATURE FROM THE BEGINNINGS TO 1660.** *Four hours credit.*

Prerequisites: ENG 11 and 12 or equivalents. A study of English prose and poetry of the Old English, Middle English and Renaissance periods.

**\*ENG 81. SURVEY OF ENGLISH LITERATURE FROM 1660 TO 1832.** *Four hours credit.*

Prerequisites: ENG 80 or equivalent. Comprehensive readings in English literature following its development through the Restoration, Eighteenth Century and Romantic Movement.

**\*ENG 82. SURVEY OF ENGLISH LITERATURE FROM 1832 TO THE PRESENT.** *Four hours credit.*

Prerequisites: ENG 80 and 81 or equivalents. A study of English prose and poetry of the Victorian and modern periods.

**\*ENG 85. AMERICAN LITERATURE TO THE CIVIL WAR.** *Four hours credit.*

A study of American literature during the formative years of the colonial period and during the early years of the republic, emphasizing the religious and political traditions from which the literature sprang. Emphasis is given to the works of Edwards, Franklin, Paine, Bryant, Emerson, Poe, Hawthorne, and Melville.

**\*ENG 86. AMERICAN LITERATURE SINCE THE CIVIL WAR.** *Four hours credit.*

A study of the literature of America since 1865, emphasizing in particular the development of modern American fiction and the late nineteenth century and twentieth century developments in American poetry. Particular attention is given to such writers as Whitman, James, Robinson, Frost, Sandburg, Faulkner, and Eliot.

**\*ENG 90. SHAKESPEARE: EARLY PLAYS.** *Three hours credit.*  
The reading and understanding of the early plays of Shakespeare.

**\*ENG 91. SHAKESPEARE: LATER PLAYS.** *Three hours credit.*  
The reading and understanding of the later plays of Shakespeare.

**\*ENG 109, 110, 111. CREATIVE WRITING I, (INTRODUCTION), II, (POETRY), III, (FICTION).** *Two hours credit.*

Opportunity to write creatively under criticism with emphasis upon the individual's own purposes and experiences.

**\*ENG 148. ENGLISH LITERATURE FROM THE BEGINNINGS TO 1500.** *Three hours credit.*

A study of English poetry and prose of the Old English and Middle English periods. Emphasis is placed on *Beowulf*, *Sir Gawain and the Green Knight*, *The Canterbury Tales*, and *Le Morte D'Arthur*.

**\*ENG 149. ENGLISH LITERATURE FROM 1500 TO 1660.** *Three hours credit.*

A study of English poetry and prose of the Renaissance. Emphasis is placed on the work of Spenser, Jonson, Marlowe, Bacon, the Metaphysical poets, and Milton.

**\*ENG 150. THE RESTORATION AND EIGHTEENTH CENTURY.** *Three hours credit.*

A study of major writers of the period with attention to their influence on subsequent ideas and literary forms.

**\*ENG 151. THE ROMANTIC MOVEMENT.** *Three hours credit.*

The development of English Romanticism; its social and philosophical backgrounds. Wordsworth, Coleridge, Byron, Shelley, and Keats; with some consideration of the essayists and minor poets.

**\*ENG 152. VICTORIAN PROSE AND POETRY.** *Three hours credit.*

A study of the poems and more important prose works of the major Victorian writers, and of their relation to the life of the times.

**\*ENG 153. CONTEMPORARY ENGLISH AND AMERICAN LITERATURE.** *Four hours credit.*

A study of the development of British and American poetry, fiction, and drama since 1920, showing the relationships between the two literatures in a period when the interaction becomes extensive.

**\*ENG 175. AFRO-AMERICAN LITERATURE.** *Four hours credit.*

Study of the writings of black authors of both the present and the past. Includes fiction, biography, poetry, and autobiography.

**\*ENG 210. ADVANCED EXPOSITORY WRITING.** *Three hours credit.*

Prerequisites, COM 1, 2. For upper division and graduate students with adequate preparation in grammar and composition. Application of the elements of style to the development of effective prose.

**\*ENG 211. THE ENGLISH LANGUAGE.** *Five hours credit.*

The course presents a history of the development of the English language; the historical basis of usage and grammar including grammatical analysis based upon traditional terminology as opposed to the new approaches, structural grammar, generative grammar, etc.; and the sources of the English vocabulary.

**\*ENG 212. GENERATIVE-TRANSFORMATIONAL GRAMMAR.** *Four hours credit.*

Prerequisite, ENG 211. A study of the generation of English sentences: blocks, kernels (phrase-structure rules), transformations (single and double base); conceptual postulates, operations, and processes underlying a generative-transformational grammar.

**\*ENG 230. GREEK AND COMPARATIVE MYTHOLOGY.** *Four hours credit.*

A study of Greek myths as one of the important sources of literary allusion and imagery and a comparison of Greek myths with those of other cultures to show what is common to all mythologies.

**\*ENG 231. THE SHORT STORY.** *Three hours credit.*

The study of typical modern short stories to observe the methods of modern writers and the interpretation of our present-day life embodied in this form of literature.

**\*ENG 232. TECHNIQUES OF THE NOVEL.** *Five hours credit.*

A study of seven or eight important English and American novels to show different techniques which have been used to reveal the novelists' artistic insight.

**\*ENG 233. MODERN LITERATURE ABOUT CHILDHOOD AND ADOLESCENCE.** *Three hours credit.*

A study of the concept of childhood and adolescence in the writing of twentieth-century British and American authors, with emphasis on the ideas of innocence and initiation.

**\*ENG 235. CONTEMPORARY AMERICAN DRAMA.** *Three hours credit.*

A comprehensive view of the best dramatic literature of the modern American theater.

**\*ENG 236. MODERN DRAMA SINCE IBSEN.** *Three hours credit.*

A study of the developments in modern European and American drama since the time of Ibsen, emphasizing the works of such writers as Ibsen, Shaw, Synge, O'Casey, O'Neill, and such other European and American writers as have been significant in the development of the twentieth century drama.

**\*ENG 239. THE FORMS AND MEANING OF POETRY.** *Four hours credit.*

A study of some of the formal aspects of poetry (prosody, stanzaic and "named" forms, and the like), of types (lyric, narrative, dramatic), and of the poets' use of language.

**\*ENG 255. ELIZABETHAN DRAMA EXCLUSIVE OF SHAKESPEARE.** *Four hours credit.*

The drama from 1558 to 1642; the major dramatists, stage conditions, acting companies, and changes in dramatic form and subjects reflecting the life of the times.

## 160 / COURSE DESCRIPTIONS

**\*ENG 256. LITERARY CRITICISM.** *Three hours credit.*

A study of the theory and history of literary criticism from Plato to Wayne C. Booth, with some application of critical theory.

**\*ENG 257. HISTORY OF IDEAS IN LITERATURE.** *Three hours credit.*

An intensive chronological study of various of the significant themes in literature.

**\*ENG 258. READINGS IN ENGLISH LITERATURE FROM 700-1800.** *Four hours credit.*

A survey of English Literature from Beowulf to the romantic movement.

**\*ENG 259. READINGS IN ENGLISH LITERATURE FROM 1800 TO THE PRESENT.** *Four hours credit.*

A survey of English literature from the Romantic Movement to the present time.

**\*ENG 260. READINGS IN AMERICAN LITERATURE TO 1865.** *Four hours credit.*

A survey of the beginnings of American literature until the time of the Civil War.

**\*ENG 261. READINGS IN AMERICAN LITERATURE SINCE 1865.** *Four hours credit.*

A survey of modern American literature.

**\*ENG 289. LITERATURE OF THE OLD TESTAMENT.** *Three hours credit.*

A study of selected books of the Old Testament with emphasis on their literary qualities, and on the moral and religious progress they reveal. The historical and cultural background of these writings will be studied.

**\*ENG 290. LITERATURE OF THE NEW TESTAMENT.** *Three hours credit.*

A comparative study of the Gospels, followed by a study of other New Testament writings and of the historical and cultural background of the period in which they were written.

## ENGLISH EDUCATION

**EED 200. WORKSHOP IN THE TEACHING OF ENGLISH. (ATE) Maximum of nine hours credit.**

A series of workshops in special problems in the teaching of English, conducted by authorities in the field.

**EED 226. LITERATURE AND MATERIALS IN THE SECONDARY SCHOOL. (ATE) Five hours credit.**

Materials for teaching English in secondary schools. Principles for the selection of literature for high school pupils. Critical study of selected readings.

**EED 227. LITERATURE AND MATERIALS IN THE JUNIOR HIGH SCHOOL. (ATE) Four hours credit.**

Selection of literature and supplementary materials to fit the needs and interests of early adolescents. Methods of teaching literature in grades 7, 8, and 9.

**EED 228. THE TEACHING OF READING IN THE SECONDARY SCHOOL. (ATE) Four hours credit.**

Methods and materials to be used in the teaching of reading, both developmental and remedial, in the secondary school.

**EED 230. THE TEACHING OF LANGUAGE. (ATE) Four hours credit.**

A study of language learning and teaching, including the philosophy of English and the evaluation of inductive and deductive procedures. An analysis of some of the "new grammars" in current textbooks with implications for the secondary English curriculum.

**EED 250. LITERATURE FOR ADOLESCENTS.** *Three hours credit.*

Study of that reading material which provides a transition from children's literature to literature for adults. Attention concentrated upon junior novels, junior biographies, and their authors, as well as upon trends and evaluative standards.

**FINE ARTS****\*FA 1. DRAWING.** *Three hours credit.*

The basic elements and principles of beginning drawing, with emphasis on visual training, technical procedures, and the essentials of perspective. Media: chiefly charcoal and pencil.

**\*FA 2. FIGURE DRAWING.** *Three hours credit.*

Prerequisite FA 1. The study of the human figure, its essential anatomy and construction. The figure as an important motif in design and composition. Study from life.

**\*FA 5. DESIGN FUNDAMENTALS.** *Three hours credit.*

Experiences in two dimensional design which involve the student in laboratory problems including the use of materials, techniques and tools.

**\*FA 6. DESIGN AND COLOR.** *Three hours credit.*

Prerequisite FA 5. Color experiments, both theoretical and practical, and their application to pure design, decorative design, and pictorial organization.

**\*FA 7. DESIGN IN THREE DIMENSIONS.** *Three hours credit.*

Prerequisites FA 5, 6. Experiences organized to help the student in his intellectual and visual understanding of three-dimensional art. Experiences will be built around problems involving bas-relief, volumetric constructions and space experiments.

**\*FA 10. ART AND AESTHETICS.** *Two hours credit.*

An introductory survey of past and present theories of the nature of visual arts.

**\*FA 11. EVOLUTION OF ART.** *Three hours credit.*

This course will develop concepts of the many eras of art, with emphasis on the scope of art, our legacy in art, and the artists who through the ages have created those works of art, that challenge us to search and discover.

**\*FA 12. ART SINCE 1945.** *Three hours credit.*

An inquiry into the meaning, sociological relevance and historical foundations of recent art movements.

**FA 13. LETTERING.** *Two hours credit.*

A study of basic letter forms and their variants, layout and design, manuscript writing, showcards and posters.

**FA 14. ELEMENTARY CRAFTS DESIGN.** *Two hours credit.*

Various approaches and uses of simple paper construction suitable for use in the elementary art program.

**FA 15. ELEMENTARY EARTHENWARE.** *Two hours credit.*

The creative application of pottery to a grade school art teaching situation with few, if any, existing facilities.

**\*FA 17. INTRODUCTION TO POTTERY.** *Three hours credit.*

Prerequisites FA 1, 2, 5, 6, 7. The basic design and construction of pottery in pinch, coil, and slab techniques with emphasis on form and texture.

**\*FA 20. ART APPRECIATION.** *Three hours credit.*

A general study and research of art to develop knowledge and understanding of the past and the present.

162 / COURSE DESCRIPTIONS

**\*FA 23. POSTER DESIGN AND PRODUCTION.** *Two hours credit.*

A series of laboratory visual experiments organized to aid the student in manipulating materials and originating effective visual patterns for the purpose of advertising events, mass-producing notices and organizing bulletin boards for efficient display purposes.

**FA 53. DISPLAY AND EXHIBITION TECHNIQUES.** *Two hours credit.*

Different methods of matting watercolors, prints and reproductions. Making and treating frames, fashioning of inserts, color schemes and the best methods of displaying and pricing different styles and types of paintings.

**\*FA 54. DRAWING AND PAINTING TECHNIQUES.** *Three hours credit.*

Techniques in drawing and several areas of painting with a variety of media.

**\*FA 58. INTRODUCTION TO SCULPTURE.** *Three hours credit.*

Prerequisites FA 1, 2, 5, 6, 7. Basic technology of sculpture, clay and plaster modeling, and simple mold-making. Elements of three-dimensional design related to sculpture problems.

**\*FA 59. PRINTMAKING.** *Three hours credit.*

Introduction of the technical application and study of the print process; relief; etching, engraving and other intaglio methods; and lithography.

**\*FA 100. WEAVING.** *Three hours credit.*

A study of the basic fundamentals of threading and weaving on two and four harness looms; emphasis on plain and pattern weaving.

**\*FA 103. INTRODUCTION TO WATERCOLOR PAINTING.** *Two hours credit.*

Basic watercolor principles and techniques and a study of traditional and contemporary methods and ideas.

**FA 104. COMMERCIAL DESIGN AND POSTER.** *Two hours credit.*

A study of the commercial arts and their place in the art program in the high school. Emphasis will be directed toward the development of techniques in advertising layout, package design, poster design and illustration. Commercial processes of reproduction and printing will also be introduced.

**\*FA 105. COLOR THEORY.** *Three hours credit.*

A study of color relationships and organizational principles pertinent to the color unit.

**\*FA 107. SCULPTURE I.** *Five hours credit.*

Prerequisite FA 58. Modeling with plastic materials, plaster casting, stone and wood carving. Emphasis on significant form and expression.

**\*FA 108. SCULPTURE II.** *Five hours credit.*

Prerequisite 58. Direct methods of producing sculpture; construction and assemblage, synthetic mediums, plastics, welding. Emphasis on significant form and expression.

**\*FA 109. INTERMEDIATE PRINTMAKING.** *Three hours credit.*

Prerequisite, FA 59. An intensive exploration of intaglio and lithography as two methods of print-making. Major emphasis is placed on the intaglio method.

**\*FA 110. LITHOGRAPHY.** *Three hours credit.*

Pictorial expression in the art of planographic printing, techniques and problems involved.

**\*FA 115. CRAFTS: DESIGN ON FABRICS.** *Five hours credit.*

Emphasis on materials and processes of fabric decoration, including silk screen, block print, batik, hooking, stichery, tie dye, and weaving without a loom.

**\*FA 116. CRAFTS: DESIGN WITH MATERIALS.** *Five hours credit.*

Experimental approach to the problems of working with contemporary materials in mosaics, basic sculpture, copper enameling, modeling, and carving.

**\*FA 117. POTTERY.** *Three hours credit.*

Prerequisite, FA 17. The study of glazes and firing with gas and electric kilns and beginning throwing on the potter's wheel.

**\*FA 120. INTRODUCTION TO OIL PAINTING.** *Three hours credit.*

Prerequisites FA 1, 2, 5, 6, 7. A study of the basic principles and techniques of oil painting.

**\*FA 121. INFLUENCE OF AFRICAN SCULPTURE ON MODERN ART.**  
*Three hours credit.*

Experiences for the development of concepts relative to the historical and functional aspects of African art and their influences upon the art of the twentieth century.

**\*FA 124. ELEMENTARY ART.** *Three hours credit.*

Practical creative experience in a wide variety of media. To be taken concurrently with FA 125.

**FA 125. METHODS OF TEACHING ART IN THE ELEMENTARY SCHOOL.** *Two hours credit.*

Methods of teaching art at the elementary school level with emphasis on teaching techniques, procedures, materials and evaluation. To be taken concurrently with FA 124.

**FA 127. ART FOR THE EXCEPTIONAL CHILD.** *Three hours credit.*

Experiences with materials and techniques in the arts are integrated with considerations of the aesthetic therapeutic values of creative activities for the exceptional child.

**\*FA 135. LIFE DRAWING.** *Two hours credit.*

Advanced drawing experiences from the live model with experimentation in a variety of media.

**FA 139. PHILOSOPHY OF ART EDUCATION.** *Two hours credit.*

The philosophy of art education in American schools and art as an integral part of the education of the citizens of a democracy.

**\*FA 170. INTRODUCTION TO SILVERSMITHING.** *Four hours credit.*

Basic forming, forging, soldering, chasing techniques and finishing incorporated in creative jewelry projects.

**\*FA 171. CAST JEWELRY DESIGNING AND TECHNIQUES.** *Four hours credit.*

Prerequisite FA 170. Basic casting design and techniques including charcoal, sand and centrifugal casting together with methods of stone setting.

**\*FA 200. TECHNIQUES OF CREATIVE WEAVING.** *Three hours credit.*

A study of the problems and various processes of weaving with emphasis on original designing of weaves for color and texture.

**\*FA 203. WATERCOLOR PAINTING.** *Five hours credit.*

Advanced experiences in watercolor painting to develop individual expression in creative painting and technical mastery of the medium.

**\*FA 204. FIGURE AND COMPOSITION.** *Three hours credit.*

An advanced study of the human figure in composition with creative work in a variety of media.

**\*FA 205. MONOPRINTS.** *Two hours credit.*

A series of studies providing experience in the expressive use of oils as a graphic transfer technique.

**\*FA 207. FUNCTIONAL SCULPTURE.** *Three hours credit.*

Prerequisites FA 58 and 108. Advanced application of sculpture technology. Emphasis on aesthetic and functional considerations; monumental, architectural, environmental sculpture.

**\*FA 208. SCULPTURE IN METAL AND PLASTICS.** *Three hours credit.*

Prerequisites FA 58 and 108. Procedures basic to the techniques of welding, fabrication and casting of sculpture in metal and/or plastics.

**\*FA 209. ADVANCED PRINTMAKING.** *Three hours credit.*

Prerequisite, FA 59, 109. An advanced experimentation in intaglio, relief and lithography. Major emphasis on individual study in one or two processes.

**\*FA 212. PROBLEMS IN DESIGN.** *Three hours credit.*

An advanced study of the techniques of organization of the design variables. Opportunity for individual growth in solving design problems in areas of student's choice.

**FA 216. CREATIVE JEWELRY.** *Four hours credit.*

Prerequisites FA 170, 171. An experimental approach to the problem of contemporary silver jewelry, including the exploration of combining wood, bone, stones, and enameling.

**\*FA 217. POTTERY: ADVANCED THROWING.** *Three hours credit.*

Prerequisites FA 17, 117. An advanced study of throwing techniques on the potter's wheel with individual competence and craftsmanship stressed in this phase of the potter's craft.

**\*FA 219. THE SILK SCREEN PRINTING PROCESS.** *Three hours credit.*

A study of the various methods and techniques in the graphic processes of silk screening. Applied problems in all the processes with emphasis on blockout, paper stencil, film, touche, serigraphy, and textiles.

**\*FA 220. OIL PAINTING.** *Five hours credit.*

An advanced study in oils to develop individual expression in creative painting and technical mastery of the medium.

**\*FA 221. ART HISTORY I.** *Three hours credit.*

A study of the development of art from prehistoric times to and including the Gothic Age.

**\*FA 222. ART HISTORY II.** *Five hours credit.*

A study of the development of art from the Renaissance to the present day.

**\*FA 223. SURVEY OF ART.** *Five hours credit.*

A survey of the important arts of the world stressing the understanding and appreciation of the forms produced by man from the dawn of prehistory through all important eras of art development. Emphasis is placed on contemporary trends in the arts which dictate the appearance of the world around us today.

**\*FA 225. FIGURE PAINTING.** *Four hours credit.*

Prerequisite, FA 120. Painting in oils from the human figure.

**\*FA 227. GLAZE FORMULATION.** *Three hours credit.*

Prerequisites, FA 17, 117. An exploration of ceramic glazes as related to their use in a pottery studio or public school classroom.

**FA 228. SEMINAR IN SECONDARY ART.** *Two hours credit.*

A survey and demonstration of new ideas in art techniques and materials essential to a secondary school art program with student participation in selected areas.

**FA 230. SEMINAR IN ELEMENTARY ART.** *Two hours credit.*

Research studies for the graduate student dealing with a philosophy of art education; an understanding of and an opportunity to participate in the essential art activities for the elementary school and to develop his interest and enthusiasm for the teaching of art. Emphasis is given to the creative approach and the integration of the art activities with the entire school program.

**FA 231. WORKSHOP IN FINE ARTS.** *Three hours credit.*

A series of workshops in specialized areas of Fine Arts conducted by authorities in the field. The subject to be completed in any one workshop will be determined by the sub-title. No sub-title may be repeated for credit.



**\*FA 232. CONTEMPORARY OIL PAINTING.** *Five hours credit.*

Experimentation in oils and a study of contemporary trends to provide the student more time and experience in a search for his own personal expression.

**\*FA 253. MEDIEVAL ART HISTORY.** *Three hours credit.*

The study of the development of painting, sculpture, architecture and crafts of the Middle Ages. A survey of the influence of Early Christian and Byzantine art styles; Romanesque and the Gothic will be chronologically introduced.

**\*FA 258. THE ARTS OF THE UNITED STATES.** *Three hours credit.*

The critical history of the development of the visual arts of the United States from the colonial period through the present.

**\*FA 270. ADVANCED JEWELRY AND SILVERSMITHING.** *Four hours credit.*

Prerequisites FA 170 and 171. An individual approach to involve casting problems and flat ware production.

## FOREIGN LANGUAGES

**FL 210. LINGUISTICS.** *Three hours credit.*

A brief survey of the world's chief languages, their geographical distribution, main cultural features and appearance. In more detail, classification of the Indo-European languages, with particular stress on historical development, basic grammatical structure, resemblances, differences and relationships of English, French, German and Spanish.

**FL 231. THE TEACHING OF FOREIGN LANGUAGES.** *Four hours credit.*

Prerequisite, two years of foreign language. A study of problems in the teaching of foreign languages at the secondary and elementary school levels. Includes development of content for course of study, organization of learning materials, procedures in teaching, testing and evaluating.

**FL 232. TEACHING FOREIGN LANGUAGE IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Especially for teachers of the elementary school level, but including all levels of instruction. A study of today's practical values, aims, methods, approaches, procedures, and means and materials for attaining success in teaching modern foreign languages.

## FRENCH

**\*FR 1. ELEMENTARY FRENCH I.** *Five hours credit.*

Summer Quarter: Must enroll for FR 2 and 3. Credit is not given until three quarters are completed. Introduction to idiomatic spoken and written French by means of vocabulary learning and the study of the structure of French. Class activities regarding grammar and cultural readings are limited realistically to spoken and written French. Audio and phonetic laboratory aids will be used to the extent that they may benefit the student's pronunciation and accurate fluency.

**\*FR 2. ELEMENTARY FRENCH II.** *Five hours credit.*

Summer Quarter: Must enroll for FR 1 and 3. Credit is not given until three quarters are completed. A continuation of FR 1.

**\*FR 3. ELEMENTARY FRENCH III.** *Five hours credit.*

Summer Quarter: Must enroll for FR 1 and 2. Credit is not given until three quarters are completed. A continuation of FR 2.

**\*FR 5. INTERMEDIATE FRENCH I.** *Four hours credit.*

Prerequisite, two years of high school French or one year of college French. Grammar review, study of idioms, imitative composition. Drill in use of the phonetic alphabet.

**\*FR 6. INTERMEDIATE FRENCH II.** *Four hours credit.*

Prerequisite, two years of high school French or one year of college French. This course aims at developing the student's ability to express himself in correct and idiomatic French. (This course may be taken without having had FR 5.)

**\*FR 7. INTERMEDIATE FRENCH III.** *Four hours credit.*

Prerequisite, two years of high school French or one year of college French. Reading of one play and several short stories, with exercises and discussion in French based on the reading. (This course may be taken without having had FR 5 or 6.)

**\*FR 105. SURVEY OF FRENCH LITERATURE I.** *Four hours credit.*

Prerequisite, two years of college French. Reading of an anthology, with lectures and discussion in French. This course deals with medieval and Renaissance literature.

**\*FR 106. SURVEY OF FRENCH LITERATURE II.** *Four hours credit.*

Prerequisite, two years of college French. Reading of an anthology with lectures and discussion in French. This course deals with the literature of the seventeenth and eighteenth centuries.

**\*FR 107. SURVEY OF FRENCH LITERATURE III.** *Four hours credit.*

Prerequisite, two years of college French. Reading of an anthology, with lectures and discussion in French. This course deals with nineteenth and early twentieth century literature.

**\*FR 110. INTERMEDIATE FRENCH CONVERSATION.** *Three hours credit.*

Prerequisite, two years of college French. A course designed to increase the ability of each student to use spoken French in everyday situations. A study of some of the principles of French diction will be included. The course will be conducted in French.

**\*FR 111. INTERMEDIATE FRENCH COMPOSITION.** *Three hours credit.*

Prerequisite, two years of college French. A course designed to perfect the student's ability to express himself in French, through the use of translation passages and free compositions, and to provide an active review of certain grammatical problems. The class will be conducted in French.

**\*FR 112. INTERMEDIATE FRENCH SYNTAX AND STYLISTICS.** *Three hours credit.*

Prerequisite, two years of college French. A study of the more complex elements of French syntax and the common difficulties incurred in sentence structure. A study of styles employed in French literature, and the methods of studying them. The class will be conducted in French.

**\*FR 126. FRANCO-CANADIAN LITERATURE.** *Three hours credit.*

Prerequisite, two years of college French. The study of the Franco-Canadian novel in the twentieth century, the historical and political background, and the place of Franco-Canadian literature in the world of French letters.

**\*FR 140. THE FRENCH NOVEL TO 1800.** *Three hours credit.*

Prerequisite, two years of college French. The development of the novel in France from Mme. de Lafayette (1634-1693) to Chateaubriand (1768-1848), with emphasis on l'Abbé Prévost, Jean-Jacques Rousseau, Benjamin Constant, and Mme. de Staël. Six novels will be read during the course.

**\*FR 141. THE NINETEENTH CENTURY FRENCH NOVEL.** *Three hours credit.*

Prerequisite, two years of college French. The development of the novel in France during the nineteenth century, with emphasis on Balzac, Stendhal, Flaubert, and Zola. Representative novels of these and other authors will be read in the original, and the course will be conducted in French.

**\*FR 180. SEMINAR IN FRENCH DRAMA.** *Three hours credit.*

To give students an opportunity to study the various dramatic forms found in French literature. Students will stage scenes from the works studied both in class

and publicly as an evening performance. Material will be selected from the seventeenth, eighteenth and nineteenth centuries.

**\*FR 200. PROBLEMS IN ORAL FRENCH.** *Three hours credit.*

Prerequisite, two years of college French, or equivalent. To enable the student to reach a high level of accuracy and fluency in oral French. Time will be spent working on individual problems so that each student will be able to correct and strengthen his particular shortcomings. French phonetics will also be studied.

**\*FR 205. FRENCH DRAMATISTS OF THE SEVENTEENTH CENTURY: CORNEILLE, RACINE, MOLIÈRE.** *Three hours credit.*

Prerequisite, two years of college French. A study of the three great dramatists of the seventeenth century, and of their contribution to French theater and French literature as a whole. Several plays by each author will be read in the original and discussed. The class will be conducted in French.

**\*FR 210. FRENCH CIVILIZATION.** *Three hours credit.*

Prerequisite, two years of college French. The study of French civilization and culture, including the historical, economic, political, and artistic development of the country from prehistoric times to the present. The class will be conducted in French.

**\*FR 215. EXPLICATION DE TEXTES.** *Three hours credit.*

Prerequisite, two years of college French. The study of the French method of studying literature called "explication de textes," which includes a discussion of the different literary genres and the analysis of the individual literary selections representing these genres. The class will be conducted in French.

**\*FR 250. TWENTIETH CENTURY FRENCH THEATER.** *Three hours credit.*

Prerequisite, two years of college French. The main currents of French theater in the twentieth century, including the Avant-Garde movement. Emphasis will be placed on Cocteau, Giraudoux, Montherlant, Anouilh, Sartre, Camus and Ionesco. The class will be conducted in French.

**\*FR 251. TWENTIETH CENTURY FRENCH PROSE.** *Three hours credit.*

Prerequisite, two years of college French. The main currents of French prose in the twentieth century. Emphasis will be placed on Gide, Proust, Mauriac, Malraux, St-Exupery, Sartre, Camus, and the "nouveau roman" novelists. The class will be conducted in French.

**\*FR 260. ANDRÉ GIDE.** *Four hours credit.*

Prerequisite, permission of the instructor. The life and work of André Gide. The development of the writer and his influence on twentieth century French literature. Special attention will be given to *Les Caves du Vatican* and *Les Faux-Monnayeurs*. The class will be conducted in French.

**\*FR 261. CONTEMPORARY FRENCH POETRY.** *Four hours credit.*

Prerequisite, permission of the instructor. The study of the poetry of France between 1918 and the 1960's. Special emphasis will be placed on Prévert, Chars and Saint-John Perse. The class will be conducted in French.

**\*FR 262. CONTEMPORARY FRENCH CRITICS AND ESSAYISTS.** *Four hours credit.*

Prerequisite, permission of the instructor. An examination of French literary criticism and the work of French essayists in the nineteenth and twentieth centuries. Special attention will be devoted to the French literary journals and their role. The class will be conducted in French.

**FR 290. FRENCH FOR READING KNOWLEDGE I.** *No credit.*

Prerequisite, none. The course will be conducted to help graduate students prepare for the Ph.D. language reading examination in French. The basic grammatical structures of the language will be introduced from a traditional viewpoint.

## GEOGRAPHY

**\*GEOG 10. WORLD GEOGRAPHY.** *Five hours credit.*

World survey of the interrelationships of man and his culture to the climates, animal life, minerals, soils and surface features of the earth.

**\*GEOG 20. PHYSICAL GEOGRAPHY I.** *Three hours credit.*

The study of the relationship between man and his physical environment, with an emphasis on the climatic and edaphic qualities of the earth.

**\*GEOG 21. PHYSICAL GEOGRAPHY II.** *Three hours credit.*

The study of the relationship between man and his physical environment, with an emphasis on landforms—their characteristics, distribution, and effects upon human settlement.

**\*GEOG 22. CULTURAL GEOGRAPHY I.** *Three hours credit.*

Cultural Geography directs its attention to the origin, distribution, and influence of those elements of culture which give characteristic expression to an area; literally, man's role of adapting to and modifying his natural environment through his varying cultural means to suit his own needs and desires. "Relating habits to habitats."

**\*GEOG 23. CULTURAL GEOGRAPHY II.** *Three hours credit.*

The study of man's economic basis as found in the development and utilization of those natural resources at his disposal. Emphasis will be given to man's use of commodities derived from the sea and forest, agriculture, mining and manufacturing. A basic approach to studying human response to the provisions of nature as it relates to cultural development.

**\*GEOG 48. ANGLO-AMERICA.** *Five hours credit.*

A study of regions and their interdependence. Land use, social and economic problems emphasized.

**\*GEOG 64. MAPS AND THEIR USES.** *Two hours credit.*

The course presents the basis for an effective use of maps and globes. It is designed to develop the skill of map reading and map interpretation.

**\*GEOG 202. CARTOGRAPHY.** *Four hours credit.*

A fundamental course on the theory and practice of maps and graphic representation. Three one-hour lectures and one credit hour for arranged laboratory work.

**\*GEOG 212. ECONOMIC GEOGRAPHY.** *Five hours credit.*

Geographic and economic conditions affecting the products, industries, commerce and resources of the world. Special emphasis on the United States.

**\*GEOG 218. AUSTRALIA AND THE PACIFIC.** *Two hours credit.*

A regional consideration of the advantages and limitations of the physical and cultural environment, population distribution, and economic development of Australia, New Zealand, Melanesia, Micronesia, and Polynesia.

**\*GEOG 226. AFRICA.** *Five hours credit.*

Relationships between the physical and cultural patterns. Land use, resource development, social and political problems.

**\*GEOG 237. MIDDLE AMERICA.** *Three hours credit.*

Emphasis is placed upon the heterogeneity of physical conditions, people, historical development, natural resources and economic activities. Particular attention is given to the problems and prospects of the Middle American countries in their efforts toward improved economic conditions and political stability.

**\*GEOG 238. SOUTH AMERICA.** *Three hours credit.*

An analysis of the geographic characteristics of those Western Hemisphere nations lying south of the equator. Attention is focused upon the significant differences from place to place in physical conditions, racial and cultural heritage, and stage of economic development. Particular attention is given to the impact of the Industrial and Democratic Revolutions upon a previously pre-industrial society.

**\*GEOG 243. EUROPE.** *Three hours credit.*

Physical and cultural patterns. The nations of Europe, their regions, cultures, social and economic organizations with resulting conflicts.

**\*GEOG 244. ASIA.** *Three hours credit*

The countries of Asia in terms of their physiography, climates, regions, cultural landscapes, social organizations and economic activities.

**\*GEOG 248. PHYSICAL GEOGRAPHY OF THE UNITED STATES.** *Four hours credit.*

The study of the major climatic, edaphic, vegetational, and landform patterns of the United States, with an emphasis on Colorado. Weekend field trip. Prerequisites: GEOG 20 and 21 or permission of instructor.

**\*GEOG 250. GEOGRAPHY OF COLORADO.** *Three hours credit.*

A study of the geographical and human resources of Colorado. The course is concerned with the physical features, climate, land form regions and natural resources of the state and their utilization and conservation; agricultural, mining, manufacturing, water supply, transportation, commerce and industry; population problems, state government and current problems in the growth and development of Colorado.

**\*GEOG 260. POLITICAL GEOGRAPHY.** *Three hours credit.*

A study of the principles of political geography as developed through a systematic and regional analysis of political phenomena and their relation to geographic conditions. Historical and current problems in local, national, and international affairs will be considered from the aspect of the geographic factors involved.

**\*GEOG 265. THE SOVIET UNION.** *Five hours credit.*

A regional analysis of the geographic conditions, their historical importance, and their relation to economic, social, and political problems in the Soviet Union and to its position in world affairs.

**\*GEOG 270. URBAN GEOGRAPHY.** *Five hours credit.*

A study of the urban community as a geographical phenomenon. Opportunity is provided for students to obtain practical field experience within the local area. Attention is also given to the development of cartographic skills as an aid to meaningful organization and presentation of data.

**\*GEOG 290. PROBLEMS IN GEOGRAPHY.** *Maximum of nine hours credit.*

A series (three) of advanced undergraduate research seminars. Each seminar will be conducted by an instructor who specializes in the regional or systematic study upon which the seminar is based (e.g., Latin America, Africa, Urban, Economic).

**\*GEOG 292 FIELD COURSES IN GEOGRAPHY.** *Maximum of fifteen hours credit.*

The study and application of the techniques used in the solving of geographic problems in the field, together with the effective presentation of the results of such studies. Prerequisite: Permission of instructor.

## GEOLOGY

Courses in geology are administered by the Department of Earth Sciences.

**GEOL 101. PRINCIPLES OF GEOLOGY I.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

One of the four basic geology courses required of Earth Sciences majors. Earth materials, the processes of vulcanism, metamorphism, and diastrophism, geologic structures, earthquakes, and the nature of the solid earth and its interior will be thoroughly investigated. Field trips required. Students cannot receive credit for both GEOL 101 and 106.

**GEOL 102. PRINCIPLES OF GEOLOGY II.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, GEOL 101. One of the four basic geology courses required of Earth Science majors. The processes of weathering, mass movements, and erosion by the agents of streams, glaciers, wind, waves and currents, and groundwater will be thoroughly investigated, along with the resulting landforms. Some attention will be given to the development of soils and to interpretation of topographic maps and aerial photographs. Field trips required. Students cannot receive credit for both GEOL 102 and 106.

**GEOL. 103. PRINCIPLES OF GEOLOGY III.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, GEOL 102 or 106. One of the four basic geology courses required of Earth Sciences majors. Geologic time, the origin and development of the earth's hydrosphere and atmosphere, the origin of life, the geosynclinal theory, and basic stratigraphic principles will be thoroughly investigated. Precambrian and Paleozoic earth history and the evolution of life on earth will be developed through studies of regional stratigraphy of fossils. Field trips required.

**GEOL 104. PRINCIPLES OF GEOLOGY IV.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, GEOL 103. One of the four basic geology courses required of Earth Sciences majors. A continuation of the study of the historical aspects of geology begun in GEOL 103. Emphasis will be placed on investigation of sedimentary processes and environments, and upon further discussion of basic stratigraphic principles. Mesozoic and Cenozoic earth history will be developed through further studies of regional stratigraphy and fossils. Field trips required.

**\*GEOL 106. GENERAL GEOLOGY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

This course presents an introduction to the minerals and rocks that make up the Earth's crust, the building-up processes of vulcanism and diastrophism, the counter processes of weathering and erosion, the interior of the Earth, and Earth history. Field trips required. Not open to earth sciences majors.

**GEOL 200. SURVEY OF GEOLOGY.** *Six hours credit. (Four hours lecture, six hours laboratory.)*

This course is designed primarily for graduate students who have a good background in science, but no credit in geology. Earth materials, aggradational and degradational processes, and Earth history will be investigated at depth and at an accelerated rate. Offered summers only.

**\*GEOL 211. MINERALOGY.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, GEOL 102. This course includes introductory work in crystallography, optical crystallography, descriptive and determinative mineralogy, and the study of mineral occurrences and associations. The laboratory stresses identification of minerals by means of physical and chemical techniques. One Saturday field trip required.

**GEOL 213. PETROLOGY.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, GEOL 102. The origins of the various rocks, their compositions, and the bases for their classification will be investigated in the classroom. Also, the basic theories and methods of optical crystallography will be studied. In the laboratory various petrographic techniques will be learned and practiced, including use of the petrographic microscope for identifying mineral grains and minerals in thin rock sections.

**\*GEOL 220. PALEONTOLOGY.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, GEOL 104 or consent of instructor. This course is a study of fossil animals and plants—their morphologies, classifications, life histories, trends of evolution, ecologies, and their uses as stratigraphic tools.

**GEOL 223. PRINCIPLES OF STRATIGRAPHY AND SEDIMENTOLOGY.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, GEOL 104. This course will investigate the methods of studying the sedimentary rocks and their contained fossils, and also methods of correlation and interpreting the stratigraphic record to build a picture of the geologic past. There will be an introduction to the regional stratigraphy of this area.

**GEOL 231. GEOMORPHOLOGY.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, GEOL 102 or 106. This course consists of a detailed study of land forms and their evolution—the geologic interpretation of landscapes. Special emphasis is given to examples located in the United States. Interpretation of photos and topographic maps is stressed.

**GEOL 232. INTERPRETATION OF GEOLOGIC MAPS AND AERIAL PHOTOGRAPHS.** *Three hours credit. (One hour lecture, six hours laboratory.)*

Prerequisite, GEOL 102 or 106. In this course, which is largely laboratory in nature, the student will learn basic principles in interpreting physiographic and structural features from aerial photographs and geologic maps.

**GEOL 233. GLACIAL AND PLEISTOCENE GEOLOGY.** *Three hours credit. Prerequisite, GEOL 102. A survey of geologic phenomena which characterized the Pleistocene Epoch with emphasis on the behavior of glaciers—their dynamics, growth and recession, associated landforms and sediments, and climatic implications.***GEOL 235. ROCKY MOUNTAIN GEOLOGY.** *Three hours credit.*

Prerequisite, GEOL 104. This course seeks to apply the student's geologic knowledge to a study of the extensive current literature in geology, especially that dealing with the Rocky Mountain area. A brief overview of the development of geology introduces the course. Two-day field trip required. Open only to earth science majors.

**GEOL 241. STRUCTURAL GEOLOGY.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, GEOL 102. This course deals with the mechanics of rock deformation, and the geologic structures of the Earth's crust—their description and classification, theories and facts regarding their origins, and methods of investigating them.

**GEOL 242. GEOLOGIC FIELD METHODS.** *Four hours credit. (Two hours lecture, six hours laboratory.)*

Prerequisites, GEOL 104 and MATH 25. This course will give the student some appreciation of how geologic information is obtained in the field and recorded on maps. By use of Brunton compass and alidade, each student will prepare several maps of areas near the campus, plus one map of an area of moderately complex structure.

**GEOL 291. GEOLOGICAL BASIS OF EARTH SCIENCE.** *Three hours credit.*  
(NSF In-Service Institute.)

This course will emphasize the geological basis of Earth Science. A review of minerals, rocks, structure, and history as related to Earth Science will be investigated. During the quarter the class will study geosynclines, evolution, development of continents, and the Earth's interior.

**GERMAN****\*GER 1. ELEMENTARY GERMAN I.** *Five hours credit.*

Three quarters completion necessary for credit to be given. To develop four lingual skills (listening, speaking, reading, writing) with stress on the first two. Emphasis on developing accurate pronunciation and ability to use German actively with minimum translation, using controlled drills, dialogs, and free conversation. Supplementary work in the language laboratory is required. Language structure is covered inductively.

**\*GER 2. ELEMENTARY GERMAN II.** *Five hours credit.*

Credit is not given until three quarters are completed. A continuation of GER 1.

**\*GER 3. ELEMENTARY GERMAN III.** *Five hours credit.*

Credit is not given until three quarters are completed. A continuation of GER 2.

**\*GER 5. INTERMEDIATE GERMAN I.** *Four hours credit.*

Prerequisite, one year college German or placement by examination. A continuation of GER 3. While stress is placed on oral skills, language structure is analyzed in detail. Reading and writing increase to balance proficiency in all four skills. Well-chosen reading materials and intermediate text with conversational approach used with continued drill in the language laboratory.

**\*GER 6. INTERMEDIATE GERMAN II.** *Four hours credit.*

Prerequisite, GER 5. A continuation of German 5.

**\*GER 7. INTERMEDIATE GERMAN III.** *Four hours credit.*

Prerequisite, GER 6. A continuation of GER 6.

**\*GER 8. GERMAN FOR READING KNOWLEDGE.** *No credit.*

Prerequisite, none. The course is designed to enable doctoral candidates in other fields to pass the Ph.D. language reading examination in German or to provide students who desire to obtain reading skills in German concentrated instruction in German.

**\*GER 105. SURVEY OF GERMAN LITERATURE I.** *Three hours credit.*

Prerequisite, two years of college German. German literature from the earliest beginnings through the seventeenth century. Pagan and early Christian literature, and then emphasis on the folk epic, the courtly epic, the courtly lyric, and on the Reformation period, with readings from Martin Luther and the humanists. (The course will be conducted primarily in German.)

**\*GER 106. SURVEY OF GERMAN LITERATURE II.** *Three hours credit.*

Prerequisite, two years of college German. German literature of the eighteenth and nineteenth centuries. Emphasis on the six great classical writers, with more intense effort on Goethe and Schiller. The historical and social background of all six will be explored. The decline of Classicism and the flowering of Romanticism will be traced. (The course will be conducted primarily in German.)

**\*GER 107. SURVEY OF GERMAN LITERATURE III.** *Three hours credit.*

Prerequisite, two years of college German or equivalent. A survey of modern German literature—later nineteenth and twentieth century writing. Emphasis on development and importance of Rainer Maria Rilke. Prose writings of Thomas and Heinrich Mann, Kafka and Hesse. (The course will be conducted primarily in German.)



**\*GER 135. INTERMEDIATE GERMAN CONVERSATION.** *Four hours credit.*  
Prerequisite, two years of college German. A course designed to increase the ability of each student to use spoken German in practical, everyday situations. The class will be conducted in German.

**\*GER 136. ADVANCED GERMAN COMPOSITION.** *Four hours credit.*  
Prerequisite, two years of college German. The course aims at helping the student to become familiar with a large number of idioms and to acquire flexibility of expression in written composition.

**\*GER 137. ADVANCED GERMAN GRAMMAR.** *Four hours credit.*  
Prerequisite, two years of college German. The course is intended for students who have mastered the elements of German grammar and have gone through at least one full grammar review. A study of the more complex elements of German syntax and the common difficulties incurred in sentence structure.

**\*GER 141. GOETHE.** *Three hours credit.*  
Prerequisite, two years of college German. This course is designed as an introduction to the life and work of Germany's greatest classic. Special emphasis is placed upon developing understanding of Goethe's *Weltanschauung* and his contributions to *Sturm und Drang*. Classicism and Romanticism. This course will be conducted in German.

**\*GER 143. FAUST.** *Three credit hours.*  
Prerequisite, two years of college German. To enable students to become acquainted with the greatest masterpiece of German literature. The work will be read and analyzed as it reflects Goethe's life and time and the conditions of Eighteenth Century Germany. While stress will be placed on *Faust*, Part I, Part II will also be discussed. The course will be conducted in German.

**\*GER 145. PHONETICS OF THE GERMAN LANGUAGE.** *Three hours credit.*  
Prerequisite, three years of college German or permission of instructor. An analytical survey of the German language. Regional and historical variations along with the high German sound shift will be examined. The course will also attempt to help students correct and perfect their pronunciation.

**\*GER 200. PROBLEMS IN ORAL GERMAN.** *Three hours credit.*  
Prerequisite, three years of college German or permission of instructor. To provide advanced oral training. Stress will be on sharpening the pronunciation, comprehension, and fluency of conversational ability of the student. Individual problems will be discussed and aided by means of drills, tape work in the language laboratory and outside help. Course may be taken twice with departmental consent.

**\*GER 225. EIGHTEENTH CENTURY GERMAN LITERATURE.** *Three hours credit.*  
Prerequisite, two years of college German. The general trends of German literature in the eighteenth century. Emphasis will be placed on the Halle poets, Lessing, Wieland, Herder, and Goethe. Readings and lectures in German.

**\*GER 226. NINETEENTH CENTURY GERMAN LITERATURE.** *Three hours credit.*  
Prerequisite, two years of college German. The main trends of German literature of the nineteenth century, especially the Romantic Movement. Emphasis will be placed on the later work of Goethe and the writings of Schiller. Readings and lectures in German.

**\*GER 227. TWENTIETH CENTURY GERMAN LITERATURE.** *Three hours credit.*  
Prerequisite, two years of college German. The most important aspects of twentieth-century German literature: neo-romanticism, symbolism, expressionism, and other movements. Readings and lectures in German.

## HEALTH, PHYSICAL EDUCATION AND RECREATION GENERAL EDUCATION COURSES

These courses are numbered from one to 61 inclusive with courses numbered from one to 60 meeting the physical education activity requirement of the General Education Program. When an activity is offered at more than one level of skill it will be noted in the printed class schedule. Skill standards are posted on school bulletin boards. Special advisement and detailed mechanics of the activity program are described in the Undergraduate Programs section of the catalog. HPER 61, Personal and Family Health, is an academic requirement of General Education.

- HPER 1.** FIELD SPORTS. *One hour credit.*  
**HPER 2.** WINTER SPORTS. *One hour credit.*  
**HPER 3.** BADMINTON. *One hour credit.*  
**HPER 4.** ARCHERY. *One hour credit.*  
**HPER 5.** MOVEMENT FUNDAMENTALS. *One hour credit.*  
**HPER 6.** TUMBLING. *One hour credit.*  
**HPER 8.** GYMNASTICS. *One hour credit.*  
**HPER 9.** PHYSICAL FITNESS AND CONDITIONING. *One hour credit.*  
**HPER 10.** ORIENTATION TO PHYSICAL EDUCATION ACTIVITIES. *One hour credit.*  
**HPER 11.** SOFTBALL. *One hour credit.*  
**HPER 12.** TENNIS. *One hour credit.*  
**HPER 15.** VOLLEYBALL. *One hour credit.*  
**HPER 16.** GOLF. *One hour credit.*  
**HPER 18.** BASKETBALL. *One hour credit.*  
**HPER 20.** BOWLING. *One hour credit.*  
**HPER 22.** FENCING. *One hour credit.*  
**HPER 25.** SWIMMING. *One hour credit.*  
**HPER 26.** SKIING. *One hour credit.*  
**HPER 27.** HORSEMANSHIP. *One hour credit.*  
**HPER 28.** ROLLER SKATING. *One hour credit.*  
**HPER 29.** BASIC MOUNTAINEERING. *One hour credit.*  
**HPER 30.** CONTEMPORARY DANCE. *One hour credit.*  
**HPER 33.** SOCIAL DANCE. *One hour credit.*  
**HPER 34.** FOLK DANCE. *One hour credit.*  
**HPER 35.** AMERICAN SQUARE AND COUPLE DANCE. *One hour credit.*  
**HPER 40.** FRESHMAN FOOTBALL. *One hour credit.*  
**HPER 41.** VARSITY FOOTBALL. *One hour credit.*  
**HPER 42.** FRESHMAN BASKETBALL. *One hour credit.*  
**HPER 43.** VARSITY BASKETBALL. *One hour credit.*  
**HPER 44.** FRESHMAN WRESTLING. *One hour credit.*  
**HPER 45.** VARSITY WRESTLING. *One hour credit.*  
**HPER 47.** VARSITY GYMNASTICS. *One hour credit.*  
**HPER 49.** VARSITY SWIMMING. *One hour credit.*  
**HPER 50.** FRESHMAN BASEBALL. *One hour credit.*  
**HPER 51.** VARSITY BASEBALL. *One hour credit.*  
**HPER 53.** VARSITY TRACK. *One hour credit.*  
**HPER 55.** VARSITY TENNIS. *One hour credit.*  
**HPER 57.** VARSITY GOLF. *One hour credit.*

**\*HPER 61.** PERSONAL AND FAMILY HEALTH. *Three hours credit.*

Designed to develop the understandings, attitudes, and practices which contribute to better individual and family health. Emphasis is placed upon the major health and safety problems of the college years and early adulthood.

## SPECIAL CERTIFICATION COURSES

**HPER 62.** FIRST AID. *Two hours credit.*

**HPER 63.** ADVANCED FIRST AID. *One hour credit.*  
 Prerequisite, HPER 62.

**HPER 64. INSTRUCTOR'S COURSE IN FIRST AID.** *One hour credit.*  
Prerequisites, HPER 62, 63.

**HPER 65. SENIOR LIFE SAVING.** *One hour credit.*

**HPER 66. WATER SAFETY INSTRUCTOR'S COURSE.** *One hour credit.*  
Prerequisite, HPER 65.

**Driver Education**—The Colorado State Department of Education will certify as Driver Education Instructors those holders of Colorado teaching certificates who complete HPER 271, Safety Education; HPER 274, Methods and Materials in Driver Education; HPER 275, Advanced Driver Education; and who are recommended by the School of Health, Physical Education and Recreation. Applications for certification should be obtained in the School office, filled out by applicant, and returned to the School office for approval.

## PROFESSIONAL COURSES FOR SCHOOL MAJORS AND MINORS

Courses numbered 71 and higher are intended primarily for the professional preparation of degree candidates completing a major or a minor in the school.

**HPER 71. ANALYSIS AND MOVEMENTS OF SOCCER.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 72. ANALYSIS AND MOVEMENTS OF HOCKEY.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 73. ANALYSIS AND MOVEMENTS OF BASKETBALL.** *Two hours credit.*  
Movement skills, rules, and strategies.

**HPER 74. ANALYSIS AND MOVEMENTS OF VOLLEYBALL.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 75. ANALYSIS AND MOVEMENTS OF WRESTLING.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 76. ANALYSIS AND MOVEMENTS OF FOOTBALL.** *Two hours credit.*  
Movement skills, rules, and strategies.

**HPER 77. ANALYSIS AND MOVEMENTS OF TRACK.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 78. ANALYSIS AND MOVEMENTS OF BASEBALL OR SOFTBALL.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 80. ANALYSIS AND MOVEMENTS OF BADMINTON.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 81. ANALYSIS AND MOVEMENTS OF FENCING.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 82. ANALYSIS AND MOVEMENTS OF BOWLING.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 83. ANALYSIS AND MOVEMENTS OF SWIMMING.** *Two hours credit.*  
Movement skills, rules, and strategies.

**HPER 84. ANALYSIS AND MOVEMENTS OF TENNIS.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 85. ANALYSIS AND MOVEMENTS OF TUMBLING AND GYM-  
NASTICS.** *Two hours credit.*  
Movement skills, rules, and strategies.

**HPER 86. ANALYSIS AND MOVEMENTS OF ARCHERY.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 87. ANALYSIS AND MOVEMENTS OF GOLF.** *One hour credit.*  
Movement skills, rules, and strategies.

**HPER 88. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMEN-  
TARY SCHOOL.** *Two hours credit.*  
Designed for, required of, and restricted to majors and minors in elementary education. Content deals with basic principles and activities included in a well-rounded program of physical education for the elementary school.

**HPER 90. ANALYSIS AND MOVEMENTS OF FOLK DANCE.** *Two hours credit.*  
Fundamental and advanced skills of folk dance.

**HPER 91. RHYTHMS FOR THE ELEMENTARY SCHOOL.** *Two hours credit.*  
Techniques and materials in creative dance, singing games, and folk dances.

**HPER 92. ANALYSIS AND MOVEMENTS OF AMERICAN SQUARE AND  
SOCIAL DANCE.** *Two hours credit.*  
Fundamental and advanced skills of square and social dancing.

**HPER 93. ANALYSIS AND MOVEMENTS OF MODERN DANCE.** *Two hours credit.*  
The analysis and techniques of movement in relation to the aspects of time, space and force.

**HPER 94. PROBLEMS IN DANCE COMPOSITION.** *Two hours credit.*  
Problems in dance composition includes rhythmic analysis and accompaniment for dance.

**HPER 95. ANALYSIS OF MOVEMENT FUNDAMENTALS.** *One hour credit.*  
Skills and techniques of conditioning, body mechanics and movement patterns.

**\*HPER 96. RHYTHMIC ANALYSIS AND DANCE ACCOMPANIMENT.** *Two hours credit.*  
A course designed to present the fundamental principals of rhythm and dance accompaniment through practical dance application.

**HPER 97. INTRODUCTION TO HEALTH EDUCATION, PHYSICAL  
EDUCATION, AND RECREATION.** *Two hours credit.*  
Designed to orient freshman majors with the breadth, scope, and nature of the professional program in health education, physical education, and recreation.

**HPER 98. ANALYSIS OF SWIMMING TECHNIQUES (Women).** *One hour credit.*  
Prerequisite, HPER 83. Analysis of swimming, diving and synchronized swimming techniques.

**\*HPER 99. COMMUNITY HEALTH.** *Four hours credit.*  
Prerequisite, HPER 61. Designed to acquaint students with health problems in a community and to make them aware of community agencies which cope with these problems.

**HPER 101. HEALTH EDUCATION IN THE ELEMENTARY SCHOOL.** (ATE) *Two hours credit.*

Designed to give the prospective elementary teacher a foundation in school health education, including health services, healthful school living, and health instruction. In addition, opportunity to develop skills in organizing and presenting learning experiences in a comprehensive and sequential health curriculum, including standard and controversial topics, will be provided.

**HPER 102. HEALTH EDUCATION IN THE SECONDARY SCHOOL.** (ATE) *Four hours credit.*

Designed to give the prospective secondary teacher a foundation in school health education, including health services, healthful school living, and health instruction. In addition, opportunity to develop skills in organizing and presenting learning experiences in a comprehensive and sequential health curriculum, including standard and controversial topics, will be provided.

**\*HPER 120. ANATOMICAL KINESIOLOGY.** *Three hours credit. (Three hours lecture, one hour laboratory.)*

A study of the anatomical and anthropometrical components of human movement as they relate to the prescription of exercise.

**\*HPER 121. MECHANICAL KINESIOLOGY.** *Three hours credit.*

Prerequisite, HPER 120. A study of the mechanical components of human movement. The course will involve a study of the mechanical laws applicable to the movements of the body and to the performance of motor skills.

**\*HPER 122. PHYSIOLOGICAL KINESIOLOGY.** *Three hours credit. Three hours lecture, one hour laboratory.)*

A study of the physiological components of human movement as they relate to motor performance and the effects of exercise.

**\*HPER 123. PSYCHOLOGICAL KINESIOLOGY.** *Three hours credit.*

A study of the psychological components of human movement. The course will involve a study of human motor behavior, and the behavioral factors affecting human motor performance.

**\*HPER 124. MATURATIONAL KINESIOLOGY.** *Three hours credit.*

Prerequisites, HPER 122 and 123. A study of the genetic and environmental factors affecting human maturation. Emphasis will be given to organic and motor development and motor learning as affected by age group characteristics and environmental stimuli.

**HPER 125. TEACHING OF SPORTS (Women).** (ATE) *Two hours credit.*

Prerequisites, HPER 71, 72, 73, 74, 77, 78, 80, 84, 85, and 95. A consideration of the basic techniques of team sports including skills, rules and strategies, emphasizing teaching procedures.

**HPER 126. TEACHING OF DANCE (ATE).** *Two hours credit.*

Prerequisites, HPER 90, 92, 93, 94. Teaching procedures of dance activities. For the physical education major student.

**HPER 127. COACHING AND OFFICIATING OF GYMNASTICS.** *Two hours credit.*

Prerequisite, HPER 85. Designed to prepare the student in the techniques and strategies of coaching competitive gymnastics, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

**HPER 128. COACHING AND OFFICIATING OF TRACK AND FIELD.** *Two hours credit.*

Prerequisite, HPER 89. Designed to prepare the student in the techniques and strategies of coaching competitive track and field events, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

**HPER 129. COACHING AND OFFICIATING OF FIELD SPORTS. *Two hours credit.***

Designed to prepare the student in the techniques and strategies of coaching competitive field sports, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

**HPER 130. COACHING AND OFFICIATING OF VOLLEYBALL. *Two hours credit.***

Prerequisite, HPER 81. Designed to prepare the student in the techniques and strategies of coaching competitive volleyball, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

**HPER 131. COACHING AND OFFICIATING OF BASKETBALL. *Two hours credit.***

Designed to prepare the student in the techniques and strategies of coaching competitive basketball, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

**HPER 132. COACHING AND OFFICIATING OF TENNIS. *Two hours credit.***

Designed to prepare the student in the techniques and strategies of coaching competitive tennis to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

**HPER 133. COACHING AND OFFICIATING OF SWIMMING. *Two hours credit.***

Designed to prepare the student in the techniques and strategies of coaching competitive swimming, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

**\*HPER 142. MODERN CONCEPTS IN HEALTH AND DISEASE. *Three hours credit.***

A thorough investigation of the current theories of and defenses against disease, followed by a review of prevalent congenital, communicable, chronic, and degenerative diseases.

**HPER 143. METHODS AND OBSERVATION OF HEALTH EDUCATION. (ATE) *Five hours credit.***

This course is designed for the purpose of demonstrating effective presentation of health information through the utilization of various educational media, qualified resource persons, special exhibits, experiments and presentations, and community resources available beyond the classroom. Observation and direct exposure to first hand learning experiences will be provided whenever possible. Various instructional procedures, techniques, and methods will be utilized.

**HPER 144. METHODS AND OBSERVATION OF TEACHING PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL. (ATE) *Three hours credit.***

A study of mental, emotional, physical and social needs of children of elementary school age levels, and the planning of a program, selection of materials and methods of teaching physical education at these levels.

**HPER 145. METHODS AND OBSERVATIONS OF TEACHING PHYSICAL EDUCATION IN THE SECONDARY SCHOOL. (ATE) *Two hours credit.***

A study of planning, materials, and methods in physical education for the secondary school based on mental, physical, and social needs of the student at various age levels.

**\*HPER 155. MODERN DANCE TECHNIQUES AND COMPOSITION. *Four hours credit.***

Prerequisites, HPER 93, 94. Basic techniques, movement analysis and composition for the advanced dance student.

**\*HPER 156. IMPROVISATION AND COMPOSITION FORMS.** *Two hours credit.*

Prerequisites HPER 93, 94. This course provides instruction in the improvisational approach to creative dance and the sequential and contrapuntal compositional forms. Emphasis is placed on form and structure of composition.

**HPER 161. COACHING OF FOOTBALL.** (ATE) *Two hours credit.*

Prerequisites, HPER 40, 41 or 76. The techniques and strategy of coaching football, with emphasis upon type of formations, defense, play series, rules, and football coaching in general.

**HPER 162. COACHING OF BASKETBALL.** (ATE) *Two hours credit.*

Prerequisites, HPER 42, 43 or 73. Theory and practice in scouting, charting, scoring, timing, and officiating. Principles of successful modern offensive and defensive play. Procedures in developing and utilizing playing personnel.

**HPER 163. COACHING OF TRACK AND FIELD.** (ATE) *Two hours credit.*

Prerequisite, HPER 53 or 77. A study of the techniques of coaching the various events in track and field, the rules, and the methods of conducting track events.

**HPER 164. COACHING OF BASEBALL.** (ATE) *Two hours credit.*

Prerequisite, HPER 50, 51 or 78. Techniques and procedures in developing individual and team play. Defensive baseball: pitching, catching, infielding, outfielding, strategy. Offensive baseball: batting, base-running, strategy.

**\*HPER 172. SOCIAL RECREATION.** *Two hours credit.*

Designed to prepare the student for effective planning and leadership in the area of social recreation activities. Special attention is given to programs for church and school groups as well as to activities appropriate for family groups within the home.

**HPER 173. CAMP COUNSELING.** *Three hours credit.*

An introductory course to acquaint the student with methods of leadership in camping activities. Special attention is given to the development and application of outdoor skills to the camping situation.

**HPER 200. WORKSHOP IN HEALTH, PHYSICAL EDUCATION AND RECREATION.** *Three hours credit.*

Designed to provide opportunities for study in the problem areas of the participants; however, the problems attacked would vary from time to time according to the experts conducting the workshop. The nature of the workshop might cover such areas as administration, curriculum, new programs and techniques, etc. Each workshop will have a sub-title; and no sub-title may be repeated by a student for credit.

**HPER 205. ISSUES IN HEALTH EDUCATION.** *Three hours credit.*

Prerequisite Health 61 or equivalent. A comprehensive and intensive study of the major contemporary individual and social health problems relating to family life, sex education, the use of stimulants, narcotics, halucinogens, alcohol, tobacco, and other crucial health problems.

**HPER 226. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION.** (ATE) *Three hours credit.*

Designed to give the student a foundation in techniques of evaluation, including elementary statistical procedures, the preparation and administration of skill and written tests, and the use of other evaluative materials in the field.

**HPER 232. ADAPTED PHYSICAL EDUCATION.** (ATE) *Three hours credit.*

Prerequisites, HPER 120, 121. Developmental, remedial, and corrective programs in physical education. Emphasis is given to adaptations which are designed to meet the needs of individuals requiring special attention above and beyond the regular physical education program.

**HPER 235. EDUCATIONAL INTERPRETATIONS OF HEALTH, PHYSICAL EDUCATION AND RECREATION. (ATE) *Three hours credit.***

A foundational approach to interpretations and objectives of physical education, health education, and recreation in general education. Designed to assist the mature professional major in developing a sound philosophic background for continued growth in the professional field.

**HPER 236. SOCIOLOGICAL IMPLICATIONS OF PHYSICAL EDUCATION. *Three hours credit.***

It is the main objective of this course to examine and utilize basic sociological concepts and demonstrate their manifestations within the area of physical education.

**\*HPER 237. SOCIO-PSYCHOLOGICAL CONCEPTS OF LEISURE. *Three hours credit.***

It is the purpose of this course to familiarize the student with basic sociological and psychological concepts of leisure.

**HPER 240. HEALTH AND PHYSICAL EDUCATION FOR THE HANDICAPPED. *Three hours credit.***

Discussion of basic characteristics of the handicapped as related to participation in physical education, recreation, and outdoor education. Emphasis is placed on interests, needs, limitations, and potentialities of the handicapped. Special consideration is given to types of activity programs, modification of activities, and approach to teaching the mentally and physically handicapped.

**HPER 245. ADVANCED TECHNIQUES IN TEACHING GYMNASTIC ACTIVITIES. *Four hours credit.***

Designed to assist the high school or college teacher with special problems in teaching and officiating gymnastic activities.

**HPER 246. ADVANCED TECHNIQUES IN TEACHING INDIVIDUAL SPORTS. *Four hours credit.***

Designed to assist the high school or college teacher with special problems in teaching and officiating individual sports.

**HPER 247. ADVANCED TECHNIQUES IN TEACHING TEAM SPORTS. *Four hours credit.***

Designed to assist the high school or college teacher with special problems in teaching and officiating team sports.

**HPER 248. ADVANCED TECHNIQUES IN TEACHING DANCE ACTIVITIES. *Four hours credit.***

Special problems and procedures for teaching social, square and folk dance. For the advanced physical education major student.

**HPER 250. ADMINISTRATION OF PHYSICAL EDUCATION. (ATE) *Three hours credit.***

A study of administrative problems in physical education for men and women dealing with budget and finance, legal aspects, purchase and care of equipment and supplies, programs, public relations, intramural activities, and class organization.

**HPER 251. ADMINISTRATION OF COMMUNITY RECREATION. *Four hours credit.***

The course is concerned with the organization and administration of the community recreation program. Eleven essential areas of this subject are studied: fact-finding, survey, legal aspects, municipal organization, department organization, financing, records and reports, publicity, public relations, leadership, and program.

**HPER 252. INTERNSHIP IN RECREATION. *Fifteen hours credit.***

Prerequisites, HPER 251, 268, 269, and 272. A course designed primarily to help students make the transition from the classroom to the practical situation. Opportunity is provided for students to assume the normal responsibilities involved in the conduct of various kinds of recreation activities. One quarter of full-time activity is required.



**HPER 256. WORKSHOP IN MODERN DANCE.** *Four hours credit.*  
Problems connected with the staging of dance performances.

**\*HPER 257. DANCE HISTORY AND PHILOSOPHY.** *Four hours credit.*  
History and development of dance as it is culturally determined and the philosophy influencing dance.

**HPER 258. DANCE METHODS AND MATERIALS.** *Four hours credit.*  
Prerequisites, HPER 93, 94. Procedures and materials for teaching contemporary dance. For the dance education major and minor student. This includes dance accompaniment.

**HPER 259. DANCE PRODUCTION IN HIGH SCHOOL AND COLLEGE.**  
*Two hours credit.*

Prerequisites, HPER 93, 94, 256. A practical application and principles which serve the presentation of dance. The course deals with a choreographic problem, the invention, manipulation, direction and production involving theatre application of set, and costume and light design.

**HPER 260. SCIENTIFIC PRINCIPLES OF COACHING.** *Four hours credit.*  
Primarily for the athletic coach to assist him in teaching and coaching the usual major sports of the school competitive sports program. Designed to establish on a sound scientific basis the mechanical principles involved in developing techniques for sport competition.

**HPER 264. SPORTS OFFICIATING FOR MEN.** *Four hours credit.*  
Designed for coaches, administrators, and officials. Considers general principles and philosophy of officiating as well as study of the mechanics of officiating the sports for men in the school program.

**HPER 265. ADVANCED TECHNIQUES IN TEACHING FOOTBALL TO MEN.** *Two hours credit.*

Designed to assist the in-service teacher of major sports for men with special problems in the field of football, including organization, strategy, personnel.

**HPER 266. ADVANCED TECHNIQUES IN TEACHING BASKETBALL TO MEN.** *Two hours credit.*

Designed to assist the in-service teacher of major sports for men with special problems in the field of basketball, including organization, strategy, personnel.

**HPER 268. PROGRAMS IN RECREATION.** *Four hours credit.*

Designed to prepare the student for effective planning of varied types of recreation programs. Special attention is given to programs for public playgrounds, community centers, and such special groups as the aging, teenagers, young adults, and the handicapped.

**HPER 269. RECREATION FOR THE HANDICAPPED.** *Three hours credit.*

Adaptation of recreation activities to meet the varying needs of handicapped individuals in hospitals, schools, homes, recreation and rehabilitation centers. Reports, discussions, observations, and visitations.

**HPER 270. ADMINISTRATION OF ATHLETICS.** *Three hours credit.*

The administrative problems confronted by the coach: management of athletic events, schedules, budgets, finances, athletic facilities and equipment, awards, public relations, and insurance.

**HPER 271. SAFETY EDUCATION.** *Three hours credit.*

A comprehensive course for preparing teachers and school administrators to assume responsibility for safety education and accident prevention programming in school and public service.

**HPER 272. RECREATION LEADERSHIP.** *Three hours credit.*

Reading, reports and projects covering the philosophy, methods, and materials for the recreation leader.

**HPER 274. DRIVER EDUCATION I.** *Three hours credit.*

Designed to prepare teachers in the organization and teaching of driver education and traffic safety programs in secondary schools. Primary emphasis is placed on teaching the classroom phase of driver education.

**HPER 275. DRIVER EDUCATION II.** *Three hours credit.*

Prerequisite HPER 274. An advanced course designed for driver education teachers. Problems related to administration, instruction, evaluation, and research in driver education programs will be studied. Course requires laboratory time in which prospective teachers of driver education practice on-the-street driving, receive instruction and practice on the multiple car driving range, and in the simulator training units.

**HPER 280. CARE OF SPORTS INJURIES.** *Three hours credit.*

Prerequisites, HPER 120, 121. Intensive course in care and treatment of athletic injuries with time devoted to each specific injury. The etiology, pathology, sign and symptoms, treatment, and adapted activities will be given for the major injuries.

## HISTORY

**\*HIST 25. WESTERN CIVILIZATION I.** *Three hours credit.*

The course will cover the most significant aspects of European civilization from about 1492 to 1815. Emphasis will be on the cultural, intellectual and religious developments which have had an enduring value. Not open to history majors or minors.

**\*HIST 26. WESTERN CIVILIZATION II.** *Three hours credit.*

The emphasis of this course will be on the principal developments of Western civilizations between 1815 and 1914, the rise of nationalism, liberalism, constitutionalism and industrialism, and the impact of these on life and culture in the nineteenth century. Not open to history majors or minors.

**\*HIST 27. WESTERN CIVILIZATION III.** *Three hours credit.*

The course will cover the period from 1914 to the present. The emphasis will be on the two great wars, the rise of dictatorships, and the quest for peace and security. Not open to history majors or minors.

**\*HIST 30. WORLD HISTORY I.** *Four hours credit.*

World history—early times to 800. Major civilizations.

**\*HIST 31. WORLD HISTORY II.** *Four hours credit.*

World History—800 to 1800. Major civilizations.

**\*HIST 32. WORLD HISTORY III.** *Four hours credit.*

World History—1880 to the present. Major civilizations.

**\*HIST 70. UNITED STATES HISTORY I.** *Three hours credit.*

United States history to 1848, European background of American history, the age of discovery and colonization, the imperial rivalries, the revolution and the new nation, nationalism and sectionalism.

**\*HIST 71. UNITED STATES HISTORY II.** *Three hours credit.*

United States history, 1848-1912. The War Between the States, reconstruction, the emergence of modern America, the United States as a world power, the new nationalism.

**\*HIST 72. UNITED STATES HISTORY III.** *Three hours credit.*

United States history, 1912 to the present. The New Freedom, World War I, prosperity and depression, the New Deal, the long armistice, World War II, post-war problems since 1945.

**\*HIST 75. UNIT SURVEY OF UNITED STATES HISTORY.** *Five hours credit.*

Detailed consideration of specific units in American history with emphasis upon the content and materials for use in elementary schools. Should not be taken by majors or minors in history.

**\*HIST 110. INTELLECTUAL AND CULTURAL HISTORY OF MEDIEVAL EUROPE, 4TH-16TH CENTURIES.** *Three hours credit.*  
 A survey of history from the end of ancient times to the beginnings of Modern Europe. Open to sophomores.

**\*HIST 120. INTELLECTUAL AND CULTURAL HISTORY OF EARLY MODERN EUROPE, 1600 TO 1800.** *Three hours credit.*  
 A survey of intellectual and cultural developments of the period 1600-1800, emphasizing the Age of Science, Age of Reason, and the Enlightenment. Open to sophomores.

**\*HIST 130. INTELLECTUAL AND CULTURAL HISTORY OF MODERN EUROPE, 1800 TO THE PRESENT.** *Three hours credit.*  
 A survey of intellectual and cultural developments from the Romantic period to the present. Open to sophomores.

**\*HIST 146. GEOGRAPHIC INFLUENCES IN UNITED STATES HISTORY.** *Two hours credit.*  
 Relationships of geography to the discovery, exploration, settlement, and development of the United States.

**\*HIST 150. HISTORY OF COLORADO.** *Three hours credit.*  
 A study of the growth and development of Colorado: Indian influence; Spanish, French, and American explorations; historical development; early settlements; gold and silver rushes; pioneer life; territorial problems; the growth of agriculture, industry, livestock production; economic, social and cultural progress; political progress; governmental organization; problems of recent and present-day Colorado.

**\*HIST 154. HISTORY OF THE EARLY WEST.** *Three hours credit.*  
 The westward movement beginning with the settlement of Jamestown in 1607 and dealing with the development of the colonial west, organization of the Northwest Territory, the land laws, Indian wars, fur trappers' frontier, the Cumberland Road, coming of the steamboat-canal era, and the early settlement of Texas.

**\*HIST 169. THE FAR EAST.** *Four hours credit.*  
 A study of the historical background of the economic, social, educational, philosophical and political life of the major nations and regions of the Far East.

**\*HIST 176. AMERICAN SOCIAL AND INDUSTRIAL HISTORY.** *Four hours credit.*  
 A study of the major social, industrial and cultural forces which have shaped American life, the growth of cities, education and culture, the impact of the frontier, immigration, scientific and industrial progress, and the correlation between these forces in the development of present-day America.

**\*HIST 177. HISTORY OF THE BLACK MAN IN AMERICA I.** *Three hours credit.*  
 An introduction to the Black African heritage. The course will analyze the following: the slave system in the United States; black resistance to slavery and involvement in the American Revolution; the role of the free Black man prior to the Civil War.

**\*HIST 178. HISTORY OF THE BLACK MAN IN AMERICA II.** *Three hours credit.*  
 A Study of the Black man's role during the Civil War and the significance of the Reconstruction period. Black opposition to the growth of Jim Crow practices in the United States, their relationship to the labor movement, the plight of the Southern tenant farmer, and the philosophies of Black thinkers, particularly Booker T. Washington and W. E. B. DuBois.

**\*HIST 179. HISTORY OF THE BLACK MAN IN AMERICA III.** *Three hours credit.*  
 A survey of twentieth-century developments, including the migration of Blacks to the North, the growth of the black urban ghetto, the Garvey movement and the

Harlem Renaissance, life under the New Deal and during World War II, the "Civil Rights" movement of the late 1950's and early 1960's, and the Black Power movement.

**\*HIST 181. THE HISPANO IN THE AMERICAN SOUTHWEST.** *Three hours credit.*

Examination of the historical heritage of the Hispano in the southwestern states of New Mexico, Arizona, California, and Texas, plus southern Colorado, will be made in this course from the coming of Coronado in 1540 to the present. Hispano movements and contributions during the Spanish, Mexican, territorial, and modern periods will be stressed. Although political and economic developments will be emphasized, social and cultural movements also will be covered.

**\*HIST 200. INTRODUCTION TO HISTORICAL RESEARCH.** *Three hours credit.*

An introduction to the nature of history; what is history; why study history; how to study history; pursuit of evidence; familiarization with library catalogs; bibliographies and indexes. Selection of topic for research by student. Note taking; criticism; construction of research papers; elements of good English usage.

**\*HIST 220. EUROPEAN CONTRIBUTIONS TO AMERICAN CULTURE.** *Fifteen hours credit.*

The major contributions of European civilization to American culture are studied for five weeks on campus and then one month in Europe. Contemporary influences and relationships are included as well as origins of social, economic and political institutions. The background of art and architecture will also be covered.

**\*HIST 221. CULTURAL BACKGROUND OF WESTERN-SOVIET RUSSIAN RELATIONS.** *Fifteen hours credit.*

The background of Soviet Russia's relations with the West is studied on campus for five weeks followed by a study tour of selected Western European capitals, Leningrad and Moscow. Excursions are made to Oxford, Versailles, Peterhof and Zagorsk or other places of historical importance.

**\*HIST 233. COLONIAL LATIN AMERICAN HISTORY.** *Five hours credit.*

A history of the discovery and colonization of Latin America with particular emphasis on the Spanish and Portuguese institutions, and the events leading up to the wars for independence.

**\*HIST 234. HISTORY OF LATIN AMERICA.** *Five hours credit.*

A study of the development of the economic, educational, political, religious, and social institutions of Latin America. Consideration will be given to United States relations with Latin America, and to the status of and prospects for democracy in Latin American nations.

**\*HIST 236. CONTEMPORARY MEXICO AND THE CARIBBEAN.** *Three hours credit.*

A study of the developments and problems of contemporary Mexico and republics of Central America and the Caribbean.

**\*HIST 237. HISTORY OF THE ABC COUNTRIES OF SOUTH AMERICA.** *Three hours credit.*

Detailed study of the Rio de la Plata region in Latin America including Argentina, Brazil, Chile, Paraguay and Uruguay. Designed to show historical development—special attention to European and African cultural influences, political processes, economic changes. Augments course offerings in Latin American history for M.A. students choosing this as one of their fields.

**\*HIST 238. HISTORY OF THE ANDEAN COUNTRIES OF SOUTH AMERICA.** *Three hours credit.*

Provide in-depth study of the Andean region of Latin America—attention to historical background of such contemporary problems as Indian assimilation, urbanization, social integration, political instability. Also augments offerings in Latin American history for the M.A. student who chooses this as one of his fields.

**\*HIST 240. HISTORY OF AFRICA TO 1899.** *Five hours credit.*

A general history of the African continent from the early civilizations through

the early European explorations and settlements to the British, French, Belgian, and other European colonizing activities of the nineteenth century.

**\*HIST 241. HISTORY OF AFRICA FROM 1899.** *Five hours credit.*

A survey of Africa prior to colonial rule, the impact of the colonialism and the independence movement, with emphasis on the development of the African states, their politics, economics and society.

**\*HIST 247. CONSTITUTIONAL HISTORY OF MEDIEVAL ENGLAND.**  
*Three hours credit.*

The development of English legal, constitutional and administrative institutions from their Anglo-Saxon origins to 1485. Stress will be placed on the medieval antecedents of the modern English governmental departments as well as on the development of the common law, the jury system, and the rise of representative government. Emphasis will also be placed on the role of these institutions in the transition from a feudal to a national monarchy.

**\*HIST 248. EARLY ENGLISH HISTORY: TUDOR AND STUART ENGLAND, 1485-1688.** *Three hours credit.*

The course will emphasize the political and constitutional stability reached in England during the two centuries following the Hundred Years' War. Constitutional, social, and economic development will be stressed. Prerequisites, HIST 30, 31, 32, or permission of instructor.

**\*HIST 249. RECENT ENGLISH HISTORY: 1689 TO THE PRESENT.** *Three hours credit.*

The course will trace the developments in English constitutional, political, economic, and social life from the time of the great Revolution in 1688-89. Emphasis will be placed on the growth of political liberalism in England, and on the role which England has played in the modern world. The role of England as a world power since 1713 will be similarly studied. Prerequisites, HIST 30, 31, 32, or permission of the instructor.

**\*HIST 251. THE EARLY COLONIAL PERIOD: 1492-1689.** *Three hours credit.*

Prerequisites HIST 70, 71, 72. This course will investigate in depth the background of European colonization, the Age of Discovery and Exploration, the founding of the first British Colonial Empire, and the history of that Empire until 1689.

**\*HIST 252. EIGHTEENTH CENTURY AMERICA 1689-1763.** *Three hours credit.*

Prerequisite HIST 251. This course will investigate in depth the development of the North American British colonies in the 18th Century. Emphasis will be placed on the origin of the Empire and on the colonial economy, political structure, and a society of the time.

**\*HIST 253. GREAT MEN IN AMERICAN HISTORY.** *Three hours credit.*

A biographical approach to American history focusing on the lives and contributions of such great Americans as Franklin, Washington, Hamilton, Jefferson, Marshall, Jackson, Lincoln, Holmes, Theodore Roosevelt, Wilson, and Franklin Roosevelt.

**\*HIST 255. HISTORY OF THE TRANS-MISSISSIPPI WEST: 1821-1890.**  
*Three hours credit.*

Examination of the Westward movement from the settlement of Texas to the end of the frontier period. Major topics stressed include frontier monetary problems, relation of Mormons to the move west, pre-emption and homestead acts, forty-niners and fifty-niners, transcontinental railroads, and the range-cattle industry.

**\*HIST 256. EMERGENCE OF A NEW NATION: 1763-1815.** *Five hours credit.*

Background of Revolution, the conflict between the Colonies and Great Britain, Declaration of Independence, Treaty of Paris, 1783, Articles of Confederation, United States Constitution, administrations of Washington, Adams, Jefferson and Madison.

**\*HIST 257. NATIONALISM AND SECTIONALISM IN AMERICA, 1815-1848. *Three hours credit.***

A detailed survey of the period 1815-1848 in American history. Major topics examined include post-1815 nationalism, political trends of the Jacksonian Era, the development of sectionalism, religion and reform, expansion and the Mexican War.

**\*HIST 258. THE CIVIL WAR AND RECONSTRUCTION, 1848-1877. *Three hours credit.***

A detailed survey of the period 1848-1877 in American history. Major topics examined include political upheavals of the 1850's, growth of southern nationalism, Civil War years, and problems of the Reconstruction Era.

**\*HIST 259. ANCIENT HISTORY. *Four hours credit.***

The life and institutions of the Ancient Near East and Greece, cultural development, living conditions, and recent archaeological discoveries.

**\*HIST 260. HISTORY OF GREECE. *Four hours credit.***

An advanced course in the history of Ancient Greece placed in the context of the river valley civilizations of the Near East. Emphasis will be placed on the various aspects of Hellenic and Hellenistic life and culture in the light of recent archaeological and historical discoveries.

**\*HIST 261. ROMAN HISTORY. *Five hours credit.***

An advanced study of Roman Civilization from the founding of the Republic to the decline of the Empire. Roman life, institutions and cultural heritage will be emphasized.

**\*HIST 263. RENAISSANCE AND REFORMATION. *Five hours credit.***

A study of political, social, economic, religious and cultural development from 1300-1600.

**\*HIST 264. HISTORY OF MEDIEVAL THOUGHT. *Three hours credit.***

An advanced study of Medieval life and civilization from the beginning of the Middle Ages to about 1300. The course will emphasize Medieval philosophy, theology, literature, art and culture from Augustine to Dante.

**\*HIST 265. THE OLD REGIME. *Five hours credit.***

A study of the political, social, economic, intellectual, and cultural development from the end of the Reformation period to the French Revolution.

**\*HIST 266. FRENCH REVOLUTION AND NAPOLEON. *Five hours credit.***

A study of the causes of the Revolution, its classical pattern, the rise of nationalism, and the significance of Napoleon in France and abroad.

**\*HIST 267. EUROPE: 1815-1870. *Five hours credit.***

A study of the period from the Congress of Vienna through the unification of Germany. Includes the history of ideas, development of political history, and socio-economic changes.

**\*HIST 268. EUROPE: 1870-1914. *Five hours credit.***

A study of the political, social, economic, intellectual, and diplomatic developments from the Franco-Prussian War to the beginning of World War I.

**\*HIST 269. CONTEMPORARY WORLD HISTORY. *Five hours credit.***

An advanced study of world developments in recent times which will investigate the period from 1900 to the present. The course will discuss the ideologies of communism, socialism, fascism, and democracy in their world setting.

**\*HIST 270. HISTORY OF MODERN FRANCE: 1815 TO THE PRESENT. *Four hours credit.***

The course will examine in depth the important political and constitutional issues in French history from the fall of Napoleon I to the present day. It will focus on the Restoration regimes, the Second Empire, and the Third, Fourth, and Fifth Republics.

**\*HIST 271. DIPLOMATIC HISTORY OF THE UNITED STATES TO 1889.**

*Three hours credit.*

A survey of American diplomatic history from the war for independence to 1889, emphasizing the problems of expansion and relations with major European, Latin American, and Far Eastern countries.

**\*HIST 272. DIPLOMATIC HISTORY OF THE UNITED STATES SINCE 1889.** *Three hours credit.*

A survey of American diplomatic history since 1889, emphasizing the problems of peace and war and the internationalist-isolationist conflict in the twentieth century.

**\*HIST 273. CONTEMPORARY AMERICAN FOREIGN POLICY.** *Three hours credit.*

An analysis of the theory and practice of American foreign policy since World War II, emphasizing the origins, history, and significance of the Cold War.

**\*HIST 275. THE GILDED AGE, 1868-1892.** *Four hours credit.*

Examination of the political, economic, social, and cultural developments in the United States during the Gilded Age from Grant's inauguration to the defeat of President Harrison in 1892. Industrial expansion and the low tone of political morality will be stressed.

**\*HIST 276. ERA OF REFORM, 1892-1917.** *Four hours credit.*

A study of the reform movements that developed in response to America's great industrial transformation of the late nineteenth century. Agrarian agitation, Populism and Free Silver, Progressivism, and Wilson's New Freedom will be stressed.

**\*HIST 277. RECENT UNITED STATES HISTORY TO 1929.** *Three hours credit.*

A study of the background of the modern age in America, with emphasis on the reaction to nineteenth century social and intellectual ideas and practices. Political and economic developments up to the Great Depression also are stressed.

**\*HIST 278. CONTEMPORARY UNITED STATES HISTORY: 1929 to PRESENT.** *Three hours credit.*

A cultural, political, and economic study of American history from the Great Depression to the present, emphasizing the depression, the New Deal, world wars and "police actions," and such recent developments as poverty programs, Black Power and other minority movements, and the social rebellion.

**\*HIST 280. HISTORY OF RUSSIA TO 1917.** *Four hours credit.*

Surveys the political, social, economic, and cultural history of Russia from Kievan Rus up to the Bolshevik Revolution of 1917. Emphasis is placed on those Russian traits that have continued into the Soviet period.

**\*HIST 281. HISTORY OF THE SOVIET UNION.** *Four hours credit.*

Surveys the political, social, economic, cultural history of the Soviet Union from 1917 to the present. Continuity with pre-Soviet Russia is emphasized as well as change.

**\*HIST 282. RUSSIAN HISTORY SEMINAR.** *Four hours credit.*

The class will consider pre-Soviet history, or if the student has also taken HIST 281, the Soviet period. Students will research, write and present a paper, which may be taken from either period. Lectures will cover Russian historiography and bibliography.

**\*HIST 286. DIPLOMATIC HISTORY OF MODERN EUROPE: 1914-1939.** *Three hours credit.*

A specialized course in the study of European diplomacy, its methods and accomplishments, utilizing lectures and analyses of basic documents and treaties.

**\*HIST 287. RECENT DIPLOMATIC HISTORY OF MODERN EUROPE: 1939 TO PRESENT.** *Three hours credit.*

A specialized course in the study of recent European diplomacy, its methods and accomplishments, utilizing lectures and analyses of basic documents and treaties.

**\*HIST 288. HISTORY OF MODERN GERMANY.** *Four hours credit.*

A survey of German history from World War I, including analysis of events from the outbreak of World War I to the present, through the reading of original sources and documents.

**\*HIST 289. REVOLUTIONS IN MODERN TIMES.** *Four hours credit.*

The four great revolutions of the Western world, namely, the English, American, French, and Russian revolutions are compared in a search for causes and possible patterns of revolution. Post-World War II revolutions are analyzed to find economic, social, and intellectual causes of the revolutionary period of today.

**HIST 290. INSTITUTE IN CHANGE IN UNITED STATES HISTORY.**  
*Twelve hours credit.*

An analysis and study of the social, political, economic, and diplomatic forces that have shaped major developments in United States history from 1776 to the present. A course for high school history teachers who have not majored in history. Special attention will be paid to the methods and materials of teaching history.

**\*HIST 294. HISTORY OF CHINA TO 1840.** *Four hours credit.*

The history of China to 1840 will be considered from the point of view of political and cultural development.

**\*HIST 295. HISTORY OF JAPAN TO 1868.** *Four hours credit.*

The history of Japan up to 1868 will be considered from a cultural and political aspect. Emphasis will also be placed upon social development.

**\*HIST 296. THE FAR EAST SINCE 1840.** *Four hours credit.*

An advanced study of the Far East in modern times, beginning with the impact of western powers in the mid-nineteenth century to the present day. Emphasis will be on internal changes in political, social, economic and cultural aspects of the nations studied.

**\*HIST 298. HISTORY OF INDIA AND PAKISTAN.** *Five hours credit.*

A brief history of the peoples of the Indian subcontinent from early times to the present. Emphasis will be placed on the rise and decline of various cultures, Indo-Islamic culture, the advent of the English and their contribution to the birth of nationalism and the organization of India and Pakistan as independent states.

## HOME ECONOMICS

**HEC 1. ART IN HOME LIVING.** *Two hours credit.*

A study designed to develop an appreciation and understanding of color and the other art elements of design with the application of art principles or guides to personal and home living. Students are encouraged to use creative ideas in solving art problems. Opportunities provided to improve aesthetic judgment in making everyday selections.

**HEC 40. BASIC FOOD PREPARATION AND SERVICE.** *Four hours credit.*  
*(Two hours lecture, four hours laboratory.)*

Non-majors. A basic study in food selection and preparation for men and women students. Simple meals will be planned, prepared and served.

**HEC 41. FOOD SELECTION AND PREPARATION.** *Four hours credit.* *(Two hours lecture, four hours laboratory.)*

Prerequisite, CHEM 40. The composition and nature of foods and principles underlying the selection and preparation of food products of standard quality. Food products are evaluated.

**HEC 51. BASIC NUTRITION.** *Three hours credit.*

A basic study of the use of food nutrients in the body. Enables students to select food suited to their needs in the light of the newer knowledge of nutrition and individual physical fitness.



**HEC 61. FRESHMAN ORIENTATION IN HOME ECONOMICS.** *One hour credit.*

An introductory course concerned with personal, professional and vocational guidance in the field of Home Economics. Required of all beginning and transfer students. Also required of Colorado State College students who transfer to the Home Economics major.

**HEC 81. TEXTILE FUNDAMENTALS.** *Three hours credit.*

A basic study of natural and man-made fibers, with their properties and uses. Yarn construction and modern methods of texturizing yarns are included, with emphasis on the newer finishes for old and new fabrics.

**HEC 90. FASHION SEWING.** *Three hours credit. (One hour lecture, four hours laboratory.)*

Non-majors and non-minors only. A laboratory course designed for students interested in clothing construction, emphasizing current sewing techniques. Basic intermediate and advanced projects may be selected according to the student's ability and choice.

**HEC 91. CLOTHING SELECTION.** *Two hours credit.*

A study of the sociological, psychological and economic foundations of clothing selection with emphasis upon the application of art principles as related to the individual.

**HEC 92. FUNDAMENTALS OF CLOTHING CONSTRUCTION.** *Three hours credit. (One hour lecture, four hours laboratory.)*

Basic principles used in garment construction applied through actual construction of garments. Common fitting problems are studied.

**HEC 111. MANAGEMENT AS DECISION MAKING IN FAMILY LIVING.** *Three hours credit.*

A study of decision making as the focal point of management in relation to goals, values, and resources of the family.

**HEC 121. FAMILY RELATIONSHIPS.** *Three hours credit.*

The relationship of the individual to his human contacts and the establishment of the successful American home are studied.

**HEC 125. HOME NURSING.** *Two hours credit.*

This course is designed to develop the ability to give a simple type of nursing care to a member of the family who is ill, injured, or helpless because of age or infirmity. The principles involved in nursing procedures are stressed, the procedures demonstrated and the students are required to practice on each other.

**HEC 136. INTRODUCTION TO PRESCHOOL.** *Two hours credit.*

An introduction to preschool philosophy, current trends, present legislation on schools for young children and the role of a qualified teacher.

**HEC 142. PRINCIPLES OF FOOD PREPARATION.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, CHEM 40 and HEC 41. Emphasis is given to principles of cooking involved in more difficult food preparation. Laboratory work is planned to show the relationship between scientific principles and cookery processes. Food products are evaluated.

**HEC 171. THE HOME AND ITS FURNISHINGS.** *Five hours credit.*

Prerequisite, HEC 1. A study of principles and information needed for solving housing problems with considerations relating to family needs, procedures for renting, buying and financing as well as basic furniture design, and the selection and arrangement of furnishings.

**HEC 193. INTERMEDIATE CLOTHING CONSTRUCTION.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, HEC 81, 91, 92. A costume of the latest fabrics is constructed using the method appropriate to the pattern and fabric.

**HEC 195. COSTUME DESIGN—FLAT PATTERN.** *Three hours credit. (One hours lecture, four hours laboratory.)*

Prerequisites HEC 92, 193. Some basic problems are presented in flat pattern making. A personal master pattern is developed for each student. Creative problems are planned to develop skill in the application of art principles to costume.

**HEC 201. ART IN CONTEMPORARY LIVING.** *Three hours credit.*

A consideration of the general scope of design as well as a study of artistic philosophies relative to developing design awareness and appreciation.

**HEC 213. MANAGING FAMILY RESOURCES.** *Three hours credit.*

A study of the management of human and material resources in achieving family goals. Work simplification, efficient planning and management of family finances are studied in detail.

**HEC 215. CONSUMER PROBLEMS OF THE FAMILY.** *Three hours credit.*

This course is designed to give college students a background of practical information and the applications concerning consumer and financial problems of the family.

**HEC 217. HOME MANAGEMENT RESIDENCE.** *Three hours credit.*

Prerequisites HEC 41, 111, 142, 248. Students live in Margaret Roubush Home Management House for approximately five weeks where they put into practice desirable standards of home living.

**HEC 219. HOME MANAGEMENT.** *Three hours credit.*

Prerequisites HEC 41, 111, 142, 248. Application must be made two months prior to registration for approval. A laboratory course designed for married home economics majors who maintain a home with husband and/or children. Will involve management problems of the home with guidance and supervision.

**HEC 223. THE FAMILY.** *Three hours credit.*

A study of the family in present day America. Considers functions of the family and forces affecting it; variations in family values and practices; roles, adjustments, relations and problems of adult and child members. Designed for teachers of adolescents and adults.

**HEC 231. INFANT AND CHILD CARE.** *Three hours credit.*

A study of growth patterns from conception through infancy and the third year. Includes prenatal and postnatal factors influencing early development; guidance and provision for care, and the responsibilities of adults for providing a favorable home environment; the effect of these factors on later years.

**HEC 233. DEVELOPMENT AND GUIDANCE OF THE YOUNG CHILD.**

*Four hours credit. (Three hours lecture, two hours laboratory.)*

The physical, emotional and social growth processes as they apply in understanding the total development of the pre-school years with appropriate guidance procedures emphasized. The functions, techniques and physical setting of the pre-school are studied.

**HEC 234. PRESCHOOL CURRICULUM AND METHODS.** *Three hours credit. (One hour lecture, six hours laboratory.)*

Taken in conjunction with HEC 235—Prerequisite 233. A study of curriculum, including the selection of Art, Literature, Music, and Science for the individual child's development. Experience in planning curriculum programs. A study of specific methods and techniques in teaching Preschool.

**HEC 235. OBSERVATION AND PARTICIPATION IN PRESCHOOL.** *Three hours credit (one hour lecture, six hours laboratory).*

Taken in conjunction with HEC 234—Prerequisite 233. Observation of specific methods and techniques relating to the teaching of Preschool. Practical laboratory observation and experience with preschool age children.

**HEC 237. ADMINISTRATION OF PROGRAMS FOR YOUNG CHILDREN.** *Three hours credit.*

Prerequisite, HEC 234. The organization and management of various types of

Child Care Centers. Specific emphasis is given to program planning, selecting and organizing equipment, and learning administrative procedures. (Major—take in conjunction with HEC 238.)

**HEC 238. PRE-SCHOOL PRACTICUM.** *Three hours credit. (Six hours laboratory per week.)*

Prerequisites HEC 233, 234, 235. Sources and uses of play equipment for large and fine coordinations, for dramatic play and for the materials used in musical and creative development. The laboratory sessions give students practical application of these uses as they apply to the child's needs.

**HEC 239. PARENT EDUCATION.** *Three hours credit.*

This course deals with relationships of parents and children; resources for meeting problems with emphasis on discussion as a method.

**HEC 243. PRESERVATION OF FOOD I.** *Two hours credit. (One hour lecture, two hours laboratory.)*

The principles of making jellies, jams, pickles and relishes are studied. Products are made. Problems of deep freezing foods are discussed. The purchase and care of the home freezer are included.

**HEC 244. PRESERVATION OF FOOD II.** *Two hours credit. (One hour lecture, two hours laboratory.)*

Open kettle, water bath, pressure cooker, quick freeze methods of food preservation are discussed and home methods of these types of food preservation are practiced in the laboratory.

**HEC 245. EXPERIMENTAL COOKERY.** *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisites HEC 41, 142. An opportunity to determine the effects of temperature, time, and different manipulations on foods. Commercial products are tested and compared with home methods of preparation.

**HEC 246. QUANTITY COOKERY.** *Four hours credit. (One hour lecture, six hours laboratory.)*

Prerequisites HEC 41, 51, 142. Meal planning, techniques of food buying and application of cookery principles to large quantity food service. The facilities of student dining halls, student center, and the school lunch program are used as practice laboratories.

**HEC 247. INSTITUTIONAL MANAGEMENT.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

The organization and management of various types of institutions. Specific emphasis is given to problems of personnel, the physical plant, and efficient work schedules. The food-service areas of various types of institutions are selected for study.

**HEC 248. MEAL PLANNING AND SERVICE.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites HEC 41, 142. CHEM 40. Individual planning and purchasing of food. Gracious serving of meals on three income levels involving time and energy management. The study of linens, china, glass, and silverware; their purchase and care.

**HEC 251. NEW TRENDS IN NUTRITION.** *Three hours credit.*  
(May be substituted for HEC 51)

A detailed study of the value of carbohydrates, fats, proteins, minerals and vitamins in human nutrition. A comprehensive study of nutritional problems in health education. Food as an aid to positive health is stressed. A study of the food needs of growing children in the elementary and secondary school is made.

**HEC 252. DIET THERAPY.** *Three hours credit.*

Prerequisite, HEC 51. A study of the fundamental principles involved in the treatment of disease through diet. Emphasis is given to modification of normal diet.

**HEC 253. ADVANCED NUTRITION.** *Three hours credit.*

Prerequisite, HEC 51. A review of the fundamentals of human nutrition is made. Emphasis given to recent development in human nutrition. Application of principles of nutrition to community, state, national and world problems and needs. Readings and reports from current literature.

**HEC 256. INFANT AND CHILD NUTRITION.** *Three hours credit.*

Prerequisites, HEC 51, 231. A study of the principles in nutrition for maternal, infant, and child health; and an experience in basic food preparation.

**HEC 262. DEMONSTRATION TECHNIQUES.** *Two hours credit. (One hour lecture, three hours laboratory.)*

Prerequisites HEC 41, 92. Practice in the techniques of demonstrating before audiences. All phases of the Home Economics field will be used to furnish types of demonstrations.

**HEC 263. INTRODUCTION TO CURRICULUM IN HOME ECONOMICS EDUCATION.** *Three hours credit.*

Prerequisites, EDCI 101 and PSY 140. A study of purpose, content, and organization of curriculum. An emphasis will be placed on social and psychological influence on program development. Students will be involved in developing a unit.

**HEC 264. IMPROVEMENT OF INSTRUCTION IN HOME ECONOMICS.** *Four hours credit.*

This course is planned primarily for advanced students who wish to improve their competence in teaching home economics in junior and senior high school and in higher education.

**HEC 265. ADULT EDUCATION AND SPECIAL NEEDS IN HOME ECONOMICS EDUCATION.** *Three hours credit.*

Prerequisites: EDCI 140 and EDCI 141. A study of adult education including philosophy, procedures, and techniques used in organizing programs for teaching adults. The wage earning, occupational and special needs programs are also observed and studied. Students participate in a teaching experience.

**HEC 266. INSTRUCTIONAL AIDS IN HOME ECONOMICS.** *Four hours credit.*

Students develop and use criteria in evaluating teaching materials and aids. Selecting, organizing, and storing of aids are included. Visual aids and devices used in teaching various phases of homemaking are planned and prepared. Printed materials are evaluated.

**HEC 272. APPLIED HOME FURNISHINGS.** *Three hours credit. (One hour lecture, four hours laboratory.)*

A study of various projects which will give students experience in the application of art principles to interior decorations. Individual and/or class projects such as the construction of draperies, bedspreads and slipcovers.

**HEC 273. HOUSE PLANNING AND MATERIALS.** *Three hours credit. (Three hours lecture.)*

Prerequisite, HEC 171. Basic planning principles, construction details as well as structural aspects of the house are emphasized.

**HEC 274. EQUIPMENT SELECTION AND MAINTENANCE.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Through individual reports, projects, field trips, demonstrations, and classroom discussions, a body of knowledge and criteria are developed by which equipment and utensils may be evaluated. Basic scientific principles of heat, mechanics, electricity, and light are studied.

**HEC 277. INTERIOR DESIGN THEORIES-PRACTICUM.** *Three hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite: HEC 171. Actual involvement in the design of full-scale living spaces and their furnishing in order to facilitate recognition and manipulation of the plastic elements as used in interiors: line, form, color, texture and space.

**HEC 291. PERSONAL IMPROVEMENT FOR THE TEACHER.** *Three hours credit.*

A study of the personal improvement of the teacher. Emphasis will be given to the problems of the individual. Techniques for the development of positive mental health, expressive personality traits and attractive personal appearance will be stressed.

**HEC 294. TAILORING.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites HEC 92, 193. Opportunity for developing skill is presented in the construction of tailored suits.

**HEC 295. CREATIVE PROBLEMS IN DRESS DESIGN.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, HEC 91, 92, 193. Basic problems in draping on dress forms and in the drafting of flat patterns. Opportunity is provided for creative designs for different figure types in a variety of textured fabrics. Some consideration is given also to the design of simple decorative details and appropriate accessories.

**HUMANITIES (Administered by English Department)****\*HUM 1. INTRODUCTION. THE GREEK AND ROMAN PERIODS.** *Three hours credit.*

The humanities course throughout the year is a systematic historical study of the great philosophic ideas from Greek times to the present. Humanities 1 offers an introduction to the various arts and considers the art and philosophy of the Greeks and Romans.

**\*HUM 2. THE MIDDLE AGES AND THE RENAISSANCE.** *Three hours credit.*

Following the same type of outline as Humanities 1, Humanities 2 is a study of the cultural background, the arts and the philosophy of the Middle Ages and Renaissance.

**\*HUM 3. THE EIGHTEENTH TO THE TWENTIETH CENTURY.** *Three hours credit.*

Following the sequence started in Humanities 1 and 2, this course makes an historical study of the cultural background, the arts and the philosophy of the modern world from the rationalism of the 18th century to the new ideas which seem to be forming 20th century art and thought.

**\*HUM 4. CREATIVE EXPRESSION IN THE HUMANITIES I.** *Two hours credit.*

This course divides itself into four or five sections. These are art, music, drama, creative writing and the dance. The student chooses one section and pursues creative activities in the medium which he has chosen.

**\*HUM 5. CREATIVE EXPRESSION IN THE HUMANITIES II.** *Two hours credit.*

This course divides itself into four or five sections. These are art, music, drama, creative writing and the dance. Each student chooses a section in which he has not had experience and continues in that group to the end of the quarter.

**\*HUM 6. CREATIVE EXPRESSION IN THE HUMANITIES III.** *Two hours credit.*

In this quarter of the course in creative expression the different art media are synthesized in a single artistic production. It is felt that the theater offers the best possibility for such synthesis. The students in the course select an idea, turn it into dramatic form and produce it. This offers possibilities for creative work in each of the areas which have been studied previously.

**\*HUM 220. GREEK CULTURE.** *Fifteen hours credit.*

Five weeks' study of Greek art, mythology, and literature on the campus. This will be followed by four weeks in Athens, Delphi, the Peloponnesus and Crete

with lectures by outstanding authorities in aspects of Greek culture at the appropriate sites.

**\*HUM 240. ADVANCED COURSE IN THE HUMANITIES.** *Four hours credit.* Prerequisites, HUM 1, 2 and 3. The study of a specific great literary work in its setting of history, philosophic concepts, and contemporary arts.

## INDUSTRIAL ARTS

**IA 41. GRAPHIC ARTS FUNDAMENTALS.** *Three hours credit.* Experience with the fundamental operations used in school graphic arts shops. Information about tools, machines, and materials.

**IA 50. BENCH WOODWORK.** *Three hours credit.* Development of basic skills and knowledge in planning and layout, lumber and lumbering, purchasing and measuring lumber and plywood, methods of fastening and adhering wood, sizing stock and wood joinery with hand tools and electric portable tools. Includes emphasis on the study of wood characteristics, safe working practices and care of hand and power tools.

**IA 61. PRINCIPLES OF DRAFTING.** *Three hours credit.* Lettering, freehand sketching, geometric construction, orthographic projection, sectional views, and dimensioning in drafting.

**IA 70. GENERAL METALS.** *Three hours credit.* Basic metal shop practices, processes and materials with emphasis on bench metal, sheet metal, art metal, foundry and elementary metallurgy and testing.

**IA 71. ART METAL AND METAL SPINNING.** *Three hours credit.* Elementary course in art metal work including tooling, etching, forming, piercing, enameling, spinning, and soldering of copper and aluminum.

**IA 72. GAS AND ELECTRIC WELDING.** *Three hours credit.* An introductory course in the field of gas and electric welding, welding technology and heat treatment.

**IA 80. GENERAL ELECTRICITY.** *Three hours credit.* Elementary principles of electricity that are applicable to projects in the junior and senior high schools. Emphasis placed on magnetism, production of electricity, transformers, induction, capacitance, and resonant circuits.

**IA 90. INTRODUCTION TO POWER.** *Two hours credit.* A study of energy sources and the machines that convert energy into useful work. Emphasis given to broad overview of entire field of power and its importance to technology.

**IA 110. GENERAL BOOKBINDING.** *Three hours credit.* Development of basic skills in hand bookbinding applicable to elementary or junior high school arts programs.

**IA 111. BOOKBINDING.** *Two hours credit.* Hand binding with limited home-made equipment. Types of bindings and bookcrafts for unit or general industrial arts shops.

**IA 112. ADVANCED BOOKBINDING.** *Three hours credit.* Magazine binding in heavy buckram or leather, including appropriate sewing in terms of the use of books.

**IA 115. GENERAL CRAFTS.** *Five hours credit.* Basic techniques, construction and demonstration in industrial arts crafts with simple tools and inexpensive materials, including laboratory experiences in such areas as blockprinting, bookbinding, braiding, leather, metal crafts, mosaic, plastics, silk screening and woodcrafts.

**IA 116. GENERAL LEATHERCRAFT.** *Three hours credit.* Development of design, tooling and carving skills for application in the unit or general shop.

**IA 117. LEATHERCRAFT.** *Two hours credit.*

Design and development of tools, leather projects, techniques for industrial arts programs, camp activities, and recreation programs.

**IA 118. GENERAL PLASTICS.** *Three hours credit.*

Introduction to the use of synthetics for the unit or general shop programs in junior high or senior high schools.

**IA 119. PLASTICS.** *Two hours credit.*

Design and construction techniques in fiberglass and laminated plastics for the arts unit or general shop.

**IA 141. GRAPHIC ARTS.** *Two hours credit.*

The relationship of the processes used in school graphic arts shops to industry. Consumer information is developed and occupational opportunities are explored.

**IA 142. PHOTOGRAPHY.** *Three hours credit.*

Fundamentals of camera, lens, photographic materials, and processing. Photography as a means of communication through picture planning and practical photography.

**IA 145. PUBLICATION PRODUCTION.** *Five hours credit.*

A study of printing as it relates to the field of journalism. The basic areas covered will be news photography, layout and design, and production. Time will be spent on practical applications of each of the three areas.

**IA 150. WOODWORKING TECHNOLOGY.** *Five hours credit.*

The study of woods, materials, and equipment related to the woodworking area. Laboratory emphasis is on woodworking tools and machines.

**IA 153. FURNITURE AND CABINET MAKING.** *Three hours credit.*

Design and construction of period and modern furniture, study of production methods of industry, upholstery, and woodfinishing.

**IA 154. WOODFINISHING.** *Two hours credit.*

Prerequisite, IA 150. Techniques and processes in woodfinishing. Experience with traditional and new types of materials. A study of the needs of public school shops in this area of work.

**IA 155. EQUIPMENT AND MAINTENANCE PROBLEMS IN WOOD.** *Three hours credit.*

Prerequisite, IA 150. Upkeep and repair of woodworking tools and machines. Selection and purchase of woodworking tools, machines and supplies for a school shop.

**IA 156. UPHOLSTERY.** *Two hours credit.*

Techniques and processes in the various types of upholstery for all grade levels.

**IA 157. WOODTURNING.** *Two hours credit.*

Basic skills and related techniques in faceplate and spindle woodturning.

**IA 161. PICTORIAL DRAFTING.** *Two hours credit.*

Object description and pictorial drawing. Emphasis is on auxiliary views, isometric, and perspective drawings.

**IA 162. WORKING DRAWINGS.** *Three hours credit.*

Deals with detail drawings, assembly drawings, piping drawings, electronic drawings, welding drawings, and simple duplicating processes such as diazo, ozalid, blueprinting, and xerography.

**IA 163. GRAPHIC SOLUTIONS.** *Two hours credit.*

Orthographic projection principles applied to graphic representation, solution of problems in space and developments and intersections.

**IA 164. INDUSTRIAL DESIGN.** *Three hours credit.*

The principles of design as related to materials, construction techniques, and their application to industrial arts problems and areas.

**IA 173. JEWELRY DESIGN AND CONSTRUCTION.** *Three hours credit.*  
An introduction to the basic processes in jewelry construction including soldering, casting, stone cutting, simple silversmithing, and use of appropriate equipment.

**IA 174. MACHINE TOOL OPERATION.** *Two hours credit.*  
An introduction to machine tool operation including engine lathes, shapers, drill presses, surface grinders and precision measurement.

**IA 181. ELECTRO-MECHANICAL EQUIPMENT.** *Two hours credit.*  
Emphasis placed on motors and electrical measuring devices as well as common principles of operation for basic electronic applications in industry.

**IA 191. INTERNAL COMBUSTION AND RECIPROCATING ENGINES.**  
*Three hours credit.*

A study of two-cycle and four-cycle reciprocating engines. Emphasis placed on principles of operation, systems of basic engines, such as ignition (spark and compression), cooling, fuel, lubricating, and electrical.

**IA 211. PROBLEMS IN BINDERY ORGANIZATION.** *Three hours credit.*  
Organization of a bindery relating to the library, classroom, and as a general shop unit. Development of courses to meet individual needs.

**IA 215. INDUSTRIAL CRAFTS.** *Three hours credit.*  
Design, construction and demonstration experiences in the craft areas of graphic arts, leather, metal, plastics, wood, similar areas and materials as they apply to industrial arts shop, general shops, school crafts and club activities, and recreational craft programs.

**IA 216. DESIGN PROBLEMS IN LEATHER.** *Two hours credit.*  
Techniques in the designing and construction of leather-craft projects for the junior and senior high school unit or general shop.

**IA 217. ADVANCED LEATHERCRAFT.** *Three hours credit.*  
Prerequisite, IA 216. Organization, teaching problems, and advanced techniques in leathercraft. Development of course material suitable to a unit or general shop.

**IA 218. DESIGN PROBLEMS IN SYNTHETIC MATERIALS.** *Two hours credit.*

Design and techniques of construction in the area of synthetic craft materials. Development of course units suitable to a unit or general shop on the junior or senior high school level.

**IA 219. ADVANCED PLASTICS.** *Three hours credit.*  
Advanced techniques and problems in the field of plastics. Fabrication design and construction of projects in the area of synthetic craft materials for a unit or general shop. Development of course materials suitable to a unit or general shop.

**IA 220. COURSE ORGANIZATION IN INDUSTRIAL ARTS.** *Three hours credit.*

Criteria underlying the organization of a course of study in industrial arts. Techniques by which courses are developed or revised. Each student prepares a course of study in the field of his interest.

**IA 232. IMPROVEMENT OF INSTRUCTION IN THE ARTS.** *Three hours credit.*

An analysis of current difficulties and weaknesses in teaching the arts. Curriculum problems, objectives, methods and administration and community pressures are studied.

**IA 233. MATERIALS OF INDUSTRY.** *Three hours credit.*  
A study of the origin of the materials used in industrial arts classes and processes involved in the manufacture of each material. Ways of presenting the related information and consumer knowledge of each material are considered.



- IA 234. TEACHING THE INDUSTRIAL ARTS.** *Three hours credit.*  
Problems in planning industrial arts courses. Philosophy, objectives, evaluation, and school shop organization are considered.
- IA 235. HISTORY AND PHILOSOPHY OF INDUSTRIAL ARTS.** *Three hours credit.*  
A basic understanding of the history of industrial arts, with emphasis on developing an individual philosophy. A study of the conflicts and relationship of philosophy to actual practice in a functional program of industrial arts.
- IA 236. PRINCIPLES OF GENERAL SHOP ORGANIZATION.** *Three hours credit.*  
The purpose and philosophy underlying the organization of general shops. Types of shops, problems of administration, cost, criteria for selecting areas of study and evaluation are considered.
- IA 238. CURRENT THEORY AND PRACTICE IN THE ARTS.** *Three hours credit.*  
Current controversial issues which confront the teacher of the arts. Problems of standardization, laboratory organization, administrative and community attitudes, and correlation with other departments.
- IA 240. GRAPHIC ARTS DESIGN AND LAYOUT.** *Three hours credit.*  
A study of the origin, development and application of the principles of design in the field of typography. Special emphasis is on the selection and use of type and illustrations for printing layout.
- IA 241. COPY PREPARATION AND CAMERA PROCEDURES.** *Three hours credit.*  
Copy preparation for all the printing processes. Use of hot, cold, and photo type. Paste up procedures, camera techniques, and press production.
- IA 242. COLOR SEPARATION FOR PHOTOMECHANICAL REPRODUCTION.** *Three hours credit.*  
Fundamentals of subtractive color theory as used in separating color copy. Handling of transparent and reflection copy. Special proofing, plate making and press operation.
- IA 243. THEORY AND PRACTICE IN OFFSET LITHOGRAPHY.** *Three hours credit.*  
Includes copy preparation, camera and darkroom work, stripping and opaquing, plate making and offset press operation.
- IA 250. CONTEMPORARY FURNITURE DESIGN AND FABRICATION.** *Three hours credit.*  
A brief introduction of recognized periods of furniture design leading to the present concept of functionalism and the techniques of applying contemporary design.
- IA 254. ELEMENTARY SCHOOL INDUSTRIAL ARTS.** *Three hours credit.*  
Development of basic skills through elementary work in wood, metals, and other materials. Adaptation of work to classroom or small shops with limited equipment.
- IA 256. ADVANCED UPHOLSTERY.** *Two hours credit.*  
The use of special techniques and materials relating to upholstery. The study of upholstery and its place in the public school shop.
- IA 257. CONSTRUCTION PROBLEMS IN WOOD.** *Three hours credit.*  
For advanced woodworking students with special emphasis on construction problems relating to the building trades.
- IA 261. ARCHITECTURAL DRAWING.** *Three hours credit.*  
Deals with the planning and drawing of a complete set of building plans with specifications. Emphasis placed on principles, practices, and techniques of house construction.

**IA 262. MACHINE DRAWING.** *Three hours credit.*

Principles of designing machines. Materials, processes and procedures will be discussed. Such areas as limit and tolerance dimensions, types of fits, screw threads and fasteners, and cam and gear drawing are included.

**IA 264. INDUSTRIAL ARTS DESIGN.** *Three hours credit.*

Principles of design as they apply to the several areas of industrial arts.

**IA 270. ADVANCED GENERAL METALWORK.** *Three hours credit.*

An advanced study in bench metalwork, sheet metal work, forge and foundry work.

**IA 271. ADVANCED ART METAL.** *Three hours credit.*

An advanced study in art metal including experiences in metal tooling, etching, sinking, raising, enameling and spinning of aluminum, copper and brass.

**IA 272. ADVANCED WELDING.** *Three hours credit.*

The processes and principles of welding including oxy-acetylene, arc, TIG and MIG welding. Consideration given to principles of teaching, course content, welding supplies and equipment suitable for the teaching of welding at the secondary and junior college levels.

**IA 273. ADVANCED JEWELRY AND LAPIDARY WORK.** *Three hours credit.*

Designed to give advanced work in jewelry construction and silversmithing. Student experiences include work in design, lapidary, fabrication, and casting as it applies to jewelry.

**IA 274. MACHINE TOOL TECHNOLOGY.** *Two hours credit.*

The operation of machine tools including milling machines, grinding machines, engine lathes and turret lathes, including emphasis on testing and precision measurement.

**IA 275. ADVANCED MACHINE TOOL TECHNOLOGY.** *Three hours credit.*

The operation and maintenance of machine tools, precision measurement and metals testing techniques, and instructional methods applicable to the secondary and junior college levels.

**IA 281. PROBLEMS IN TEACHING GENERAL SHOP ELECTRICITY.**  
*Three hours credit.*

A course designed for industrial arts teachers who need to review and upgrade their understanding of modern developments in electronics. Emphasis also placed on laboratory organization and equipment problems related to the electronics area.

**IA 282. MOTORS, GENERATORS, AND ELECTRICAL WIRING.** *Two hours credit.*

Prerequisite, IA 281. A study of the fundamental types of DC and AC generators and motors used in electricity. Deals with construction, repair, and maintenance problems common to AC-DC motors and generators. Emphasis also placed on electronic measuring instruments and devices such as oscilloscopes, meter movements and other common test equipment.

**IA 283. ELECTRONIC HARDWARE AND COMPONENTS.** *Two hours credit.*

Prerequisite, IA 80. A study of the manufacture, application and function of electronic hardware and components used in industry. Vacuum tubes, transistors, coils, and capacitors are discussed.

**IA 284. ELECTRONIC CIRCUITRY.** *Three hours credit.*

Prerequisite, IA 283. A study of the basic electronic circuits used in industry and some common applications of each. Such circuits as power supplies, amplifiers, oscillators, transmitters and receivers are considered.

**IA 285. BASIC RADIO (AM-FM).** *Three hours credit.*

Prerequisite, IA 284. A study of the characteristics of the AM and FM radio and problems involved in servicing. The procedures, techniques, and problems of making and repairing printed circuits in electronic equipment are considered. Study of circuitry and alignment of AM-FM radio receivers and transmitters.

**IA 290. POWER FUNDAMENTALS.** *Three hours credit.*

An advanced study of energy sources and the machines that convert into useful work. Emphasis placed on two-cycle and four-cycle engines and their principles of operation.

**IA 291. EXTERNAL COMBUSTION ENGINES AND NUCLEAR POWER.** *Three hours credit.*

A study of reciprocating steam engines and steam turbines and their generating plants. Study will include the principles of operation, design, construction of the various steam engines and generating plants. Emphasis will also be placed on nuclear energy and its application to the generation of steam by means of the nuclear reactors.

**IA 292. REACTION ENGINES.** *Two hours credit.*

A study of the various continuous combustion engines. Study will include gas turbines, jets, and rocket engines. Emphasis will be placed on their principles of operation, design, and construction as well as their applications.

**IA 293. DIRECT ENERGY CONVERSION.** *Two hours credit.*

A study of the means of direct energy conversion and the possible applications of such devices. Emphasis placed on thermionics, thermodynamics, solar and photo cell operation, fuel cell, nuclear, and other exotic power generating systems.

**IA 294. TRANSMISSION OF POWER.** *Three hours credit.*

A study of the various methods of converting power into useful work. Study will include mechanical, hydraulic, and pneumatic transmission and the physical laws concerning this transmission. Emphasis will also be placed on mechanical drives, hydraulic and pneumatic circuits, pumps, valves, and other equipment used.

## INTERDISCIPLINARY COURSES

All Schools and Departments use these numbers with the prefix ID.

**ID 0200. AMERICAN SPEECH FOR FOREIGN STUDENTS.** *No hours credit. (\$10.00 fee required.)*

This course is designed for students who are using English as a secondary language. An evaluation will be made of each student's special needs. Emphasis will be centered on vocabulary, pronunciation, articulation, intonation, and rhythm of American speech.

**ID 51. SOPHOMORES HONORS SYMPOSIA FORUM I.** *One hour credit.*

A weekly lecture-discussion course offered during fall quarter and required of sophomore students participating in the Honors Program. Symposia are organized and planned around present-day issues in Education and the Arts and Sciences.

**ID 52. SOPHOMORE HONORS SYMPOSIA FORUM II.** *One hour credit.*

Prerequisite, ID 51. A weekly lecture-discussion course offered during winter quarter and required of sophomore students participating in the Honors Program. Symposia are organized and planned around present-day issues in Education and the Arts and Sciences.

**ID 53. SOPHOMORE HONORS SYMPOSIA FORUM III.** *One hour credit.*

Prerequisite, ID 52. A weekly lecture-discussion course offered during spring quarter and required of sophomore students participating in the Honors Program. Symposia are organized and planned around present-day issues in Education and the Arts and Sciences.

**\*ID 150. RACE, POVERTY, AND CHANGE IN URBAN AMERICA.** *Three hours credit.*

This course is presented by the departments of Anthropology, Economics, Geography, Political Science, and Sociology introducing concepts relative to urban spatial structure, its uses, economics, dynamics, and political organization, and the sociological and biological concepts of race.

**ID 151. JUNIOR HONORS PROJECT.** *One hour credit.*

In the junior year, each honor student enrolls in a Junior Honors Project in his major. The aim of the course is to increase the student's familiarity with the literature of his field and/or the current issues in his field. The division concerned may assign the student to an individual professor or to a seminar group conducted by one or more professors. Students will sign up for ID 151 during the first, second, and third quarters of their junior year. A final grade will be recorded when the three credit hours of work has been completed.

**\*ID 175. HUMAN AND RACE RELATIONS.** *Four hours credit.*

This course is designed to contribute to an awareness on the part of the student of racial and social relationships in the United States. The course is geared to five topical divisions: Historical, Economic, Social, Psychological and Moral-Ethical. An interdisciplinary approach is utilized and the course is team taught. No prerequisites. Required for graduation.

**ID 222. INDIVIDUAL STUDIES.** *Maximum of four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

**ID 222. PRACTICUM IN OUTWARD BOUND.** *Ten hours credit.*

This field course is designed to acquaint teachers with the broad Outward Bound program. Emphasis will be placed on the philosophical, psychological, sociological, and educational aspects of the program. Extensive first hand experiences will be provided for graduate students to study and participate with high school and college students.

**ID 222. REMOTE TRAINING OF EARLY CHILDHOOD EDUCATORS.**

*Variable credit to five hours. (NDEA Institute)*

Administered by the Child Institute, this course is an interdisciplinary approach to training educators of disadvantaged children while in their school setting. At least sixteen learning episodes are modeled and generated during three quarters. Continuous dialogue is maintained by onsite visits, telelectures, films, videotaped lessons (microtraining), and written materials.

**ID 251. SENIOR HONORS PROJECT.** *One hour credit.*

In the senior year, each honor student enrolls in a Senior Honors Project under the direction of a professor of his own choosing. The student and the professor will decide upon an individual subject or project for study, the result of which shall be an acceptable written report. Students signed up for ID 251 during their senior year will receive three hours credit upon completion of their research project.

## INTERDISCIPLINARY STUDIES IN VOCATIONAL EDUCATION

**IDVE 200. DIRECTED OCCUPATIONAL EXPERIENCE.** *Maximum of eight hours credit.*

Work experience is required for vocational credentials. Credit can be received for approved and/or supervised occupational experience related to the student's major area. The credits are registered after the work has been completed satisfactorily. For additional information see the Coordinator of Occupational Experiences.

**IDVE 210. FOUNDATIONS OF VOCATIONAL EDUCATION. (ATE) Three hours credit.**

**Prerequisites:** The student must have reached ATE standing. This is a required course for all vocational teachers, counselors, and administrators in Colorado. The course was formerly called EDCI 249 "Principles of Vocational Education." The course is a study of the development of vocational-technical education, legislation, state policies, programs, and recent developments in the total field of occupational education and training. The course must be taken before a student may enroll for other vocational courses.

**IDVE 220. COOPERATIVE EDUCATION AND COORDINATION TECHNIQUES.** *Three hours credit.*

Prerequisites, IDVE 210. This required course for vocational teachers provides the student with an analysis of coordinated work experience programs and describes the specific duties of a teacher-coordinator. Actual problems encountered in coordinating the school program with on-the-job experiences are elucidated.

**IDVE 230. OCCUPATIONAL ANALYSIS AND PROGRAM DEVELOPMENT.** *Three or five hours credit.*

Prerequisites, IDVE 210, a senior (ATE) or graduate student. This required course for vocational education teachers briefly explores the methods of analyzing an occupation for the purpose of determining instructional units. Students are introduced to a career development learning system design which is applicable to group instruction as well as individualized instruction. The student develops a job-task instructional unit for a specific occupation. Students taking the course for 5 credits prepare, develop, and demonstrate a multimedia occupational learning pack.

**IDVE 240. ADULT VOCATIONAL EDUCATION.** *Three hours credit.*

Prerequisites, IDVE 210. The course includes a brief overview of the history of adult education, the relationship of basic education and vocational training, curriculum development for specific adult programs, special funded adult training programs in the State of Colorado, field trips to observe post-secondary/community college training programs, seminars with community leaders to discover the resources available for planning adult education; and an opportunity to explore interdisciplinary occupational training possibilities.

**IDVE 250. VOCATIONAL EDUCATION FOR LEARNERS WITH SPECIAL NEEDS.** *Three hours credit.*

Prerequisites, IDVE 210. Recommended for seniors and graduate students. The purpose of this course is to seek ways for teachers and administrators to initiate new vocational education programs for learners often classified as the "disadvantaged" or those students described by the Vocational Education Acts of 1963 and 1968 as "students with special needs." These are students who have academic, socio-economic, or other handicaps which prevent them from succeeding in vocational education programs. The rationale for special programs in vocational education, field experiences, and program development are important aspects of this course.

**IDVE 270. INDIVIDUAL STUDIES IN VOCATIONAL EDUCATION.** *Maximum of four hours credit.*

Qualified students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the Dean of the Graduate School. (Offered by arrangement)

## ITALIAN

**\*ITAL 1. ELEMENTARY ITALIAN I.** *Five hours credit.*

Credit is not given until three quarters are completed. Introduction to idiomatic spoken and written Italian by means of vocabulary learning and the study of the structure of Italian. Class activities regarding grammar and cultural readings are limited realistically to spoken and written Italian. Audio and phonetic laboratory aids will be used to the extent that they may benefit the student's pronunciation and accurate fluency.

**\*ITAL 2. ELEMENTARY ITALIAN II.** *Five hours credit.*

Credit is not given until three quarters are completed. A continuation of ITAL 1.

**\*ITAL 3. ELEMENTARY ITALIAN III.** *Five hours credit.*

Credit is not given until three quarters are completed. A continuation of ITAL 2.

## JOURNALISM

**JOUR 95. INTRODUCTION TO JOURNALISM.** *Two hours credit.*  
Orientation and analysis of the American mass media of newspapers, radio-television, magazines, and book publishing, as well as the related areas of advertising, public relations, communications research, and teaching.

**\*JOUR 96. NEWSWRITING.** *Three hours credit.*  
Principles and practice in gathering, writing, and editing news and short feature articles; based both on commercial and educational news sources.

**\*JOUR 97. ADVANCED NEWSWRITING.** *Three hours credit.*  
**Prerequisite,** JOUR 96. Principles and practice in writing and editing news from assignment and beats; writing editorials; use of both commercial and educational news sources.

**JOUR 106. JOURNALISM INTERNSHIP.** *Maximum of six quarters, one hour credit per quarter.*

Practical experience, designed for knowledge basic to the journalist or journalism teacher adviser; laboratory work in one or more of these areas: newspaper, year-book, radio, publications for school and industry, photography, news service, and sponsorship of school publications, public relations, and advertising.

**JOUR 150. EDITING AND LAYOUT.** *Four hours credit.*  
Principles and practice in editing copy for print, picture editing, writing headlines, layout for printed publications, management of news flow, use of editorial judgment; lecture and laboratory.

**\*JOUR 197. FEATURE AND DEPTH WRITING FOR NEWSPAPERS.** *Two hours credit.*  
Analyzing, researching, and writing the longer feature and interpretive articles, with emphasis on current subjects usable in the local press.

**JOUR 201. METHODS OF TEACHING JOURNALISM IN THE SECONDARY SCHOOL.** (ATE) *Three hours credit.*  
Instruction in advising the preparation and publication of school newspapers and in teaching scholastic journalism.

**JOUR 205. WORKSHOP FOR SCHOOL PUBLICATION SPONSORS.** (ATE) *Three hours credit.*  
Acquaint students with role of publications as media for internal and external publics; study and experience procedures of doing school newspapers, annuals, handbooks, and radio programs.

**\*JOUR 244. COMMUNITY RELATIONS.** *Three hours credit.*  
This course presents a view of community relations which is based on the concept of changing institutions in a changing society. It examines the communicative, sociological, and psychological factors which create and influence public and personal opinion. It shows how skills and techniques may be developed and utilized in a sound community relations program.

**\*JOUR 297. MASTER JOURNALISTS AND THEIR TIMES.** *Three hours credit.*  
A concentration on the great American and British journalists, emphasizing their writings, standards of journalism, and their contributions to journalism and to society.

**\*JOUR 298. ETHICS AND LIBEL.** *Three hours credit.*  
Study of current ethical and legal problems of the printed and broadcast media; designed for the newsman, publisher-manager, school administrator, and journalism teacher.

**\*JOUR 299. THE PRESS AND CURRENT AFFAIRS.** *Three hours credit.*  
Examination of criticisms of the American print and broadcasting press, the ways the press covers and comments on current domestic and foreign news, and the influence of the media and top journalists on public affairs.

## LATIN

**\*LAT 1. ELEMENTARY LATIN I.** *Five hours credit.*

Credit is not given until three quarters are completed. A foundation course for the further study of Latin literature with abundant drill in inflections and syntax and a terminal course for students who wish Latin as a background for the study of other languages or for the professions, with emphasis on vocabulary, word derivations and comparative grammar.

**\*LAT 2. ELEMENTARY LATIN II.** *Five hours credit.*

Credit is not given until three quarters are completed. A continuation of LAT 1.

**\*LAT 3. ELEMENTARY LATIN III.** *Five hours credit.*

Credit is not given until three quarters are completed. A continuation of LAT 2.

**\*LAT 5. INTERMEDIATE LATIN I.** *Four hours credit.*

Prerequisite, two years of high school Latin or one year of college Latin. Reading of Latin prose and poetry of intermediate difficulty, accompanied by a review of grammar, exercises in composition, and an introduction to the system of Latin versification. (Given when there is sufficient demand.)

**\*LAT 6. INTERMEDIATE LATIN II.** *Four hours credit.*

Prerequisite, two years of high school Latin or one year of college Latin. Reading of Latin prose and poetry of intermediate difficulty, accompanied by a review of grammar, exercises in composition, and an introduction to the system of Latin versification. (Given when there is sufficient demand.)

**\*LAT 7. INTERMEDIATE LATIN III.** *Four hours credit.*

Prerequisite, two years of high school Latin or one year of college Latin. Reading of Latin prose and poetry of intermediate difficulty, accompanied by a review of grammar, exercise in composition, and an introduction to the system of Latin versification.

## MATHEMATICS

**\*MATH 1. BASIC MATHEMATICS I.** *Three hours credit.*

The first of a two-course sequence presenting arithmetic and algebra from a modern approach. Topics include the natural numbers, integers, rational numbers, real numbers, relations, functions, and equations. Emphasis will be placed upon understanding mathematical structures and in solving problems.

**\*MATH 2. BASIC MATHEMATICS II.** *Three hours credit.*

Prerequisite, MATH 1. A continuation of MATH 1.

**\*MATH 3. INFORMAL GEOMETRY.** *Three hours credit.*

Basic concepts of plane and solid geometry including points, lines, angles, planes, solids, congruence, similarity, parallelism, areas, volumes, polygons, and circles.

**MATH 10. ELEMENTARY SLIDE RULE.** *One hour credit.*

Principles of operation of the slide rule and illustrations of its application to problem solving in the physical sciences are covered.

**\*MATH 15. EXPLORING MATHEMATICAL IDEAS I.** *Three hours credit.*

Prerequisite, Two years of high school algebra and one year of geometry. The student is helped to explore intuitively, ideas from different areas of mathematics. The areas to be considered include set notation and language, logic, calculus, probability, linear algebra, linear programming, modern algebra, and computers.

**\*MATH 16. EXPLORING MATHEMATICAL IDEAS II.** *Three hours credit.*

Prerequisite, MATH 15. The student is helped to explore intuitively, ideas from different areas of mathematics. The areas to be considered include set notation and language, logic, calculus, probability, linear algebra, linear programming, modern algebra, and computers.

**MATH 23. INTERMEDIATE ALGEBRA.** *Five hours credit.*

Prerequisites, one year of high school algebra and one year of high school geometry. This is a course in algebra covering the elementary concepts of algebra through quadratic equations. Emphasis is placed on the function concept. Systems of linear equations are considered.

**MATH 24. COLLEGE ALGEBRA.** *Five hours credit.*

Prerequisite, MATH 23 or a full year of modern, second-year high school algebra. This course is basically a treatment of quadratic, exponential, and logarithmic functions. The systems of integers, rational numbers, real numbers, and complex numbers are included. Some topics from matrices and the theory of equations are included.

**MATH 25. PLANE TRIGONOMETRY.** *Five hours credit.*

Prerequisite, MATH 24. A combined course in analytic geometry and calculus. Emphasizes the circular functions and their applications. The inverse trigonometric functions and trigonometric identities are emphasized. Complex numbers are covered through DeMoivre's theorem.

**\*MATH 31. CALCULUS WITH ANALYTIC GEOMETRY I.** *Five hours credit.*

Prerequisite, MATH 25. A combined course in analytic geometry and calculus. Fundamental principles of beginning analytic geometry including different forms of the equations of a straight line are developed. Elementary phases of both differential and integral calculus, along with various applications of these subjects are considered.

**\*MATH 32. CALCULUS WITH ANALYTIC GEOMETRY II.** *Four hours credit.*

Prerequisite, MATH 31. A continuation of MATH 31 of differential and integral calculus combined with analytic geometry, together with applications from all three fields. Special emphasis in calculus on transcendental functions and analytic geometry of conic sections.

**\*MATH 33. CALCULUS WITH ANALYTIC GEOMETRY III.** *Four hours credit.*

Prerequisite, MATH 32. The last course in the sequence of courses in analytic geometry and calculus. Vectors in a plane, formulas and methods of integration and applications of integration are the main topics covered.

**\*MATH 34. CALCULUS WITH ANALYTIC GEOMETRY IV.** *Four hours credit.*

Prerequisite, MATH 33. Vector analysis in three dimensions. Applications of the calculus to physics, economics, business, etc.

**MATH 101. BASIC MATHEMATICAL LOGIC.** *Three hours credit.*

Prerequisite, MATH 32. A course designed to introduce the student to those tools and techniques of logic as applied to mathematics. Introduces terminology and basic form of logic along with concepts of truth value. Statement calculus and treatment of proof discussed. The restricted predicate calculus is analyzed and applications to mathematics are discussed.

**MATH 102. THEORY OF SETS.** *Three hours credit.*

Prerequisite, MATH 32. An introduction to the theory of sets from an axiomatic point of view. Topics included are properties of sets, relations, functions, finite and infinite sets, cardinal and ordinal numbers.

**MATH 122. INTRODUCTION TO MODERN ALGEBRA I.** *Four hours credit.*

Prerequisite, MATH 32. An introduction to basic topics in modern algebra including vector spaces, matrices, polynomials and general algebraic structures. Stress is placed on the characteristics of algebraic systems.

**MATH 123. INTRODUCTION TO MODERN ALGEBRA II.** *Four hours credit.*

Prerequisite, MATH 122. A continuation of MATH 122.



**MATH 125. MATRIX ALGEBRA.** *Four hours credit.*

Prerequisite, MATH 32. Students of this course will learn of the notation and terminology of matrices as well as the formal algebra, interpretation, and applications of matrices.

**MATH 141. INTRODUCTION TO MODERN GEOMETRY I.** *Four hours credit.*

Prerequisite, MATH 32. A course designed to prepare the prospective teacher of high school geometry in the way the subject matter will be covered in a modern course. The structure of geometry will be emphasized through the axiomatic approach. The basic ideas of points, lines and planes will be given along with primitive concepts and axioms needed to structure the geometry rigorously. Topics such as separation on curves and surfaces, congruence, measure, and parallelism will be covered.

**MATH 142. INTRODUCTION TO MODERN GEOMETRY II.** *Four hours credit.*

Prerequisite, MATH 141. A course which will give the prospective teacher of high school geometry an extension into the field of geometry beyond high school scope. Areas covered include constructions, use of loci in plane geometry and the theorems of Ceva, Menelaus, Stewart, Euler, and Ptolemy.

**MATH 150. ELEMENTARY PROBABILITY THEORY.** *Four hours credit.*

Prerequisites, MATH 33, 102. Discrete and continuous probability, conditional probability, Bayes theorem; one dimensional random variables and the expected values of random variables; Bernoulli, binomial, Poisson, geometric, hypergeometric and multinomial probability laws; probability distributions of uniform, normal, exponential, Gamma and Chi-squared type random variables.

**\*MATH 190. MATHEMATICS SEMINAR.** *One hour credit. (Maximum six hours credit.)*

Prerequisite, Admission to the Honors Program of Colorado State College, the recommendation of the Department of Mathematics (given only after application), and upper division standing. The objective of this course is the study and discussion of topics in mathematics which complement or supplement the content of the undergraduate curriculum in mathematics or the teaching of mathematics.

**MATH 203. STRUCTURE OF NUMBERS.** *Three hours credit.*

Prerequisite, MATH 32. A rigorous development of the real and complex numbers. Beginning with Peano's axioms for natural numbers, the integers are developed by extension. The rational and real number systems are then obtained as successive extensions. Complex numbers are structured from pairs of real numbers. The nature of isomorphism is stressed.

**MATH 205. MATHEMATICS OF FINANCE.** *Five hours credit.*

Prerequisite, MATH 23. This course offers the student an opportunity to apply his elementary mathematics of arithmetic and algebra to problems of business. Such topics as simple and compound interest, annuities, installment buying, and life insurance are considered.

**MATH 221. MODERN ALGEBRA I.** *Three hours credit.*

Prerequisite, MATH 123 or equivalent. A study of modern abstract algebra with emphasis on the theory of mappings and the theory of groups.

**MATH 222. MODERN ALGEBRA II.** *Three hours credit.*

Prerequisite, MATH 221 or equivalent. A study of modern abstract algebra with emphasis on the theory of rings, ideals, and polynomial rings.

**MATH 223. MODERN ALGEBRA III.** *Three hours credit.*

Prerequisite, MATH 222 or equivalent. A continuation of MATH 222 with emphasis on extension fields, Galois Theory, vector spaces and other selected topics in modern algebra.

**MATH 225. LINEAR ALGEBRA.** *Four hours credit.*

Prerequisite, MATH 122. A further treatment of linear algebra, based on the first work of modern algebra. The course will complement the study of Matrices in MATH 125, Matrix Algebra. The content includes a study of vector spaces, linear transformations, and characteristic roots.

**MATH 230. DIFFERENTIAL EQUATIONS I.** *Five hours credit.*

Prerequisite, MATH 34 or taken concurrently. A study of the theory and solution of differential equations. Ordinary and partial differential equations are treated along with numerous applications.

**MATH 231. DIFFERENTIAL EQUATIONS II.** *Five hours credit.*

Prerequisite, MATH 230. A continuation of MATH 230. Topics to be covered include series solutions of differential equations, systems of equations, partial differential equations, Fourier series and boundary value problems.

**MATH 232. ADVANCED CALCULUS I.** *Four hours credit.*

Prerequisite, MATH 34. The first course of a sequence of three courses which will extend the student of calculus and analysis into the mathematical rigor and logic of analysis. This course will cover the following topics: real numbers developed through the Dedekind cut definition, some introductory topological topics, limits, continuity, differentiability, and Riemann integral.

**MATH 233. ADVANCED CALCULUS II.** *Four hours credit.*

Prerequisite, MATH 232. A second course in a sequence of three courses. The topics to be covered in this course will be as follows: sequences and series, functions of several real variables and integrals of functions of several variables.

**MATH 234. ADVANCED CALCULUS III.** *Four hours credit.*

Prerequisite, MATH 233. The third course in a sequence of three courses. From the background built up in the first two courses, this course will consider certain special topics of application. Some of the topics to be considered will be chosen from the following: implicit functions; applications to geometry; the gamma and beta functions; line, surface, and space integrals; vector notation; Bessel functions; elliptic integrals.

**MATH 235. INTRODUCTORY ANALYSIS I.** *Four hours credit.*

Prerequisite, MATH 34. The first course of a sequence of three courses designed to study the foundations of analysis. The sequence will include the following topics: the real numbers, basic point set topology, theorems on continuity, differentiation and integration, sequences and series of functions, the inverse and implicit function theorems. The sequence of courses is especially recommended for those students intending to do graduate work in mathematics.

**MATH 236. INTRODUCTORY ANALYSIS II.** *Four hours credit.*

Prerequisite, MATH 235. Continuation of MATH 235.

**MATH 237. INTRODUCTORY ANALYSIS III.** *Four hours credit.*

Prerequisite, MATH 236. Continuation of MATH 236.

**MATH 240. INTRODUCTION TO TOPOLOGY.** *Four hours credit.*

Prerequisites, MATH 102, 34. Elementary point set topology. General topological spaces with emphasis on metric spaces.

**MATH 251. INTRODUCTION TO MATHEMATICAL STATISTICS I.** *Four hours credit.*

Prerequisite, MATH 150. Distributions of discrete and continuous random variables; moments and moment generating functions; marginal and conditional distributions; distributions of functions of random variables; t, F, and Chi-square distributions.

**MATH 252. INTRODUCTION TO MATHEMATICAL STATISTICS II.** *Four hours credit.*

Prerequisite, MATH 251. Interval estimation; point estimation and maximum likelihood procedures; distributions of order statistics, stochastic convergence, central limit theorem and limiting distribution theory; sufficient statistics and completeness property.

**MATH 253. INTRODUCTION TO MATHEMATICAL STATISTICS III.***Four hours credit.*Prerequisite, MATH 252. Tests of hypotheses, analysis of variance, non-central  $t$ ,  $F$ , and Chi-square distributions, multivariate normal distribution.**MATH 255. PROBABILITY THEORY.** *Four hours credit.*

Prerequisite, MATH 150. Chebyshev's inequality, laws of large numbers, sums of independent random variables, central limit theorem, sequence of random variables, different modes of convergence, and probability generating functions.

**MATH 256. AN INTRODUCTION TO STOCHASTIC PROCESSES.** *Four hours credit.*

Prerequisite, MATH 255. Definition of stochastic processes, probability laws of stochastic processes, Weiner process, Poisson process, covariance stationary process and Markov chain.

**MATH 280. COMPUTER PROGRAMMING.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, MATH 24. This is a course in computer programming designed for mathematics students in the arts and sciences and in the teaching professions. Topics will include arithmetic, specification, control and input-output statements, along with subroutine arrangements. Laboratory work will consist of the Fortran programming of select mathematical problems, chosen for their applicability to the secondary classroom and to the field of elementary numerical analysis. The Colorado State College IBM 360 computer system will be used for programming and operational purposes.

**MATH 281. COMPUTER MATHEMATICS I.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, MATH 34. An introduction to basic computer mathematics, including computer arithmetic, Boolean equations, arithmetic design criteria and programming routines. Stress will be placed on teaching computer methods for use in the junior and senior high schools. Laboratory work will consist of Fortran programming with application to computers.

**MATH 282. COMPUTER MATHEMATICS II.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, MATH 281. This is a continuation of MATH 281 designed to give teachers of high school and junior college mathematics a solid background in programming fundamentals, computer logic and computer systems analysis. Two hours laboratory per week will be directed toward programming Colorado State College computers and computers at outside installations.

**MATH 283. COMPUTER MATHEMATICS III.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, MATH 282. This is a continuation of MATH 282, stressing applications of FORTRAN and ALGOL to mathematical problems. Both numerical and non-numerical applications will be covered. Language translators and compilers and assemblies will be covered as will the mathematics and logic of computer arithmetic units. The final goal of the three courses is to give teachers of mathematics a confidence in computer technology.

**MATH 290. FOUNDATIONS OF ARITHMETIC.** *Three hours credit.*

Designed to provide opportunity for elementary and junior high teachers and supervisors to acquire the understandings of arithmetic essential for effective teaching. Areas to be covered include the structure of our number system and operations in it, special numbers.

**MATH 291. THEORY OF NUMBERS.** *Five hours credit.*

Prerequisite, MATH 122. Foundations of arithmetic and algebra, including the fundamental laws, the linear Diophantine equation, properties of integers and the properties of linear and quadratic congruences.

## MATHEMATICS EDUCATION

### **MED 170. MATHEMATICAL INSTRUMENTS AND SURVEYING.** *Four hours credit.*

Prerequisite, MATH 25. A course designed to show the teacher of mathematics some of the techniques and instruments used in many of the practical problems of measurement. Instruments studied are the slide rule, the sextant, and various instruments used in land surveying.

### **MED 264. HISTORY OF MATHEMATICS I.** *Three hours credit.*

Prerequisite, MATH 122 or 141. A general view of the development of mathematics through the 18th century. Particular attention is given to the history of arithmetic, algebra, geometry, and mathematical symbolism.

### **MED 271. INSTRUCTIONAL MATERIALS IN SECONDARY SCHOOL MATHEMATICS.** *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisite, MATH 31. This course introduces the student into the rich areas of possible sources of instructional materials which can be used for instructional purposes in the secondary school. Areas studied will include aesthetic values of mathematics, instructional models, historical materials, classroom equipment, recreational materials, and calculating devices.

### **MED 277. MATHEMATICS TEACHERS' WORKSHOP.** *Three hours credit. (Maximum eighteen hours credit.)*

Provision is made for students to work on problems related to elementary, junior high, senior high, or junior college mathematics. No more than nine hours may be applied on any one graduate degree.

## MEDICAL TECHNOLOGY

This major is administered by the Department of Chemistry.

These courses are open only to majors in Medical Technology.

### **MTEC 250. URINALYSIS AND CLINICAL MICROSCOPY.** *Three hours credit.*

This is a fundamental course in urinalysis covering the characteristics of urine, qualitative tests for sugars, ketone (or acetone) bodies, and protein, quantitative tests for sugars and protein, and microscopic examination of urine. Kidney function tests, other chemical tests, pregnancy tests and tests on gastric and duodenal contents are included.

### **MTEC 251. BASAL METABOLISM AND ELECTROCARDIOGRAPHY.** *One hour credit.*

This course covers the principles and techniques of determining the basal metabolic rate and the theory and technique of electrocardiography.

### **MTEC 252. HEMATOLOGY.** *Nine hours credit.*

This course covers the methods of obtaining blood, determination of hemoglobin, red and white blood cell counts, hematocrit, study of blood smears, platelet count, reticulocyte count, coagulation, clot retraction, bleeding and prothrombin time, direct eosinophile count, fragility of erythrocytes, sedimentation rate of erythrocytes and bone marrow smears preparation and study.

### **MTEC 253. PRETRANSFUSION TESTS AND BLOOD BANK PROCEDURES.** *Five hours credit.*

This course covers selection and pretesting of donors, copper sulphate method of determining minimum hemoglobin, bleeding of donors, basic theory of blood factors, ABO grouping tests, Rh factor and Rho, (D) typing, cross-matching tests, subgroups A, irregular agglutinins, cold agglutinins, transfusion reactions, emergency transfusions, Rh antibody tests, and Coombs' test.

**MTEC 254. CLINICAL CHEMISTRY.** *Thirteen hours credit.*

Urine, cerebrospinal fluid, feces and other biologic materials are examined. Preparation of reagents and protein-free filtrates are studied. Colorimetry and photometry chemical tests include blood-sugar, nonprotein nitrogen, urea nitrogen, creatinine, creatine, uric acid, albumin, globulin, acid-base balance, carbon dioxide capacity, chloride, phosphorus, phosphatases, calcium, sodium, potassium, liver function.

**MTEC 255. SEROLOGY.** *Three hours credit.*

Principles of serology and immunology, the Kahn test, other flocculation and precipitation tests, colloidal gold and mastic tests, the complement fixation reaction, agglutination and opsonocytotoxic tests, cold agglutinins are studied.

**MTEC 256. MEDICAL MICROBIOLOGY.** *Twelve hours credit.*

Culture mediums, sterilization and disinfection, morphology and physiology of bacteria, stains, classification, relation of parasites to disease, techniques for parasitologic examinations, vaccines and filtrates, filtrable viruses, mycology techniques, the superficial fungi, and the deep mycotic infections are studied.

**MTEC 257. HISTOLOGIC TECHNIQUE.** *Two hours credit.*

Fixation and hardening of tissue, clearing of tissues, paraffin infiltration and blocking of tissue, sharpening of microtome knife, sectioning of tissue and preparation of sections for staining, routine staining technique, decalcification, frozen sections, special or differential staining methods, histochemistry, technique of exfoliative cytology are studied.

## METEOROLOGY

Courses in meteorology are administered by the Department of Earth Sciences.

**MET 181. PRINCIPLES OF METEOROLGY I.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

A study of the weather factors of temperature, pressure, humidity, and air movements at the surface and aloft. There will be discussion of traditional and modern meteorological instruments and the principles of their operation. Discussions of condensation processes, study of thermodynamic charts, and consideration of general atmospheric circulation will comprise the major portion of the course. Laboratory will be required for work with meteorological instruments, plotting and interpretation of various weather charts and maps. Students cannot receive credit for both MET 181 and 186.

**MET 182. PRINCIPLES OF METEOROLOGY II.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, MET 181. Topics dealt with in this course involve an understanding of principles and topics developed in MET 181. Air masses and fronts, special atmospheric storms, weather analysis and forecasting, upper atmospheric problems, and relationships with aviation and space flight will be considered.

**\*MET 186. GENERAL METEOROLOGY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

This is a basic course in meteorology for non-earth science majors. The course deals with general information on weather observation, circulation of the atmosphere, condensation and precipitation, and climate. It is designed to present an overview of the field of meteorology and its relationships to aviation, commerce, and health. The course will fulfill the general education requirement in earth science.

**MET 280. SURVEY OF METEOROLOGY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

This course will consider the basic principles of atmospheric science with a non-mathematical approach. Topics of weather observation and prediction, physical basis for cloud formation, radiational heating and cooling, wind circulation, condensation and precipitation processes will be considered. A laboratory of three hours per week will be required for work with meteorological instruments, maps, and charts. Projects will be required. Arranged primarily for graduate students. Offered summers only.

**\*MET 282. CLIMATOLOGY.** *Three hours credit.*

Prerequisite, MET 182 or 186. A study of the meteorological basis of climate, nature and origin of the atmosphere, and classifications of world climates. Specific attention will be given to climates of Colorado and surrounding western states. Relationships of climate to water resources, agriculture, housing, transportation, and other human activities will be studied.

**MET 284. PHYSICAL METEOROLOGY.** *Three hours credit.*

Prerequisite, MET 182 or 186. A study of radiation processes, the thermodynamics of moist air, condensation, and precipitation. Attention given to severe weather phenomena associated with precipitation processes. Study of adiabatic diagrams and other pressure-height-temperature charts. Discussion of air masses, cyclones and anticyclones, fronts and frontogenesis.

**MET 286. SYNOPTIC METEOROLOGY.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, MET 181, 284. A study of the fundamental topics of synoptic meteorology, such as air mass development, fronts and frontogenesis, cyclones and anticyclones, long- and short-waves in the atmosphere, the jet stream, and the vertical structure of the atmosphere. Elementary analysis and forecasting exercises in the laboratory will apply these topics to actual weather situations. Maps and charts of the U.S. Weather Bureau will be considered.

**MET 287. SEVERE WEATHER PHENOMENA.** *Three hours credit.*

Prerequisite, MET 182. A study of the development and structure of thunderstorms, squall lines, tornadoes, and hurricanes.

**MET 290. PHYSICAL AND METEOROLOGICAL BASIS OF EARTH SCIENCE.** *Three hours credit. (NSF In-Service Institute.)*

The physical and meteorological basis of Earth Science will be investigated through the media of contemporary curriculum materials. The student will learn basic principles pertaining to density, gravity, energy, motion, force, air motions, water in air, and climatology.

## MUSIC

**MUS 1. SIGHT-SINGING AND THEORY I.** *Four hours credit.*

Sight-reading of standard music materials, pitch and rhythmic dictation, symbols of music notation, staff, clefs, scale construction in major and minor keys, and intervals. Class meets for four days plus a fifth day of keyboard lab.

**MUS 2. SIGHT-SINGING AND THEORY II.** *Four hours credit.*

Prerequisite, MUS 1. Continuation of sight-reading, ear training, and dictation; elementary theory to include study of intervals and inversions, triads and inversions, construction of principal and secondary chords, melody writing, and elementary form study. Class meets for four days plus a fifth day of keyboard lab.

**MUS 3. SIGHT-SINGING AND THEORY III.** *Four hours credit.*

Prerequisites, MUS 1 and 2. Continuation of sight-reading, ear training and dictation; chords of seventh and ninth, cadences, analysis, and ear training of standard harmonic materials. Class meets for four days plus fifth day of keyboard lab.

**MUS 10. BEGINNING CLASS PIANO I.** *One hour credit.*

This is a course designed to fit the needs of the music major who does not have a background in piano. This includes reading skills, technique, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

**MUS 11. BEGINNING CLASS PIANO II.** *One hour credit.*

This is a course designed to fit the needs of the music major who does not have a background in piano. This includes reading skills, technique, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

**MUS 12. BEGINNING CLASS PIANO III. *One hour credit.***

This is a course designed to fit the needs of the music major who does not have a background in piano. This includes reading skills, technique, and style necessary to the playing of simple accompaniments, community songs and other piano music.

**MUS 13. BEGINNING STRING INSTRUCTION I. *One hour credit.***

A study, through performance, of the problems of string playing and the available literature for teaching in heterogeneous and homogeneous groups so that the student will be able, upon graduation, to establish string classes with full knowledge of the problems of string playing and their solution.

**MUS 14. BEGINNING STRING INSTRUCTION II. *One hour credit.***

A study, through performance, of the problems of string playing and the available literature for teaching classes in heterogeneous and homogeneous groups so that the student will be able, upon graduation, to establish string classes with full knowledge of the problems of string playing and their solution.

**MUS 15. BEGINNING STRING INSTRUCTION III. *One hour credit.***

A study, through performance, of the problems of string playing and the available literature for teaching classes in heterogeneous and homogeneous groups so that the student will be able, upon graduation, to establish string classes with full knowledge of the problems of string playing and their solution.

**MUS 20. INTERMEDIATE CLASS PIANO I. *One hour credit.***

This is a course in functional piano designed to fit the needs of the music major who has a slight background in piano. In this course is included the teaching of reading skills, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

**MUS 21. INTERMEDIATE CLASS PIANO II. *One hour credit.***

This is a course in functional piano designed to fit the needs of the music major who has a slight background in piano. In this course is included the teaching of reading skills, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

**MUS 22. INTERMEDIATE CLASS PIANO III. *One hour credit.***

This is a course in functional piano designed to fit the needs of the music major who has a slight background in piano. In this course is included the teaching of reading skills, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

**MUS 40. INTRODUCTION TO MUSIC EDUCATION I. *Two hours credit.***

Prerequisite, MUS 3. An introduction course for prospective teachers of music covering the place of music in the school program, recent trends in school music, the qualifications of the music teacher, and a consideration of beginning instructional problems. For music majors only.

**MUS 41. INTRODUCTION TO MUSIC EDUCATION II. *Two hours credit.***

Prerequisite, MUS 40. A continuation of MUS 40. Methods and materials for the teaching of singing, music reading and related skills, music listening, and rhythm in the public school music program. For music majors only.

**MUS 42. INTRODUCTION TO MUSIC EDUCATION III. *Two hours credit.***

Prerequisite, MUS 41. A continuation of MUS 41. A study of lesson planning, and classroom techniques in the teaching of music reading, appreciation, creative music, music listening, and rhythm. Techniques in conducting high school music activities. For music majors only.

**\*MUS 48. MUSIC APPRECIATION. *Two hours credit.***

A non-technical course aiming to increase the enjoyment and appreciation of music by the listener with little or no previous background. This course will be devoted largely to listening and discussion of the assigned listening.

**\*MUS 49. MUSIC FUNDAMENTALS I.** *Two hours credit.*

A comprehensive study of the rudiments of music. Practice is given in simple ear training, music writing through dictation, rhythm work, syllable reading, and group singing. For non-music majors.

**\*MUS 50. MUSIC FUNDAMENTALS II.** *Three hours credit.*

This course takes up the study of (1) primary and secondary chords in relationship to sight singing in unison and part singing, playing chordal accompaniments on instruments, and creative composition; (2) singing, playing, and creating rhythmic patterns; and (3) expressive conducting of songs.

**MUS 51. MUSIC FUNDAMENTALS FOR DANCERS.** *Two hours credit.*

A course designed to present the fundamentals of melody, rhythm, form, harmony, and styles in music with special emphasis on the relations of dance and music. Practical application of the above will be stressed. For the dance minor and non-music major.

**MUS 52. ADVANCED SIGHT-SINGING AND THEORY I.** *Three hours credit.*

Prerequisite, MUS. 3. A continuation of the work begun in Music 1, 2, 3. Written work will include cadences, inversions, diatonic modulations and all non-harmonic tones. Keyboards labs, harmonic dictation, and written theory will be correlated. Class meets three days a week plus one-half hour keyboard lab.

**MUS 53. ADVANCED SIGHT-SINGING AND THEORY II.** *Three hours credit.*

Prerequisite, MUS 52. A continuation of Music 52 to include written and aural work in seventh chords, altered chords, and chromatic modulation. Class meets three days a week plus one-half hour keyboard lab.

**MUS 54. ADVANCED SIGHT-SINGING AND THEORY III.** *Three hours credit.*

Prerequisite, MUS 53. A continuation of Music 53, but primary emphasis in the written work will be placed upon studies of 20th century techniques, with student compositions performed and evaluated in class. Class meets three days a week plus one-half hour keyboard lab.

**\*MUS 58. MUSIC LITERATURE AND STYLES I.** *Two hours credit.*

The twofold purpose of this course is to foster an appreciation for the best in music and to provide the student with basic music information in the fields of media, terminology, chronology, biography, repertoire and stylistic analysis.

**\*MUS 59. MUSIC LITERATURE AND STYLES II.** *Two hours credit.*

The twofold purpose of this course is to foster an appreciation for the best in music and to provide the student with basic music information in the fields of media, terminology, chronology, biography, repertoire and stylistic analysis.

**\*MUS 60. MUSIC LITERATURE AND STYLES III.** *Two hours credit.*

The twofold purpose of this course is to foster an appreciation for the best in music and to provide the student with basic music information in the fields of media, terminology, chronology, biography, repertoire and stylistic analysis.

**\*MUS 130. INDIVIDUAL PERFORMANCE IN VOICE.** *One hour credit.*

**\*MUS 131. INDIVIDUAL PERFORMANCE IN PIANO.** *One hour credit.*

**\*MUS 132. INDIVIDUAL PERFORMANCE IN ORGAN.** *One hour credit.*

**\*MUS 133. INDIVIDUAL PERFORMANCE IN STRINGS.** *One hours credit.*

**\*MUS 134. INDIVIDUAL PERFORMANCE IN WOODWINDS.** *One hour credit.*

**\*MUS 135. INDIVIDUAL PERFORMANCE IN BRASS.** *One hour credit.*

**\*MUS 136. INDIVIDUAL PERFORMANCE IN PERCUSSION.** *One hour credit.*



**\*MUS 137. INDIVIDUAL INSTRUCTION IN COMPOSITION.** *One hour credit.*

**\*MUS 138. INDIVIDUAL PERFORMANCE IN HARP.** *One hour credit.*

**MUS 141. INTRODUCTION TO TEACHING ELEMENTARY GENERAL MUSIC.** (ATE) *Two hours credit.*

Student attends class three times per week, participating in class discussions and demonstrations of teaching elementary music, and in addition spends a minimum of two hours per week observing in the Laboratory School and in the surrounding public schools.

**MUS 142. TEACHING JUNIOR HIGH SCHOOL GENERAL MUSIC.** (ATE) *Three hours credit.*

The object of this course is to combine methodology, observation, and some teaching in such a manner as to provide opportunity for the music major to gain insight into the musical, psychological, and humanistic aspects of teaching general music to junior high school students.

**MUS 143. INTRODUCTION TO TEACHING GENERAL MUSIC IN THE ELEMENTARY AND SECONDARY SCHOOLS.** *Three hours credit.*

This course is designed to give instrumental emphasis music majors insight into the importance and purposes of general music in the public schools and to help the student develop methodology and materials needed to teach general music from kindergarten through the 12th grade of high school.

**MUS 152. COUNTERPOINT.** *Three hours credit.*

Prerequisite, MUS 54. A study of the five species of counterpoint through four parts (or voices); the invention, canon, and fugue; a seminar on the construction and form as applied to contrapuntal technique.

**MUS 153. HOMOPHONIC FORMS.** *Three hours credit.*

Prerequisite, MUS 54. The purpose of this course is to acquaint the student with the structure of homophonic forms, beginning with the motif and continuing to the analysis of the sonata, rondo, and variation forms.

**MUS 154. INSTRUMENTATION.** *Three hours credit.*

Prerequisite, MUS 54. A course planned to develop knowledge and skill in arranging and orchestrating for various combinations of instruments from a few instruments to a full symphony orchestra.

**MUS 158. HISTORY OF MUSIC I.** *Three hours credit.*

Prerequisites, MUS 1, 2 and 3. The historical changes in music from earliest times to the end of the sixteenth century with emphasis on the changes in style.

**MUS 159. HISTORY OF MUSIC II.** *Three hours credit.*

Prerequisite, MUS 158. A study of historical changes which took place in music in the baroque period (1600-1750) and the classic period (1750-1800) with emphasis on changes caused by the new monodic style found in opera, and the beginning of instrumental music.

**MUS 160. HISTORY OF MUSIC III.** *Three hours credit.*

Prerequisite, MUS 159. A study of the musical changes caused by the romantic, post-romantic and impressionistic periods from 1800 to 1920.

**MUS 162. INSTRUMENTAL TECHNIQUES AND CONDUCTING I.** *One hour credit.*

Prerequisites, MUS 1, 2, 3. The technique, practice and principles of instrumental conducting. The development of effective hand and baton technique. Drill and examples of the various meter patterns, tempo, style, dynamics, musical terms, study and preparation of the musical score. Extensive experience in interpretation of materials using the laboratory band and orchestra.

**MUS 163. INSTRUMENTAL TECHNIQUES AND CONDUCTING II.** *One hour credit.*

Prerequisite, MUS 162. The techniques and practice of instrumental conducting. The development of hand and baton technique. Meter patterns, tempo,

style, dynamics, musical terms, study and preparation of the musical score. Extensive experience in interpretation of materials using the laboratory band and orchestra.

**MUS 164. INSTRUMENTAL TECHNIQUES AND CONDUCTING III.** *One hour credit.*

**Prerequisite,** MUS 163. The techniques and practice of instrumental conducting. The development of hand and baton technique. Meter patterns, tempo, style, dynamics, musical terms, study and preparation of the musical score. Extensive experience in interpretation of materials using the laboratory band and orchestra.

**MUS 165. TEACHING INSTRUMENTAL MUSIC. (ATE)** *Three hours credit.*

This course will endeavor (1) to present the various aspects of instrumental music in the public schools, both physical and musical; (2) to assist the student in making a systematic preparation for the task of developing a well-rounded instrumental music program.

**MUS 166. CHORAL TECHNIQUES AND CONDUCTING I.** *One hour credit.*

**Prerequisites,** MUS 1, 2, 3, 58, 59, and 60. This course is designed to develop a basic conducting technique for the choral musician. Meter patterns, preparatory beats, cueing and releases are studied and applied. Ideas relative to tone production diction, blend, balance and intonation are discussed. Musical scores are prepared and conducted.

**MUS 167. CHORAL TECHNIQUES AND CONDUCTING II.** *One hour credit.*

**Prerequisite,** MUS 166. This is a continuation of the work begun in 166. Stress is placed on the mastery of some of the larger, more complex scores. Irregular beat patterns, up-beat pickups and other advanced technical problems are studied and methods for solving them developed.

**MUS 168. SENIOR HIGH SCHOOL VOCAL METHODS AND MATERIALS.** *One hour credit.*

**Prerequisite,** MUS 167. An investigation and performance of choral literature from all periods of composition conducive for use in varying junior and senior high school vocal situations. Each student will be required to develop an extensive annotated bibliography of various literature types.

**\*MUS 170. SYMPHONIC WIND BAND.** *One hour credit.*

The Symphonic Wind Band is limited in enrollment to approximately 80 members. This organization performs the best literature available for the band. Over the years this CSC band has become known throughout the region for its excellence as a concert organization. The Symphonic Wind Band presents many concerts during the year, and takes an annual tour.

**\*MUS 171. CONCERT BAND.** *One hour credit.*

The Concert Band is open to all band performers who wish a more limited band experience than is provided by the Symphonic Wind Band. This band studies, rehearses, and presents advanced forms of concert band literature.

**\*MUS 172. MARCHING BAND.** *One hour credit.*

Open to all men students regardless of major field who have had high school band experience. A study and practice of the fundamentals of drill and presentation of marching maneuvers and pageants at athletic events. Required during Fall Quarter for men in either Symphonic Wind Band or Concert Band. Satisfies physical education requirements for Fall Quarter.

**\*MUS 173. VARSITY BAND.** *One hour credit.*

Open to all students regardless of major who have had high school band experience. To provide music for athletic and college functions. To read material suitable for use by high school band.

**\*MUS 174. JAZZ ENSEMBLE.** *One hour credit.*

Membership in the Jazz Ensemble is limited to five trumpets, five trombones, five saxophones, and three rhythm players (piano, string bass, percussion). This unit is concerned with jazz idiom music: show music, dance music, and concert jazz. The goal of this type of ensemble training is to give the student a thorough idiom in preparation for teaching at both the secondary and college levels. Members of Jazz Ensemble who are music majors must be enrolled in a major ensemble.

**\*MUS 175. SYMPHONY ORCHESTRA.** *One hour credit.*

The College Symphony Orchestra is a rapidly developing organization in which the wealth of the world's most outstanding music is performed. The orchestra is presented regularly in local concerts and participates in performance of the large works for chorus and orchestra performed by the faculty and students of the School of Music.

**\*MUS 176. CHAMBER ORCHESTRA.** *One hour credit.*

A select group of approximately 20 string students chosen by audition from the membership of the Symphony Orchestra. The Orchestra performs and reads literature from the Baroque to the present day, specializing in material specifically designed for chamber orchestra.

**\*MUS 177. LABORATORY ORCHESTRA.** *One hour credit.*

A laboratory course to provide practice orchestra experience on stringed instruments. Orchestral materials and the use of them for continued development of string students will be discussed and demonstrated.

**\*MUS 178. MIXED CONCERT CHOIR.** *One hour credit.*

Membership in the concert choir is limited to approximately 60 singers. This organization performs a wide range of choral literature from the classics to the music of contemporary composers. The organization is recognized widely for its excellence as a choral performing group. It is in demand throughout the region for concert appearances.

**\*MUS 179. ORATORIO CHORUS.** *One hour credit.*

Membership to the group of approximately 150 singers is open to all college students on an audition basis. The choir specializes in the performance of large choral masterworks such as Handel's "Messiah" and the "Creation" by Haydn.

**\*MUS 180. CHORUS AND ORCHESTRA WORKSHOP.** *One hour credit.*

Conducted by authorities nationally known in their fields of specialization. The purpose of the workshop is to provide information about current important ideas in each field of knowledge.

**\*MUS 181. WOMEN'S CONCERT CHOIR.** *One hour credit.*

The women's choir is open to all women students who enjoy singing the literature for women's voices. This group performs for many local community and college events. Elementary education majors are especially urged to apply for membership.

**\*MUS 182. VARSITY MEN'S GLEE CLUB.** *One hour credit.*

Membership is open to the entire male student body. A love of singing is the main requirement for registration. No formal audition is necessary. The Varsity Men's Glee Club affords an opportunity for men from all schools and departments to participate in the great tradition of men's ensemble singing while performing a wide range of literature before college and community audiences.

**\*MUS 183. CHAMBER SINGERS.** *One hour credit.*

A select group of approximately 20 singers chosen by audition from the membership of the Concert Choir. The choir utilizes in material specifically designed for chamber ensemble.

**\*MUS 184. OPERA WORKSHOP.** *One to three hours credit.*

Workshop offering practical experience in production of a musico-dramatic show. Techniques of acting, singing, directing, and other facets necessary for preparation of a show for public performance will be offered.

**\*MUS 185. STRING ENSEMBLE.** *One hour credit.*

**\*MUS 186. BRASS ENSEMBLE.** *One hour credit.*

**\*MUS 187. WOODWIND ENSEMBLE.** *One hour credit.*

**\*MUS 188. PERCUSSION ENSEMBLE.** *One hour credit.*

**\*MUS 189. PIANO ENSEMBLE.** *One hour credit.*

**MUS 190. CLARINET AND SAXOPHONE CLASS.** *One hour credit.*

To develop a teaching knowledge of the clarinet and saxophone families, their specific problems, their functions and their possibilities. To acquaint the prospective teacher with the pedagogic and concert literature and to develop sufficient skill to demonstrate the instruments.

**MUS 191. TRUMPET AND FRENCH HORN CLASS.** *One hour credit.*

A concentrated course in trumpet and French horn to develop a teaching knowledge of the instruments and to develop enough playing skill to demonstrate good tone, technique, and breath control.

**MUS 192. LOW BRASS CLASS.** *One hour credit.*

To develop a teaching knowledge of trombone, baritone, and tuba. To acquire sufficient skill for purposes of demonstration.

**MUS 193. STRING CLASS.** *One hour credit.*

To develop a teaching knowledge of the characteristics of the strings, their resources, their difficulties and how best to overcome them. To study the basic principles of string performance and to acquire some technical facility by daily practice.

**MUS 194. PERCUSSION CLASS.** *One hour credit.*

To develop a teaching knowledge of percussion instruments, their possibilities, their functions, their difficulties and how to best overcome them, to acquire sufficient skill for purposes of demonstration.

**MUS 195. DOUBLE REED CLASS.** *One hour credit.*

To develop a teaching knowledge of the oboe and bassoon, their individual problems, their functions, and their possibilities. To acquaint the prospective teacher with the pedagogic and concert literature, to develop an understanding of the reed and to acquire sufficient skill to demonstrate these instruments.

**MUS 196. VOICE CLASS.** *One hour credit.*

For beginning voice students, particularly elementary majors and majors in instrumental music. Course includes fundamentals of singing, interpretation and solo repertoire.

**MUS 197. FLUTE CLASS.** *One hour credit.*

To develop a teaching knowledge of the flute, its individual problems, its functions and its possibilities. To acquaint the prospective teacher with the pedagogic and concert literature, to develop an understanding of the problems of tone production and to acquire sufficient skill to demonstrate the instrument.

**MUS 198. BRASS AND PERCUSSION CLASS.** *One hour credit.*

This course is required of all music majors with vocal, piano, and general music emphasis (BA in Music Education). The fundamentals of brass and percussion instruments and brass and percussion training literature will be covered.

**MUS 199. CHAMBER BRASS CONSORT.** *One hour credit.*

A select performing ensemble of 15 to 20 brass students with added percussionists when necessary. Concentration is upon familiarization of literature for the brass instrumental media as well as upon development of musical sensitivity, phrasing, style and intonation.

**MUS 201. STAGE AND OPERA TECHNIQUES.** *Two hours credit.*

Study of proper selection of opera and operetta; its organization and procedures for casting and tryouts. Rehearsal procedures, scenery, lighting, costuming and makeup; advertising, tickets and programs, and other basics necessary to production of a public performance.

**MUS 204. PRINCIPLES OF VIOLIN AND VIOLA TEACHING.** *Two hours credit.*

Prerequisite, Student should be technically proficient in the performance of scales and arpeggios in all keys through three octaves. He should also be familiar with the Etudes of Kreutzer and the standard solo repertoire. This is a laboratory course which includes observation and participation and instruction in group and individual violin and viola.

**MUS 206. MUSIC AND RECREATION.** *Two hours credit.*

The following aspects of recreational music will be stressed: singing and leading of community songs; formation, training, and operation of community performance groups; learning to play some of the simple social instruments and becoming proficient in teaching others how to listen to music intelligently. For non-music majors.

**MUS 207. LITERATURE OF THE PIANOFORTE.** *Three hours credit.*

Prerequisite, piano performance Level II or above. This course is designed to provide a systematic examination of keyboard literature from the English and French schools of the 17th century to the contemporary period. Special emphasis will be placed on detailed study of representative works of Bach, Beethoven, and composers of the Romantic and Modern periods.

**MUS 209. MUSIC METHODS AND MATERIALS FOR ELEMENTARY TEACHERS (ATE).** *Two hours credit.*

Prerequisite, MUS 1 or 49. A comprehensive methods course for the elementary classroom teacher covering the teaching of singing, rhythm, music reading, creative activities and music listening. A list of recorded music and song literature for each grade will be developed by the class. Grade placement for all aspects of the music program will be studied.

**MUS 210. MUSIC LITERATURE FOR ELEMENTARY GRADES.** *Three hours credit.*

Music major prerequisite, MUS 141. Non-music major prerequisites, MUS 49, 209. A course designed to further acquaint the classroom teacher and music supervisor with the music literature and instructional aids used in the elementary grades. Collections are made of: (1) songs; (2) rhythmic activities; (3) listening lessons; (4) elementary chorus selections; and (5) program and assembly materials. For both elementary classroom teachers and music supervisors.

**MUS 211. IMPROVEMENT OF INSTRUCTION IN MUSIC READING.** *Three hours credit.*

Prerequisites, MUS 40, 41, 42, 49 and 209. A complete analysis of the program in music reading in the elementary grades. Includes an evaluation of basic methods and materials, curriculum building in music reading, and a survey of published materials suitable for classroom use.

**MUS 212. MUSIC ACTIVITIES FOR CLASSROOM TEACHERS.** *Three hours credit.*

Activities in music for children requiring a minimum of musical skill on the part of the teacher. Includes a study of such activities as playing and reading music with simple melody instruments, the use of the autoharp for song accompaniment, the rhythm band, the construction of simple instruments, and the teaching of songs and rhythmic activities through the use of the phonograph.

**MUS 213. CHORAL LITERATURE TO 1750.** *Three hours credit.*

A study of the stylistic trends, musical characteristics and performance practice of choral music written before 1750.

**MUS 214. CHORAL LITERATURE FROM 1750.** *Three hours credit.*  
A study of the stylistic trends, musical characteristics and performance practice of choral music written after 1750.

**MUS 215. INSTRUMENTAL LITERATURE.** *Three hours credit.*  
A study of instrumental literature for school groups. The high school band and orchestra, materials for class and individual instruction, and small instrumental ensembles.

**MUS 216. METHODS AND MATERIALS FOR CLASS VOICE INSTRUCTION.** *Two hours credit.*  
Organization of the voice class, a study of voice production problems, procedures and techniques such as posture, breath control, resonance, and interpretation through proper diction. Attention will be called to certain advantages to be gained through a class type of instruction.

**MUS 217. METHODS AND MATERIALS FOR CLASS INSTRUMENTAL INSTRUCTION.** *Three hours credit.*  
A course designed to give the student practical experience in the organization and teaching of heterogeneous wind instrument classes. The course will stress the improvement of teaching methods and the creation of original materials for class work.

**MUS 219. IMPROVISATION.** *Two hours credit.*  
Improvisation is one of the most natural forms of musical expression. The course starts with simple vocal and rhythmical improvisations and proceeds to group improvisation, using prepared charts which indicate mood, tempo, form, and the structural role, leading or accompanying, of each instrument.

**MUS 220. INSTRUMENT REPAIR AND CARE.** *Two hours credit.*  
Study of the care and repair of band and orchestral instruments. Practical experience in instrument repairs which requires a minimum amount of equipment, skill and time.

**MUS 223. PRACTICUM IN BAND CONDUCTING AND PERFORMANCE.** *Three hours credit.*  
A laboratory course in advanced band conducting and performance. Supervised conducting experience under actual conditions is provided. Marching and football band performance will also be covered.

**MUS 224. PRACTICUM IN CHORAL CONDUCTING AND PERFORMANCE.** *Three hours credit.*  
A workshop course in advanced choral conducting and performance. Provides opportunity for supervised conducting, analysis of choral materials, problems of choral organization, a study of the literature of choral conducting and practices.

**MUS 225. PRACTICUM IN ORCHESTRAL CONDUCTING AND PERFORMANCE.** *Three hours credit.*  
A workshop course in advanced orchestral conducting and performance. Provides opportunity for supervised conducting, analysis of orchestral material, problems of organization, a study of the literature of orchestral conducting and practice.

**MUS 226. PRINCIPLES OF PIANO TEACHING I.** *Two hours credit.*  
Prerequisite, piano performance Level II or above. A laboratory course including observation and participation in group and individual piano instruction. The beginning pianist and individual differences. Readiness and normal progress defined. Musicianship and music reading approached through piano study. Basic keyboard techniques. Criteria for selecting teaching materials.

**MUS 227. PRINCIPLES OF PIANO TEACHING II.** *Two hours credit.*  
Prerequisite, MUS 226. Studio procedures. Demonstrations of specific musical and technical problems and their possible solutions. Guided teaching. Keyboard experience in the school music program. Individual differences in sight-reading ability, musicianship, and literature and materials.

**MUS 228. PRINCIPLES OF PIANO TEACHING III.** *Two hours credit.*  
Prerequisite, MUS 227. Studio management. Piano teaching as a profession. Class members will assume responsibility for teaching one or more pupils at beginning and intermediate levels with clinical study of problems involved. Adjudication. Public performance. Recital planning. Basic teaching repertory and representative styles.

\***MUS 230. INDIVIDUAL PERFORMANCE IN VOICE.** *One hour credit.*

\***MUS 231. INDIVIDUAL PERFORMANCE IN PIANO.** *One hour credit.*

\***MUS 232. INDIVIDUAL PERFORMANCE IN ORGAN.** *One hour credit.*

\***MUS 233. INDIVIDUAL PERFORMANCE IN STRINGS.** *One hour credit.*

\***MUS 234. INDIVIDUAL PERFORMANCE IN WOODWINDS.** *One hour credit.*

\***MUS 235. INDIVIDUAL PERFORMANCE IN BRASS.** *One hour credit.*

\***MUS 236. INDIVIDUAL PERFORMANCE IN PERCUSSION.** *One hour credit.*

\***MUS 237. INDIVIDUAL INSTRUCTION IN COMPOSITION.** *One hour credit.*

\***MUS 238. INDIVIDUAL PERFORMANCE IN HARP.** *One hour credit.*

**MUS 241. MARCHING BAND TECHNIQUES.** *Two hours credit.*

A workshop to provide materials and suggestions to band directors and prospective band directors. To assist with the planning of individual football shows and pageantry.

**MUS 242. VOCAL REPERTOIRE: GERMAN ART SONG.** *Two hours credit.*

A course in performance of nineteenth and twentieth century German Art Song, with particular emphasis upon style, technical requirements and diction.

**MUS 243. VOCAL REPERTOIRE: FRENCH ART SONG.** *Two hours credit.*

A course in performance of nineteenth and twentieth century French Art Song, with particular emphasis upon style, technical requirements and diction.

**MUS 244. VOCAL REPERTOIRE: 17TH AND 18TH CENTURIES.** *Two hours credit.*

A course in performance of songs and airs before the nineteenth century, with particular emphasis upon style, technical requirements and diction in English, Italian, French and German.

**MUS 250. ACOUSTICS OF MUSIC.** *Three hours credit.*

A study of (1) basic concepts; (2) harmonic motion, transmission of sound, interference; (3) hearing, resonance, pitch, quality, temperament; (4) acoustical properties of string, wind and percussion instruments; and (5) electronic musical instruments.

**MUS 253. POLYPHONIC FORMS.** *Three hours credit.*

A study of the forms, techniques and literature of the 17th, 18th, and 19th century polyphonic music.

**MUS 259. THE SCHOOL MUSIC PROGRAM FOR THE HANDICAPPED.** *Three hours credit.*

A course designed to present a music program for the various handicapped children who are part of the public schools: the mentally retarded, the culturally handicapped, the blind, the hard of hearing, emotionally disturbed, and the physically handicapped.

**MUS 260. COLLEGIUM MUSICUM.** *One hour credit.*

This performing group is concerned with little performed music of all types. The goal of the organization is to give the student experience in preparing and performing early music, music for unusual media and experimental music of all types. Admission with the approval of the instructor.

**MUS 261. HISTORY OF MUSICAL INSTRUMENTS.** *Three hours credit.*

A study of the development of musical instruments from the distant past to the present. Specific notice will be made of their growth into families of instruments and their usage in musical practice.

**MUS 266. TEACHING MUSIC APPRECIATION.** *Three hours credit.*

Music major prerequisites, MUS 40, 41, 42, 141. Non-music major prerequisites, MUS 209 or 141. Developing a music listening program for schools covering methods of teaching, recorded materials and the construction of a graded program. The published recorded material suitable for both elementary and high school students is studied, as well as reference and textbooks dealing with music appreciation.

**\*MUS 269. THE HISTORY AND LITERATURE OF JAZZ.** *Two hours credit.*

A survey of the history and literature of jazz music from 1890 to the present. This course is open to all students.

**\*MUS 270. SYMPHONIC WIND BAND.** *One hour credit.*

The Symphonic Wind Band is limited in enrollment to approximately 80 members. This organization performs the best literature available for the band. Over the years this CSC band has become known throughout the region for its excellence as a concert organization. The Symphonic Wind Band presents many concerts during the year, and takes an annual tour.

**\*MUS 271. CONCERT BAND.** *One hour credit.*

The Concert Band is open to all band performers who wish a more limited band experience than is provided by the Symphonic Wind Band. This band studies, rehearses, and presents advanced forms of concert band literature.

**\*MUS 272. MARCHING BAND.** *One hour credit.*

Open to all men students regardless of major field who have had high school band experience. A study and practice of the fundamentals of drill and presentation of marching maneuvers and pageants at athletic events. Required during Fall Quarter for men in either Symphonic Wind Band or Concert Band. Satisfies physical education requirements for Fall Quarter.

**\*MUS 273. VARSITY BAND.** *One hour credit.*

Open to all students regardless of major who have had high school band experience. To provide music for athletic and college functions. To read material suitable for use by high school band.

**\*MUS 274. JAZZ ENSEMBLE.** *One hour credit.*

Membership in the Jazz Ensemble is limited to five trumpets, five trombones, five saxophones, and three rhythm players (piano, string bass, percussion). This unit is concerned with jazz idiom music: show music, dance music, and concert jazz. The goal of this type of ensemble training is to give the student a thorough idiom in preparation for teaching at both the secondary and college levels. Members of Jazz Ensemble who are music majors must be enrolled in a major ensemble.

**\*MUS 275. SYMPHONY ORCHESTRA.** *One hour credit.*

The College Symphony Orchestra is a rapidly developing organization in which the wealth of the world's most outstanding music is performed. The orchestra is presented regularly in local concerts and participates in performance of the large works for chorus and orchestra performed by the faculty and students of the School of Music.

**\*MUS 276. CHAMBER ORCHESTRA.** *One hour credit.*

A select group of approximately 20 string students chosen by audition from the membership of the Symphony Orchestra. The Orchestra performs and reads literature from the Baroque to the present day, specializing in materials specifically designed for chamber orchestra.



**\*MUS 277. LABORATORY ORCHESTRA. *One hour credit.***

A laboratory course to provide practice orchestra experience on stringed instruments. Orchestral materials and the use of them for continued development of string students will be discussed and demonstrated.

**\*MUS 278. MIXED CONCERT CHOIR. *One hour credit.***

Membership in the concert choir is limited to approximately 60 singers. This organization performs a wide range of choral literature from the classics to the music of contemporary composers. The organization is recognized widely for its excellence as a choral performing group. It is in demand throughout the region for concert appearances.

**\*MUS 279. ORATORIO CHORUS. *One hour credit.***

Membership to the group of approximately 150 singers is open to all college students on an audition basis. The choir specializes in the performance of large choral masterworks such as Handel's "Messiah" and the "Creation" by Haydn.

**\*MUS 280. CHORUS AND ORCHESTRA WORKSHOP. *One hour credit.***

Conducted by authorities nationally known in their fields of specialization. The purpose of the workshop is to provide information about current important ideas in each field of knowledge.

**\*MUS 281. WOMEN'S CONCERT CHOIR. *One hour credit.***

The women's choir is open to all women students who enjoy singing the literature for women's voices. This group performs for many local community and college events. Elementary education majors are especially urged to apply for membership.

**\*MUS 282. VARSITY MEN'S GLEE CLUB. *One hour credit.***

Membership is open to the entire male student body. A love of singing is the main requirement for registration. No formal audition is necessary. The Varsity Men's Glee Club affords an opportunity for men from all schools and divisions to participate in the great tradition of men's ensemble singing while performing a wide range of literature before college and community audiences.

**\*MUS 283. CHAMBER SINGERS. *One hour credit.***

A select group of approximately 20 singers chosen by audition from the membership of the Concert Choir. The choir utilizes in material specifically designed for chamber ensemble.

**\*MUS 284. OPERA WORKSHOP. *One to three hours credit.***

Workshop offering practical experience in production of a musico-dramatic show. Techniques of acting, singing, directing, and other facets necessary for preparation of a show for public performance will be offered.

**\*MUS 285. STRING ENSEMBLE. *One hour credit.*****\*MUS 286. BRASS ENSEMBLE. *One hour credit.*****\*MUS 287. WOODWIND ENSEMBLE. *One hour credit.*****\*MUS 288. PERCUSSION ENSEMBLE. *One hour credit.*****\*MUS 289. PIANO ENSEMBLE. *One hour credit.*****\*MUS 299. CHAMBER BRASS CONSORT. *One hour credit.***

A select performing ensemble of 15 to 20 brass students with added percussionists when necessary. Concentration is upon familiarization of literature for the brass instrumental media as well as upon development of musical sensitivity, phrasing, style and intonation.

## NURSING

### **NURS 10. HISTORY OF NURSING.** *Two hours credit.*

An introduction to the historical development of nursing with emphasis on current trends.

### **NURS 100. BASIC PRINCIPLES OF NURSING.** *Ten hours credit.*

An introduction to clinical nursing. Considers environmental, psychosocial, and individual needs for optimum health. Designed to give students beginning understanding and ability to identify and meet basic nursing needs common to all patients. Application of principles from natural and social sciences emphasized.

### **NURS 101. PHARMACOLOGY.** *Three hours credit.*

A study of the nature, action, therapeutic uses, toxicology, and desired therapeutic effects of drugs in common use. Concurrent with NURS 100.

### **NURS 102. MATERNITY NURSING.** *Ten hours credit.*

**Prerequisites,** NURS 100, 101. A study of concepts basic to effective nursing care of mothers and infants. A developmental and family-centered approach which places emphasis on normal aspects of the reproductive cycle. Physiological, psychological and socio-cultural factors affecting maternal and infant health are considered. Supervised practice includes nursing care during pregnancy, through post-partum and care of the newborn.

### **NURS 103. MEDICAL-SURGICAL NURSING.** *Ten hours credit.*

**Prerequisites,** NURS 100, 101. A study of concepts essential for effective nursing care of adults requiring medical or surgical treatment because of illness or accident. Includes nursing measures used in prevention, treatment and rehabilitation. Guided participation in the operating room and medical and surgical units. Emphasis is on the application of appropriate knowledge and skills in identifying and meeting individual nursing needs.

### **NURS 104. PSYCHIATRIC NURSING.** *Ten hours credit.*

**Prerequisites,** NURS 100, 101. A study of the principles of nursing care of the mentally ill. Content includes causes, behavior patterns, treatment, and prevention of mental illness. Continues the study of emotional needs of patients, dynamics of personality development and interpersonal relationships introduced in other courses. Major emphasis is on the therapeutic role of the nurse in the care of psychiatric patients. Supervised clinical practice.

### **NURS 105. HUMAN RELATIONS IN NURSING.** *Three hours credit.*

A study of principles and concepts of communication, interpersonal relations, group processes and leadership skills basic to effective nursing.

### **NURS 200. COMMUNITY NURSING.** *Ten hours credit.*

**Prerequisites,** NURS 102, 103, 104. An introduction to the philosophy and principles of Community Nursing. Responsibilities and activities of the nurse in a generalized Community Nursing program are studied. Emphasis is given to the role of the nurse in family and community health service. Guided Community Health Nursing field practice is provided in Organized Health Departments.

### **NURS 201. PUBLIC HEALTH SCIENCES.** *Three hours credit.*

A study of concepts derived from the field of Public Health which includes an introduction to Public Health Administration, environmental sanitation, biostatistics, and epidemiology. Concurrent with NURS 200.

### **NURS 202. NURSING OF CHILDREN.** *Ten hours credit.*

**Prerequisites,** NURS 102, 103, 104. A study of the child as an individual, as a member of a family unit, and as a contributing member of society. In discussing disorders peculiar to children, the emphasis is placed upon the effects of illness on normal growth and development. Utilizing the developmental approach, the course discusses the individual from infancy through adolescence. Includes supervised clinical practice.

**NURS 203. ADVANCED MEDICAL-SURGICAL NURSING.** *Eleven hours credit.*

Prerequisites, NURS 102, 103, 104. A study of nursing care of patients with complex medical and/or surgical disorders. Planning nursing care and patient management are emphasized. Concepts of team nursing are introduced. Participation in team nursing is included in the clinical practice.

**NURS 204. TRENDS IN NURSING.** *Three hours credit.*

Prerequisites, NURS 102, 103, 104 or permission of instructor. A study of trends, problems and issues in present-day nursing. Contemporary social forces are studied in relation to their influence on the development of nursing. Emphasis is on the responsibilities of the professional nurse in an increasingly complex system of health and medical care.

## OCEANOGRAPHY

Courses in oceanography are administered by the Department of Earth Sciences.

**OCN 151. PRINCIPLES OF OCEANOGRAPHY.** *Three hours credit.*

A descriptive treatment of the physical properties of sea water, the general character of water masses and ocean currents, waves, tsunamis, the sea as a biological environment, and some geological aspects of ocean basins.

**\*OCN 156. GENERAL OCEANOGRAPHY.** *Three hours credit.*

This course is an introductory study of the biological, chemical, geological, and physical aspects of the oceans and the ocean basins.

## PHILOSOPHY

### (Administered by English Department)

**\*PHIL 210. ETHICS AND VALUE-THEORY.** *Three hours credit.*

A consideration of the major philosopher's view on problems of ethics and of values, from early Greek to contemporary thought.

**\*PHIL 220. LOGIC IN PRACTICE.** *Three hours credit.*

A practical study of the uses of deductive and inductive logic, including consideration of current uses of verbal and material logical-fallacies.

**\*PHIL 230. PROBLEMS IN PHILOSOPHY.** *Three hours credit.*

A consideration of the major philosophers' view on problems in epistemology, metaphysics, and aesthetics, from early Greek to contemporary thought.

**PHIL 240. HISTORY OF WESTERN PHILOSOPHY I.** *Three hours credit.*

Classical and medieval philosophy from the pre-Socrates through Aquinas. Readings from such philosophers as Plato, Aristotle, Augustine, and Aquinas are utilized, along with a basic history of philosophy text.

**PHIL 250. HISTORY OF WESTERN PHILOSOPHY II.** *Three hours credit.*

Modern philosophy from Descartes through Hume, with emphasis being placed on the break with the medieval and classical tradition. Selected readings from and about such philosophers as Descartes, Hobbes, Spinoza, Locke, Berkeley, and Hume.

**PHIL 260. HISTORY OF WESTERN PHILOSOPHY III.** *Three hours credit.*

Modern and contemporary philosophy, including such philosophers as Kant, Hegel, Sartre, Whitehead, and Russell.

## PHYSICS

**\*PHYS 50. PRINCIPLES OF PHYSICS.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

An introduction to the basic concepts of physics, including mechanics, thermodynamics, wave motion, electricity and magnetism, and atomic and nuclear physics. Not open to physics majors or minors.

**\*PHYS 60. INTRODUCTORY PHYSICS—MECHANICS.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, MATH 23 or consent of instructor. The first quarter of the introductory course treats classical and modern mechanics in a manner which requires a minimum of mathematical skills.

**\*PHYS 61. INTRODUCTORY PHYSICS—HEAT, SOUND, AND LIGHT.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, PHYS 60. The second quarter of the introductory course treats classical and modern heat, sound, and light in a manner which requires a minimum of mathematical skills.

**\*PHYS 62. INTRODUCTORY PHYSICS—ELECTRICITY AND MAGNETISM.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, PHYS 60. The third quarter of the introductory course treats classical and modern electricity and magnetism in a manner which requires a minimum of mathematical skills.

**PHYS 63. RADIATION PHYSICS.** *Three hours credit. (Two hours lecture, three hours laboratory)*

Prerequisite, PHYS 50, 62, or consent of instructor. A course in the detection and evaluation of the various atomic and nuclear radiations. Topics to be covered include elementary atomic and nuclear theory, types of radiation, detectors, error analysis, and detection systems.

**PHYS 65. GENERAL PHYSICS—MECHANICS.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, MATH 32 or taken concurrently. The first quarter of the general course in physics treats of the laws, principles, and generalizations of mechanics.

**PHYS 66. GENERAL PHYSICS—ELECTRICITY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, PHYS 65, MATH 33 or taken concurrently. The second quarter of the general course in physics treats of the principles, laws, and generalizations in electricity.

**PHYS 67. GENERAL PHYSICS—SOUND, LIGHT, AND HEAT.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, PHYS 65, MATH 33. The third quarter of the general course in physics treats of the laws, principles, and generalizations concerning sound, light, and heat.

**PHYS 68. MODERN PHYSICS.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, PHYS 67. A general course of the concepts in physics formulated since 1900 including an elementary presentation of atomic and nuclear physics.

**PHYS 155. ELEMENTS OF COMPUTER PROGRAMMING.** *Three hours credit. (Two hours lecture, three hours laboratory.)*

Prerequisite, MATH 23 or equivalent. A non-theoretical applied course in elementary computer programming, designed to cover the primary methods of computer programming with the object of the student learning sufficient programming techniques to solve problems in his major area of study. A large portion of this course will involve the student programming and operating the 360 computer system.

*Not recommended for students with previous programming training.*

**\*PHYS 161. ELEMENTARY PHOTOGRAPHY.** *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisite, PHYS 62 or consent of instructor. An introductory course covering the basic elements of photography. Topics include developing, printing and enlarging, and the use of photography in the teaching of physics.

*Not recommended for students with previous photography laboratory experience.*

**PHYS 162. ELECTRICAL MEASUREMENTS.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, PHYS 67 and MATH 33. A study of Kirchhoff's Laws and their application, components of AC circuits, and the solution of AC circuits by use of the vector method and complex number method.

**PHYS 165. MECHANICS I.** *Four hours credit.*

Prerequisites, PHYS 67 and MATH 33. First course of a sequence of two courses. Topics covered include Newton's Laws, statics of particles and rigid bodies, work and energy, particle motion in a constant field and one dimensional oscillatory motion.

**PHYS 166. ELECTRICITY AND MAGNETISM I.** *Four hours credit.*

Prerequisites, PHYS 67 and MATH 33. First course of a sequence of two courses. An advanced study in electric fields, electric potential, magnetic fields and induced electromotive force.

**PHYS 167. OPTICS I.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, PHYS 67, MATH 33. A study of geometric optics including the theory of thin lenses, thick lenses, spherical mirrors, lens aberrations, and a survey of optical instruments.

**PHYS 260. SOUND.** *Three hours credit.*

A study of sound waves, their nature, propagation, and modes of combination. Includes supporting mathematical instruction and demonstration of basic instrumental measurements. Not open to physics majors or minors.

**PHYS 261. INTRODUCTION TO RESEARCH IN PHYSICS.** *Two hours credit. (Maximum six hours credit.)*

Prerequisites, PHYS 165, 266. A course to introduce the various aspects of research in physics. Emphasis will be placed on laboratory techniques used in obtaining data. Informal student seminars will be held and at termination of course, the student will submit a written report on this research involved.

**PHYS 262. ELECTRONICS I.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, PHYS 162. A continuation of PHYS 162. Topics to be covered include simple diodes, triodes, power supplies, simple amplifiers, simple detectors, types of amplifiers, R. F. circuitry and an introduction to transistor theory.

**PHYS 264. THERMODYNAMICS.** *Four hours credit.*

Prerequisites, PHYS 67, MATH 34. An introduction to heat and thermodynamics. This course covers thermodynamic systems, equations of state, the first and second laws of thermodynamics and an introduction to kinetic theory.

**PHYS 265. MECHANICS II.** *Three hours credit.*

Prerequisites, PHYS 165, MATH 34. Second course of a sequence of two courses. Topics covered include motion of systems of particles, rigid body motion in a plane and in three dimensions, central field motion, accelerated reference systems.

**PHYS 266. ELECTRICITY AND MAGNETISM II.** *Three hours credit.*

Prerequisites, PHYS 166, MATH 34. Second course in a sequence of two courses. A course which deals with the theory of dielectrics, the magnetic properties of matter and an introduction to electromagnetic theory.

**PHYS 267. OPTICS II.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, PHYS 67 and MATH 34. This course is an introduction to the advanced study of light. Topics to be studied in this course include geometrical optics, reflections, thin and thick lenses, optical instruments, wave theory of light, interference, diffraction and the electromagnetic nature of light.

**PHYS 268. ATOMIC PHYSICS.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, PHYS 68, 165, MATH 34. A study of modern physics concepts including the electron and its properties, energy levels, quantum numbers, X-rays, and elementary aspects of relativity and quantum physics.

**PHYS 269. NUCLEAR PHYSICS I.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, PHYS 68, 165, MATH 34. A study of the nucleus of the atom including nuclear processes, decay schemes, sub-atomic particles and high energy reactions.

**PHYS 272. ELECTRONICS II.** *Three hours credit. (Two hours lecture, three hours laboratory.)*

Prerequisite, PHYS 262. A study of electronic theory and application to include multistage and power amplifiers, methods of pulse and wave shaping, and electronic switching and timing systems. Transistor theory as well as tube theory will be emphasized.

**PHYS 275. MECHANICS III.** *Three hours credit.*

Prerequisites, PHYS 265, MATH 34. First course in a sequence of three courses. Particle and rigid body motion are treated by the methods of vector calculus, calculus of variations, and matrix algebra. Included are the Lagrangian and Hamiltonian formulations, small oscillations, rigid body motion, and relativistic mechanics.

**PHYS 276. ELECTRICITY AND MAGNETISM III.** *Three hours credit.*

Prerequisites, PHYS 266, MATH 34. Second course in a sequence of three courses. Static charge distributions in space, upon conductors, or in dielectrics, motion of charges and the magnetic field arising from such motion, electromagnetic induction, electromagnetic radiation, and magnetic properties of matter are examined by advanced mathematical techniques.

**PHYS 290. HARVARD PROJECT PHYSICS I.** *Eleven hours credit. (Five hours lecture, eighteen hours laboratory.)*

Prerequisite, College-School Cooperative Institute Member. This is the first course sequence to prepare high school teachers of physics to teach the Harvard Project Physics (HPP) course to high school students. The necessary physics background and the content of the HPP course will be emphasized.

**PHYS 291. HARVARD PROJECT PHYSICS II.** *Two hours credit.*

Prerequisite, PHYS 290. This is the second of four courses to train teachers in Harvard Project Physics. The concentration will be on the instructional materials and content of units I and II of the HPP courses.

**PHYS 292. HARVARD PROJECT PHYSICS III.** *Two hours credit.*

Prerequisite, PHYS 291. This is the third course of four courses to train teachers in Harvard Project Physics. The concentration will be on the instructional materials and content of units III and IV of the HPP course.

**PHYS 293. HARVARD PROJECT PHYSICS IV.** *Two hours credit.*

Prerequisite, PHYS 292. This is the fourth course of four courses to train teachers in Harvard Project Physics. The concentration will be on the instructional materials and content of units V and VI of the HPP course.

## POLITICAL SCIENCE

**\*PSCI 40. NATIONAL GOVERNMENT OF THE UNITED STATES.** *Five hours credit.*

Origin and adoption of the Constitution, basic principles of the American constitutional system, the machinery of popular control, and the structure of the national government. Not open to students taking PSCI 41 or PSCI 42.

**\*PSCI 41. UNITED STATES GOVERNMENT I.** *Three hours credit.*

An introduction to the foundations of the United States national political system. Democratic theory, majoritarianism and constitutionalism will be discussed. The roles of the electorate, interest groups, political parties, and civil liberties will be analyzed. Not open to students taking PSCI 40.

**\*PSCI 42. UNITED STATES GOVERNMENT II.** *Three hours credit.*

Prerequisite, PSCI 41. A study of the formal policy-making agencies of the United States government. The role and function of Congress, the Presidency and the Judiciary will be analyzed. The latter part of this course will focus on the making of United States foreign policy. Not open to students taking PSCI 40.

**\*PSCI 43. UNITED STATES GOVERNMENT III.** *Three hours credit.*

Prerequisite, PSCI 41 or permission of the instructor. In the first part of this course the national problems and government programs in the fields of business, labor, agriculture, the general economy, and social disorganization will be studied. Problems of Federalism will be studied. The second half of the course will focus on state and local government.

**\*PSCI 50. LEGISLATIVE PROCESSES.** *Three hours credit.*

Prerequisites, PSCI 40 or PSCI 41 and 42. A survey of American legislative systems and processes. The structure and organization of legislatures and the process of statute law-making.

**\*PSCI 73. EUROPEAN POLITICAL SYSTEMS.** *Four hours credit.*

A comparative functional analysis of the political systems of selected European nations, including Great Britain, France, West Germany, and the Union of Soviet Socialist Republics.

**\*PSCI 76. INTERNATIONAL RELATIONS.** *Four hours credit.*

A study of the power relationships existing in a world of sovereign nation states.

**\*PSCI 162. POLITICAL BELIEF-SYSTEMS I.** *Three hours credit.*

The ethical study of politics constitutes a persistent strain in intellectual history. Answers to such questions as the nature of authority and obligation are extracted from a reading of the original sources. Greek, Roman and medieval thinkers will be read.

**\*PSCI 163. POLITICAL BELIEF-SYSTEMS II.** *Three hours credit.*

Prerequisite, PSCI 162 or permission of instructor. A continuation of Political Belief-Systems I. This course will focus on late medieval and early modern thinkers.

**\*PSCI 164. POLITICAL BELIEF-SYSTEMS III.** *Three hours credit.*

Prerequisites, PSCI 162 and 163 or permission of instructor. This quarter of Political Belief-Systems concentrates on modern thinkers. Democratic, socialist, fascist and communist answers as to what values ought to be pursued will be examined.

**\*PSCI 171. STATE AND LOCAL GOVERNMENT.** *Five hours credit.*

Prerequisite, PSCI 40 or PSCI 41 and 42. The organization of state, county, and municipal governments.

**\*PSCI 172. PROBLEMS IN UNITED STATES GOVERNMENT.** *Three hours credit.*

Prerequisites, PSCI 40 or PSCI 41, 42 and 171. The constitutional and extra-constitutional factors affecting the legislative process, the conduct of administration, the budgetary and fiscal policies of the government, and the control of foreign relations.

**\*PSCI 177. AMERICAN FOREIGN POLICY.** *Three hours credit.*

An analysis of recent and contemporary problems of American foreign policy.

**\*PSCI 180. PUBLIC OPINION AND PRESSURE GROUPS.** *Four hours credit.*

A study and analysis of the nature and role of public opinion and pressure groups in American politics. This course analyzes the techniques used in forming, manipulating, and measuring public opinion, and studies the process by which pressure groups use and compete with public opinion in the formation of public policy.

**\*PSCI 185. THE PRESIDENT AND THE BUREAUCRACY.** *Three hours credit.*

An intensive examination of the role of the President and the Federal bureaucracy in the national political system. Emphasis is placed on the concepts and techniques of presidential leadership and the Executive branch's relationship with Congress, the Judiciary and the public. Sources of constitutional authority and power, and problems of contemporary Presidential policy making are examined.

**\*PSCI 200. RESEARCH AND INQUIRY IN POLITICAL SCIENCE.** *Three hours credit.*

Prerequisite, PSCI 40 or PSCI 41 and 42. A study in the use of the scientific method in political science. Special attention will be focused on research methods and materials and the use of library facilities and bibliographies.

**\*PSCI 210. GOVERNMENT AND POLITICS OF ASIA.** *Four hours credit.*

Prerequisite, PSCI 40 or PSCI 41 and 42. A comparative study of major political systems of Asia, including China, Japan, India and Indonesia.

**\*PSCI 211. GOVERNMENT AND POLITICS OF LATIN AMERICA.** *Four hours credit*

Prerequisite, PSCI 40 or PSCI 41 and 42. A comparative study of the political systems of Latin America.

**\*PSCI 212. THE POLITICS OF THE DEVELOPING AREAS.** *Four hours credit.*

Prerequisite, PSCI 40 or PSCI 41 and 42. A study of the politics of developing areas, with particular emphasis on Africa, Asia and the Middle East; concepts of development, modernization and nation-building.

**\*PSCI 213. POLITICAL SYSTEMS OF SUB-SAHARAN AFRICA.** *Four hours credit.*

Prerequisite, PSCI 212 or permission of instructor. Analysis of major types of political systems in Sub-Saharan Africa with case studies of selected countries exemplifying each type. Special problems of multiracial and multicultural societies.

**\*PSCI 214. GOVERNMENT AND POLITICS OF THE SOVIET UNION.** *Four hours credit.*

An intensive inquiry into the institutions and processes of the government of the Soviet Union.

**PSCI 250. NEW VIEWPOINTS IN POLITICAL SCIENCE AND THE OTHER SOCIAL SCIENCES.** *Three hours credit.*

A survey of recent findings and new interpretations in the various social science fields. Recent literature in the fields will be studied and discussed. Specialists will be invited to contribute to discussions. Teaching experience is a course prerequisite. Credit is not applicable to graduate programs in History or the Social Sciences.

**\*PSCI 252. MINORITY POLITICS.** *Three hours credit.*

A study of the political techniques and strategies by which ethnic, racial, religious, and economic minority groups have achieved socio-economic goals through the political system. Electoral and non-electoral politics will be evaluated.

**\*PSCI 260. AMERICAN POLITICAL BELIEF-SYSTEMS.** *Three hours credit.*

Prerequisites, five quarter hours in United States national government and a course in political philosophy or permission of instructor. An analysis of the United States contribution to thought on such subjects as authority and obligation in civil society. Special attention will be paid to the themes of majoritarianism, constitutionalism and civil disobedience.



**\*PSCI 275. THE UNITED NATIONS.** *Three hours credit.*

The background and organization of the United Nations. Includes a detailed study of the six organic bodies of the United Nations and its subsidiary agencies.

**\*PSCI 276. FOUNDATIONS OF INTERNATIONAL POLITICS.** *Four hours credit.*

Prerequisite, PSCI 76. An intensive investigation into the theories and processes of international politics.

**\*PSCI 277. SOVIET FOREIGN POLICY.** *Three hours credit.*

An analysis of recent and contemporary problems of the relations of the Soviet Union with Western, neutralist, and non-Soviet communist nations.

**\*PSCI 279. POLITICAL PARTIES.** *Three hours credit.*

Prerequisites, PSCI 40 or PSCI 41, 42, and 171. The organization and techniques of political parties in the United States, the voting behavior of the electorate and the problems relating to the machinery of representative democracy.

**\*PSCI 280. REGIONAL AND SUPRANATIONAL POLITICAL ORGANIZATIONS.** *Four hours credit.*

Prerequisite, PSCI 76. An analysis of some regional and supranational political organizations, such as the North Atlantic Treaty Organization and the European Economic Community, and an evaluation of the role and significance of these organizations in international politics.

**PSCI 290. NDEA CIVICS INSTITUTE.** *Eight hours credit.*

An institute for junior high school teachers of civics with two years of teaching experience. The institute will run 8 weeks and will include lectures and seminars in the development of political conceptualization. Special sessions will be held in methodology and materials for teaching political concepts.

## PSYCHOLOGY

**\*PSY 20. GENERAL PSYCHOLOGY.** *Three hours credit.*

A basic course in which psychological principles, methods, theories and research findings are studied. Attention is given to perception, cognition, maturation, motivation, learning, individual differences, mental health and their physiological correlates. Practical applications are made to give each student opportunities to modify his behavior.

**\*PSY 21. GENERAL PSYCHOLOGY AND HUMAN PERFORMANCE.** *Three hours credit.*

Prerequisite, PSY 20 and acceptance in ATE. A foundation course in psychology designed to extend the understanding of human behavior through application of psychological theories, constructs, principles, and research findings to situational settings involving groups such as individual and group differences, vocational and occupational profiles, industrial relations, group motivation, syndromes of abnormality.

**PSY 22. EXPLORATION SEMINAR IN PSYCHOLOGY I.** *Six hours credit. (One hour per quarter for freshmen and sophomore years.)*

Prerequisite, PSY 84, majors only. A sophomore seminar required for all psychology majors. Formal meetings will be held once each week for three consecutive quarters. Areas of personal concern to the students as they relate to course work and other experiences in psychology will be discussed.

**\*PSY 30. HUMAN GROWTH AND DEVELOPMENT.** *Five hours credit.*

Prerequisite, PSY 20. An introduction to basic concepts of growth and development. The course considers the individual from conception to senescence. Emphasis is placed on developmental tasks, both physiological and psychological, which are identified throughout the lifetime of an individual.

230 / COURSE DESCRIPTIONS

**\*PSY 84. GROUP PROCESSES AND HUMAN RELATIONS.** *Three hours credit.*

Prerequisite, major only. A required freshman course for undergraduate psychology majors designed to give students an understanding of principles which undergird human relations in groups. Personal involvement and group processes is an important aspect of the course.

**PSY 101. PRINCIPLES AND PHILOSOPHIES OF GUIDANCE .** *Three hours credit.*

A general introduction to guidance; a study of the guidance activities, and their use in industry, business, the classroom, and the professions.

**PSY 122. EXPLORATION SEMINAR IN PSYCHOLOGY II.** *Six hours credit. (One hour per quarter for junior and senior years when on campus.)*

Prerequisites, PSY 22, 84; majors only. A junior seminar required for all psychology majors. Formal meetings will be held once each week for three consecutive quarters. Areas of personal concern to the students as they relate to course work and other experiences in psychology will be discussed.

**PSY 140. EDUCATIONAL PSYCHOLOGY, (ATE)** *Five hours credit.*

Prerequisite PSY 20. A course designed to assist prospective teachers to build competence in understanding and guiding physical, mental, social, and emotional development from infancy to adulthood and in understanding and utilizing the teaching-learning process through applications of principles of learning, motivation, readiness, transfer, individual differences and evaluation.

**PSY 142. TEACHING LEARNING PROCESS.** *Three hours credit.*

An introduction to basic concepts of teaching and learning. Considers opportunities for teaching in nursing. Emphasis is on teaching health and self-care measures to individuals, families and groups.

**PSY 170. INTRODUCTION TO MEASUREMENT AND EVALUATION.** *Three hours credit.*

A course designed to develop understanding of the essential concepts of measurement and evaluation. Emphases are placed on constructing, interpreting, and using teacher-made and standardized tests with attention to determination, meaning, and application of fundamental statistical concepts to problems dealing with measurement and evaluation. Provision is made for guided study of available instruments in student's major field.

**PSY 175. INTRODUCTION TO EXPERIMENTATION IN PSYCHOLOGY.** *Five hours credit.*

Prerequisite, PSY 170. Majors only. This is a course designed to introduce the student to experimental and other psychological research. It is concerned with the basic principles and concepts involved in conducting effective experimentation and research, and provides practical experience in reviewing, conducting, and reporting psychological research.

**PSY 184. INDUSTRIAL PSYCHOLOGY.** *Three hours credit.*

Students will study the basic methods used by psychologists in selection, placement, training, and motivation of industrial personnel. They will examine the psychological factors involving inter-personal relations influencing morale, production, job satisfaction, etc.

**PSY 200. GREAT IDEAS SEMINAR.** *Three to nine hours credit.*

Prerequisite, majors and minors only, permission of instructor. A seminar forum for presentation in depth of current ideas of national scope which affect the discipline of psychology. Whenever possible national authorities will be asked to speak to the classes in the areas.

**PSY 220. GENERAL PSYCHOLOGY AND THE PRINCIPLES OF BEHAVIOR.** *Three hours credit.*

Prerequisite, previous work in psychology or previous course. A course in psychology designed to help students develop a basic understanding of human behavior.

Principles of psychology are developed and applied in the areas of perception and cognition, maturation, motivation, learning, emotions, and personal and social adjustment. Not to be used for the major or minor at undergraduate level as this course is essentially a duplication of PSY 20.

**PSY 222. SEMINAR: PSYCHOLOGICAL ISSUES.** *Three hours credit.*

This is one of the culminating experiences in the minor. Students will study, report, and discuss psychological issues and problems which they identify in their class observation and study experiences. They will also review and discuss research findings and conduct small research projects of their own.

**PSY 224. PSYCHOLOGY: FIELD EXPERIENCE.** *Five to fifteen hours credit.*

Prerequisite, Advanced standing and permission of instructor, majors only. Either full time experience for one quarter or part-time experience for extended quarters working with professionals in any one or more of the field offices of the many helping professions where field experience programs have been contracted.

**PSY 230. CHILD AND ADOLESCENT PSYCHOLOGY.** *Three hours credit.*

A course designed to assist prospective teachers to understand and guide the physical, mental, social, and emotional development of children and youth. Total psychological development from infancy to maturity is emphasized.

**PSY 240. PSYCHOLOGY OF PERCEPTION AND LEARNING.** *Five hours credit.*

Considers basic theoretical and research evidence concerning learning and perception. Attitudes and understandings are developed concerning the application of psychological principles to the educative process. The relationship between human learning and perceptual-cognitive processes is explored.

**PSY 275. EXPERIMENTATION IN PSYCHOLOGY.** *Three hours credit.*

This is a course designed to introduce the student to experimental and other psychological research. It is concerned with the basic principles and concepts involved in conducting effective experimentation and research, and provides practical experience in reviewing, conducting, and reporting psychological research.

**\*PSY 280. PSYCHOLOGY OF THE HEALTHY PERSONALITY.** *Three hours credit.*

Modern humanistic and existentially oriented psychological research and commentary regarding positive mental health and healthy personality development will be studied. Concepts such as self-actualization, self-realization, self-fulfillment, the fully-functioning self, personal adequacy, becoming, and the human potential for freedom and growth explored by approaching the basic question of *What Can Man Become?*

**PSY 283. PSYCHOLOGY OF PREJUDICE.** *Three hours credit.*

A course designed to assist students so that they understand in depth the basic causes of prejudice and prejudicial behavior is learned. Experiences are provided for greater understanding of people and the processes for diminishing the degree of prejudice by the individual.

**\*PSY 285. MENTAL HYGIENE AND EMOTIONAL ADJUSTMENT.** *Three hours credit.*

Psychological principles, theories, and practices are examined and applied to individual, school, family, and community mental health problems.

**\*PSY 288. ABNORMAL PSYCHOLOGY.** *Three hours credit*

Prerequisites, PSY 280, 285. The course is designed to give an understanding of abnormal behavior, its causes, symptoms, characteristics, classifications and prevention.

**PSY 293. SOCIODRAMA.** *Two hours credit.*

How to use sociodrama. The topics studied are producing a sociodrama, purposes of the sociodrama, types and use of the sociodrama.

**PSY 294. SOCIOMETRY.** *Two hours credit.*

The measurement of interpersonal relations in small groups; measurement of social status, social adjustment, leadership and morals. Sociometric organization of elementary and secondary school classrooms.

## READING (Elementary Education)

**READ 50. COLLEGE READING STUDY SKILLS.** *Two hours credit.*

A course designed to enable college students to develop proficiency in the reading study skills required of them in regular college courses. As differentiated from a remedial course, the course develops skills, which will include flexibility in reading and promote vocational growth and reading skills.

**READ 100. SPEED READING.** *Two hours credit.*

A course designed for college students and mature readers to increase their rate of reading and to develop flexibility in reading rates through completion of various reading exercises.

**READ 110. IMPROVEMENT OF INSTRUCTION IN READING IN THE ELEMENTARY SCHOOL.** (ATE) *Three hours credit.*

A detailed consideration of the content to be taught and the methods and materials to be used in the teaching of reading from kindergarten through the sixth grade.

**READ 115. IMPROVEMENT OF INSTRUCTION IN LITERATURE IN THE ELEMENTARY SCHOOL.** (ATE) *Two hours credit.*

A survey of children's literature that is appropriate for grades through the sixth. Chief emphasis on modern selections. Consideration of interests and abilities governing the choice of literature in the first six grades.

**READ 200. READING WORKSHOP.** *One-three hours credit.*

The sub-title will indicate whether the workshop is for elementary or secondary teachers. Topics related to remedial reading (diagnosis, causation, and remediation), word perception, study skills, reading in the content fields, and trends and issues will be treated in various workshops. No sub-title may be repeated for credit.

**READ 216. READING IN THE SECONDARY SCHOOL.** *Three hours credit.*

Suggested for English majors, undergraduates preparing to be secondary content area teachers, and graduate students with no background in reading instruction. Course content: Reading theory, concept of reading level, reading as skills development, detection of individual differences in reading ability, scope and sequence of skills development, reinforcement of reading skills.

**READ 217. READING IN THE CONTENT FIELDS.** *Three hours credit.*

A course designed to assist teachers in the content areas to teach subject matter in such a way as to utilize and further develop fundamental reading. Special consideration will be given to effective reading skills, vocabulary development in specific subject areas, and study skills.

**READ 222. READING IN THE PRIMARY GRADES.** (ATE) *Three hours credit.*

Prerequisite, READ 110, SFE 250. The nature of reading, the pertinent research in the field, the curriculum in reading from the preparatory period through the primary grades, the selection of effective materials of teaching methods and techniques of teaching, and the use of various types of tests will be studied.

**READ 223. READING IN THE INTERMEDIATE GRADES.** (ATE) *Three hour credit.*

Prerequisites, READ 110, SFE 250. The purpose of this course is to emphasize the specific reading skills taught in the intermediate grades. These skills are identified and discussed in terms of instructional materials, methods, and evaluation procedures. The management of the reading program in the intermediate grades also receives attention in this course.

**READ 226. PRACTICUM IN DIAGNOSTIC ORAL READING.** *One hour credit.*

Prerequisite, enrollment in or completion of one of the following: READ 222, 223, 317, 324. A practicum designed to develop sensitivity to the use of oral reading for diagnostic purposes. A student will spend 20 hours listening to taped readings on electronic notebooks of an entire class or on remedial students.

**READ 299. NDEA READING INSTITUTE.** *Twelve hours credit.*

A general reading institute co-sponsored by the U. S. Office of Education for teachers of reading with minimum backgrounds in reading. Course content includes consideration of word perception, comprehension, reading in the content field, reading study skills and the various basal, phonic, kinesthetic, linguistic and individual approaches to reading.

**RESEARCH AND STATISTICAL METHODOLOGY****RSM 204. INTRODUCTORY STATISTICAL METHODS.** *Three hours credit.*  
(Not equivalent to RSM 304)

Basic statistical concepts and techniques; comprehension of research and literature in education and the other behavioral sciences using elementary statistical methods.

**RUSSIAN****\*RUS 1. ELEMENTARY RUSSIAN I.** *Five hours credit.*

Credit is not given until three quarters are completed. An introduction to spoken and written Russian with a view toward giving the student a sound knowledge of the structure of the language and high-frequency vocabulary of approximately 1,100 words. Audio-visual aids will be used as needed.

**\*RUS 2. ELEMENTARY RUSSIAN II.** *Five hours credit.*

Credit is not given until three quarters are completed. A continuation of RUS 1.

**\*RUS 3. ELEMENTARY RUSSIAN III.** *Five hours credit.*

Credit is not given until three quarters are completed. A continuation of RUS 2.

**\*RUS 5. INTERMEDIATE RUSSIAN.** *Four hours credit.*

Prerequisite, RUS 3. Review of Russian grammar, imitative composition and the reading of intermediate Russian texts.

**\*RUS 6. INTERMEDIATE RUSSIAN COMPOSITION AND CONVERSATION I.** *Four hours credit.*

Prerequisite, RUS 5. A continuation of RUS 5 but emphasizing more intensive reading, oral reports, advanced composition and more extensive conversation.

**\*RUS 7. INTERMEDIATE RUSSIAN COMPOSITION AND CONVERSATION II.** *Four hours credit.*

Prerequisite, RUS 6. A continuation of RUS 6. A study of three Russian authors in their shorter works (Turgenev, Lermontov, Pushkin). Oral reports, advanced composition, and translation.

**\*RUS 104. ANTHOLOGY OF RUSSIAN LITERATURE.** *Three hours credit.*

Prerequisite, two years college Russian or equivalent. The course is designed to introduce students to masterpieces of Russian literature from beginning to contemporary period. Introductory to the life and work of Russia's greatest classics.

**\*RUS 135. RUSSIAN CONVERSATION.** *Three hours credit.*

Prerequisite, two years college Russian or equivalent. The course is designed to develop the basic speech habits for control of spoken, conversational Russian through exercise in reproducing of episodes in the student's own words.

## SCIENCE

These courses are taught by the appropriate departments.

**\*SCI 3. PHYSICAL SCIENCE.** *Three hours credit.*

The study of physical science principles of atomic structure, nuclear energy, the source, relationship, and use of the electromagnetic radiations and their social implication in modern civilization.

**\*SCI 4. BIOLOGICAL SCIENCE.** *Three hours credit.*

This is a course designed to acquaint beginning students with the modern day concepts of the cell and protoplasm; animal and plant reproduction; and genetic transmission of hereditary traits.

**\*SCI 5. EARTH SCIENCE.** *Three hours credit.*

Units of study are organized to help students develop a better understanding and appreciation of their environment. Basic concepts are developed concerning the Universe, the Earth, its materials and landscapes, and the weather.

**\*SCI 109. SCIENCE FOR ELEMENTARY TEACHERS.** *Three hours credit.  
(Two hours lecture, three hours laboratory.)*

A subject matter course for elementary majors presenting science concepts and information for elementary teachers. Areas may include light, heat, sound, simple machines, and the interrelationships of things to the physical environment.

**SCI 200. HISTORY OF BIOLOGY.** *Three hours credit.*

The study of the development of the biological sciences from Byzantium and Egyptian period to modern day. The study of the evaluation of biological thought and scientific methodology serve as a basis for gathering insights into men's modern cultural heritage.

**SCI 201. HISTORY OF THE PHYSICAL SCIENCES.** *Three hours credit.*

The study of the development of the basic concepts and principles of the physical sciences from the Greeks to the modern period stressing its contribution to our cultural heritage and the evaluation of science as an activity of men.

**\*SCI 203. ELEMENTARY BIOLOGICAL SCIENCE.** *Three hours credit.  
(Two hours lecture, three hours laboratory.)*

A content course that emphasizes basic understanding of animal and plant life. Films, laboratory experiences, field work, visual aids, museum study and reading materials are used to develop the concepts. This course not applicable to a graduate science major.

**\*SCI 204. COMMON MINERALS AND ROCKS.** *Three hours credit.*

Prerequisite, consent of instructor. A laboratory course in the recognition of common minerals and rocks. On an arranged field trip each student will collect a set of specimens. Some outside readings required. Not applicable to a science degree or as a substitute for a required science course. Not open to students who have had GEOL 101 or 106.

**\*SCI 205. PHYSICAL SCIENCE CONCEPTS.** *Four hours credit.*

The fundamental concepts of physical science are presented to provide a background for elementary teachers. This course is not applicable to a graduate science major.

**SCI 207. AEROSPACE WORKSHOP.** *Three hours credit.*

The purpose of this course is to provide the elementary and secondary teacher with a general background in aviation and an understanding of the air and space age. Subject matter will include the elementary concepts of aircraft, rocket and satellite development, weather, navigation, theory of flight, and aviation in education.

**SCI 208. ELEMENTARY SCIENCE WORKSHOP.** *Three hours credit.*

A subject matter course for the improvement of science background through experimentation and demonstration. Opportunity is provided for the solution

of individual problems through the guidance of the instructors. Visual aids, laboratory materials, discussions, professional literature, and field trips are other resources.

**SCI 209. AVIATION AND SPACE FLIGHT.** *Four hours credit.*

A non-technical elementary course in the subject matter of aviation and space flight. Units may include maps and charts, theory of flight, navigation and problems of space flight. Some attention given to teaching materials. This course not applicable to a graduate degree in science. Field trips required.

**SCI 210. EARTH SCIENCE FOR ELEMENTARY TEACHERS.** *Three hours credit.*

This course will be a combination of content and methods in the area of earth science. The earth science units from contemporary and traditional materials will be examined. Subject matter films, lectures, and demonstrations in the areas of geology, astronomy, meteorology, and oceanography will be included. This course is specifically designed to give the elementary teacher confidence and background to teach in the realm of earth science.

**SCI 290. PHYSICAL PROPERTIES OF MATTER.** *Three hours credit. (NSF In-Service Institute.)*

This course will deal with some of the basic physical properties of matter and their measurement. Properties studied include density, thermal expansion, elasticity, freezing point, melting point, and boiling point. The experimental approach to the study of these properties will be emphasized.

**SCI 291. THE CHEMICAL NATURE OF MATTER.** *Three hours credit. (NSF In-Service Institute.)*

This course will review modern concepts of the structure of gases, liquids, and solids and the relationship between structure and properties. Study of phase changes and solutions will include the concept of equilibrium.

**SCI 292. THE ATOMIC NUCLEUS.** *Three hours credit. (NSF In-Service Institute.)*

This course will deal with the atomic model of matter. Study includes radioactivity, both natural and artificially induced. The sizes and masses of atoms and molecules, and the methods of determination of molecular formulas will be considered.

## SCIENCE EDUCATION

**SCED 140. INTRODUCTION TO STUDENT TEACHING IN THE SECONDARY SCHOOL—SCIENCE.** (ATE) *Two hours credit.*

Student is assigned to a specific class in his major or minor area under supervision in the Laboratory School. He will meet with the class and the supervising teacher five days per week and arrange for one additional conference hour.

**SCED 141. METHODS OF TEACHING IN THE SECONDARY SCHOOL—SCIENCE.** *Three hours credit.*

Prerequisite to student teaching. Taken in the department in which student teaching is done. Includes curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the subject area to the total secondary program. Teaching techniques are a point of emphasis.

**SCED 150. OBSERVATION AND PARTICIPATION IN ELEMENTARY SCHOOL SCIENCE.** *Three hours credit.*

A concentrated experience in elementary science. The student actively participates in the classes in which he observes, and studies classroom teaching procedures and methods. One hour of conference required.

**SCED 151. INTRODUCTORY SCIENCE FIELD EXPERIENCES.** *Two hours credit. (Maximum six hours credit.)*

A course which provides prospective science teachers with practical experiences in the classroom and community during their freshman, sophomore, and junior years.

**SCED 176. TESTING AND EVALUATION IN K-12 SCIENCE.** *Three hours credit.*

This course will provide students with a survey, analysis, design and trial use of evaluation and measurement devices appropriate for use in assessing the achievement of curricular objectives in K-12 science teaching. Students will examine several instruments including achievement, attitude, rating scales, questionnaires, judgment scales of products, interviews, controlled-observation techniques, sociometric techniques, anecdotal records, stereographic reports and sound tape recordings.

**SCED 270. TEACHING SCIENCE IN THE ELEMENTARY SCHOOL.** (ATE) *Three hours credit. (Two hours lecture, three hours laboratory.)*

The purpose of this course is to develop a knowledge of objectives, methods, and materials which the teacher will need for providing learning activities, and for teaching a functional elementary science program. Laboratory activities are included.

**SCED 278. INSTRUCTIONAL MATERIALS IN THE TEACHING OF SCIENCE.** *Four hours credit. (Two hours lecture, six hours laboratory.)*

A course designed for the study and development of teaching materials for the science teacher. Particular emphasis will be placed on the materials associated with the new curriculum projects in science. Opportunities will be provided for the design and construction of suitable demonstration and laboratory aids. Commercial science teaching aids will be demonstrated, studied, and evaluated.

**SOCIOLOGY****\*SOC 50. PRINCIPLES OF SOCIOLOGY.** *Five hours credit.*

A study of social organization, culture, socialization, social stratification, associations, collective behavior, population and ecology with detailed applications to the functioning of society in the United States today.

*All of the following Sociology courses have as a prerequisite SOC 50 or equivalent.*

**\*SOC 74. SOCIAL PROBLEMS.** *Three hours credit.*

Designed to help the student understand some of the complex problems of our society from a sociological frame of reference. The student will look at such things as poverty, slums, wars, alcoholism, mental illness, drug addiction and prostitution, in the context of American society.

**\*SOC 85. PROBLEMS OF INTERGROUP RELATIONS.** *Four hours credit.*

A course dealing with the evidence as to all types of intergroup relations; race, nationality, minority groups, income groups, urban and rural groups, and with methods of teaching and measuring intergroup relations.

**\*SOC 91. SOCIAL MOVEMENTS.** *Three hours credit.*

A study of the nature of those deviant groups concerned with major social problems. Explores the reasons for people joining, remaining in, and defecting from various unconventional political, economic, religious, and cultist organizations and the effect of these movements on society's processes, goals, and values.

**\*SOC 102. CRIMINOLOGY.** *Four hours credit.*

A general survey of criminal behavior including theories of causation, types of crime, extent of crime, law enforcement, criminal justice, punishment and treatment.

**\*SOC 104. MARRIAGE AND THE FAMILY.** *Four hours credit.*

A functional approach to education for marriage and family life, including anticipating marriage, what it means to be married, the making of a family and the nature of family life yesterday, today and tomorrow.



**\*SOC 112. JUVENILE DELINQUENCY.** *Four hours credit.*

Prerequisite, SOC 102. The problem of delinquency is approached from the sociological, psychological, and legal points of view. Several sociological theories are proposed as possible causes of delinquency. The various methods by which the delinquent is rehabilitated in correctional institutions are discussed.

**\*SOC 154. SOCIAL STRATIFICATION.** *Three hours credit.*

Presentation of a unified portrait of the class system of present-day America. Course seeks a description of the realities of the American class system, an analysis of the verified knowledge based on systematic research, and treatment of the topic of mobility central to the American open-class system.

**\*SOC 190. SOCIO-CULTURAL CHANGE.** *Three hours credit.*

Presentation of theories of change. Analysis of change as the product of interaction of several factors. Discussion of the effects of technology on change and problems of measurement of change. The processes of change in the underdeveloped countries will be introduced and comparisons with the developed nations will be made.

**\*SOC 200. SOCIAL PHILOSOPHY.** *Three hours credit.*

The meaning of the experiences of mankind; a study of progress toward more adequate conceptions of relationship among men and peoples.

**\*SOC 202. CRIMINOLOGICAL THEORIES.** *Three hours credit.*

Prerequisite, SOC 102 or equivalent. Analysis and evaluation of the major historical and contemporary theories of criminal behavior.

**\*SOC 203. SOCIOLOGY OF RELIGION.** *Three hours credit.*

A comparative study of the world's major religions, their origins and historical development, their doctrines, literature, customs, and relations to society.

**\*SOC 205. SOVIET SOCIETY TODAY.** *Four hours credit.*

A sociological analysis of the Soviet Union's social institutions, social problems, and value systems, specifically considering the Communist ideology in theory and practice as revealed in examining the structure, function, and problems of the family, social stratification, nationalities, education, science, the arts, and social welfare programs.

**\*SOC 207. COLLECTIVE BEHAVIOR.** *Three hours credit.*

Relevant and appropriate sociological theory is directed to the subdiscipline of collective behavior. Mobs, riots, crowds, crazes, mass behavior, revolutions and reforms are unified through certain theoretical developments that permit the systematic examination of the social strains underlying collective effort and behavior.

**\*SOC 211. HISTORY OF SOCIAL THOUGHT.** *Five hours credit.*

A systematic and historical development of social thought from primitive folk thinking to contemporary theories of society and social relations.

**\*SOC 212. CONTEMPORARY SOCIOLOGICAL THEORIES.** *Three hours credit.*

This survey of contemporary sociological theories with particular emphasis on the theories of Parsons, Merton, Homans, Mills and Levy will relate contemporary theories to the thoughts of classical European and American sociologists.

**\*SOC 222. THE SOCIOLOGY OF CHILD DEVELOPMENT.** *Three hours credit.*

A sociological approach to the field of child development. The primary emphasis is upon the social situation and how the child grows and develops within its context from birth to maturity.

**\*SOC 231. FORMAL ORGANIZATIONS.** *Three hours credit.*

A sociological approach to the study of formal organizations. Course includes the theories of formal organizations, nature and types of organizations, the social structure of work groups, and the processes of communication within organizations.

**\*SOC 232. SOCIAL CONFLICT.** *Four hours credit.*

Analysis of the nature of social conflict, its origins, functions, dysfunctions, and how conflict is resolved or accommodations made to it.

**\*SOC 242. SOCIAL DEVIANCE.** *Four hours credit.*

A study of social deviancy, particularly in terms of the types, sources, functions, dysfunctions and social control mechanisms that operate relative to these departures from conformity.

**\*SOC 252. SOCIOLOGY OF CRIMINAL LAW.** *Four hours credit.*

Prerequisite, SOC 102, or equivalent. An inquiry into the origins of criminal law, its administration, and the effect of legal sanctions.

**\*SOC 260. ETHICS, MORALITY, AND RACISM.** *Three hours credit.*

A course devoted to the study of ethics, morality, and racism. It is intended that the material be approached on the basis of dialogue and confrontation in an attempt to deal with the burgeoning racist attitudes on the part of all people.

**\*SOC 271. SOCIAL RESEARCH.** *Four hours credit.*

The course focuses upon the scientific method as it applies to sociology and the social sciences. Methods and techniques of research, as well as study designs relevant to sociology, are examined.

**\*SOC 281. SOCIOLOGY OF MEDICINE.** *Three hours credit.*

A systematic attempt to relate sociological concepts to the fields of physical health and illness. An overview of socio-cultural aspects of the institution we know as "Medicine." The community and medical care, which will include medical education, the hospital as a social institution, concepts of medical practice.

**\*SOC 288. SOCIOLOGY OF KNOWLEDGE.** *Three hours credit.*

Prerequisite, SOC 211. The sociology of knowledge analyzes and evaluates the relationship between knowledge and existence, between thoughts and social structures, between mental productions and cultural and historical contexts.

**\*SOC 291. SOCIAL PSYCHOLOGY.** *Three hours credit.*

A study of social communication in human groups, the identification of mutually dependent elements in the human group and the study of the human group as an organic whole. The case study approach is used. Emphasis is given to leadership.

**\*SOC 293. THE COMMUNITY.** *Three hours credit.*

Common features of all communities and differences among communities due to size, ecology, occupation, distinctive history and cultural heritage are examined. The community is seen as a network of interacting social systems comprised of meaningful social groupings, family, religion, economy, local government, health, welfare services, and recreation.

**\*SOC 294. WORLD POPULATION PROBLEMS.** *Four hours credit.*

Various theories of population are examined. Methods of discovery are investigated and critical variables including fertility, mortality, and migration are analyzed. The general problem of population is related to major sociological variables to indicate the web of interdependency.

**\*SOC 295. THE AMERICAN WOMAN.** *Three hours credit.*

This course is designed to focus on the changing status of the American woman and its effects on our society. Will study the woman as a daughter, wife, mother, career girl and explore the varieties of roles and effects upon the matrix of our society.

## SOCIAL STUDIES EDUCATION

### **SSED 231. INSTRUCTIONAL MATERIALS FOR THE SOCIAL STUDIES IN THE JUNIOR HIGH SCHOOL. (ATE) *Two hours credit.***

Study of instructional materials for junior high school social studies. Attention will be given to collateral, supplementary, and source materials, historical literature, audio-visual aids, graphic materials, community resources, current news media, music, creative activities, and techniques of evaluation.

### **SSED 245. SECONDARY SCHOOL SOCIAL STUDIES CURRICULUM WORKSHOP. (ATE) *Two hours credit.***

A workshop designed for secondary school teachers of the social studies who desire a knowledge of social studies curriculum research, theory and practice.

## SPANISH

### **\*SPAN 1. ELEMENTARY SPANISH I. *Five hours credit.***

Credit is not given until three quarters are completed. A three-quarter sequence in the basic elements of Spanish through the aural-oral conversational approach; intensive and extensive use of aural-oral materials: writing and reading exercises; the use of audio-visual aids and devices to provide practical materials for pronunciation, comprehension, adequate construction, and fluency of expression in the language.

### **SPAN 2. ELEMENTARY SPANISH II. *Five hours credit.***

Credit is not given until three quarters are completed. A continuation of SPAN 1.

### **SPAN 3. ELEMENTARY SPANISH III. *Five hours credit.***

Credit is not given until three quarters are completed. A continuation of SPAN 2.

### **SPAN 5. INTERMEDIATE SPANISH I. *Four hours credit.***

Prerequisite, two years of high school Spanish or one year of college Spanish. Review of the basic principles of the language. Aural-oral orientation through oral and written composition, conversation and audio-visual aids; stressing normal fluency and readiness in the use of Spanish in ordinary communication.

### **\*SPAN 6. INTERMEDIATE SPANISH II. *Four hours credit.***

Prerequisite, two years of high school Spanish or one year of college Spanish. A continuation of SPAN 5 but emphasizing more intensive reading, oral reports, advanced composition and extensive conversation based on Spanish and Spanish-American culture.

### **\*SPAN 7. INTERMEDIATE SPANISH III. *Four hours credit.***

Prerequisite, two years of high school Spanish or one year of college Spanish. A continuation of SPAN 6. Based on Spanish-American cultural materials, sources, films, audio-visual materials and a higher level of all-round comprehension and fluent functional use of the language and culture.

### **\*SPAN 110. ADVANCED SPANISH GRAMMAR. *Four hours credit.***

Prerequisite, two years of college Spanish. A systematic study of the more complex theories and forms of Spanish grammar, with emphasis on mood, tense, and voice.

### **\*SPAN 115. SURVEY OF SPANISH-AMERICAN LITERATURE I. *Three hours credit.***

Prerequisite, two years of college Spanish. A study of the literature and civilization of Spanish America from the time of the earliest Spanish explorers until the nineteenth century.

### **\*SPAN 116. SURVEY OF SPANISH-AMERICAN LITERATURE II. *Three hours credit.***

Prerequisite, two years of college Spanish. A study of the literature of Spanish America between 1888 and 1910, the Modernist period.

**\*SPAN 117. SURVEY OF SPANISH-AMERICAN LITERATURE III.** *Three hours credit.*

Prerequisite, two years of college Spanish. A study of the main works of the contemporary period of Spanish-American literature.

**\*SPAN 125. ADVANCED SPANISH COMPOSITION.** *Three hours credit.*

Prerequisite, two years of college Spanish. A course designed to increase the students' fluency in the language through the use of original compositions, translations, and resumes.

**\*SPAN 135. SPANISH CONVERSATION.** *Four hours credit.*

Prerequisite, two years of college Spanish. A course designed to increase the ability of each student to use spoken Spanish in practical, everyday situations. The class will be conducted in Spanish.

**\*SPAN 145. SPANISH PRONUNCIATION.** *Four hours credit.*

Prerequisite, two years of Spanish. A study of the mechanics of Spanish pronunciation. Methods of recognizing and correcting pronunciation errors.

**\*SPAN 155. SURVEY OF SPANISH LITERATURE I.** *Three hours credit.*

Prerequisite, two years of college Spanish. A study of Spanish literature and civilization from the late medieval period to the Renaissance.

**\*SPAN 156. SURVEY OF SPANISH LITERATURE II.** *Three hours credit.*

Prerequisite, two years of college Spanish. A study of Spanish literature and civilization of the sixteenth, seventeenth, and eighteenth centuries. Emphasis is placed on Cervantes, Lope de Vega, and Fernando de Rojas.

**\*SPAN 157. SURVEY OF SPANISH LITERATURE III.** *Three hours credit.*

Prerequisite, two years of college Spanish. A study of Spanish literature and civilization of the nineteenth and twentieth centuries, with greatest emphasis on the more recent periods.

**\*SPAN 175. SPANISH READING.** *Maximum of four hours credit.*

Prerequisite, two years of college Spanish. Designed to fit the reading abilities and interests of various students. Class meets two days a week for intensive reading. Extensive outside reading is reported in conference.

**\*SPAN 200. PROBLEMS IN ORAL SPANISH.** *Three hours credit.*

Prerequisite, two years of college Spanish beyond first year, or permission of instructor. A course designed to provide advanced oral training; to help students with persistent individual problems in spoken Spanish to overcome those difficulties.

**\*SPAN 210. SPANISH CIVILIZATION.** *Three hours credit.*

Prerequisite, two years of college Spanish. A course designed to acquaint the student with general trends of Spanish Civilization and Culture, including the historical, economic, political and artistic development of the country from prehistoric times to present.

**\*SPAN 220. CERVANTES.** *Four hours credit.*

Prerequisite, two years of college Spanish. The life and works of Miguel de Cervantes Saavedra, how he portrays the Spain of his day, and how his works mark the various stages in his career. The class will be conducted in Spanish.

**\*SPAN 230. A PANORAMA OF MEXICAN LITERATURE.** *Three hours credit.*

Prerequisite, two years of college Spanish. The study of Mexican literature from colonial times to the present day. The class will be conducted in Spanish.

**\*SPAN 290. SPANISH FOR GRADUATE STUDENTS.** *No credit.*

Prerequisite, none. A course to enable doctoral candidates in other fields to pass the Ph.D. language reading examination in Spanish.

## SPECIAL EDUCATION

### **SPED 10. EDUCATION OF EXCEPTIONAL CHILDREN.** *Three hours credit.*

A survey of the characteristics and educational needs of impaired and gifted children. Designed as an overview of the field for undergraduate students in special education, general education, nursing, counseling and other related personnel.

### **SPED 55. THE STRUCTURE OF LANGUAGE.** *Three hours credit.*

A syntactical and morphological approach to language as it applies to the hearing impaired child. Stress will be placed on the understanding of the structure of the English language. An introduction to some of the approaches used in teaching language to deaf children will be included.

### **SPED 64. INTRODUCTION TO SPEECH CORRECTION.** *Three hours credit.*

A survey of identifying characteristics, causes, diagnosis and treatment pertaining to the common speech disorders.

### **SPED 104. INTRODUCTION TO MEASUREMENT OF THE HANDICAPPED.** *Three hours credit.*

This course is designed to develop an understanding of the results of educational tests. Emphasis is on understanding problems encountered in testing children who are visually, acoustically, orthopedically, mentally handicapped or speech defective, and interpretation of test results in light of the various handicaps.

### **SPED 151. SPEECH FOUNDATIONS FOR THE DEAF AND HARD OF HEARING.** *Three hours credit.*

Study of the theories of speech production, the bases of respiration phonation, articulation and resonance. Ear training and analyses of speech sounds will comprise the bulk of the course.

### **SPED 160. ARTICULATION DISORDERS I.** *Four hours credit.*

Prerequisite: SPED 64 or consent of instructor. Causation, diagnosis and treatment of individuals with problems of articulation and delayed speech.

### **SPED 161. VOICE DISORDERS I.** *Three hours credit.*

Prerequisite: SPED 64 or consent of instructor. Causation, diagnosis and treatment of voice disorders, particularly those of children.

### **SPED 162. STUTTERING I.** *Three hours credit.*

Prerequisite: SPED 64 or consent of instructor. Causation, diagnosis and treatment of stuttering, especially stuttering in children.

### **SPED 163. INTRODUCTION TO ORGANIC DISORDERS.** *Three hours credit.*

Prerequisite: SPED 64 or consent of instructor. Causation, diagnosis and treatment for the speech disorders associated with cleft palate, cerebral palsy and aphasia in children and adults.

### **SPED 164. CLINICAL PRINCIPLES.** *Three hours credit with one hour of credit being earned for each of three consecutive quarters.*

Prerequisite: Concurrent enrollment in SPED 160, 161, 162, and 163. Clinical principles, procedures, clinical forms and clinical rules. Observation and participation in diagnosis and treatment arranged.

### **SPED 165. ACOUSTICS OF SPEECH.** *Three hours credit.*

Physics of sound, the physical characteristics of speech sounds and their relation to the speech mechanism.

### **SPED 166. SPEECH AND LANGUAGE DEVELOPMENT.** *Three hours credit.*

Normal language development in children together with aspects of the genetic and linguistic bases of speech.

**SPED 167. THE AUDITORY AND SPEECH MECHANISMS.** *Four hours credit.*

The speech and hearing mechanisms in terms of development, structure and physiology.

**SPED 191. ORIENTATION TO REHABILITATION AND RELATED SERVICES.** *Three hours credit.*

A course which provides the basic introduction to rehabilitation, social welfare, employment service, corrections, and related services. An orientation to the field experience and the position of the Rehabilitation and Related Service major in current society; a study of the impact of past, current, and pending legislation upon this profession.

**SPED 194. SUPERVISED FIELD PRACTICE IN REHABILITATION AND RELATED SERVICES.** *Maximum fifteen hours credit.*

Prerequisite, SPED 191: A practicum or field experience which provides a practical application of the principles of rehabilitation, social welfare, employment service, corrections, or other related services in various social agencies. Opportunity is provided for the student to progressively assume the responsibilities related to agency work.

**SPED 201. WORKSHOP IN SPECIAL EDUCATION.** *One to six hours credit.*

A workshop designed for teachers and administrators. This course is designed to facilitate specific disability areas and will be so designated with each workshop offered. The content will include current issues, problems, programs, and topics of national and local interest.

**SPED 202. COUNSELING PARENTS OF EXCEPTIONAL CHILDREN.** *Three hours credit.*

This course is designed to present the techniques of working with parents of special education, general education, nursing, counseling and other related personnel.

**SPED 210. INTRODUCTION TO MENTAL RETARDATION.** *Four hours credit.*

Prerequisite, SPED 10 or 300. A study of the social, emotional, physical, and mental characteristics of the mentally retarded child. Methods of classifying, diagnosing and treating retarded children will be discussed from medical, psychological, sociological, and educational points of view.

**SPED 211. EDUCATION OF SEVERELY MENTALLY RETARDED CHILDREN.** *Three hours credit.*

Organization of special class and school programs for severely mentally retarded children. Diagnosis and classification. Development of teaching materials and techniques. Community organizations and parent education.

**SPED 212. CURRICULUM DEVELOPMENT AND METHODOLOGY FOR MENTALLY RETARDED: ELEMENTARY LEVEL.** *Four hours credit.*

Prerequisites, SPED 10 or 300, 210. This course will have as its main purpose the development of integrated experience-units for elementary level mentally retarded children. Experience-centered units will be built around the following three areas: occupational, economic, and social. The course will consist of reading, lecture, observation, experimentation and meetings.

**SPED 213. CURRICULUM DEVELOPMENT AND METHODOLOGY FOR THE MENTALLY RETARDED: SECONDARY LEVEL.** *Four hours credit.*

Prerequisites, SPED 10 or 300, 210. Emphasis is placed on the content, methods and materials appropriate for teaching junior and senior high school classes for mentally retarded youngsters.

**SPED 220. INTRODUCTION TO THE EDUCATION OF SOCIALLY AND EMOTIONALLY DISTURBED CHILDREN.** *Three hours credit.*

An introduction to concepts, practices, and trends in education for emotionally disturbed and socially maladjusted children, an orientation to the dynamics, personality characteristics and needs of emotionally handicapped and socially maladjusted children is provided.

**SPED 230. CARE AND PATHOLOGY OF THE PHYSICALLY HANDICAPPED.** *Three hours credit.*

Prerequisite, SPED 10 or 300. A course designed for teachers of physically handicapped children. Problems will be discussed in the following areas: vision, hearing, speech, orthopedics, epileptics and miscellaneous. Observation hours are required.

**SPED 231. PROBLEMS OF TEACHING THE PHYSICALLY HANDICAPPED.** *Three hours credit.*

Methods of teaching physically handicapped children; evaluation of techniques and teaching procedures with the various types of physically handicapped children; study of available material, curriculum planning, and aids used in the education of the physically handicapped child. Some time will be given to counseling of parents and organizing of parent groups. Observation hours are required.

**SPED 240. SURVEY OF EDUCATION OF THE VISUALLY HANDICAPPED.** *Three hours credit.*

Educational, social and emotional implications of visual disability. Overview of history, and current practices in educational and rehabilitation planning. Organization and implications of various education services—pre-school through college. A review of private and public agencies, their philosophies, and programs.

**SPED 242. PRINCIPLES OF EDUCATION OF THE PARTIALLY SEEING.** *Three hours credit.*

Identification, classification, and methods of program organization; principles of preparation, selection, effective use of instructional materials for children with limited vision. Adaptation of the school environment considered. Observation, discussion, and administration of the Snellen Vision Screening test presented.

**SPED 243. BEGINNING BRAILLE.** *Three hours credit.*

History of development of braille and other systems of reading used by the blind. Mastery of literary braille code development and use of special materials; slate and stylus techniques presented; introduction to Nemeth Code of Mathematics.

**SPED 244. ELEMENTARY METHODS FOR THE BLIND.** *Three hours credit.*

Special instructional techniques in teaching reading through braille; use of audio and dimensional aids; current practices in arithmetic, language, arts, music, physical education, efficient living skills; orientation and mobility foundations. Materials preparation, adaptation of commercial devices emphasized.

**SPED 245. SECONDARY METHODS FOR THE BLIND.** *Three hours credit.*

Curriculum, adaptations and special methods; problems of adjustment and expansion of the operational environment. Use of guidance, counseling and vocational rehabilitation agency services in life planning for the senior high school blind student. Pre-adult and adult special services. Review of special legislation and typical services available to the young blind adult.

**SPED 250. PATHOLOGY AND INTRODUCTION TO EDUCATION OF DEAF AND HARD OF HEARING.** *Three hours credit.*

History and philosophy of education of the deaf. Structure of the ear and causes. Problems in organization, support, and maintenance of programs for deaf and hard-of-hearing children. Presentation of types of instruction given in various schools, the oral method, the combined method, the Rochester method, and the acoustic method.

**SPED 251. SPEECH DEVELOPMENT FOR DEAF AND HARD OF HEARING.** *Maximum of six hours credit.*

Presentation of various methods commonly used in speech development of intelligible speech. Integration of speech with other language arts. Importance of pre-school programs and parent education.

**SPED 252. LANGUAGE DEVELOPMENT FOR DEAF AND HARD OF HEARING.** *Maximum of six hours credit.*

Development of language comprehension through speech-reading and reading. Systems of teaching language to the deaf. Principles of grammar essential to the use of any system of language instruction. Development of functional language usage in both oral and written forms. The meaning and importance of an integrated language arts program.

**SPED 253. METHODS OF TEACHING CONTENT SUBJECTS TO THE DEAF.** *Three hours credit.*

Prerequisite SPED 250. The use of the communication skills as applied in all content subject areas will be explored. Special techniques, developmental as well as corrective, will be demonstrated. Wherever possible, special multi-media approaches will be used.

**SPED 254. METHODS OF TEACHING READING TO THE DEAF AND HARD OF HEARING.** *Three hours credit.*

Prerequisite SPED 250. Relationships between expressive and receptive communication skills will be basic premises. Development of techniques for teaching reading readiness skills, reading skills, and remedial reading skills for hearing impaired children will be used. All reading skills will be directed toward making the hearing impaired child an independent reader.

**SPED 256. EDUCATION OF HARD-OF-HEARING CHILD.** *Three hours credit.*

Sociologic, psychologic and economic implications of hearing loss. Survey of public school program of hearing conservation. Methods and practice of hearing therapy including lip-reading, auditory training, and speech improvement. Presentation of typical lesson plans at various levels and collection of source materials. Mechanics and use of hearing aids and other amplifying devices.

**SPED 257. SPEECH READING.** *Three hours credit.*

Speech reading theory and practice. Some educational problems of the speech reading teacher. Methods used for the instruction of children and adults. Correlation with auditory training, reading, and speech correction. Different approaches used with hard-of-hearing children and the deaf.

**SPED 258. AUDITORY TRAINING AND HEARING AIDS.** *Two hours credit.*

Emphasis is placed on methods of developing auditory discrimination in hearing impaired children through various techniques aimed to support the speech development program; in addition, a study of individual and group amplification instruments for utilizing all residual hearing will be undertaken.

**SPED 259. UNDERGRADUATE SEMINAR IN EDUCATION OF THE DEAF AND HARD OF HEARING.** *Three hours credit.*

The course is designed to recapitulate problems encountered in the student field experience. Discussions will be centered around the language and speech problems of the hearing impaired child, and upon the student teacher and the classroom dynamics.

**SPED 260. PUBLIC SCHOOL SPEECH PATHOLOGY.** *Three hours credit.*

Prerequisite: SPED 164 or consent of instructor. Organizational procedures, use of clinical materials, and administrative policies relevant to speech correction programs in public school settings.

**SPED 263. NEUROLOGICAL BASIS FOR SPEECH AND HEARING.** *Three hours credit.*

Anatomy and physiology of the nervous systems controlling the speech and hearing mechanisms, together with theories of control.



**SPED 264. CLINICAL PRACTICES IN SPEECH PATHOLOGY.** *Maximum of six hours credit with two credit hours earned per quarter.*  
 Prerequisite: SPED 164 or consent of instructor. Observation and performance of supervised diagnosis and therapy.

**SPED 267. DIAGNOSIS IN SPEECH PATHOLOGY.** *Three hours credit.*  
 Prerequisite: SPED 164. Techniques of clinical diagnosis and evaluation of persons with speech and language disorders.

**SPED 268. SPEECH AND LANGUAGE DEVELOPMENT FOR MENTALLY RETARDED.** *Three hours credit.*  
 Prerequisite: SPED 64. Relationship of speech and language to mental retardation. Diagnosis and therapeutic measures used in the development of speech and language for the mentally retarded.

**SPED 270. BASIC AUDIOLOGY.** *Three hours credit.*  
 Measurement of hearing with pure tone techniques and interpretation of test results in terms of physical, social, and educational handicap.

**SPED 271. SPEECH AUDIOMETRY I.** *Three hours credit.*  
 Prerequisite SPED 270. Materials and techniques employed in standard speech audiometry and hearing aid evaluations.

**SPED 272. ADVANCED AUDIOMETRY.** *Three hours credit.*  
 Prerequisite: SPED 271. Theory and practice of advanced pure tone and speech testing. A consideration of the instrumentation necessary for such testing, the interpretation of audiometric findings with special emphasis on the effects of hearing loss on communication.

**SPED 273. THE AUDITORY MECHANISM.** *Three hours credit.*  
 Detailed study of the human ear, the processes of audition, and the abnormalities and diseases of the hearing mechanism.

**SPED 274. PRACTICUM IN AUDIOLOGY.** *Maximum of six hours credit.*  
 Prerequisite: SPED 272 or consent of instructor. Observation and performance of supervised diagnosis and therapy.

**SPED 275. AUDITORY DISORDERS IN CHILDREN.** *Three hours credit.*  
 Identification audiometry and differential diagnosis of children with suspected auditory disorders.

**SPED 280. EDUCATION OF CHILDREN WITH SPECIAL ABILITIES.** *Three hours credit.*  
 Basic organization of programs for the education of the gifted child; classification and testing; curriculum adjustments and principles of teaching the gifted; exploring creative activities; guidance and evaluation of student programs.

**SPED 290. INTRODUCTION TO VOCATIONAL REHABILITATION COUNSELING.** *Three hours credit.*  
 An orientation to the rehabilitation process including a survey of history, principles, philosophy and legal aspects of rehabilitation and related fields. Rehabilitation as a concept of integrated service is stressed and an understanding of the objectives and the organizational basis of rehabilitation programs is provided.

**SPED 298. COMMUNITY RESOURCES FOR REHABILITATION, GUIDANCE AND COUNSELING.** *Three hours credit.*  
 Designed to acquaint the student with an understanding of the need for community resources. Provides the student with techniques for evaluating the effectiveness of available resources, and the knowledge and skills required to develop community resources needed for the implementation of rehabilitation, guidance and counseling services.

## SPEECH COMMUNICATION-JOURNALISM

**\*SP 16. VOICE AND SPEECH IMPROVEMENT.** *Four hours credit.*

A study of the use of the speaking voice and the elements of clean articulation with particular attention to individual needs.

**\*SP 18. LABORATORY FORENSICS.** *Maximum of three hours credit.*

Students registering for more than one hour of credit must have permission of director of forensics and must devote at least fifteen hours a week to the program. No student may earn more than a total of eight hours in Speech 18.

**\*SP 62. PUBLIC SPEAKING.** *Four hours credit.*

Prerequisite, COM 3. A second course in speech. Emphasis is placed on the preparation, organization, and presentation of various types of speeches.

**\*SP 66. PRINCIPLES OF MASS COMMUNICATION.** *Three hours credit.*

An introductory study of the techniques and theories of mass communication, including printed and electronic media, and its significance in contemporary society.

**\*SP 80. SURVEY OF SPEECH COMMUNICATION.** *Three hours credit.*

A systematic survey of all major areas in the field of speech communication with attention to the interdisciplinary nature of this branch of learning.

**\*SP 108. PARLIAMENTARY LEADERSHIP TRAINING.** *Two hours credit.*

The course deals with (1) a study of the qualities necessary in a person who presides at meetings and (2) a study of the rules which govern procedure in organized groups along with practice in the application of those rules.

**\*SP 111. ARGUMENTATION THEORY.** *Three hours credit.*

A systematic study of argumentation theory during which both informal and formal applications of theory and logical discourse will be discussed.

**\*SP 117. ORAL INTERPRETATION.** *Three hours credit.*

The student is given an opportunity to read aloud in various forms of literature and is aided in gaining skill in an artistic presentation.

**\*SP 118. ACADEMIC DEBATE.** *Three hours credit.*

Prerequisite, SP 111. This course is designed primarily to provide students with a better understanding of the intricacies of intercollegiate academic debating and the opportunity for practical experience in team debating.

**\*SP 123. BASIC SPEECH AND ORAL READING.** *Five hours credit.*

A course for prospective junior high school teachers. It is designed to develop basic skills and to provide meaningful learning experiences in speaking and oral reading.

**SP 124. TEACHING SPEECH IN JUNIOR HIGH SCHOOL.** (ATE) *Four hours credit.*

Introduction to the study of the teaching of speech with consideration of goals, source materials, and projects. The correcting of articulatory problems will be stressed.

**\*SP 145. SPEECH COMPOSITION.** *Two hours credit.*

This course consists of the study of the techniques involved in the writing of speeches. Several speeches are studied analytically and speeches are then written to be memorized.

**SP 151. SPEECH FOR THE CLASSROOM TEACHER.** *Four hours credit.*

A course designed to increase the personal effectiveness of the teacher in the classroom with emphasis on the improvement of instructional speaking. Not for speech major or minors.

**\*SP 188. RADIO PRODUCTION AND PRACTICES.** *Three hours credit.*

*(Two hours lecture, two hours laboratory.)*

This course is designed to survey all basic radio production processes. Considerable practical laboratory experience in the studios of a broadcast station.

**\*SP 189. GROUP DISCUSSION.** *Three hours credit.*

Principles and practice in organizing, conducting, and participating in all forms of public discussion including round-tables, symposiums, and forums.

**\*SP 208. INTRODUCTION TO TELEVISION PRODUCTION.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

This course includes a brief history of oral mass media, a survey in the laymen's terms of the technical phenomena involved, a comparison of television to other mass media, and a study of television programs and production techniques.

**\*SP 212. DESCRIPTIVE LINGUISTICS.** *Three hours credit.*

A critical examination of language theory, communications theory, and linguistic theories with particular emphasis on the basic linguistic elements of phonology, morphology, grammar and syntax.

**\*SP 217. ADVANCED ORAL INTERPRETATION.** *Four hours credit.*

Prerequisite, SP 117. The development of greater artistic skill in reading various forms of literature.

**\*SP 218. THEORIES OF GROUP PROCESS.** *Three hours credit.*

Prerequisite, SP 189. A systematic overview of current theory and knowledge of discussion as derived and synthesized from significant experimental investigation.

**SP 219. SEMINAR IN THE DIRECTION OF FORENSICS. (ATE)** *Two hours credit.*

A study of the principles, methods, and problems of directing a forensics program, particularly at the secondary school level.

**SP 248. WORKSHOP IN SPEECH EDUCATION. (ATE)** *Three hours credit.*

An opportunity to study cooperatively the problems involved in teaching speech. The area or areas to be covered in any one workshop will be determined by the interests and needs of the group or by previous announcement. These areas will include such matters as curriculum, class instructional projects, co-curricular speech activities, remedial techniques, development and use of instructional materials.

**SP 252. BUSINESS AND PROFESSIONAL SPEAKING.** *Four hours credit.*

Designed particularly to give school administrators instruction and practice in organizing and presenting speeches which they are called upon to make in connection with their professional positions.

**\*SP 260. GENERAL SEMANTICS.** *Four hours credit.*

An analysis of the factors in communication that lead to misunderstandings and conflict, with suggestions for improving communication.

**\*SP 275. INTRODUCTION TO PHONETICS.** *Three hours credit.*

The science of speech sounds with special application to the use of phonetics in speech instruction in elementary and secondary schools.

**\*SP 280. AMERICAN PUBLIC ADDRESS (to 1890).** *Three hours credit.*

An historical and critical study of representative American speakers and speeches of the period.

**\*SP 281. AMERICAN PUBLIC ADDRESS (1890 to Present).** *Three hours credit.*

An historical and critical study of representative American speakers and speeches of the period.

**\*SP 285. THE RHETORIC OF SOCIAL PROTEST.** *Three hours credit*

An analytical and critical study of the rhetoric of social protest in America with special emphasis on racial agitation.

**\*SP 290. PERSUASION.** *Three hours credit.*

A study of advocacy with special emphasis on the techniques used in communication and the implications for the listener and reader.

**\*SP 294. CRITICAL THINKING.** *Three hours credit.*

A study of inductive and deductive reasoning with special emphasis on the fallacies in reasoning.

## STUDENT FIELD EXPERIENCES

**SFE 160. OBSERVATION IN COOPERATING SCHOOLS.** *One to four hours credit.*

Open to individual students of any level or department. Credit granted on basis of one hour per 25 classroom observation hours. Student-instructor co-planned observational experiences in a variety of local or distant school situations. Evaluation consists of oral reporting periodically, filing a final log, and estimation of insight growth of the student. S-U final mark.

**SFE 170. TEACHING AIDE.** *One to four hours credit.*

Open to individual students of any level or department. Credit based on one hour per 20 actual hours in the classroom. Placement in local or nearby cooperating schools. Experience consists of a regular, steady assignment in a single teaching station all quarter, not to exceed 10 hours a week. Experience is guided by the principal and teacher; includes bit teaching, tutoring and classroom routine management under close supervision. Evaluation is by S-U mark and is based on behavioral observation of student progress in insight, planning, adaptation and bit instruction.

**SFE 180. SIMULATION OF TEACHING.** *Three hours credit. ATE.*

Prerequisite to SFE 251, 252, 261 or 262. Consists of a variety of simulation materials and activities. Thought and action centers on school-like problems. Evaluation is by S-U mark and is based on participation, tests and oral and written reporting.

**SFE 220. SPECIAL EDUCATION STUDENT TEACHING: ELEMENTARY.**

*Nine to eighteen hours credit. ATE.*

Designed to allow students the opportunity to bridge the gap between theory and practice in the teaching of handicapped children on the elementary level. Opportunity is provided for the student to use special methods, materials and techniques and to progressively assume the responsibilities related to teaching. S-U final mark.

**SFE 230. SPECIAL EDUCATION STUDENT TEACHING: SECONDARY.**

*Nine to eighteen hours credit. ATE.*

Designed to allow students the opportunity to bridge the gap between theory and practice in the teaching of handicapped children on the secondary level. Opportunity is provided for the students to use special methods, materials and techniques and to progressively assume the responsibilities related to teaching. S-U final mark.

**SFE 240. PRESCHOOL STUDENT TEACHING.** *Eighteen hours credit. ATE*

Provides for the practical application, under supervision, of the principles of learning and the techniques of instruction in the classroom. S-U final mark. Specially designed for preschool level experiences in one full-day quarter.

**SFE 250. ELEMENTARY STUDENT TEACHING.** *Eighteen hours credit.*

*ATE.*

Provides for the practical application, under supervision, of the principles of learning and the techniques of instruction in the elementary classroom. Experiences extend through one full-day quarter. S-U final mark.

**SFE 251. HALF-DAY INTERNSHIP: ELEMENTARY.** *Eighteen hours credit.*

*(6 hours each for three consecutive quarters). ATE.*

Half-day, all-year elementary internship. Salary, temporary certification, full-staff status. Available in Weld County only. Opportunity for continued employment on second salary step. In lieu of regular student teaching requirement. Prerequisites: EM 206 and SFE 180 (or equivalents). Apply before March 1. S-U final mark.

**SFE 252. FULL-DAY INTERNSHIP: ELEMENTARY.** *Eighteen hours credit.* (6 hours each for three consecutive quarters.) ATE.

Prerequisites: EM 206 and SFE 180 (or equivalents). A full-day, full year teaching internship in an elementary classroom. Salaried, temporarily certified, full-staff status with opportunity for continued employment on second salary step. In lieu of regular student teaching requirement. Apply by March 1. Assignment possibilities: statewide. S-U final mark.

**SFE 253. ADVANCED STUDENT TEACHING: ELEMENTARY.** *Three to Eighteen hours credit.* ATE.

Opportunity for a student who has had student teaching, intern or provisional field experience to meet certification needs or to receive additional field experience upon SFE staff recommendation. Could be a partial term classroom experience during any of the four college quarters. Focuses on up-dating and refining classroom methods in the elementary classroom. S-U final mark.

**SFE 260. SECONDARY STUDENT TEACHING.** *Eighteen hours credit.* ATE.

Provides for the practical application, under supervision, of the principles of learning and the techniques of instruction in the secondary school classroom. Must be limited to the ATE and departmentally approved teaching subject area(s). Experiences extend through one full-day quarter. S-U final mark.

**SFE 261. HALF-DAY INTERNSHIP: SECONDARY.** *Eighteen hours credit.* (6 hours each for three consecutive quarters). ATE.

Half-day, all-year secondary classroom teaching internship in approved teaching subject area(s) only. Salary, temporary certification, full-staff status. Available in Weld County only. Opportunity for continued employment on second salary step. In lieu of regular student teaching requirement. Pre-requisites: EM 206 and SFE 180 (or equivalents). Apply by March 1. S-U final mark.

**SFE 262. FULL-DAY INTERNSHIP: SECONDARY.** *Eighteen hours credit.* (6 hours each for three consecutive quarters.) ATE.

Prerequisites: EM 206 and SFE 180 (or equivalents). A full-day, full-year teaching internship in the secondary classroom in the approved subject area(s) only. Salaried, temporarily certified and full-staff status. Opportunity for continued employment on second salary step. In lieu of regular student teaching requirement. Apply by March 1. Assignment possibilities: statewide. S-U final mark.

**SFE 263. ADVANCED STUDENT TEACHING: SECONDARY.** *Three to Eighteen hours credit.* ATE.

Designed to meet certification or recommended additional field experience needs of secondary students after regular student teaching, interning, or actual provisional teaching experiences. Could be a partial term classroom experience during any of the four college quarters. S-U final mark.

## THEATRE ARTS

**\*THEA 13. INTRODUCTION TO STAGECRAFT.** *Three hours credit.*

Emphasis is placed upon the background of the art of stagecraft, the vocabulary, and the materials of the scene. Opportunity is provided for the student to learn, through direct experience, techniques of construction, assembly, and painting.

**\*THEA 63. ACTING I (INTERNALS).** *Four hours credit.*

The beginning course in the basic principles of acting and dramatic production. The emphasis of the course is on the primary needs of acting: concentration, motivation, and believability.

**\*THEA 75, 76, 77. STAGE MOVEMENT I, II, III.** *(Three hours credit given upon completion of all three sections.)*

Prerequisite: THEA 63, or permission of instructor. A laboratory class in the development of the actor's basic tools, his body and his voice. Emphasis is placed upon skills needed to communicate various styles of acting, movement in period costume, stage fighting, and essentials of choreographed movement for non-dancers.

**\*THEA 110. STAGE MAKE-UP.** *Two hours credit. (One hour lecture, two hours laboratory.)*

A basic course designed to acquaint the student with the principles of the art of stage make-up.

**THEA 112. CREATIVE DRAMATICS.** *Three hours credit.*

A lecture and laboratory course in dramatics for elementary and secondary school teachers. This course includes the contributions of creative dramatics to education and demonstrations of procedures best adapted to work in children's dramatic activity.

**\*THEA 113. STAGECRAFT.** *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisite: THEA 13. This course deals specifically with the problems, methods, and materials used in staging the play, with particular emphasis on stage construction and painting techniques.

**\*THEA 120. BEGINNING STAGE COSTUMING.** *Three hours credit. (Two hours lecture, two hours laboratory.)*

An introduction to the techniques of basic costuming for the theatre: the role of the costumer, pattern and construction, and a familiarity with materials and practices relating to play production.

**\*THEA 126. BEGINNING PLAY DIRECTION.** *Four hours credit.*

Prerequisite: THEA 13 and THEA 63. A basic course in the principles of directing a play. The major focus of the course is on contemporary theories and practices of play direction, with practical experience in directing scenes and exercises.

**\*THEA 130. INTRODUCTION TO THE THEATRE.** *Three hours credit.*

An introductory course to the theatre which gives a comprehensive outline of the living stage, its players and craftsmen, and its place in society from primitive theatre to contemporary American and European theatres.

**\*THEA 163. ACTING II (EXTERNALS).** *Three hours credit.*

Prerequisite: THEA 63. The second course in the principles of acting. The primary focus of the course is on observation, character analysis and research, and the use of the actor's voice and body for external characterization.

**\*THEA 165. BEGINNING SCENE DESIGN.** *Three hours credit.*

Prerequisite: THEA 13. An introductory course in the fundamentals of scene design. The study includes the basic principles of design and color and their application to scenic design.

**\*THEA 206. TECHNIQUES OF PLAY DIRECTION.** *Three hours credit. (Laboratory arranged.)*

Prerequisite: THEA 126, or permission of instructor. A production course in directing the one-act play for public performance. Particular attention will be given to planning and scheduling a theatrical production and handling the problems of the student actor.

**\*THEA 210, 211, 212. SUMMER THEATRE WORKSHOP I, II, III.** *Five hours credit.*

Prerequisite: acceptance by the Theatre Arts staff. Workshop in techniques of acting and technical work as observed and practiced in the daily rehearsal periods of The Little Theatre of the Rockies. Students must spend six to eight hours per day in rehearsals, either as actors or technical assistants. Work in the Summer Theatre Workshop (THEA 210, 211, 212) may be used by Theatre Arts majors in lieu of THEA 113 or THEA 163 in the major sequences.

**\*THEA 213. ADVANCED STAGING TECHNIQUES.** *Four hours credit.*

Prerequisite: THEA 113 and THEA 165. The study and practice of the latest trends and developments in scenic design, staging methods, and techniques. Special attention is directed toward stage management, care and maintenance of equipment, and materials. Emphasis is upon the stage mechanics and materials of the modern theatre.

**\*THEA 214. STAGE LIGHTING.** *Two hours credit. (One hour lecture, two hours laboratory.)*

An introduction to lighting theory and lighting design applicable to all staging practices.

**\*THEA 215. THEATRE PRODUCTION.** *Two hours credit. (Four hours laboratory.)*

A laboratory class in the production and presentation of theatre before live audiences. The emphasis in the course is on an unification of practical problems for all aspects of theatre production through tour performances. Double period, two days a week.

**THEA 216. SENIOR SEMINAR IN DRAMATIC PRODUCTION.** *Two hours credit.*

Emphasis will be upon problems of major concern to the prospective teacher-director. Reports and discussion will focus on areas related to the teaching of theatre.

**\*THEA 220. STAGE COSTUMING.** *Four hours credit.*

Prerequisite: THEA 120, or permission of instructor. A study of costume design for the theatre. Emphasis is given to a survey of historical styles of costume used in the theatre from the primitive times to the present and to the principles of contemporary costume design procedures.

**\*THEA 226. PRACTICUM IN PLAY DIRECTION.** *Two hours credit. (One hour lecture, laboratory arranged.)*

Prerequisite: THEA 126, or equivalent. A practicum in advanced play directing which will give the student an opportunity to cast, rehearse, and direct one or more laboratory productions under the supervision of the theatre staff. Class hours must be arranged to correspond to a section of THEA 63.

**\*THEA 230. HISTORY OF THE THEATRE I.** *Three hours credit.*

A seminar study of European theatre and its development from the beginnings until the end of the Middle Ages, including the primitive origins of theatre and the development of Oriental theatres.

**\*THEA 231. HISTORY OF THE THEATRE II.** *Three hours credit.*

A seminar study of European theatre and its development from the Italian Renaissance until the close of the 18th century.

**\*THEA 232. HISTORY OF THE THEATRE III.** *Three hours credit.*

A seminar study of American and European theatre and its development from the beginning of the 19th century to the present.

**\*THEA 233. CHILDREN'S THEATRE PRODUCTION.** *Three hours credit. (Laboratory arranged.)*

Prerequisite: THEA 112, or permission of instructor. A basic production course in the methods and procedures of producing good theatre for children. Study of the literature in the field, technical problems, and the educational values of theatre for children will be emphasized.

**\*THEA 261. SERIOUS STYLES OF ACTING.** *Two hours credit. (Four hours laboratory.)*

Prerequisite: THEA 163, or equivalent. An advanced laboratory course in acting, concentrating on Greek tragedy, Elizabethan and Jacobean tragedy and history, the serious drama of the Spanish Renaissance, French neo-classic tragedy, 19th century Romantic drama, Ibsen, and Strindberg.

**\*THEA 262. COMIC STYLES OF ACTING.** *Two hours credit. (Four hours laboratory.)*

Prerequisite: THEA 163, or equivalent. An advanced laboratory course in acting, concentrating on Greek and Roman comedy, farce comedy in the medieval and renaissance periods, Commedia dell'Arte, Elizabethan and Jacobean comedy, French neo-classic comedy, English comedy of the Restoration and 18th century, and 19th century farce and comedy.

## 252 / COURSE DESCRIPTIONS

**\*THEA 263. PROBLEMS IN ACTING CONVENTIONS.** *Two hours credit. (Four hours laboratory.)*

Prerequisite: THEA 163, or equivalent. An advanced laboratory course in acting, concentrating on stage dialects and the conventions needed to act such modern dramatic forms as naturalism, expressionism, impressionism, symbolism, "theatre of the absurd," "theatre of cruelty," happenings, and other modern experimental forms.

**\*THEA 265. ADVANCED SCENE DESIGN.** *Three hours credit.*

Prerequisite: THEA 113, THEA 165, or permission of instructor. A study of the techniques and problems of scenic design. The esthetic, as well as the practical, problems of the designer are presented. Settings, properties, costuming, lighting are practiced within the theatre laboratory.

**\*THEA 270. READERS THEATRE.** *Three hours credit.*

Prerequisite: SP 117, or permission of instructor. A course designed to acquaint the student with the principles and production techniques of Readers Theatre.

**THEA 296. INDIVIDUAL PRACTICUM IN ADVANCED PLAY DIRECTION.** *Four hours credit.*

An individual practicum in directing a full-length play. Two copies of a well-written paper, defending the purpose and success of the production, and one neat promptbook will be filed with the department, one copy of the paper with the practicum adviser. This course is open only to senior majors in play direction and qualified graduate students.

## ZOOLOGY

Courses in zoology are administered by the Department of Biological Sciences.

**\*ZOO 5. GENERAL ZOOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

An introduction to animal biology through the use of selected topics chosen for their contemporary interest and utility as basic material in zoology. Relevance to man of the subjects covered as stressed. Will substitute for SCI 4. Credit not allowed for biology majors.

**\*ZOO 10. ELEMENTS OF HUMAN PHYSIOLOGY-ANATOMY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

A class in beginning human physiology stressing the regulatory mechanisms that maintain normal body function. Emphasis is placed on broad, general biological principles as they apply to structure and function. Not open to biology majors and minors.

**\*ZOO 112. MAMMALIAN ANATOMY.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, ZOO 5. A study of injected laboratory mammals in which techniques of dissection and laboratory procedures are emphasized. Skeletal structure, musculature, and the morphology of organs of respiration, circulation and digestion are considered.

**\*ZOO 114. ORNITHOLOGY.** *Three hours credit.*

In this course classroom, museum, and field projects are concerned with the habits, habitats, life histories, migration activities, behavior patterns, and economic importance of birds. Students will have an opportunity to learn to identify birds in the field. Field work required.

**\*ZOO 117. HUMAN PHYSIOLOGY.** *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, ZOO 5 or BIO 1, 3, recommended ZOO 112 and CHEM 147. A detailed presentation of the functions of the organ systems of the human body. Emphasis is placed on the mechanisms involved with the maintenance of normal function.



**ZOO 210. ENTOMOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 1, 3. The study of the principal orders of insects. Specimens are collected locally and prepared by the student for classification and study. The role of insects as vectors in transmission of diseases and some control measures are considered in the latter parts of the course.

**ZOO 213. GENERAL PARASITOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 1, 3. A study of the symbiotic relationships of parasitism as exemplified by typical parasites of man, domesticated and wild animals. Life cycles, pathology, systematics, and host-parasite relationships are stressed.

**ZOO 214. FAUNISTICS.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 1, 3. An advanced taxonomy and ecological survey of the local fauna of Colorado with special emphasis on amphibians, reptiles, and mammals. This will include field trips, collection, and classification of the local fauna, and a study of the habits, habitats, and life histories of the local species under the ecological conditions that govern their distribution. Collecting permits are needed.

**ZOO 219. ANIMAL ECOLOGY.** *Five hours credit. (Two hours lecture, six hours laboratory.)*

Prerequisites, BIO 1, 2, 3. The principles of governing animal relationship with their environment. Distribution, food supply, migratory movements, and territorial requirements will be emphasized. Field work required.

**ZOO 221. MAMMALIAN PHYSIOLOGY I.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, BIO 1, 3, ZOO 112 or 226. CHEM 142 or 147 recommended. A detailed and comprehensive coverage of the major organ systems of the mammal. Major emphasis is placed on the integrative functions of the nervous and endocrine systems in the maintenance of homeostasis. This course is the first of a two-quarter sequence and includes a study of the body fluids, cardiovascular, respiratory and gastrointestinal systems.

**ZOO 222. MAMMALIAN PHYSIOLOGY II.** *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, ZOO 221. This course is a continuation of ZOO 221. The course includes consideration of digestion and absorption, intermediary metabolism, the excretory, muscular and nervous systems and the special senses. Major emphasis is placed on the integrative functions of the nervous and endocrine systems in the maintenance of homeostasis.

**ZOO 225. COMPARATIVE MORPHOGENESIS OF THE VERTEBRATES I.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, BIO 1, 2, 3. A study of the comparative developmental processes and fundamental principles of vertebrate embryology as they relate to the development and ultimate structure of the vertebrate organ systems. Developmental anatomy and adult morphology of the sharks through mammals are considered for laboratory study.

**ZOO 226. COMPARATIVE MORPHOGENESIS OF THE VERTEBRATES II.** *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, BIO 1, 2, 3, ZOO 225. A study of the comparative developmental processes and fundamental principles of vertebrate embryology as they relate to the development and ultimate structure of the vertebrate organ systems. Developmental anatomy and adult morphology of the sharks through mammals are considered for laboratory study.

# ADMINISTRATION

## Board of Trustees 1969-1970

STUART W. McLAUGHIN, L.H.D., (1963, 1975) Rangely  
*President*

ROBERT W. BARTLEY, LL.B., (1961, 1973) Pueblo  
*Vice President*

L. RICHARD BRATTON, A.B., LL.B., (1963, 1975) Gunnison

PHILLIP M. LORTON, B.S., (1961, 1973) Alamosa

BETTY NAUGLE, A.B., (1963, 1971) Denver

C. GALE SELLENS, A.B., (1965, 1971) Denver

WILLIAM H. SOUTHARD, B.A., LL.B., (1965, 1971) Greeley

The first figure in parentheses shows the date of the first appointment, the second figure is the date when the present term expires.

H. GRANT VEST, Ed.D., Denver  
*Secretary*

ALVIN E. BARNHART, Ed.D., Greeley  
*Assistant Secretary and Treasurer for Colorado State College*

## Members of Executive Committee for Colorado State College

WILLIAM H. SOUTHARD, *Chairman*  
STUART W. McLAUGHLIN, *Ex-Officio*

BETTY NAUGLE  
C. GALE SELLENS

## General Administration

### OFFICE OF THE PRESIDENT

DARRELL HOLMES, Ph.D. .... *President*  
FRANK P. LAKIN, Ed.D. .... *Administrative Assistant*  
TYRUS HILLWAY, Ph.D. .... *Director of Academic Development*

### BUSINESS AND FINANCE

ALVIN BARNHART, Ed.D. .... *Director of Business Affairs*  
JOHN McAFEE, M.A., .... *Assistant Director for Campus Planning*  
CARL G. McSPADEN ..... *Purchasing Agent*  
DAVID REICHERT, A.B. .... *Director, Physical Plant*  
EILEEN HILL ..... *Personnel Officer*  
QUINTUS C. FULLER, B.A., C.P.A. .... *Controller*  
VICTOR R. OPPENLANDER ..... *Assistant Controller for Special Programs*  
MARVIN BOHMAN, M.B.A. .... *Assistant Controller for Auxiliary Enterprises*

### DEPARTMENT OF PUBLIC SERVICES AND DEVELOPMENT

WILLIAM HARTMAN, Ed.D. .... *Director of Public Services*  
LEO W. BUTLER, M.A., .... *Executive Alumni Secretary; Assistant  
in Public Services*  
LARRY R. SEARS, M.A. .... *Director of Public Information*  
GARY MORGAN, M.A. .... *Assistant Director of Public Information*  
LOIS AYERS ..... *Editor of Publications*  
ROBERT WATERS, M.A. .... *Photographer*  
WARREN P. BEST, M.A., .... *Director of Placement*  
ROBERT O. SINGER, M.A. .... *Director of Continuing Education*  
CLARENCE O. HAECHEER, M.A., J.D. .... *Assistant to Director of Continuing  
Education*

**DEPARTMENT OF STUDENT PERSONNEL**

|                                  |   |
|----------------------------------|---|
| NORMAN T. OPPELT, Ph.D.          | Dean of Students                                  |
| JAMES K. BOWEN, Ed.D.            | Assistant Dean of Students                        |
| GERALD TANNER, M.A.              | Dean of Men                                       |
| BRANGWYN FOOTE, M.A.             | Acting Dean of Women                              |
| VERNA McDONALD, M.A.             | Acting Assistant Dean of Women                    |
| DUANE E. HENDERSON, Ed.D.        | Registrar   |
| JOE V. HOLST, JR., A.B.          | Assistant Registrar                               |
| INEZ STEWART SEEBASS, A.B., B.E. | Recorder  |
| GARY E. MILLER, M.A.             | Director of Admissions                            |
| BERNARD J. LINENBERGER, B.A.     | Assistant Director of Admissions                  |
| MEARL W. GRABILL, M.A.           | Assistant Director of Admissions                  |
| HARRY E. COLLINS, Ed.S.          | Director of Financial Aids                        |
| SYLVIA WEBSTER                   | Assistant Director of Financial Aids              |
| JOHN C. McCLURE, A.B.            | Acting Director of Housing                        |
| BERNADINE GRAHAM, Ed.S.          | Coordinating Director, Residence Halls            |
| CHARLES H. WALLACE, B.S.         | Manager, Housing Services                         |
| LEONARD W. HODGSON               | Director of Food Service                          |
| ESTHER DUBBERLY                  | Food Service Manager, McCowan Dining Hall         |
| HERSHEL WILLIAMS                 | Senior Food Service Manager, Harrison Dining Hall |
| GENEVIEVE T. LAWRENSON, A.B.     | Food Service Manager, Tobey-Kendel Dining Hall    |
| HELEN TISDEL                     | Food Service Manager, Cross Dining Hall           |
| J. JANE DOLLAR, R.N.             | Director of Health Services                       |
| THEODORE M. NELSON, Ph.D.        | Dean of Psychological Services                    |
| BERNARD C. KINNICK, Ed.D.        | Assistant Dean of Psychological Services          |
| GEORGE L. MEYERS, M.A.           | Director, College Center                          |
| JOHN W. ALLEN, B.A.              | Activities Manager, College Center                |
| DAVID R. COOPER, B.A.            | College Bookstore Manager                         |
| LEROY J. SCHNEIDER               | Games Supervisor, College Center                  |
| ALICE SOBESKI, B.S.              | Food Services Manager, College Center             |

**Academic Administration**

|                                     |   |
|-------------------------------------|---|
| DONALD GILMORE DECKER, Ph.D., Sc.D. | Dean of the College   |
| GEORGE LEACH, M.A., M.S.            | Assistant to the Dean of the College;<br>Director of Summer Quarter |
| EUGENE D. KOPLITZ, Ph.D.            | Associate Dean, Honors Program                                      |
| ARTHUR R. REYNOLDS, Ph.D.           | Dean of the Graduate School   |
| GEORGE H. BROOKS, M.Ed.             | Assistant to the Dean of the Graduate School                        |

**School of Arts**

|                              |   |
|------------------------------|---|
| WILLIAM R. ERWIN, JR., Ed.D. | Dean, School of the Arts                |
| MARTHA A. POOLTON, Ed.D.     | Chairman, Department of Home Economics  |
| JOHN I. MARIANI, M.A.        | Chairman, Department of Fine Arts       |
| ROBERT G. HAMMOND, Ed.D.     | Chairman, Department of Industrial Arts |

**School of Arts and Sciences**

|                          |   |
|--------------------------|---|
| A. M. WINCHESTER, Ph.D.  | Dean, School of Arts and Sciences                           |
| HARLEY F. GLIDDEN, Ph.D. | Associate Dean—Sciences and Mathematics                     |
| WALLACE AAS, M.A.        | Chairman, Department of Physics                             |
| JOHN A. BEEL, Ph.D.      | Chairman, Department of Chemistry                           |
| THOMAS BOYLE, Ph.D.      | Chairman, Department of English                             |
| DONALD D. ELLIOTT, Ph.D. | Chairman, Department of Mathematics                         |
| DONALD L. HOLLEY, Ed.D.  | Chairman, Department of Speech Communication and Journalism |
| KEVIN C. KEARNS, Ph.D.   | Chairman, Department of Geography                           |
| FRANK E. KEPPELER, M.A.  | Chairman, Department of Foreign Languages                   |

|                                  |  |
|----------------------------------|--|
| JOHN R. MICKEY, B.S. ....        | Chairman, Department of Anthropology             |
| RICHARD A. PERCHLIK, Ed.D. ....  | Chairman, Department of Political Science        |
| BARRY ROTHBAUS, Ph.D. ....       | Chairman, Department of History                  |
| KENNETH L. SHROPSHIRE, M.A. .... | Acting Chairman, Department<br>of Earth Science  |
| ROBERT SUND, Ed.D. ....          | Acting Chairman, Department of Science Education |
| BERT O. THOMAS, Ph.D. ....       | Chairman, Department of Biological Science       |
| ORVEL L. TRAINER, Ph.D. ....     | Chairman, Department of Economics                |
| GARY WILLOUGHBY, M.A. ....       | Acting Chairman, Department of Sociology         |
| WELBY B. WOLFE, Ed.D. ....       | Chairman, Department of Theater Arts             |

## School of Business

|                                    |  |
|------------------------------------|--|
| RAMON P. HEIMERL, Ph.D. ....       | Dean, School of Business                                     |
| HUGO A. ANDERSON, M.A. ....        | Chairman, Department of Finance and<br>Insurance             |
| JOSEPH CLITHERO, M.S. ....         | Chairman, Department of Marketing                            |
| JOHN A. DAMGAARD, JR., Ed.D. ....  | Chairman, Department of Manage-<br>ment and General Business |
| MILDRED HILLESTAD, Ph.D. ....      | Director of Graduate Studies in<br>Business Education        |
| CALVIN KENNEDY, Ph.D., C.P.A. .... | Chairman, Department of Accounting                           |
| STEVE TEGLOVIC, JR., Ph.D. ....    | Chairman, Department of Administrative<br>Services           |

## School of Education

|                                      |  |
|--------------------------------------|--|
| EDWARD JAMES KELLY, Ph.D. ....       | Dean, School of Education  |
| BRUCE WILLIAM BRODERIUS, Ed.D. ....  | Associate Dean, School of Education                                      |
| GEORGE FRANKLIN SANDERSON, M.A. .... | Assistant to the Dean of the<br>School of Education                      |
| GAYLORD D. MORRISON, Ed.D. ....      | Assistant to the Dean of the School of<br>Education for Student Services |
| D. HAROLD BOWMAN, Ed.D. ....         | Chairman, Department of Educational<br>Media                             |
| FRANKLIN D. CORDELL, M.A., ....      | Acting Chairman, Department of History<br>and Philosophy of Education    |
| THELMA DAMGAARD, Ed.D. ....          | Assistant Coordinator of Student<br>Field Experiences                    |
| NICHOLAS A. GLASER, Ed.D. ....       | Director, Reading Center   |
| BEATRICE HEIMERL, Ed.D. ....         | Chairman, Department of Research<br>and Statistical Methodology          |
| KENNETH HOGAN, Ed.D. ....            | Chairman, Department of Higher Education                                 |
| BERNARD C. KINNICK, Ed.D. ....       | Chairman, Department of College<br>Student Personnel Work                |
| BOYD N. LAMARSH, Ed.D. ....          | Director, Laboratory School  |
| ARNO H. LUKER, Ed.D. ....            | Chairman, Department of Psychology,<br>Counseling and Guidance           |
| DONALD M. LUKETICH, Ed.D. ....       | Director, Colorado State College<br>Manual High School Project           |
| ALVIN O. MOSBO, Ed.D. ....           | Chairman, Department of Elementary<br>Education                          |
| JOE NICHOLS, Ed.D. ....              | Acting Chairman, Department of Curriculum<br>and Instruction             |
| ARTHUR R. PARTRIDGE, Ed.D. ....      | Chairman, Department of Educational<br>Administration                    |
| ROBERT C. RICHARDSON, Ph.D. ....     | Coordinator of Student<br>Field Experiences                              |
| LYNN K. SETTJE, Ph.D. ....           | Associate Director, Laboratory School                                    |
| BARBARA K. SMITH, M.A. ....          | Associate Director, Colorado State<br>College Manual High School Project |
| TONY D. VAUGHAN, Ed.D. ....          | Chairman, Department of Special Education                                |

## School of Health, Physical Education and Recreation

- L. C. BUTLER, Ed.D. .... *Dean, School of Health, Physical Education and Recreation*  
 BRYAN E. M. COOKE, Ph.D. .... *Acting Chairman, Department of Health and Safety*  
 MARGARET E. EVERETT, Ph.D. .... *Chairman, Department of Physical Education for Women*  
 VIRGIL Y. LINDAHL, P.E. Dir. .... *Chairman, Department of Intercollegiate Athletics*  
 GEORGE H. SAGE, Ed.D. .... *Chairman, Department of Physical Education for Men*  
 J. MAX SHIRLEY, Ed.D. .... *Chairman, Department of Recreation*

## School of Music

- JAMES E. MILLER, Ph.D. .... *Dean, School of Music*  
 ROBERT E. JAMES, Ed.D. .... *Administrative Assistant to the Dean of the School of Music*  
 EDWIN BAKER, M.M. .... *Chairman, Department of Brass and Percussion*  
 DALE DYKINS, M.Mus. .... *Chairman, Department of Theory and Composition*  
 KENNETH EVANS, Ph.D. .... *Chairman, Department of Woodwinds*  
 JOHN FLUKE, Ed.D. .... *Chairman, Department of Music Education*  
 DON GARLICK, D.M.A. .... *Chairman, Department of History and Literature*  
 RUPERT GOODBROD, M.A. .... *Chairman, Department of Piano and Organ*  
 HOWARD MICKENS, M.M. .... *Chairman, Department of Strings*  
 CLAUDE SCHMITZ, M.A. .... *Chairman, Department of Voice*

## School of Nursing

- L. ELAINE McMINN, M.S. .... *Dean, School of Nursing*

## Aerospace Studies

- LT. COL. NEIL D. MAXWELL, M.Ed. .... *Chairman, Division of Aerospace Studies*

## Directors of College Academic Services

- J. GILBERT HAUSE, Ed.D. .... *Dean of College Academic Services*  
 D. HAROLD BOWMAN, Ed.D. .... *Instructional Materials Center*  
 DONALD W. CHALOUPKA, Ed.D. .... *Bureau of Educational Research*  
 OTIS COFFEY, M.A. .... *Chief of Party, Colorado State College Project, Commercial Institutes Directorate of Technical Education, East Pakistan*  
 KENNETH D. HALSEY, M.A. .... *Campus Coordinator, Pakistan Project*  
 LOUISE J. KELLER, Ed.D. .... *Director of Vocational Education*  
 DONALD L. MEYERS, M.A. .... *Director, Computer Center*  
 ARTHUR R. PARTRIDGE, Ed.D. .... *Director, Educational Planning Service*  
 DANIEL A. SEAGER, M.A. .... *Director, Library Services*

# INSTRUCTIONAL STAFF

1969-1970

WALLACE AAS, B.S., Moorhead State Teachers College; M.A., Colorado State College.

*Associate Professor of Physics;  
Chairman, Department of Physics*

KATHERINE ABBOTT, B.A., University of Illinois.

*Instructor in Physical Education*

BARBARA J. ADAMS, B.S., M.S., Oklahoma State University; Ed.D., Colorado State College.

*Assistant Professor of Anthropology*

FRANCIS W. ADAMS, B.S., Kansas State Teachers College; M.Ed., University of Kansas; M.A., San Fernando Valley State College.

*Instructor in Special Education*

WILLIAM T. AGAN, B.A., M.A., San Francisco State College.

*Instructor in English*

VERNE AHLBERG, A.B., Macalaster College; M.A., Columbia University.

*Associate Professor of Speech*

NANCY P. ALLMON, B.S., Purdue University.

*Instructor in Home Economics*

FRANK W. ANDERS, B.S., University of California, Berkeley; M.S., U.S. Naval Post Graduate School.

*Assistant Professor of Mathematics*

DARRELL E. ANDERSON, A.B., York College; Ph.D., University of Nebraska.

*Associate Professor of Psychology*

HUGO A. ANDERSON, A.B., University of Chicago; M.S., Colorado State University.

*Assistant Professor of Business;  
Chairman, Department of Finance  
and Insurance*

VIOLETA S. ANDERSON, B.A., York College; M.A., Colorado State College.

*Instructor in College Student  
Personnel Work*

PATRICIA A. APPLGATE, B.A., State College at Iowa; M.A., Colorado State University.

*Instructor in English  
On Leave Fall Quarter, 1969*

DEAN A. ARNOLD, B.A., Eastern Illinois University; M.A., Stanford University; Ph.D., University of Chicago.  
*Professor of History*

WILLIAM RAMON ARNOLD, B.S., Oregon College of Education; M.Ed., Ed.D., University of Oregon.

*Assistant Professor of Elementary  
Education*

KAREN S. BABICH, B.S., University of Washington; M.S., Rutgers University  
*Assistant Professor of Mental Health  
Nursing*

ELMER V. BACHENBERG, B.A., Nebraska State College; M.S., University of Illinois.

*Assistant Professor of Library  
Science; Head Catalog Librarian*

GUNTHER F. A. BAER, B.Ed., University of Cape Town; M.A., M.Ed., University of the Witwatersrand; Dr. utriusque iuris, University of Heidelberg.

*Assistant Professor of German  
On Leave Fall Quarter, 1969*

EDWIN D. BAKER, B.M., M.M., Indiana University.

*Associate Professor of Music;  
Chairman, Department of Brass and  
Percussion*

RICHARD F. BALL, B.S., State Teachers College, Pennsylvania; M.A., Colorado State College.

*Professor of Art*

RICHARD P. BARASCH, B.A., M.A., University of California at Los Angeles.

*Instructor in Sociology*

JERRY N. BARHAM, B.S., Arkansas A & M College; M.S., Ed.D., Louisiana State University.

*Assistant Professor of Physical  
Education*

ALVIN E. BARNHART, B.S., Southern Oregon College; M.Ed., University of Oregon; Ed.D., Colorado State College.

*Associate Professor of Education*

WILLIAM J. BARTELL, B.S., M.S., Colorado State University.

*Instructor in Sociology*

LOREN W. BARTLETT, B.A. in Ed., B.A. in Mus., Eastern Washington State College; M.M.Ed., Oberlin College; Ph.D., University of Iowa.

*Associate Professor of Music*

RICHARD LEO BEAR, B.S., Huntington College; M.A., Ball State University; Ed.D., Indiana University.

*Assistant Professor of Psychology, Counseling and Guidance*

ARTHUR J. BECKNER, Jr., B.S., University of Colorado.

*Instructor in Physical Education*

JOHN ADDIS BEEL, B.S., Montana State College; Ph.D., Iowa State University.

*Professor of Chemistry; Chairman, Department of Chemistry*

MARY A. BEHLING, B.S., Illinois State Normal University; M.A., Colorado State College; Ph.D., Florida State University.

*Professor of Physical Education*

THOMAS R. BENICH, B.A., M.A., University of Denver.

*Assistant Professor of Physical Education*

On Leave Summer Quarter, 1970

NORMAN P. BERREMAN, B.S., Oregon College of Education; M.A., Ed.D., Arizona State University.

*Assistant Professor of Psychology, Counseling and Guidance*

KATHLEEN A. BERRINGER, B.A., Mercyhurst College.

*Instructor in Fine Arts*

ANNE ELISE BERRY, B.S., Alabama College; M.S., University of North Carolina, Greensboro.

*Instructor in Physical Education*

WARREN P. BEST, B.S., Nebraska State Teachers College; M.A., Colorado State College.

*Associate Professor of College Student Personnel Work*

AGNES M. BIEGEL, B.S., Loyola University; M.S., Catholic University of America.

*Assistant Professor of Medical-Surgical Nursing*

MARGARET T. BLAKE, B.S., University of Oklahoma; M.S., Ph.D., Iowa State University.

*Assistant Professor of Psychology, Counseling and Guidance*

HOWARD LAWRENCE BLANCHARD, B.A., University of Northern Iowa; M.S., Drake University; Ed.D., Colorado State College.

*Professor of Psychology, Counseling and Guidance*

ROBERT L. BLASI, B.S., Colorado State University; M.A., Colorado State College.

*Associate Professor of Physical Education*

ROBERT L. BLILER, B.A., Millikin University; M.S., University of Tennessee.

*Instructor in Special Education*  
On Leave Summer Quarter, 1970

CHARLES T. BLUBAUGH, B.F.A., M.A., University of Colorado.

*Assistant Professor of Art*  
On Leave Fall Quarter, 1969

GEORGE A. BOECK, B.A., Iowa State Teachers College; M.A., Ph.D., Iowa University.

*Professor of History*  
On Leave Fall Quarter, 1969

JOHN TURNER BOOKMAN, B.A., Ph.D., University of Cincinnati.

*Assistant Professor of Political Science*

ADAH BOSSART, B.S., M.S., University of Colorado.

*Instructor in Public Health Nursing*

JOHN E. BOTHELL, A.B., M.A., Colorado State College; Ed.D., George Peabody College for Teachers.

*Professor of Education*  
Will retire September 30, 1970

JACK ARTHUR BOWEN, A.B., Brigham Young University; B.S., Eastern Oregon College; M.A., Ph.D., University of Utah.

*Assistant Professor of Special Education*

JAMES K. BOWEN, B.S., M.S. in Ed., Kansas State Teachers College; Ed.D., University of Wyoming.

*Assistant Professor of Psychology, Counseling and Guidance*

D. HAROLD BOWMAN, B.S., McPherson College; M.Ed., Ed.D., Wayne State University.

*Professor of Education; Chairman, Department of Educational Media*  
On Leave Summer Quarter, 1970

THOMAS E. BOYLE, A.B., University of Richmond; M.A., Ph.D., University of Illinois.

*Associate Professor of English;  
Chairman, Department of English*

EUGENE O. BOWSER, B.S., Kansas State Teachers College; M.A., Brandeis University.

*Instructor in History*

JOHN M. BRAND III, A.B., Austin College; B.D., Austin Presbyterian Seminary; Ph.D., Texas Christian University.

*Assistant Professor of English*

CLINTON W. BRATTON, B.A., Mississippi State University; M.A., Northwestern University.

*Instructor in English*

DOROTHY BRENGARTH-JONES, B.S., University of Missouri; M.A., Sacramento State College.

*Instructor in Sociology*

WANDA E. BREWER, B.F.A., University of Denver; M.A., Ed.D., Colorado State College.

*Assistant Professor of English*

ARTHUR J. BREWSTER, B.S., State College, Lowell; M.Ed., State College, Salem; Ed.D., University of Kansas.

*Associate Professor of Education*

EDITH W. BROCHU, B.S., University of Kansas; M.A., Colorado State College.

*Temporary Instructor in Elementary Education*

BRUCE W. BRODERIUS, B.S., St. Cloud State College; M.A., George Washington University; Ed.D., Colorado State College.

*Associate Professor of Education*

GEORGE H. BROOKS, B.A., Sterling College, Kansas; M.Ed., University of Kansas; Ed.D., Colorado State College.

*Instructor in Social Studies*

GEORGE E. BROUGHTON, B.A., M.A., Colorado State College.

*Instructor in Industrial Arts*

DON A. BROWN, B.S., M.Ed., Ed.D., University of Oregon.

*Professor of Education*

GLENDA J. BROWN, B.A., University of Oregon; M.A., University of Illinois.

*Assistant Professor of French*

LOIS N. BROWN, A.B., Colorado State College; M.A., University of Denver.  
*Assistant Professor of Library Science; Serials Librarian*

DUANA B. BROWNE, B.S., University of North Dakota; M.A., Colorado State College.

*Temporary Instructor in Psychology, Counseling and Guidance*

JOSEPHINE M. BRUCE, B.A., M.A., Colorado State College.

*Assistant Professor of Student Field Experiences*

GERALD N. BURNS, B.A., M.A., Colorado State College.

*Instructor in Education*

MARILYN M. BURNS, B.S., University of Colorado; M.A., Colorado State College.

*Assistant Professor of Home Economics*

*On Leave Fall Quarter, 1969*

ARNOLD H. BURRON, B.S., Concordia Teachers College; M.A., Ed.D., Ball State University.

*Assistant Professor of Education*

WARREN R. BUSS, B.S., M.S., Brigham Young University; Ph.D., Iowa State University.

*Assistant Professor of Botany*

LONIS C. BUTLER, B.A., M.A., Colorado State College; Ed.D., New York University.

*Professor of Physical Education  
On Leave Summer Quarter, 1970*

ROGER W. BYBEE, B.A., M.A., Colorado State College.

*Instructor in Elementary Science*

BENJAMIN F. BYERLY, B.S., Kansas State University; M.A., Ph.D., University of Illinois.

*Associate Professor of History*

RONALD S. CAMP, B.A., M.A., University of Missouri.

*Instructor in Television*

SHIRLEY M. CARRIAR, B.Ed., Superior State College; M.A., University of Wisconsin; Ed.D., Colorado State College.

*Professor of English*

M. ELAINE CARTER, B.S., Winona State College; M.A., University of Tennessee.

*Instructor in French*



TIMOTHY D. CAVANAGH, B.A., M.A.,  
Sacramento State College; Ph.D.,  
Ohio State University.

*Associate Professor of Mathematics*

DONALD W. CHALOUKKA, B.S., Univer-  
sity of Nebraska; M.A., Ed.D., Colo-  
rado State College.

*Professor of Education*

CHARLES M. CHAPMAN, B.A., Colorado  
State College.

*Instructor in English*

HARALD P. CHRISTENSEN, B.A., M.A.,  
Ph.D., State University of Iowa.

*Professor of Political Science*

FREDERICK ARTHUR CLARK, B.A., M.S.,  
University of Illinois.

*Temporary Instructor in Physical  
Education*

AMOS L. CLAYBAUGH, B.E., Wiscon-  
sin State College; M.S., University of  
Wisconsin; Ed.D., Colorado State  
College.

*Professor of Elementary Education*

FORD W. CLEERE, B.A., M.A., Los  
Angeles State College.

*Instructor in Sociology*

SUSAN JEANNETTE CLEVINGER, A.B.,  
Ball State Teachers College; A.M.,  
San Francisco State College; Ed.D.,  
Stanford University.

*Professor of Psychology, Counseling  
and Guidance*

On Leave Summer Quarter, 1970

JOSEPH B. CLITHERO, A.B., M.S., Colo-  
rado State University.

*Assistant Professor of Business;  
Chairman, Department of Marketing*

L. GLEN COBB, B.A., Louisiana State  
University; M.S., Ph.D., Texas A & M  
University.

*Assistant Professor of Meteorology*

MARY BARBARA COBERLY, A.B., M.A.,  
Stanford University.

*Instructor in Anthropology*

CAROLYN ANN CODY, B.S., North Tex-  
as State University; M.A., Colorado  
State College.

*Instructor in Physical Education*

OTIS COFFEY, B.B.A., M.B.A., Uni-  
versity of Texas.

*Professor of Business Education;  
Chief of Party, Commercial Train-  
ing Institute, Pakistan Project*

ROY EDWARD COLBY, B.A., M.A.,  
Ohio University; M.A., University of  
Michigan.

*Assistant Professor of Spanish*

HARRY EDMON COLLINS, A.B., M.A.,  
Ed.S., Colorado State College.

*Associate Professor of College  
Student Personnel Work*

WILLIAM E. CONNETT, B.A., M.S.,  
Ph.D., Southern Illinois University.

*Assistant Professor of Research and  
Statistical Methodology*

BRYAN E. M. COOKE, B.A., Aligarh  
Moslim University; M.S., Ph.D., Uni-  
versity of Illinois.

*Assistant Professor of Health Educa-  
tion; Acting Chairman, Department  
of Health and Safety*

ROBERT E. COPLEY, B.M., Denver Uni-  
versity; M.M., Ph.D., Michigan State  
University.

*Assistant Professor of Music*

FRANKLIN D. CORDELL, B.A., M.A.,  
Ph.D., Michigan State University.

*Assistant Professor of Education;  
Acting Chairman, Department of  
History and Philosophy of Education*

WILLIAM S. CORDINER, B.A., M.A.,  
University of Wyoming.

*Instructor in Fine Arts*

JOSEPH A. COREY, B.S., M.A., Ameri-  
can Intercollegiate College.

*Assistant Professor of Business*

ALFRED E. CORNEBISE, A.B., Wayland  
College; M.A., Texas Technological  
College; Ph.D., University of North  
Carolina.

*Assistant Professor of History*

VIRGINIA G. COSTELLO, A.B., Uni-  
versity of Nebraska; B.S. in Library  
Science, Columbia University; M.A.,  
Colorado State College.

*Associate Professor of Library  
Science; Reference Librarian*

DEE ANN M. COX, B.S., Montana State  
University; M.S., University of Colo-  
rado.

*Instructor in Medical-Surgical  
Nursing*

GARY C. COX, A.B., M.A., Morehead  
State University.

*Instructor in Geography*

262 / INSTRUCTIONAL STAFF

RICHARD J. CRAWFORD, B.S., M.A., Southern Illinois University; Ph.D., University of Oklahoma.

*Assistant Professor of Speech*

GEORGE L. CROCKETT, B.S., Utah State University; M.S., Oregon State University; Ed.D., Utah State University.

*Associate Professor of Science Education*

On Leave Summer Quarter, 1970

NEAL M. CROSS, B.A., M.A., Colorado State College; Ed.D., Stanford University.

*Professor of English*

On Leave Summer Quarter, 1970

ROBERT J. CROUSE, B.S., M.A., Western Michigan University.

*Instructor in Special Education*

RACHEL F. CULLOR, A.B., M.A., Colorado State College.

*Assistant Professor of Business*

VINCENT A. CYPHERS, B.S., Pacific University; M.A., Ed.D., Colorado State College.

*Professor of Physical Education*

JOHN A. DAMGAARD, JR., B.A., Colorado College; M.B.A., University of Michigan; Ed.D., University of Utah.

*Associate Professor of Business; Chairman, Department of Management and General Business*

THELMA L. DAMGAARD, B.S., University of Minnesota; B.M., M.A., University of Wisconsin; Ed.D., Stanford University.

*Associate Professor of Education*

GARY ADAM D'ANGELO, B.A., M.A., University of Nebraska.

*Assistant Professor of Speech*

VIVIAN G. DAVIS, B.A., Ottawa University; M.A., Colorado State University.

*Instructor in Home Economics*

RAYMOND L. DEBOER, B.A., Augustana College; M.A., Ed.D., University of Denver.

*Professor of Speech*

RUTH M. DEBOER, B.A., Hope College; M.A., Bowling Green State University.

*Instructor in Speech*

DONALD GILMORE DECKER, B.S., Michigan State Normal; M.A., Colorado State College; Ph.D., Columbia University.

*Professor of Science Education*

NELLIE M. DENNING, B.A., M.A., Colorado State College.

*Instructor in Anthropology*

JOHN L. DIETZ, B.S., University of Nebraska; M.A., Colorado State College.

*Assistant Professor of Geography*

GRACE M. DION, B.A., M.A., University of Washington.

*Instructor in English*

WILLIAM L. DUFF, B.A., San Francisco State College; M.S., University of Stockholm; Ph.D., University of California.

*Assistant Professor of Business*

MARY J. DURAN, B.A., Colorado State College; M.A., University of Denver.

*Instructor in Library Science;*

*Assistant Reference Librarian*

PAMELA A. DURR, B.A., State University of Iowa; M.A., Arizona State University.

*Instructor in Fine Arts*

DALE DYKINS, B.M., M.M., College of Music, Cincinnati.

*Professor of Music; Chairman*

*Department of Theory and Composition*

CAROL M. EBEL, B.A., Valparaiso University; M.S., Indiana University.

*Assistant Professor of Health Education*

NORMA E. EGENESS, B.S., Stout Institute; M.A., Colorado State College.

*Instructor in Home Economics*

GARTH M. ELDREDGE, B.A., M.A., Ph.D., University of Utah.

*Assistant Professor of Special Education*

JAMES G. ELLINGSON, B.S., M.S., University of Nebraska; M.S., University of Colorado; Ph.D., University of Wyoming.

*Assistant Professor of Physics*

DONALD D. ELLIOTT, B.S. in Chem., B.S., in Bus., M.S., Ph.D., University of Colorado.

*Assistant Professor of Mathematics; Chairman, Department of Mathematics*

WILLIAM RENTZ ERWIN, B.S., M.S., North Texas State College; Ed.D., University of Houston.

*Professor of Industrial Arts*

KENNETH G. EVANS, B.A., M.A.,  
Colorado State College; M.F.A.,  
Ph.D., State University of Iowa.  
*Assistant Professor of Physics*

MARGARET ELIZABETH EVERETT, B.S.,  
University of Wisconsin; M.A., Ph.D.,  
State University of Iowa.  
*Professor of Physical Education;  
Chairman, Department of Physical  
Education for Women*

GEORGE E. FAY, B.A., University of  
Missouri; M.A., University of Michi-  
gan; Ph.D., Interamerican University.  
*Assistant Professor of Anthropology*

GEORGE N. FEBINGER, B.A., M.A.,  
University of Denver; Ed.D., Univer-  
sity of Colorado.  
*Assistant Professor of Education*

MICHAEL MELVIN FEWEL, B.A., Pa-  
cific University; M.A., Washington  
State University.  
*Instructor in Speech*

EDGAR E. FIELDER, B.A., Northwestern  
State College; M.A., Phillips Univer-  
sity; Ed.D., Colorado State College.  
*Assistant Professor of Education*

CLARK LEROY FIELDS, B.A., Pasadena  
College; M.S., Ph.D., State University  
of Iowa.  
*Associate Professor of Chemistry*

KENNETH W. FINDLEY, B.S., Man-  
chester College; M.A., Ph.D., Ohio  
State University.  
*Professor of Education*  
Will retire August 31, 1970

MARY F. FINNEGAN, B.A., Loretto  
Heights; M.A., University of Colorado.  
*Instructor in English*

FOREST N. FISCH, B.A., M.A., Colo-  
rado State College.  
*Professor of Mathematics*  
On Leave Summer Quarter, 1970

JAMES P. FITZGERALD, B.S., University  
of Connecticut.  
*Temporary Assistant Professor of  
Biology*

MICHAEL W. FLANNIGAN, B.A., Uni-  
versity of San Diego; M.S., Illinois  
State University.  
*Instructor in Psychology, Counseling  
and Guidance*

JOHN H. FLUKE, B.F.A., Carnegie In-  
stitute of Technology; M.Ed., Central  
Washington College of Education;  
Ed.D., Colorado State College.  
*Associate Professor of Music; Chair-  
man, Department of Music Education*

BRANGWYN FOOTE, B.A., University of  
Arizona; M.A., Ohio State University.  
*Instructor in College Student Per-  
sonnel Work*

AUGUSTA MEREDITH FOX, B.S., M.Ed.,  
Texas A&M University; Ed.D., North  
Texas State University.  
*Associate Professor of Educational  
Research*

CYNTHIA R. FREASE, B.A., University  
of Kansas; M.A., University of Min-  
nesota; Ed.D., Colorado State Col-  
lege.  
*Assistant Professor of English*  
On Leave Winter and Spring quar-  
ters, 1970

FORREST WILLARD FREASE, A.B., B.S.,  
Kansas State Teachers College, Em-  
poria; M.A., University of Kansas;  
Ph.D., University of Pennsylvania.  
*Professor of English*  
On Leave Fall, Winter and Spring  
Quarters, 1969-70

SAM F. FREEMAN, B.A., Ph.D., Uni-  
versity of Oklahoma.  
*Associate Professor of English*

ARMANDO FREYRE, B.Lit., Instituto de  
la Habana; M.A., University of Den-  
ver; LL.D., Universidad de la Habana.  
*Instructor in Spanish*

ELIZABETH KYLE FREYSLAG, A.B.,  
M.A., Ph.D., Stanford University.  
*Assistant Professor of Spanish*

ROSEMARY FRI, B.S., University of  
California, Los Angeles; M.A., Colo-  
rado State College.  
*Assistant Professor of Physical  
Education*

RICHARD KENT FRY, B.S., M.S., Ph.D.,  
Kansas State University.  
*Associate Professor of Physics*

JOHN D. FUELBERTH, A.B., Wayne  
State College; M.A., Ph.D., University  
of Nebraska.  
*Assistant Professor of Mathematics*

264 / INSTRUCTIONAL STAFF

JOHN BARTON FULBRIGHT, B.A., Adams State College; M.A., Ed.D., Colorado State College.

*Professor of Psychology,  
Counseling and Guidance*

CLARA ELLEN FUNDERBURK, B.S., Colorado State University; A.D.A., University of Michigan Hospital; M.A., Colorado State College.

*Assistant Professor of Home  
Economics*

On Leave Winter Quarter, 1970

JOHN K. GAPTER, B.S., M.S., Ph.D., Colorado State University.

*Assistant Professor of Botany*

On Leave Fall and Winter Quarters, 1969-70

JOHN F. GARCIA, B.A., Western State College; M.S., Kansas State College.

*Assistant Professor of Education*

DON GARLICK, B.F.A., University of Oklahoma; M.M., D.M.A., University of Rochester.

*Professor of Music; Chairman,  
Department of History and Literature*

ANN J. GARRISON, B.A., M.A., Colorado State College.

*Instructor in Economics*

BILL R. GEARHART, B.A., Friends University; M.Ed., Wichita State University; Ed.D., Colorado State College.

*Associate Professor of Special  
Education*

BLANCHE L. GINSBURG, B.A., M.A., Colorado State College.

*Assistant Professor of Music*

JOHN S. GIRAULT, B.A., University of Denver; M.A., Colorado State College; Ph.D., University of Denver.

*Assistant Professor of Drama*

NICHOLAS A. GLASER, B.A., B.Ed., Pacific Lutheran University; M.Ed., Ed.D., University of Oregon.

*Associate Professor of Elementary  
Education*

HARLEY F. GLIDDEN, B.S., Buena Vista College, Iowa; M.A., Iowa University; Ph.D., Nebraska University.

*Professor of Science*

DERRYL FABER GOES, B.M.E., Fort Hays Kansas State College; M.A.T., Colorado State University.

*Assistant Professor of Music*

On Leave Summer Quarter, 1970

ANNE GOFF, B.S., University of Illinois; M.S., Ph.D., Southern Illinois University.

*Assistant Professor of Psychology,  
Counseling and Guidance*

RUPERT M. GOODBROD, B.F.A., University of Nebraska; M.S., Columbia University; M.A., Julliard School of Music.

*Professor of Music; Chairman, De-  
partment of Piano and Organ*

MEARL W. GRABILL, B.S., Ball State College; M.A., Colorado State College.

*Instructor in College Student  
Personel Work*

BERNADINE T. GRAHAM, B.A., M.A., Ed.S., Colorado State College.

*Instructor in Psychology,  
Counseling and Guidance*

ROBERT S. GRAHAM, B.A., Queen's University; M.A., Ph.D., University of Colorado.

*Professor of French*

BETTY J. GREEN, B.A., Colorado State College; M.A., University of Denver; Ed.D., Colorado State College.

*Assistant Professor of Special  
Education*

LEROY A. GREEN, B.A., Wheaton College; M.S., University of Oregon.

*Temporary Instructor in Educational  
Media*

WALTER O. GREEN, B.A., M.A., Colorado State College.

*Associate Professor of Art*  
Will retire August 31, 1970

JAMES B. GREER, B.A., Texas Christian University; M.A., University of Denver.

*Assistant Professor of Library  
Science; Acquisitions Librarian*

SHARON D. GRIGGS, B.S., Troy State University; M.L.S., George Peabody College for Teachers.

*Instructor in Educational Media*

THOMAS GROOM, B.A., Eastern New Mexico University; M.A., Colorado State College.

*Assistant Professor of Social Studies*

LELLOINE GUNNING, B.S., Southwestern State College; M.A., Eastern New Mexico University.

*Assistant Professor of Elementary  
Education*

- MARY E. HAIGHT, B.M., M.M., University of Nebraska.  
*Instructor in Music*
- JOSEPHINE L. HALL, B.S., Northern Illinois State Teachers College; M.A., Denver University.  
*Associate Professor of Educational Media*
- MABEL B. HALLAN, B.A., St. Olaf College; M.S., Indiana University.  
*Assistant Professor of Maternity Nursing*
- PETER L. HALVORSON, B.A., Dartmouth College; M.A., University of Cincinnati.  
*Assistant Professor of Geography*
- ROBERT G. HAMERLY, B.S., Western Illinois State College; M.S., University of Illinois, Ph.D., Colorado State University.  
*Associate Professor of Physics*
- ROBERT G. HAMMOND, B.Ed., Illinois State University; M.A., Colorado State College; Ed.D., University of Missouri.  
*Associate Professor of Industrial Arts; Chairman, Department of Industrial Arts*
- THOMAS G. HANSELMANN, B.A., M.A., University of Wyoming.  
*Instructor in English*
- BEATRICE E. HANSEN, B.S., Northwestern Missouri State Teachers College; M.A., Columbia University.  
*Assistant Professor of Business*
- MARJORIE L. HARKNESS, B.S., University of Minnesota; M.A., Ed.D., Colorado State College.  
*Professor of Elementary Education*
- JIM HARMON, A.B., Southeastern State College; M.A., Southern Illinois University.  
*Temporary Instructor in Industrial Arts*
- CYNTHIA S. HARRELL, B.A., University Alabama; M.A., University of Denver.  
*Instructor in Special Education.*
- ROBERT C. HARRIS, B.A., M.A., University of Northern Iowa.  
*Assistant Professor of Business*
- JOHN W. HARRISON, B.S., California Institute of Technology; M.A., University of Denver; Ph.D., University of Colorado.  
*Professor of English*
- WILLIAM F. HARTMAN, B.A., Nebraska State College, Chadron; M.A., Ed.D., Colorado State College.  
*Professor of Journalism*
- J. GILBERT HAUSE, B.A., M.A., Colorado State College; Ed.D., University of Colorado.  
*Professor of College Student Personnel Work*
- ERIC N. HAVILL, B.A., Oberlin College; M.A., University of New Mexico.  
*Instructor in English*
- RICHARD O. HAYES, A.B., University of California; M.S., University of Utah; Ph.D., Cornell University.  
*Research Associate Professor*
- JEAN A. HEDBERG, B.S., Wisconsin State University; M.A., Colorado State College.  
*Instructor in Physical Education*
- BEATRICE B. HEIMERL, B.A., St. Cloud State College; M.A., University of Minnesota; Ed.D., Colorado State College.  
*Assistant Professor of Research and Statistical Methodology; Chairman, Department of Research and Statistical Methodology*
- RAMON P. HEIMERL, B.S., B.Ed., St. Cloud State College; M.A., Ph.D., University of Minnesota.  
*Professor of Business*
- NORMAN L. HEIMGARTNER, B.S., State University of New York at Buffalo; M.A., Teachers College, Columbia University; Ed.D., Colorado State College.  
*Assistant Professor of Elementary Education*
- EDWARD C. HEIN, B.A., Eastern Washington College of Education; M.E., Colorado State University; Ed.D., Colorado State College.  
*Assistant Professor of Industrial Arts*
- ROBERT L. HEINY, B.S., Colorado College; M.S., Ph.D., Colorado State University.  
*Assistant Professor of Mathematics*
- HOPE H. HEISER, B.A., Bradley University; M.A., University of Wisconsin.  
*Instructor in English*

**WILLIAM C. HEISS, B.S.**, University of Illinois; M.A., Columbia University.

*Associate Professor of Health and Physical Education*

**DUANE E. HENDERSON, B.S., M.Ed.**, Colorado State University; Ed.D., Colorado State College.

*Assistant Professor of Psychology, Counseling and Guidance*

**PEGGY E. HENRY, B.S.**, Northwest Missouri State College; M.A., Colorado State College; Ph.D., University of Iowa.

*Assistant Professor of Elementary Education*

**MYRNA J. HERBSTER, B.S.**, Midland College; M.A., Colorado State College.

*Instructor in Business*

**ARCHIE D. HESS, A.B., M.A.**, Colorado College; Ph.D., Cornell University.

*Research Professor; Chief, Encephalitis Laboratory, Public Health Service*

**KATHLEEN HILDRETH, B.A.**, Purdue University; M.S., University of North Carolina, Greensboro.

*Instructor in Physical Education*

**MILDRED C. HILLESTAD, B.Ed.**, Wisconsin State College; M.Bus.Ed., University of Colorado; Ph.D., University of Minnesota.

*Professor of Business*  
On Leave Fall Quarter, 1969

**TYRUS HILLWAY, B.A.**, Williamette University; M.A., University of California; Ph.D., Yale University.

*Professor of Higher Education*

**JOSEPH EDWARD HIMMEL, B.A.**, North Central College; M.M., Northwestern University.

*Associate Professor of Music*

**BENNIE R. HIX, B.A.**, Colorado State College.

*Instructor in Business and Athletics*

**SAM L. HOFER, B.S., M.S.**, Kansas State Teachers College; M.A., University of Denver.

*Instructor in Library Science;*  
*Assistant Catalog Librarian*

**KENNETH E. HOGAN, B.A.**, Ottawa University; M.A., Ed.D., Colorado State College.

*Professor of Education; Chairman, Department of Higher Education*

**PRESTON HOLDEN, M.P.H., D.P.H.**, University of Pittsburgh.

*Research Associate Professor;*  
*Chief, Virology Section, Public Health Service*

**DONALD L. HOLLEY, B.Ed.**, Illinois State Normal; M.A., University of Illinois; Ed.D., Colorado State College.

*Professor of Speech; Chairman*  
*Department of Speech Communications and Journalism*

**DARRELL HOLMES, B.A., M.A., Ph.D.**, Ohio State University.

*Professor of Education*

**JOE V. HOLST, B.A.**, Southern Colorado State College.

*Instructor in Education*

**KENNETH D. HOPKINS, B.A.**, University of Minnesota; M.A., University of Washington.

*Assistant Professor of Geology*

**SAMUEL R. HOUSTON, B.A.**, University of California at Los Angeles; M.A., California State College; M.S., University of Oregon; Ph.D., Colorado State College.

*Assistant Professor of Research and Statistical Methodology*

**DALE B. HOWARD, B.S.**, University of Idaho; M.A., University of Oklahoma.

*Instructor in Geography*

**HELEN M. HUBER, B.S.**, College of Mt. St. Joseph; M.S.N., Catholic University of America.

*Associate Professor of Psychiatric Nursing, Fort Logan Mental Health Center*

**DWAN B. HUCKABEE, B.S.**, Mississippi State University; M.A., University of Denver.

*Instructor in Library Science*

**CHESTER C. HUFF, B.S.**, Indiana University; M.A., DePaul University.

*Assistant Professor of English*

**BERNICE E. HUNN, B.S.**, Kansas State Teachers College; M.A., Ed.D., Colorado State College.

*Associate Professor of Elementary Education*

**RITA H. HUTCHERSON, B.A.**, Culver-Stockton College; M.A., Ph.D., State University of Iowa.

*Professor of Music*

QUAIN K. JAHRMAN, B.S., Dickinson State College; M.A., Colorado State College; Ed.D., University of Arkansas.  
*Professor of Educational Research*

M. LYNN JAMES, B.S., M.S., Brigham Young University; Ph.D., University of Utah.  
*Assistant Professor of Chemistry*  
On Leave Summer Quarter, 1970

ROBERT S. JAMES, B.M.E., M.Mus., Northwestern University; Ed.D., Colorado State College.  
*Associate Professor of Music*  
On Leave Summer Quarter, 1970

WILLIAM RICHARD JAMIESON, B.A., M.A., Colorado State College.  
*Instructor in Music*

ALEX JARDINE, B.A., M.A., Indiana State Teachers College; Ed.D., Teachers College, Columbia University.  
*Professor of Education*  
Will retire August 31, 1970

DAVID JELDEN, B.A., Nebraska State Teachers College; M.A., Colorado State College; Ed.D., University of Missouri.  
*Associate Professor of Industrial Arts*

BETTY E. JOHNSON, B.S., Eastern Montana College; M.A., University of Wyoming.  
*Instructor in Art*

DANA F. JOHNSON, B.F.A., Ed.D., University of Kansas.  
*Assistant Professor of Fine Arts*

F. MORRIS JOHNSON, B.A., M.A., Colorado State College; Ed.D., University of Denver.  
*Professor of Industrial Arts*  
On Leave Spring Quarter, 1970

GERMAINE R. JOHNSON, B.S., Midland College; M.M., University of Michigan.  
*Instructor in Music*

HAROLD W. JOHNSON, B.Ed., M.Ed., Central Washington State College.  
*Instructor in Special Education*

J. M. JOHNSON, B.A., Colorado State College; M.A., University of Denver.  
*Instructor in Education*

ROBERT L. JOHNSON, B.A., M.A., Colorado State College; M.S., University of Illinois.  
*Assistant Professor of Mathematics*

H. AUDRIE JOHNSTON, B.A., Kansas Wesleyan University; M.A., Fort Hays State College.  
*Assistant Professor of Mathematics*

DOROTHY CAMERON JONES, B.A., M.A., Wayne State University; Ph.D., Colorado University.  
*Assistant Professor of English*

LOIS J. JONES, B.A., Colorado State College.  
*Instructor in Home Economics*

WILLARD G. JONES, B.A., M.S., Kansas State Teachers College; Ed.D., University of Wyoming.  
*Associate Professor of Special Education*

GERALD E. KARRE, B.A., M.A., Colorado State College.  
*Instructor in Instrumental Music*

EDWARD A. KEARNS, B.A., M.A., University of Arizona.  
*Instructor in English*

KEVIN C. KEARNS, B.S., Washington University; M.A., Ph.D., St. Louis University.  
*Assistant Professor of Geography;*  
*Chairman, Department of Geography*

LOUISE J. KELLER, B.S., Pittsburg State College; M.S., Kansas State Teachers College; Ed.D., Montana State University.  
*Associate Professor of Business and Education*

EDWARD J. KELLY, B.A., Defiance College, M.A., Ph.D., State University of Iowa.  
*Professor of Elementary Education*  
On Leave Fall Quarter, 1969

ROBERT E. KELLY, B.A., M.A., Fresno State College.  
*Instructor in Physical Education*

CALVIN E. KENNEDY, B.S., South-eastern Oklahoma State College; M.S., Oklahoma State University; Ph.D., University of Nebraska.  
*Associate Professor of Business;*  
*Chairman, Department of Accounting*  
On Leave Summer Quarter, 1970

FRANK E. KEPPELER, B.A., University of Illinois; M.A., University of Nebraska.  
*Instructor in German; Chairman,*  
*Department of Foreign Languages*

DUNCAN R. KERKHAM, B.A., University of British Columbia; M.A., University of Indiana.

*Assistant Professor of History*

LEROY R. KERNS, B.A., M.A., Colorado State College; Ed.D., University of Colorado.

*Professor of Education*

LEWIS KIDDER, B.S., Kansas State University; M.D., University of Kansas.

*Associate Professor of Medical Technology; Director, Department of Psychology, Weld County General Hospital*

RALPH R. KING, B.A., M.A., Colorado State College; Ed.D., University of Denver.

*Professor of Music*

BERNARD C. KINNICK, B.A., St. John's University; M.A., University of North Dakota; Ed.D., Auburn University.

*Assistant Professor of Psychology, Counseling; Chairman, Department of College Student Personnel Work*

VIRGINIA L. KINNICK, B.S.N., University of Kansas; M.S.N., Yale University.

*Assistant Professor of Maternity Nursing*

WALTER W. KLEIN, A.B., Pomona College.

*Assistant Professor of Political Science*

RAY B. KNAPP, A.B., Los Angeles State College; Ph.D., University of Southern California.

*Assistant Professor of Political Science*

ALEXANDER W. KNOTT, A.B., M.A., Ph.D., University of Colorado.

*Assistant Professor of History*

JEAN LEWIS KOCH, B.S., M.N., Montana State University.

*Instructor in Nursing*

WILLIAM GEORGE KOCH, B.S., University of Notre Dame; M.A., Montana State University; Ph.D., University of Illinois.

*Professor of Chemistry*

OLIVER PAUL KOLSTOE, A.B., State Teachers College, North Dakota; M.S., University of North Dakota; Ph.D., State University of Iowa.

*Professor of Special Education  
On Leave Summer Quarter, 1970*

EUGENE DE VERE KOPLITZ, B.S., Wisconsin State College; M.S., Ph.D., University of Wisconsin.

*Professor of Psychology,  
Counseling and Guidance*

GABOR KOVACS, B.A., Air Force Academy, Hungary; M.A., Western Michigan University.

*Assistant Professor of Library Science; Circulation Librarian*

EDWARD KRAFFT, B.S., Concordia Teachers College; M.A., Washington University.

*Instructor in Elementary Education*

BEVERLY J. KROSKY, B.S., Colorado State University; M.A., Colorado State College.

*Instructor in Home Economics*

ROY T. KROSKY, B.A., M.A., Colorado State College.

*Assistant Professor of Education*

JOHN M. KRUGER, B.S., Western Michigan University; M.A., Colorado State College.

*Instructor in Industrial Arts*

KAREN R. KRUPAR, B.S., Northern State College; M.A., Ph.D., University of Denver.

*Assistant Professor of Speech*

JACK J. LABONDE, B.A., M.A., Colorado State College.

*Assistant Professor of Health and Safety Education*

*On Leave Summer Quarter, 1970*

PAUL C. LABORNE, B.A., M.A., Colorado State College.

*Instructor in Foreign Languages  
Will retire August 31, 1970.*

JEAN S. LACHER, B.A., Bates College; M.L.S., Rutgers University.

*Instructor in Library Science;  
Assistant Catalog Librarian*

JOYCE LACKIE, A.B., Illinois University; M.A., University of Illinois.

*Instructor in English*

FRANK P. LAKIN, B.A., M.A., Colorado State College; Ed.D., Oregon State University.

*Professor of Psychology*

J. MELVIN LANE, B.A., State College of Iowa; M.A., Colorado State College.

*Instructor in Special Education*



ROBERT W. LARSON, B.A., M.A.,  
University of Denver; Ph.D., Univer-  
sity of New Mexico.  
*Professor of History*  
On Leave Summer Quarter, 1970

WILLIAM J. LAYNE, B.A., Morehead  
State University; M.A., Brigham Young  
University.  
*Assistant Professor of Theatre Arts*

GEORGE LEACH, B.A., M.A., M.S.,  
University of Texas.  
*Assistant Professor of Education*

RITA LEAFGREN, B.A., University of  
Colorado; M.A., Colorado State Col-  
lege.  
*Temporary Instructor in Botany*

PAUL L. LEHRER, B.S., University of  
Cincinnati; M.A., Ohio State Univer-  
sity; Ph.D., University of Nebraska.  
*Associate Professor of Geography*

ALICE J. LEWIS, B.S., West Texas State  
College; M.A., Ph.D., University of  
Iowa.  
*Professor of Elementary Education*  
On Leave Fall Quarter, 1969

CHARLES E. LICKA, B.A., M.A., Uni-  
versity of Colorado.  
*Instructor in Fine Arts*

VIRGIL Y. LINDAHL, A.B., Wayne State  
Teachers College, Wayne; M.A., Colo-  
rado State College; P.E. Dir., Indiana  
University.  
*Professor of Physical Education;*  
*Chairman, Department of Inter-*  
*collegiate Athletics*

IVO E. LINDAUER, B.S., Colorado State  
University; M.A., Colorado State Col-  
lege.  
*Assistant Professor of Botany*  
On Leave Spring Quarter, 1970

BERNARD J. LINENBERGER, B.A., Colo-  
rado State College.  
*Instructor in Education*

SANFORD A. LINSCOME, B.M.E., Mc-  
Neese State College; M.M., University  
of Illinois.  
*Assistant Professor of Music*

JIM W. LOCHNER, B.A., Colorado State  
College; M.A., Adams State College;  
Ed.D., Colorado State College.  
*Instructor in Physical Education*

JOHN E. LODER, B.A., Bard College;  
M.F.A., Pratt Institute.  
*Instructor in Art*

WILLIAM L. LOGAN, B.A., University  
of Michigan.  
*Assistant Professor of Psychology,*  
*Counseling and Guidance*

ROBERT L. LONGWELL, B.A., Univer-  
sity of Nebraska; M.A., Colorado State  
College.  
*Assistant Professor of English*  
*and Speech*

DAVID L. LONSDALE, B.A., M.A., Ph.D.,  
University of Colorado.  
*Assistant Professor of History*

ALVIN L. LOWERY, B.M., University  
of Kansas; M.S., University of Illinois.  
*Instructor in Music*

BETTY L. LOWRY, B.A., M.A., Colo-  
rado State College; Ph.D., University  
of Iowa.  
*Professor of Elementary Education*

J. MAX LUBBERS, B.A., M.A., Colo-  
rado State College.  
*Associate Professor of*  
*Industrial Arts*

JEANE L. LUERE, B.A., B.S. M.A.,  
Ohio State University.  
*Instructor in English*

ARNO H. LUKER, LL.B., B.S., Univer-  
sity of South Dakota; M.A., Michigan  
State College, Ed.D., Colorado State  
College.  
*Professor of Psychology,*  
*Counseling and Guidance;*  
*Chairman, Department of*  
*Psychology, Counseling and*  
*Guidance*  
On Leave Summer Quarter, 1970

DONALD M. LUKETICH, B.S.E., Ar-  
kansas State College; M.S., University  
of Illinois; Ed.D., Colorado State Col-  
lege.  
*Associate Professor of Education*

DALE J. LUNDEEN, B.S., Western Mich-  
igan University; M.A., Indiana Uni-  
versity; Ph.D., University of Minne-  
sota.  
*Professor of Special Education*

CAROL L. LUTLEY, B.S., M.A., Univer-  
sity of Minnesota; Ph.D., Michigan  
State University.  
*Professor of Psychology,*  
*Counseling and Guidance*  
On Leave Fall Quarter, 1969

ORALIE MCAFEE, B.A., Oklahoma  
State University; M.A., Colorado  
State College.  
*Instructor in Education*

270 / INSTRUCTIONAL STAFF

DANIEL C. MCALEES, B.A., Albright College; M.A., Ed.D., Ph.D., Michigan State University.

*Associate Professor of  
Special Education*

PATRICK W. MCCARY, B.A., M.A., Ph.D., Michigan State University.

*Assistant Professor of Student  
Personnel*

JAMES E. MCCLURG, B.S., M.S., University of Michigan.

*Assistant Professor of Science  
Education*

ALLEN W. MCCONNELL, B.S., M.S., University of North Dakota.

*Assistant Professor of Business*

ALAN J. MCCORMACK, B.S., New York State College; M.A., Harvard University; Ed.D., Colorado State College.

*Assistant Professor of Science  
Education*

VERNA P. McDONALD, B.A., Randolph-Macon Woman's College; M.A., University of Colorado.

*Instructor in Education*

HAROLD L. MCKAIN, B.S., Central Missouri State College; M.E., University of Oklahoma; Ph.D., State University of Iowa.

*Assistant Professor of  
Physical Education*

WARREN J. MCMILLEN, B.A., M.A., Colorado State College.

*Assistant Professor of Physical  
Education*

L. ELAINE McMINN, B.S., University of Tulsa; M.S., Western Reserve University.

*Professor of Nursing*

CHARLES R. MCNERNEY, B.A., M.A., Colorado State College; Ph.D., Ohio State University.

*Assistant Professor of Mathematics*

DONALD F. MCPHERSON, B.S., Indiana University of Pennsylvania; M.A., University of Hawaii; Ph.D., Purdue University.

*Associate Professor of Special  
Education*

JUDY MACKEY, B.A., M.A., North Texas State College.

*Instructor in English*

THERESA M. MALUMPHY, B.S., State College, Massachusetts; M.S., University of Wisconsin; Ph.D., Ohio State University.

*Assistant Professor of Health  
and Physical Education*

AROOP K. MAHANTY, B.S., University of Wyoming; M. A., Colorado State College.

*Instructor in Economics*

JOHN I. MARIANI, B.A., University of Nevada; B.F.A., Chicago Art Institute; M.A., Colorado State College.

*Professor of Art; Chairman,  
Department of Fine Arts*

GLEND A. MAURICE, B.M., Texas Wesleyan College; M.M., Manhattan School of Music.

*Instructor in Music*

NEIL MAXWELL, Lt. Col., U.S. Air Force; B.S., Central Michigan University; M.Ed., Colorado State University.

*Professor of Aerospace Studies*

STEVE J. MAZURANA, B.A., University of Miami; M.A., Indiana University.

*Assistant Professor of Political  
Science*

M. KAREN MEANS, B.A., Colorado State College.

*Temporary Instructor in Special  
Education*

MARCUS K. MEILAHN, B.S., Lakeland College; Ph.D., Arizona State University.

*Assistant Professor of Chemistry*

ANTHONY MENK, B.A., State Academy of Music, Berlin; M.A., Colorado State College.

*Assistant Professor of Music*

JAMES D. MERCER, B.A., Colorado State College.

*Instructor in the Social Studies*

CHARLES A. MEYER, B.A., Wagner College; M.A., University of Arizona.

*Instructor in English*

HOWARD M. MICKENS, B.S., Bowling Green State University; M.M., Northwestern University.

*Associate Professor of Music; Chairman,  
Department of Strings*

BARBARA H. MICKY, B.A., M.A., Ph.D., Indiana University.

*Associate Professor of  
Anthropology*

*On Leave Summer Quarter, 1970*

JOHN R. MICKEY, B.S., Kansas State Teachers College, Emporia.

*Assistant Professor of Anthropology; Chairman, Department of Anthropology*  
On Leave Summer Quarter, 1970

GARY E. MILLER, B.A., M.A., Colorado State College.

*Assistant Professor of Education*

JAMES E. MILLER, B.M., Michigan State College; M.A., Colorado State College; M.F.A., Ph.D., State University of Iowa.

*Professor of Instrumental Music*

JOHN MILLS, B.S., M.D., University of Nebraska.

*Assistant Professor of Medical Technology; Pathologist, Weld County General Hospital*

WILBUR G. MILLSLAGE, BLS., Black Hills State College; M.A., Colorado State College.

*Instructor in Special Education*

DONALD G. MILLWOOD, B.A., M.A., Colorado State College.

*Instructor in Health and Physical Education*

ESTELL E. MOHR, B.S., Teachers College, Columbia; M.A., Colorado State College; Ed.D., Stanford University.

*Professor of Public School Music*  
On Leave Fall Quarter, 1969  
Will retire September 30, 1970

DONALD B. MONTGOMERY, B.A., Pepperdine College; M.A., Ohio University; Ed.D., Colorado State College.

*Assistant Professor of Education*

LOLA J. MONTGOMERY, B.A., University of Kansas; M.A., Colorado State College; Ed.D., Teachers College, Columbia.

*Associate Professor of Psychology, Counseling and Guidance*

ROBERT A. MONTGOMERY, B.A., Pepperdine College; M.S., University of Southern California; Ed.D., Colorado State College.

*Professor of Physical Education*  
On Leave Summer Quarter, 1970

G. JOSEPH MOODY, B.F.A., University of Illinois; M.F.A., University of Iowa.

*Assistant Professor of Fine Arts*

DENNIS MORIMOTO, B.A., M.A., Colorado State College.

*Instructor in Industrial Arts*

GAYLORD D. MORRISON, B.A., Northwest Missouri State College; M.A., University of Nebraska; Ed.D., University of Missouri.

*Professor of Education*

ALVIN O. MOSBO, B.A., Luther College; M.A., State University of Iowa; Ed.D., Colorado State College.

*Professor of Elementary Education; Chairman, Department of Elementary Education*

L. CAROL MOSSER, B.S., East Stroudsburg State College; M.A., Colorado State College.

*Assistant Professor of Physical Education*

LOUISE S. MUELLER, B.A., M.A., Colorado State College.

*Assistant Professor of Library Science*

DANA K. MURTON, Maj. U.S. Air Force; B.A., Oregon State University.

*Assistant Professor of Aerospace Studies*

DONALD L. MYERS, B.A., Washburn University; M.A., Kansas State University.

*Assistant Professor of Education*

DORIS E. MYERS, B.S.E., Arkansas State College; M.A., Ohio University; Ph.D., University of Nebraska.

*Assistant Professor of English*

FREDERIC L. MYERS, B.A., Auburn University; M.A., University of Oklahoma.

*Instructor in Fine Arts*

GRACE D. NAPIER, B.A., Douglass College; M.A., New York University; Ed.D., Temple University.

*Assistant Professor of Special Education*

DAVID L. NAYLOR, B.S.E., M.S.E., Arkansas State College.

*Instructor in Special Education*

LOUISE A. NEAL, B.A., Friends University, Kansas; M.A., University of Colorado; Ed.D., Colorado State College.

*Professor of Elementary Education*

DALE ALLEN NEBEL, B.A., M.A., Iowa State University; Ed.D., Colorado State College.

*Associate Professor of Elementary Education*

TONI NEFF, B.S., Arizona State University.

*Instructor in Women's Physical Education*

THEODORE M. NELSON, B.S., M.A., Ph.D., University of Minnesota.

*Associate Professor of Psychology*

EDWARD NEID, Capt., U.S. Air Force; B.S., University of Nebraska.

*Assistant Professor of Aerospace Studies*

JOE NICHOLS, B.S., M.S., Pittsburg State College; Ed.D., University of Colorado.

*Assistant Professor of Education; Chairman, Department of Curriculum and Instruction*

DWIGHT E. NOFZIGER, B.S., Bowling Green State University; M.A., Columbia University; Ed.D., Colorado State College.

*Associate Professor of Music  
On Leave Spring Quarter, 1970*

LLOYD A. NORTON, B.A., M.A., Colorado State College.

*Assistant Professor of Drama*

CAROLE Y. NOTTO, B.S., Northern Illinois University; M.A., Texas Woman's University.

*Instructor in Physical Education  
On Leave Fall, Winter and Spring Quarters, 1969-70*

RONALD A. NOTTO, B.A., Colorado State College; M.A., University of Colorado.

*Instructor in French  
On Leave Fall, Winter and Spring Quarters, 1969-70*

THOMAS B. NOWLIN, B.S., Pepperdine College; M.S., Indiana University.

*Instructor in Physical Education*

DAVID O. OLSON, B.S., Northern Illinois Teachers College; M.A., Colorado State College; Ed.D., Texas A&M University.

*Professor of Industrial Arts*

KENNETH V. OLSON, B.A., Augsburg College; M.A., Ph.D., University of Minnesota.

*Associate Professor of Science Education  
On Leave Summer Quarter, 1970*

RETA M. O'NEAL, B.S., University of Colorado; M.P.H., University of North Carolina.

*Assistant Professor of Nursing;  
Director of Nursing, Weld County Health Department*

NORMAN T. OPPELT, B.S., Colorado State University; M.A., Colorado State College; Ph.D., Michigan State University.

*Professor of Psychology*

CHARLOTTE S. OSLUND, B.S., North Dakota State University; M.A., Colorado State University.

*Instructor in Home Economics*

IWAN OWECHKO, Diploma, Pedagogic University of Voroshilovgrad.

*Instructor in Russian*

KAYE D. OWENS, B.A., Idaho State University; M.A., Ed.D., Colorado State College.

*Associate Professor of Special Education*

CHARLES PAGE, B.S., M.S., Oklahoma State University.

*Part-Time Instructor in Business*

GERALD K. PALMER, B.A., Stanford University; M.A., University of Alberta.

*Instructor in Economics*

ARTHUR R. PARTRIDGE, B.A., M.S., University of Kansas; Ed.D., Stanford University.

*Professor of Education; Chairman, Department of Educational Administration*

*On Leave Summer Quarter, 1970*

LEO W. PAULS, B.S., Bethel College; M.S., Kansas State Teachers College.

*Instructor in Elementary Education*

RITA J. PAYTON, B.S., St. Mary's College, Indiana; M.S., Indiana University.

*Assistant Professor of Nursing of Children*

JOHN P. PEDJOE, Maj., U.S. Air Force; B.S., Purdue University; M.B.A., University of Denver.

*Assistant Professor of Aerospace Studies*

NORMAN L. PEERCY, B.A., M.A., Colorado State College.

*Instructor in English*

RICHARD A. PERCHLIK, B.S. in Bus.; B.S., in Ed., M.A., Ohio State University; Ph.D., University of Colorado.

*Professor of Social Science; Chairman, Department of Political Science*

D. ALLEN PHILLIPS, B.S., M.A., University of Idaho; Ed.D., University of Oregon.

*Assistant Professor of Physical Education*

DIANE E. PHILLIPS, B.A., University of Texas; M.A., Colorado State College.

*Instructor in Psychology, Counseling and Guidance*

HOWELL C. PINKSTON, B.S., M.A., Wayne State University.

*Assistant Professor of Fine Arts*

RONALD K. PLAKKE, B.A., Colorado State College; Ph.D., University of Montana.

*Assistant Professor of Zoology*

MARTHA A. POOLTON, B.S., M.S., University of Washington; Ed.D., University of California, Berkeley.

*Associate Professor of Home Economics; Chairman, Department of Home Economics*

WILLIAM D. POPEJOY, B.S., M.A., Illinois State Normal University; Ed.D., Colorado State College.

*Professor of Mathematics*

*On Leave Summer Quarter, 1970*

FREDERICK A. POOR, B.S., Ball State University; M.S., University of Michigan; Ph.D., University of Minnesota.

*Professor of Business Education, Pakistan Project*

STEPHEN T. POWERS, B.S., U.S. Naval Academy; M.A., Rice University; Ph.D., University of Notre Dame.

*Assistant Professor of History*

JUDITH A. PRAUL, B.S., Western Illinois University; M.S., Indiana University.

*Assistant Professor of Psychology, Counseling and Guidance*

WALTER F. PRINCIC, B.A., Baldwin-Wallace College; M.A., University of Illinois.

*Assistant Professor of English*

DAVID L. PRINGLE, B.S., Wayne State University; M.S., Ph.D., Iowa State University.

*Assistant Professor of Chemistry*

FRANCIS R. QUAMMEN, B.A., M.A., Colorado State College.

*Associate Professor of Sociology*

CHARLES T. QUINN, B.A., M.A., California State College.

*Instructor in Drama*

ELIZABETH J. RAVE, B.S., Illinois State University; M.A., University of Colorado; Ph.D., University of Southern California.

*Assistant Professor of Psychology, Counseling and Guidance*

MARILYN L. REEVES, B.S., Colorado State University; M.S., Oregon State University.

*Instructor in Home Economics  
On Leave Summer Quarter, 1970*

HENRY R. REINERT, B.S., Fort Hays State College; M.A., Ed.D., Colorado State College.

*Assistant Professor of Special Education*

ARTHUR R. REYNOLDS, B.A., Nebraska State Teachers College; M.A., Ph.D., University of Minnesota.

*Professor of History*

ROYAL A. RICH, B.S., University of Nebraska; M.S., Ph.D., Utah State University.

*Associate Professor of Zoology*

*On Leave Summer Quarter, 1970*

PAUL W. RICHARD, B.A., M.A., Colorado State College.

*Instructor in Biology*

ELIZABETH A. RICHARDSON, B.S., Southern Connecticut College; M.A., Colorado State University.

*Instructor in English*

JOAN RICHARDSON, B.S., University of Minnesota; M.A., Ph.D., Arizona State University.

*Assistant Professor of Mathematics*

ROBERT C. RICHARDSON, B.A., M.A., University of Michigan; Ph.D., University of Colorado.

*Assistant Professor of Education*

WINNIFRED S. RICHARDSON, B.A., M.A., University of Denver.

*Assistant Professor of Library Science; Periodicals Librarian*

MARY E. RIDER, B.A., Miami University; B.S. in Library Science, University of Illinois.

*Assistant Professor of Library Science*

EMMETT A. RITTER, B.S., M.Ed., Ed.D., University of Oregon.

*Assistant Professor of Education*

274 / INSTRUCTIONAL STAFF

DAVID H. ROAT, B.A., Albion College;  
M.A., Ph.D., Michigan State College.  
*Assistant Professor of Education*

DONALD T. ROBINSON, B.M., Colorado  
State University; M.A., University of  
Denver.  
*Instructor in Music*

JACK C. ROBINSON, B.M., Stetson Uni-  
versity; M.M., Indiana University.  
*Instructor in Music*

GLORIA J. RODRIGUEZ, B.S., University  
of New Mexico; M.S., University of  
North Carolina, Greensboro.  
*Instructor in Physical Education*

KEITH E. ROE, B.S., Iowa State Uni-  
versity; M.S., Ph.D., University of  
Wisconsin.  
*Assistant Professor of Botany*

BOBBY H. ROLLINS, B.S., Colorado  
State University; M.A., Arizona State  
University.  
*Instructor in Physical Education*

ANTHONY M. ROSSI, B.S., New York  
University; M.A., Colorado State Col-  
lege.  
*Associate Professor of Physical  
Education*  
On Leave Summer Quarter, 1970

BARRY ROTHBAUS, B.A., Hunter College;  
M.S., Ph.D., University of Wisconsin.  
*Assistant Professor of History;*  
*Chairman, Department of History*

GAIL S. ROWE, B.A., Fresno State Col-  
lege; M.A., Ph.D., Stanford University.  
*Assistant Professor of History*

FRED J. RUMFORD, B.S., M.S., Kansas  
State University.  
*Assistant Professor of Mathematics*

SALLY E. RUYBAL, B.A., Adams State  
College; B.S., Loretto Heights College;  
M.S., University of Colorado.  
*Assistant Professor of Public  
Health Nursing*

GEORGE H. SAGE, B.A., M.A., Colorado  
State College; Ed.D., University of  
California, Los Angeles.  
*Associate Professor of Physical  
Education; Chairman, Department  
of Physical Education for Men*

JOHN F. SANDERS, B.S., Colorado State  
College.  
*Instructor in Business Education*

ROBERT W. SANDERS, B.A., Vanderbilt  
University; M.S., Stanford University.  
*Assistant Professor of Mathematics*

GEORGE F. SANDERSON, B.A., M.A.,  
Colorado State College.  
*Associate Professor of Education*

NORMAN I. SAVIG, B.A., M.S., Univer-  
sity of Denver.  
*Assistant Professor of Library  
Science*

GORDON H. SAWATZKY, B.A., Bethel  
College; M.N., Yale University; M.S.,  
University of Colorado.  
*Assistant Professor of Psychiatric  
Nursing*

ANNE W. SCHENKMAN, A.B., M.S.,  
Ed.D., Indiana University.  
*Assistant Professor of Psychology,  
Counseling and Guidance*

WALTER A. SCHENKMAN, B.A., Har-  
vard University; M.M., Yale Music  
School; Diploma d'Etudes, Paris Con-  
servatory; D.Mus., Indiana University.  
*Professor of Music*

JOHN SCHMID, B.S., M.S., Ph.D., Uni-  
versity of Wisconsin.  
*Professor of Education*

DONALD L. SCHMIDT, B.A., Bethel  
College; M.S., Ph.D., Iowa State Uni-  
versity.  
*Associate Professor of Mathematics*

GERALD D. SCHMIDT, B.A., Colorado  
State College; M.S., Ph.D., Colorado  
State University.  
*Associate Professor of Zoology*  
On Leave Winter Quarter, 1970

THOMAS V. SCHMIDT, B.A., M.A.,  
Colorado State College.  
*Temporary Instructor in Special  
Education*

CLAUDE M. SCHMITZ, B.A., M.A.,  
Colorado State College.  
*Associate Professor of Music;*  
*Chairman, Department of Voice*

RONALD P. SCHOONOVER, B.A., Hast-  
ings College; M.S., Colorado State Uni-  
versity.  
*Assistant Professor of Business*

JAMES OTTO SCHRECK, B.A., Univer-  
sity of St. Thomas; M.S., Ph.D., Tex-  
as A & M University.  
*Assistant Professor of Chemistry*

HERBERT C. SCHUMACHER, B.F.A.,  
M.F.A., University of Kansas.  
*Assistant Professor of Fine Arts*  
On Leave Summer Quarter, 1970

REX R. SCHWEERS, B.A., M.A., Colorado State College.

*Assistant Professor of Mathematics*

STEVEN L. SCOTT, B.A., Kearney State College; M.A., Western Illinois.

*Instructor in Geography*

DANIEL ALBERT SEAGER, B.A., Oklahoma Baptist University; A.B., M.A., University of Oklahoma.

*Associate Professor of Library Science; Director of Library Services*

DONALD EDWARD SEAGER, B.E., Geneseo State Teachers College; M.S., Syracuse University; Ed.D., Brigham Young University.

*Assistant Professor of Educational Media*

LYNN SETTJE, B.A., Midland Lutheran College; M.A., Ph.D., Colorado State College.

*Assistant Professor of Education*

JACK SHAW, B.A., University of Saskatchewan; B.E.A., M.Ed., University of Manitoba; Ph.D., University of Minnesota.

*Professor of College Student Personnel Work*

SARAH F. SHAW, B.S., West Virginia University; M.A., Marshall University; Ed.D., Indiana University.

*Assistant Professor of Psychology, Counseling and Guidance*

JOHN MAX SHIRLEY, B.S., M.A., University of New Mexico; Ed.D., Colorado State College.

*Associate Professor of Recreation Education; Chairman, Department of Recreation*

JOSEPH L. SHOEMAKER, B.A., M.A., Colorado State College; Ed.D., University of Colorado.

*Professor of Science  
On Leave Summer Quarter, 1970*

KENNETH L. SHROPSHIRE, B.A., Miami University.

*Assistant Professor of Geology;  
Acting Chairman, Department of Earth Science*

VALERIE L. SINKOVICH, B.S., M.Ed., Colorado State University.

*Instructor in Home Economics*

HOWARD M. SKINNER, B.A., Sterling College, Kansas; B.Mus., M.Mus., McPhail College of Music; D.Mus., Northwestern University.

*Associate Professor of Music*

DAVID W. SMART, A.B., Brigham Young University; M.A., Ph.D., University of Utah.

*Assistant Professor of Student Personnel*

RICHARD J. SMITH, B.A. M.A., Eastern Michigan University.

*Instructor in Speech*

WALTER G. SMITH, JR., B.A., M.A., Colorado State College; M.F.A., University of Iowa.

*Instructor in Music*

GRACE E. SPECKMAN, B.A., M.A., University of Colorado.

*Instructor in English*

Retired, December 31, 1969

ELOUISE J. SPENCER, B.A., Southern University; M.A., Colorado State College.

*Instructor in Sociology*

KATHLEEN M. STALLINGS, B.A., Reed College; M.A., University of New Mexico.

*Instructor in English*

MAYNARD N. STAMPER, B.S., Eastern Kentucky State College; M.A., Colorado State College; Ph.D., Ohio State University.

*Professor of Zoology*

WENDELL R. STARR, B.A., Ottawa University; M.A., University of Colorado; Ph.D., University of Minnesota.

*Professor of English*

On Leave Summer Quarter, 1970

DORIS C. STEFFY, B.A., Iowa State Teachers College; M.A., University of Iowa.

*Professor of Physical Education*

On Leave Winter Quarter, 1970

CONNIE K. STELLJES, B.S., University of Kansas; M.A., University of Colorado.

*Instructor in Spanish*

WALTER H. STEWART, B.J., B.A., B.S., M.A., University of Missouri.

*Assistant Professor of Journalism*

JAMES A. STOFFLER, B.S., Southern Illinois University; M.A., Marquette University; Ph.D., Southern Illinois University.

*Associate Professor of Education*

ROBERT H. STROUP, B.A., Hiram College; M.A., Indiana University.

*Instructor in History*

JUNE E. STUCKEY, B.A., B.S., Wilmington College; Ph.D., Ohio State University.

*Professor of Psychology*  
On Leave Fall, Winter, Spring and Summer Quarters, 1969-70

DOUGLAS L. STUTLER, B.A., M.A., Colorado State College.

*Instructor in Education*  
On Leave Fall, Winter, and Spring Quarters, 1969-70.

ROBERT B. SUND, B.A., Reed College; M.A., M.S., Oregon State College; Ed.D., Stanford University.

*Professor of Science Education; Acting Chairman, Department of Science Education*

JOHN H. SWAIM, B.S.E., M.S., Kansas State Teachers College.

*Instructor in Social Studies*

MARIAN A. SWINGLE, B.S., University of Vermont; M.S., Boston University.

*Assistant Professor of Psychological Nursing*

GERALD TANNER, B.A., M.A., Colorado State College.

*Assistant Professor of Psychology, Counseling and Guidance*

JO ANN TAYLOR, B.S., Northwest Missouri State College; M.A., Colorado State College.

*Instructor in Home Economics*

ROBERT H. TAYLOR, B.A., University of Kentucky; M.A., Teachers College, Columbia University.

*Instructor in Special Education*

STEVE TEGLOVIC, Jr., B.S.B.A., M.B.A., University of Denver; Ph.D., Colorado State College.

*Associate Professor of Business*  
*Chairman, Department of Administrative Services*

JOAN E. THIELE, B.S., Texas Woman's University; M.S., Western Reserve University.

*Assistant Professor of Medical-Surgical Nursing*

BERT O. THOMAS, B.S., M.S., Colorado State University; Ph.D., University of Minnesota.

*Professor of Zoology; Chairman, Department of Biological Science*

LINDA I. THOMPSON, B.A., Utah State University; M.A., University of Iowa.

*Instructor in Speech*

THOMAS N. THOMPSON, B.A., M.A., Ph.D., University of Pennsylvania.

*Assistant Professor of English*

BERT D. THORPE, B.S., Ph.D., University of Utah.

*Associate Professor of Zoology*

HELEN G. TIAHRT, B.S., University of Omaha; M.A., Colorado State College.

*Temporary Instructor in Psychology, Counseling and Guidance*

VIVIAN B. TILDEN, B.A., Hastings College; M.A., Colorado State College.

*Assistant Professor of Library Science; Assistant Catalog Librarian*

ROBERT A. TOLAR, B.S., Lamar College; M.A., University of Texas.

*Assistant Professor of Mathematics*

GORDON E. TOMASI, B.A., M.A., Colorado State College; Ph.D., University of Louisville.

*Associate Professor of Chemistry*

JOSEPH L. TOWNSEND, B.M., M.Ed., Colorado State University; Ed.D., Colorado State College.

*Assistant Professor of Special Education*

ORVEL L. TRAINER, B.A., M.A., Ph.D., University of Colorado.

*Professor of Economics; Chairman, Department of Economics*

DORRIS E. TRIGG, B.S., M.S., Kansas State College.

*Assistant Professor of Elementary Education*

LESLIE W. TROWBRIDGE, B.S., Central State Teachers College, Wisconsin; M.S., University of Chicago; M.S., University of Wisconsin; Ph.D., University of Michigan.

*Associate Professor of Science; Chairman, Department of Science Education*

On Leave, Fall, Winter, and Spring Quarters, 1969-70

DEAN E. TURNER, B.A., Centro De Estudios Universitarios; M.Ed., Adams State College; Ph.D., University of Texas.

*Assistant Professor of Education*

RICHARD UKENA, B.A., Colorado State College.

*Temporary Instructor in Social Studies*



- JAMES S. UPTON, B.A., B.M., Hendrix College; M.M., Southern Methodist University; Ph.D., University of Texas.  
*Assistant Professor of Music*
- RICHARD H. USHER, B.S., Murray State College; M.Ed., Ed.D., University of Florida.  
*Associate Professor of Psychology, Counseling and Guidance*
- NANCY M. VAN ANNE, B.A., Iowa State Teachers College; M.A., State University of Iowa; Ph.D., University of Oregon.  
*Professor of Physical Education*
- NORBERT R. VAN DINTER, B.S., Sul Ross State College; M.S., Florida State University.  
*Instructor in Recreation*
- EVERETT H. VAN MAANEN, B.S., Northern State Teachers College; M.A., Colorado State College; Ed.D., University of Oregon.  
*Professor of Education*  
On Leave Fall Quarter, 1969
- LEO B. VARNER, B.A., University of California; M.A., San Francisco State College.  
*Instructor in English.*
- TONY D. VAUGHAN, B.A., Northeastern State College, Oklahoma; M.Ed., Ed.D., University of Oklahoma.  
*Professor of Special Education; Chairman, Department of Special Education*
- WAYMAN E. WALKER, B.M.E., University of Colorado; M.M., University of Southern California.  
*Associate Professor of Instrumental Music*
- DENNIS E. WARNEMUNDE, B.A., Wayne State College; M.A., University of Nebraska.  
*Instructor in Speech*
- ROLAND C. WATERMAN, B.S., New York State College for Teachers; M.A., Ed.D., Columbia University.  
*Professor of Business*  
On Leave Fall Quarter, 1969
- JERRY WEIL, B.A., University of Colorado; M.D., University of Colorado Medical School.  
*Assistant Professor of Medical Technology; Pathologist, Weld County General Hospital*
- MEL W. WEISHAN, B.A., M.A., Colorado State College.  
*Assistant Professor of Special Education*  
On Leave Fall, Winter and Spring Quarters, 1969-70
- MARILYN KAY WEISS, B.S., North Texas State University; M.A., Colorado State College.  
*Instructor in Health and Physical Education*
- MAREN J. WELSH, B.A., M.A., University of Wyoming.  
*Instructor in Fine Arts*
- WILLIAM H. WELTNER, B.S., University of Colorado; M.A., Ed.D., Ball State University.  
*Assistant Professor of Education*
- ODIN E. WESTGAARD, B.A., Western State College; M.A., Colorado State College.  
*Instructor in Education*
- JOHN W. WILLCOXON III, B.A., Washington and Lee University; M.A., Ph.D., University of Minnesota.  
*Professor of Drama*
- MARCIA I. WILLCOXON, B.A., M.A., University of Minnesota.  
*Instructor in History*
- LAURA O. WILLIAMS, B.A., Randolph-Macon Women's College; M.A., Colorado State College.  
*Instructor in Education*
- GARY G. WILLOUGHBY, B.A., M.A., University of Colorado.  
*Assistant Professor of Sociology; Acting Chairman, Department of Sociology*
- NELL E. WILSON, B.A., Texas Technological College; M.A., Ph.D., University of Colorado.  
*Assistant Professor of English*
- ALBERT M. WINCHESTER, B.A., Baylor University; M.A., Ph.D., University of Texas.  
*Professor of Biology*
- MARIAN G. WITWER, B.A., University of Michigan; M.A., University of Colorado.  
*Instructor in English*
- DALE E. WOERNER, B.S., Kansas State University; M.S., Ph.D., University of Illinois.  
*Professor of Chemistry*

278 / INSTRUCTIONAL STAFF

ELAINE V. WOLFE, B.S., California State College; M.Ed., Pennsylvania State University; Ph.D., University of Pittsburgh.

*Assistant Professor of Elementary Education*

RICHARD R. WOLFE, B.S., Thiel College; M.S., Westminster College; Ph.D., University of Pittsburgh.

*Associate Professor of Special Education*

WELBY B. WOLFE, B.A., M.A., Colorado State College; Ed.D., Columbia University.

*Professor of Drama; Chairman, Department of Theater Arts*  
On Leave Fall Quarter, 1969

ERNEST J. WOODS, B.A., Ottawa University; M.A., Colorado State College.

*Associate Professor of Mathematics Education*

GENEVA B. WOODS, B.S., University of Colorado.

*Assistant Professor of Nursing; Director of Nursing, Weld County General Hospital*

JANET E. WORRALL, B.A., Hamline University; M.A., Indiana University.

*Instructor in History*  
On Leave Fall Quarter, 1969

THURMAN N. WRIGHT, B.A., Colorado State College; M.A., Dir. of P.E., Indiana University.

*Assistant Professor of Physical Education*

ALICE M. YETKA, B.S., University of Minnesota; M.A., Ed.D., Colorado State College.

*Associate Professor of Business*

AUGUST L. ZEITLOW, B.A., Bethany College; M.A., Colorado State College.

*Temporary Instructor in Special Education*

VINCENT ZIMMER, B.A., M.A., University of Wyoming.

*Instructor in Physical Education*

ROBERT A. ZIMMERMAN, B.S., Purdue University, M.S., Ph.D., Oregon State University.

*Research Associate Professor; Chief, Streptococcal Unit, Public Health Service*

# Laboratory School Assignments

## Ernest Horn Elementary School—College High School

BOYD N. LAMARSH, Ed.D., Director of the Laboratory School; Chairman of Curriculum Development for Laboratory School.

LYNN SETTJE, Ph.D., Associate Director, Student Personnel.

KATHLEEN A. BERRINGER, B.A., Supervisor and Instructor in Fine Arts.

GEORGE E. BROUGHTON, M.A., Supervisor and Instructor in Industrial Arts.

RODGER W. BYBEE, M.A., Instructor in Elementary Science and Earth Science the Secondary School.

SHIRLEY MAY CARRIAR, Ed.D., Supervisor and Instructor in Secondary School English.

CHARLES M. CHAPMAN, A.B., Instructor in Secondary English and Humanities.

MICHAEL WILLIAM FLANNIGAN, M.S., Director of Counseling and Guidance in the Laboratory School.

THOMAS LEE GROOM, M.A., Supervisor and Instructor in Secondary School Social Studies.

LELLOINE GUNNING, M.A., Intermediate Continuum Supervisor and Instructor.

MARJORIE LOU HARKNESS, Ed.D., Intermediate Continuum Supervisor and Instructor.

NORMAN LOUIS HEIMGARTNER, Ed.D., Primary Continuum Supervisor and Instructor.

BENNIE R. HIX, B.A., Instructor in Business and Athletics.

BERNICE E. HUNN, Ed.D., Primary Continuum Supervisor and Instructor.

H. AUDRIE JOHNSTON, M.A., Supervisor and Instructor in Secondary School Mathematics.

LOIS W. JONES, B.A., Supervisor and Instructor in Home Economics.

GERALD E. KARRE, M.A., Supervisor and Instructor in Intermediate School and School Instrumental Music.

DARLENE M. KEPPELER, A.B., Supervisor and Instructor in Secondary School English.

LEROY R. KERNS, Ed.D., Supervisor and Instructor in Science and Mathematics.

EDWARD KRAFFT, M.A., Intermediate Continuum Supervisor and Instructor.

PAUL C. LABORNE, A.M. Supervisor and Instructor in the Foreign Languages.

ROBERT LEROY LONGWELL, M.A., Supervisor and Instructor in Secondary School Speech and English.

JAMES DALE MERCER, B.A., Supervisor and Instructor in Secondary School Social Studies.

DONALD G. MILLWOOD, M.A., Supervisor and Instructor in Health and Physical Education.

LOUISE S. MUELLER, M.A., Elementary and Secondary School Librarian.

LEO WAYNE PAULS, Sixth Grade Supervisor and Instructor.

PAUL W. RICHARD, M.A., Supervisor and Instructor in Science.

JOSEPH LESLIE SHOEMAKER, Ed.D., Chairman of Curriculum Development in Secondary School Science; Supervisor and Instructor in Secondary School Science.

CONNIE K. STELLJES, M.A., Supervisor and Instructor in Spanish.

JOHN H. SWAIM, M.A., Supervisor and Instructor in Social Studies.

DORRIS E. TRIGG, M.S., Primary Continuum Supervisor and Instructor.

MARILYN KAY WEISS, M.A., Supervisor and Instructor in Girls' Health and Physical Education.

ERNEST JUDSON WOODS, A.M., Chairman of Curriculum Development in Secondary School Mathematics; Supervisor and Instructor in Secondary School Mathematics.

## Emeritus Faculty

- WINFIELD DOCKERY ARMENTROUT, A.B., A.M., Ed.D., LL.D.** Appointed, 1920; Emeritus since 1955.  
*Vice President Emeritus*
- RALPH THOMAS BISHOP, A.B., A.M.** Appointed, 1917; Emeritus since 1955.  
*Professor Emeritus of Industrial Arts*
- IRENE ENGLE BOGAN, A.B., B.S.** Appointed, 1946; Emeritus since 1964.  
*Associate Professor Emeritus of Library Science*
- EDITH B. BRUMMER, B.S.** Appointed, 1956; Emeritus since 1965.  
*Assistant Professor Emeritus of Library Science*
- JOHN WILLIAM BUNN, B.S., A.M.,** Appointed 1956; Emeritus since 1963.  
*Professor Emeritus of Health Education*
- MARTIN CANDELARIA, A.B., A.M., Ed.D.** Appointed, 1948; Emeritus since 1963.  
*Professor Emeritus of Spanish*
- EUGENE SHAW CARTER, A.B., A.M.** Appointed, 1936; Emeritus since 1962.  
*Professor Emeritus of Industrial Arts*
- JEAN CAVE, B.S., A.M.** Appointed, 1921; Emeritus since 1961.  
*Professor Emeritus of Physical Education*
- JOHN ELBERT CHADWICK, A.B., A.M. Ph.D.** Appointed, 1924; Emeritus since 1962.  
*Professor Emeritus of Music*
- LUCY ROSENQUIST CHAMBERLAIN, Ph.B., A.M.** Appointed, 1923; Emeritus since 1949.  
*Associate Professor Emeritus of Elementary Education*
- AMBROSE OWEN COLVIN, B.C.S., A.M., Ph.D.** Appointed, 1918; Emeritus since 1947.  
*Professor Emeritus of Business Education*
- RICHARD G. ELLINGER, A.B., A.M.** Appointed, 1927; Emeritus since 1962.  
*Professor Emeritus of Art*
- ROSE WILMA FARRAR, A.B., A.M.** Appointed, 1938; Emeritus since 1962.  
*Professor Emeritus of Business Education*
- GEORGE G. GATES, B.A., M.A., Ed.D.,** Appointed, 1946; Emeritus since 1969.  
*Professor Emeritus of English*
- CATHERINE CRATES GIBERT, A.B., A.M.** Appointed, 1922; Emeritus since 1959.  
*Professor Emeritus of Foreign Languages*
- HENRY TRUSTMAN GINSBURG, B.Mus., A.B., A.M., D.Mus.** Appointed, 1931; Emeritus since 1958.  
*Professor Emeritus of Music*
- LYMAN BEECHER GRAYBEAL, B.S., A.M., Ed.D.** Appointed, 1950; Emeritus since 1960.  
*Professor Emeritus of Education*
- RHODA FOSS HALL, B.S., M.A.** Appointed 1945; Emeritus since 1967.  
*Professor Emeritus of Home Economics*
- JOHN WILLIAM HANCOCK, A.B., M.A.** Appointed, 1932; Emeritus since 1966.  
*Professor Emeritus of Physical Education*
- EZRA CLARENCE HARRAH, A.B., A.M., Ph.D.** Appointed, 1926; Emeritus since 1954.  
*Professor Emeritus of Zoology*
- M. LUCILE HARRISON, Ph.B., A.M.** Appointed, 1926; Emeritus since 1963.  
*Professor Emeritus of Elementary Education*
- JOSEPHINE MARY HAWES, A.B., A.M.** Appointed, 1917; Emeritus since 1946.  
*Professor Emeritus of English*
- FRED LOUIS HERMAN, A.B., A.M.** Appointed, 1922; Emeritus since 1960.  
*Professor Emeritus of Physics*
- EDNA MARY HOYDAR, B.M., M.M.** Appointed, 1937; Emeritus since 1962.  
*Professor Emeritus of Public School Music*

HELEN BARBARA HUNT, B.S., M.S.  
Appointed, 1949; Emeritus since  
1959.

*Associate Professor Emeritus  
of Home Economics*

FRANK COVERT JEAN, A.B., A.M.,  
Ph.D., Sc.D. Appointed, 1921; Em-  
eritus since 1945.

*Professor Emeritus of Biology*

WINFIELD LEROY KNIES, A.B.,  
M.B.A. Appointed, 1922; Emeritus  
since 1957.

*Associate Professor Emeritus  
of Business Education*

HELEN LANGWORTHY, A.B., M.A.,  
Ph.D. Appointed, 1933; Emeritus  
since 1965.

*Professor Emeritus of  
Speech and Drama*

JESSIE EMILY LATHAM, A.B. M.A., Ap-  
pointed 1949; Emeritus since 1968.

*Professor Emeritus of Health  
Education*

ROSE EILEEN LEACOCK, B.S., M.A. Ap-  
pointed, 1945; Emeritus since 1968.

*Professor Emeritus of Fine Arts*

ELIZABETH LEHR, B.A., A.M. Appoint-  
ed, 1926; Emeritus since 1959.

*Associate Professor Emeritus  
of Elementary Education*

CHARLES WILLIAM MCLAIN, B.S.,  
M.S., Ed.D. Appointed, 1951; Emiri-  
tus since 1963.

*Professor Emeritus of Educational  
Psychology and Guidance*

FLORENCE MARGUERITE MEYER, A.B.,  
A.M. Appointed, 1930; Emeritus  
1960.

*Associate Professor Emeritus  
of English*

ARTHUR D. MOINAT, B.S., M.S., Ph.D.  
Appointed, 1950; Emeritus since  
1967.

*Professor Emeritus of Botany*

VERA LANORE NEWBURN, B.S., M.S.  
Appointed, 1926; Emeritus since  
1964.

*Professor Emeritus of Home  
Economics*

HOWARD D. NINEMIRES, A.B., M.A.,  
Appointed, 1952; Emeritus since 1968.

*Professor Emeritus of Education*

DALE ORIOUS PATTERSON, A.B., M.A.,  
Ph.D. Appointed, 1947; Emeritus  
since 1965.

*Professor Emeritus of Mathematics*

ORA BROOKS PEAKE, A.B., A.M., Ph.D.  
Appointed, 1919; Emeritus since 1949.

*Professor Emeritus of History*

KENNETH FREDERICK PERRY, A.B.,  
M.A., Ph.D., Appointed, 1927; Emiri-  
tus since 1968.

*Professor Emeritus of Industrial Arts*

PAULINE C. POGUE, B.A., M.A. Ap-  
pointed, 1928; Emeritus since 1969.

*Professor Emeritus of History*

ALBERTA ELOISE REITZE, A.B., M.S.  
Appointed, 1950; Emeritus since  
1966.

*Associate Professor Emeritus  
of Education*

WILLIAM ROBERT ROSS, B.S., M.S.  
Ph.D.; Sc.D., LL.D. Appointed, 1942;  
Emeritus since 1964.

*President Emeritus*

EDITH MARIE SELBERG, A.B., A.M.  
Appointed, 1926; Emeritus since  
1968.

*Professor Emeritus of Biology*

OSCAR W. TOLLEFSON, B.S., M.A.,  
Ph.D. Appointed, 1956; Emeritus  
since 1969.

*Professor Emeritus of Geology*

SYLVESTER ROY TOUSSAINT, B.A.,  
M.A., Ph.D. Appointed 1938; Emiri-  
tus since 1967.

*Professor Emeritus of Speech*

OLIVER LEONARD TROXEL, B.S., A.M.,  
Ph.D. Appointed, 1929; Emeritus  
since 1958.

*Professor Emeritus of Education*

GLEN CORBIN TURNER, A.B., M.A.,  
M.B.A., D.P.S. Appointed, 1940; Em-  
eritus since 1968.

*Professor Emeritus of Business  
Administration*

LEE R. WEST, B.S., M.A. Appointed,  
1929; Emeritus since 1968.

*Professor Emeritus of Geography*

GRACE HANNAH WILSON, A.B., A.M.,  
Ph.D. Appointed, 1915; Emeritus  
since 1953.

*Professor Emeritus of Education.*

LESLIE DAY ZELENY, B.S., A.M.,  
Ph.D. Appointed, 1946; Emeritus  
since 1963.

*Professor Emeritus of Sociology*

# INDEX

|  |         |  |         |
|--|---------|--|---------|
| <b>A</b>   |         | Correspondence Courses .....                             | 3       |
| Academic Information .....                             | 22-30   | Counseling Services .....                                | 7       |
| Academic Services .....                                | 5-6     | Course Descriptions .....                                | 133-253 |
| Accounting, Program .....                              | 91, 93  | Course Load .....  | 22      |
| Accreditation .....                                    | 1       | Course Numbers .....                                     | 24      |
| Acoustically Handicapped,<br>Program .....             | 104     | Course, Professional Officer .....                       | 132     |
| Activities .....                                       | 13-15   | Course, General Military .....                           | 131-132 |
| Administrative Officers .....                          | 254-257 | Courses, Pre-Professional .....                          | 36      |
| Administrative Services,<br>Business, Program .....    | 94      | Curriculum and Instruction,<br>Courses .....             | 154-155 |
| Admission .....  | 26-28   | Curriculum and Instruction,<br>Department of .....       | 97      |
| Advanced Placement .....                               | 25      | <b>D</b>   |         |
| Advanced Teacher Education<br>Program .....            | 33-34   | Degree programs .....                                    | 41-132  |
| Aerospace Studies, Courses .....                       | 133-134 | Dietetics .....  | 82      |
| Aerospace Studies, Program .....                       | 131-132 | Dining Rooms .....                                       | 8       |
| Alumni Association .....                               | 2       | Dismissal .....  | 23      |
| Anthropology, Courses .....                            | 134-137 | Distributive Education, Program .....                    | 91      |
| Anthropology, Department of .....                      | 41-42   | <b>E</b>   |         |
| Appointment of Teachers,<br>Placement .....            | 3-4     | Earth Science, Courses .....                             | 152     |
| Arts, School of the .....                              | 78-89   | Earth Sciences, Department of .....                      | 47-49   |
| Arts and Sciences, School of .....                     | 41-77   | Economics and Basic Business,<br>Program .....           | 91      |
| Associated Women Students .....                        | 13      | Economics, Courses .....                                 | 152-154 |
| Astronomy, Courses .....                               | 137     | Economics, Department of .....                           | 50      |
| Athletics .....  | 13      | Economic Education, Program .....                        | 92      |
| Attendance .....                                       | 25      | Education, School of .....                               | 97-106  |
| Audiology, Program .....                               | 105     | Educational Administration,<br>Courses .....             | 154     |
| Awards and Scholarships .....                          | 10-12   | Educational Administration,<br>Department of .....       | 97      |
| <b>B</b>   |         | Educational Curriculum and<br>Instruction, Courses ..... | 154-155 |
| Biological Sciences,<br>Department of .....            | 42-44   | Educational Media, Courses .....                         | 156-157 |
| Biology, Courses .....                                 | 138-139 | Educational Media, Department of .....                   | 98      |
| Black Studies .....                                    | 40      | Educational Planning Service .....                       | 5       |
| Board of Trustees .....                                | 254     | Elementary Education, Courses .....                      | 157     |
| Botany, Courses .....                                  | 139-140 | Elementary Education and Reading,<br>Department of ..... | 98-100  |
| Botany, Program .....                                  | 42      | Elementary Science, Program .....                        | 66-67   |
| Bureau of Educational Research .....                   | 5       | Emeritus Faculty .....                                   | 280-281 |
| Business, Courses .....                                | 140-147 | Employment, Student .....                                | 7       |
| Business, School of .....                              | 90-96   | English, Courses .....                                   | 157-160 |
| Business Education, Courses .....                      | 147-148 | English, Department of .....                             | 50-52   |
| Business Education, Program .....                      | 90-91   | English Education, Courses .....                         | 160-161 |
| Business-Finance, Program .....                        | 94-95   | Enrollment, Late .....                                   | 25      |
| Business-Management Program .....                      | 95      | Entrance Requirements .....                              | 26      |
| Business-Marketing, Program .....                      | 95      | Examinations, Final .....                                | 25      |
| <b>C</b>   |         | Executive Committee .....                                | 254     |
| Calendar .....   | II      | Extra Fees .....   | 17      |
| Catalog, Effective Dates .....                         | 22      | <b>F</b>   |         |
| Certification .....                                    | 33      | Faculty, Listing .....                                   | 254-281 |
| Challenge System .....                                 | 32      | Fees .....   | 16-21   |
| Chemistry, Courses .....                               | 148-152 | Finance, Program .....                                   | 94-95   |
| Chemistry, Department of .....                         | 44-47   | Financial Information .....                              | 16-21   |
| Citizenship Standards .....                            | 25      | Final Examinations .....                                 | 25      |
| Clubs and Honorary Fraternities .....                  | 14      | Fine Arts, Courses .....                                 | 161-165 |
| College Center .....                                   | 13      | Fine Arts, Department of .....                           | 78-81   |
| College Student Personnel<br>Work, Department of ..... | 97      | Foreign Language, Courses .....                          | 165     |
| Communications, Courses .....                          | 152     |  |         |
| Computer Center .....                                  | 6       |  |         |

|   |         |
|---|---------|
| Foreign Languages,<br>Department of ..... | 52-57   |
| Forensics .....                           | 14      |
| Fraternities .....                        | 14      |
| French, Courses .....                     | 165-167 |
| French, Program .....                     | 52-53   |
| Freshman Admissions Timetable .....       | IV      |

### G

|                                |         |
|--------------------------------|---------|
| General Education .....        | 31-32   |
| General Information .....      | 1-4     |
| Geography, Courses .....       | 168-169 |
| Geography, Department of ..... | 57-58   |
| Geology, Courses .....         | 170-172 |
| German, Courses .....          | 172-173 |
| German, Program .....          | 53, 57  |
| Grading System .....           | 23-24   |
| Graduate Study .....           | 22      |
| Graduation Requirements .....  | 29-30   |

### H

|   |         |
|---|---------|
| Health Education, Program .....                             | 107-108 |
| Health, Physical Education and<br>Recreation, Courses ..... | 174-182 |
| and Recreation, School of .....                             | 107-115 |
| Health Services .....                                       | 7-8     |
| Higher Education, Department of .....                       | 100     |
| History and Philosophy of<br>Education, Courses .....       | 155     |
| History and Philosophy of<br>Education, Department of ..... | 100     |
| History, Courses .....                                      | 182-188 |
| History, Department of .....                                | 58-60   |
| History of the College .....                                | 1       |
| Home Economics, Courses .....                               | 188-193 |
| Home Economics,<br>Department of .....                      | 81-86   |
| Honors Program .....  | 36-38   |
| Housing .....   | 8-9     |
| Humanities, Courses .....                                   | 193-194 |

### I

|  |         |
|--|---------|
| Industrial Arts, Courses .....   | 194-199 |
| Industrial Arts, Department of .....                                   | 87-89   |
| Instructional Materials Center .....                                   | 5       |
| Instructional Staff .....  | 258-281 |
| Insurance Institute .....  | 2       |
| Interdisciplinary Courses .....  | 199-200 |
| Italian, Courses .....   | 201     |
| International Students .....   | 28      |
| Interdisciplinary Studies .....  | 39      |
| Interdisciplinary Studies<br>in Vocational Education,<br>Courses ..... | 200-201 |

### J

|                           |       |
|---------------------------|-------|
| Journalism, Courses ..... | 202   |
| Journalism, Program ..... | 72-74 |

### K

|                             |   |
|-----------------------------|---|
| KCBL-FM Radio Station ..... | 6 |
|-----------------------------|---|

### L

|                                 |     |
|---------------------------------|-----|
| Laboratory Schools .....        | 2   |
| Laboratory School Faculty ..... | 279 |
| Late Enrollment .....           | 25  |

|                                     |      |
|-------------------------------------|------|
| Latin, Courses .....                | 203  |
| Library Facilities .....            | 5    |
| Little Theatre of the Rockies ..... | 14   |
| Loan Funds .....                    | 9-10 |

### M

|                                       |         |
|---------------------------------------|---------|
| Majors and Minors, Explanation .....  | 24, 32  |
| Management, Business, Program .....   | 95      |
| Marketing, Program .....              | 95      |
| Married Student Housing .....         | 9       |
| Mathematics, Courses .....            | 203-207 |
| Mathematics, Department of .....      | 60-62   |
| Mathematics Education, Courses .....  | 208     |
| Matriculation Requirements .....      | 27      |
| Medical Technology, Courses .....     | 208-209 |
| Medical Technology, Program .....     | 45-47   |
| Mental Retardation, Program .....     | 103     |
| Meteorology, Courses .....            | 209-210 |
| Minority Studies, Department of ..... | 38      |
| Minority Studies, Program .....       | 39-40   |
| Music Courses .....                   | 210-221 |
| Music Fees .....                      | 19      |
| Music Organizations .....             | 15      |
| Music, School of .....                | 116-126 |

### N

|                                      |         |
|--------------------------------------|---------|
| National Defense Education Act ..... | 9       |
| Nursing, Courses .....               | 222-223 |
| Nursing, School of .....             | 127-130 |
| Nursing Student Loan Program .....   | 9       |

### O

|                              |          |
|------------------------------|----------|
| Oceanography, Courses .....  | 223      |
| Off-Campus Housing .....     | 9        |
| Off-Campus Instruction ..... | 3, 28-29 |

### P

|   |         |
|---|---------|
| Philosophy, Courses .....                                   | 223     |
| Photographs .....   | 7       |
| Physical Education Activity<br>Courses .....                | 32      |
| Physical Education (Men),<br>Program .....                  | 108-111 |
| Physical Education (Women),<br>Program .....                | 111-114 |
| Physical Science, Program .....                             | 63-64   |
| Physics, Courses .....                                      | 224-226 |
| Physics, Department of .....                                | 62-63   |
| Placement Services .....                                    | 3-4     |
| Political Science, Courses .....                            | 227-229 |
| Political Science, Department of .....                      | 65-66   |
| Pre-Professional Courses .....                              | 36      |
| Preschool .....   | 85-86   |
| Professional Officer Course .....                           | 132     |
| Proficiency Examinations .....                              | 24      |
| Program Planning .....                                      | 24      |
| Psychology, Courses .....                                   | 229-232 |
| Psychology, Counseling and<br>Guidance, Department of ..... | 100-102 |
| Publications, Student .....                                 | 14      |
| Public Services .....                                       | 3       |
| Probation and Dismissal .....                               | 23      |

### Q

|                      |    |
|----------------------|----|
| Quarter Hour .....   | 24 |
| Quarter System ..... | 24 |

|  |         |
|--|---------|
| <b>R</b>   |         |
| Radio Station, KCBL-FM .....   | 6       |
| Reading, Courses .....   | 232-233 |
| Readmission .....  | 23      |
| Recreation, Program .....  | 115     |
| Refund Policy .....  | 19      |
| Regulations Governing Academic<br>Probation and Dismissal .....          | 23      |
| Rehabilitation and Related<br>Services, Program .....                    | 105     |
| Religious Program .....  | 15      |
| Research and Statistical<br>Methodology, Courses .....                   | 233     |
| Research and Statistical<br>Methodology, Department of .....             | 102     |
| Residence Hall Charges .....   | 19      |
| Residence Regulations .....  | 8       |
| Rocky Mountain Special Education<br>Instructional Materials Center ..... | 3       |
| ROTC, Air Force .....  | 131-132 |
| Russian, Courses .....   | 233     |
| Russian, Program .....   | 54      |
| <b>S</b>   |         |
| Schedule of Classes .....  | 25      |
| Scholarships and Awards .....  | 10-12   |
| Science, Courses .....   | 234-235 |
| Science Education, Courses .....   | 235-236 |
| Science Education,<br>Department of .....                                | 66-68   |
| Science (Jr. High Level), Program .....                                  | 67      |
| Sciences, School of Arts and .....                                       | 41-77   |
| Secretarial, Program .....   | 95-96   |
| Social Organizations .....   | 14      |
| Social Sciences, Program .....   | 68-69   |
| Social Studies Education, Courses .....                                  | 239     |
| Sociology, Courses .....   | 236-238 |
| Sociology, Department of .....   | 69-70   |
| Spanish, Courses .....   | 239-240 |
| Spanish, Program .....   | 54, 56  |
| Special Education, Courses .....   | 241-245 |
| Special Education,<br>Department of .....                                | 103-105 |
| Special Programs, Office of .....  | 6       |
| Speech Communications and<br>Journalism, Department of .....             | 70-74   |
| Speech Communications and<br>Journalism, Courses .....                   | 246-248 |
| Speech Pathology, Program .....  | 104     |
| Speech Skills .....  | 26      |
| Student Activities .....   | 13-15   |
| Student Employment .....   | 7       |
| Student Field Experience .....   | 34, 35  |
| Student Field Experience,<br>Courses .....                               | 248-249 |
| Student Field Experiences<br>Program .....                               | 105-106 |
| Student Government .....   | 13      |
| Student Group Health and<br>Accident Insurance .....                     | 7       |
| Student Personnel Services .....   | 7-12    |
| Student Personnel Work,<br>Department of .....                           | 97      |
| <b>T</b>   |         |
| Teacher Education .....  | 33      |
| Theatre Arts, Courses .....  | 249-252 |
| Theatre Arts, Department of .....  | 74-77   |
| Transcripts .....  | 7       |
| Transfer Credit .....  | 27      |
| Transfer Credit Deadline .....   | 27      |
| Transfer Students .....  | 28      |
| Transfer Students Admissions<br>Timetable .....                          | IV      |
| Trustees, Board of .....   | 254     |
| Tuition and Fees .....   | 16-21   |
| <b>U</b>   |         |
| Undergraduate Course Load .....  | 22      |
| Undergraduate Program .....  | 31-40   |
| United Student Aid Fund .....  | 10      |
| <b>V</b>   |         |
| Vocational Education .....   | 39      |
| Vocational Education, Courses .....                                      | 200-201 |
| <b>W</b>   |         |
| War Service Personnel,<br>Education of .....                             | 7       |
| Withdrawal from Class .....  | 25      |
| <b>Z</b>   |         |
| Zoology, Courses .....   | 252-253 |
| Zoology, Program .....   | 43      |





