

Colorado State College BULLETIN

UNDERGRADUATE CATALOG

CSC

1968-69



J. P. BRITTON DEL-65

GREELEY, COLORADO



BULLETIN

COLORADO STATE
COLLEGE

1968-69 UNDERGRADUATE CATALOG

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COLLEGE CALENDAR 1968-1969

S M T W T F S

SEPTEMBER
1 2 3 4 5 6 7
8 9 10 11 12 13 14
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29 30

OCTOBER
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NOVEMBER
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DECEMBER
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JANUARY
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FEBRUARY
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MARCH
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APRIL
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MAY
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JUNE
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22 23 24 25 26 27 28
29 30

JULY
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6 7 8 9 10 11 12
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20 21 22 23 24 25 26
27 28 29 30 31

AUGUST
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

Fall Quarter—1968

September 18—Laboratory School Opens

September 20—New Students Report

September 23-24—Registration

September 25—Classes Begin*

October 12—Homecoming

October 28-November 1—Mid-term Week

November 16—Parents' Day

November 27—Thanksgiving Vacation
(Begins at noon)

December 11—Commencement—4:15 p.m.

December 11-12-13—Final Examinations

December 18—Laboratory School Closes

Winter Quarter—1969

January 2-3—Registration

January 6—Classes Begin*

January 31-February 1—Mid-Year Education
Conference

February 3-7—Mid-term Week

March 14—Commencement 4:15 p.m.

March 14-17-18—Final Examinations

Spring Quarter—1969

March 24-25—Registration

March 26—Classes Begin*

April 28-May 2—Mid-term Week

May 20—Insignia Day

May 30—Memorial Day—Holiday

May 31—Commencement—10:00 a.m.

June 4-5-6—Final Examinations

Summer Quarter—1969

June 16-17—Registration

June 18—Classes Begin*

July 4—Independence Day—Holiday

July 21-25—Mid-term Week

August 21—Commencement—10:00 a.m.

August 20-21-22—Final Examinations

*Evening Classes begin the same day as day classes.

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Freshman Admissions Timetable

Applications—Applications may be filed any time after the close of the first semester of the senior year in high school and not later than 30 days prior to registration day.

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.

Financial Aid Applications—Applications for Student Loans should be filed with the Director of Financial Aid between April 1st and April 30th or until funds are exhausted. A student must have made application for admission to the college and have been officially admitted before any action will be taken on the application for financial aid.

Scholarship Applications—Applications for scholarships should be returned to the high school for their completion by February 1st and must be filed with the Director of Financial Aid no later than March 1st. A student must have been officially admitted to the college before his application for scholarship will be considered.

"PLEASE NOTE"—All applicants for Financial Aid must submit the Parent's Confidential Statement of the College Scholarship Service or the Family Financial Statement of the American College Test 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.

Test Scores—All transfer students must submit scores from the American College Test (ACT). These scores may be submitted by the student's high school, previous college or university, or by the American College Test, Iowa City, Iowa. The Counseling and Testing Service, Colorado State College, Greeley, can supply information regarding registration for this examination.

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.

Statement on 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 offices 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 of 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 45 hours of liberal arts prior to graduation. It will be necessary to select liberal arts courses as the electives if a deficiency exists in this requirement.

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 is completely accredited by the North Central Association of Colleges and Secondary Schools as an institution conferring the Bachelor of Arts, the Bachelor of Science, the Master of Arts, the Specialist in Education, the Doctor of Education, and the Doctor of Philosophy degrees. Accreditation by the North Central Association of Colleges and Secondary Schools was first earned in 1916.

The college is accredited by 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 Midwest Conference on Graduate Study and Research, and the Western Association of Graduate Schools.

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 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 College 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.

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 with kindergarten and the first six grades 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 Director 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, Central, and West. At present a majority of the academic buildings are on the Central Campus. Residence halls for men and women are located on the East and West campuses and residences for women on the Central 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.

A new \$3,175,000 College Center lies between the Central and West campus areas. Future plans of the college are to have the majority of single student residences and academic buildings on the 156-acre West 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 West Campus. Three new coeducational residence halls on the West Campus—McCowan 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.

The total physical plant of the campus includes 61 buildings, exclusive of college-owned fraternity and sorority houses. Book values, original cost, of the physical plant and its contents are \$38,400,000. 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.

Library Facilities—The college library in Carter Hall has more than 275,906 volumes, including microfilms, periodicals, government documents, pamphlets, and reference materials. Carter Hall is a modern building with many comfortable, well-lighted study areas. The air-conditioned book stacks are open to all students and other patrons.

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.

Rocky Mountain Special Education Instructional Materials—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 11 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.

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 Educational Research—Consultative services are provided to the college, individual faculty members, doctoral students, and public schools. Services to individuals and organizations include aid in preparing statistical designs, and aid in other phases of research and development. College and public school organizations are assisted in planning test programs, computer applications to educational problems, large scale research projects, innovation projects, and program evaluation. A research journal is published in cooperation with Alpha Mu chapter of Phi Delta Kappa and Office of Publications. Bureau staff coordinate the doctoral program in Educational Measurement and Research and direct the research practicum experiences in this program.

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.

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 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.

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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 present and former students who are seeking positions. It also offers its services to the principals, superintendents, boards of education and college officials who are seeking employees.

The purpose of the office is to bring students and the employment authorities together either by exchange of correspondence or by personal interview. The functions of the Placement Center are (1) to arrange for meetings of interested parties, (2) to furnish appropriate information to both parties, and (3) to give such assistance to both parties as is possible and ethical.

The only charge for this service is a small one to cover, in part, the cost of assembling data concerning the applicant. The fee is paid when the applicant enrolls. Please consult the Financial Information section for specific fee schedule.

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 programming 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.

Health Services—The Student Health Service offers examination, treatment, and limited dispensary facilities with registered nurses in attendance at all times during the college day, and with physicians available at specific office hours.

Students are issued Health Certificates with the names, addresses and telephone numbers of all physicians in Greeley. A student may go to the office of any Weld County physician, or he may call the physician to his residence. Doctor's charges and hospital bills are paid by the college at the end of each quarter on a restricted basis according to our contract with these agencies. Services allowed are listed on the reverse side of the Health Certificate. Students who are on off-campus assignments doing supervised practice in student teaching, student nursing, and special education may use the Health Certificates in the community where they are assigned by special arrangement at the Accounting Office when the Health Certificates are issued.

A group health and accident insurance policy is issued to all students who do not request a waiver. The cost of the insurance is \$21.50 per year for benefit's covering the student during a 52-week period anywhere in the United States and Canada, all vacation periods included.

A Student Health brochure is provided which may be consulted for further details.

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 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 and for the student's identification card.

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. No student is permitted to break this contract unless he or she is leaving the campus. 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—All freshman and sophomore women are required to be in their places of residence no later than 11:00 p.m. on Sunday through Thursday and by 1:00 a.m. on Friday and Saturday nights. Junior and senior women who are in good social and academic standing may request key privileges to their residences.

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

Linens 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.

Application for Rooms—Application blanks may be obtained from the Office of Student Housing. The completed application for housing, with a \$50.00 deposit, must be returned to the Director of Student 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 1, \$40.00 will be refunded. Cancellations received from August 1 to September 1, \$25.00 will be refunded. Cancellations received on or after September 1, no refund of deposit. **WINTER QUARTER:** Cancellations received prior to November 1, \$40.00 will be refunded. Cancellations received from November 1 to December 1, \$25.00 will be refunded. Cancellations received on or after December 1, no refund of deposit. **SPRING QUARTER:** Cancellations received prior to February 1, \$40.00 will be refunded. Cancellations received from February to March 1, \$25.00 will be refunded. Cancellations received after March 1, no refund of deposit. **SUMMER QUARTER:** Cancellations received prior to May 1, \$40.00 will be refunded. Cancellations received from May 1 to June 1, \$25.00 will be refunded. Cancellations received after June 1, no refund of deposit. 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 Student Housing will assist students who are not required to live in residence halls to obtain housing in the City of Greeley. Board is available at the College Center for students living off-campus. Undergraduate students are required to live either in the college residence halls or in approved private residences.

Undergraduate students are required to live in approved off-campus housing with the following exceptions: (1) students 21 years of age or over; (2) students who have successfully completed more than 90 credit hours and have the permission of their parents to live where they choose; (3) students whose parents or guardians live in the Greeley vicinity; (4) married students.

Students living in approved off-campus housing report their addresses and parental approval to the Director of Housing within the first week of each quarter. Failure to report one's address or present written parental approval may result in disciplinary action.

Residents of approved off-campus housing must abide by the college regulations concerning conduct. Those students not living in approved housing are expected to conduct themselves in accordance with the standards of the college and community.

Jackson Field Housing Project—A limited number of temporary apartment units are available for students with families. These furnished apartments are provided with heat, electricity, and water.

There are 98 permanent two-bedroom furnished apartments available for students and their immediate families. These units 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 Student Housing, Colorado State College. A \$50 deposit must accompany an application for Jackson Field Housing.

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 and the College Scholarship Service Program for the determination of financial need. All students seeking financial assistance are required to submit a copy of the Family Financial Statement (FFS) or the Parent's Confidential Statement (PCS) to the proper agency by February 15, designating Colorado State College as one of the recipients. The FFS and the PCS forms may be obtained by contacting 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 Student Loan Program authorized by the Federal Government. Loans are available to outstanding 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.

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 six per cent interest until repayments are due to begin and three per cent interest while the student is repaying the loan. 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 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 or the Parents' Confidential Statement and can be used only as a credit toward the cost of tuition. Recipients must be residents of the State of Colorado.

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 Financial Assistance Grants—Grants 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.

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 Elizabeth P. Hall Memorial Graduate Scholarship in Biology—The Elizabeth P. Hall Memorial Graduate Scholarship of \$500 is established to assist in the continued education for one year of the most promising baccalaureate graduate specializing in any biological science, who would be unable otherwise, for financial reasons, to enter the Graduate School of Colorado State College. The recipient will receive during the ensuing academic year ten installments of \$50 each.

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 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 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 colleges as a full-time undergraduate student. Normally, a scholarship is not awarded before the sophomore year. The scholarship generally provides a sum equal to tuition, student services fees, and books for the academic 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 of northern Colorado. It provides financial assistance to well-qualified and deserving freshmen applicants from Weld and Morgan counties, Colorado.

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 from 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.

The Helene Zahnen Memorial Award—A fund was established as a memorial to Helene Zahnen, former professor of foreign languages and teacher in College High School for many years. The fund provides for some financial assistance to a deserving graduating senior of College High School who enters Colorado State College to study to become a teacher of foreign languages. Applications should be made to Principal, College High School, Greeley, Colorado.

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 direction of the Department of Student Personnel. The Associated Students elect in the Spring Quarter a student governing body, the Student Council. The Student Council serves in the succeeding school year.

Students registered for seven or more quarter hours of credit on the campus are automatically members of the Associated Students and 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.

The student government does not function during the Summer Quarter, but comparable activities are provided to students under the direction of the Director of Summer Quarter and the Director of the College Center.

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 athletic activities of the college are governed by a Board of Athletic Control on which both students and faculty are represented. Intercollegiate and intramural athletic programs are scheduled in football, basketball, baseball, field and track, wrestling, swimming, gymnastics, tennis, and golf. Gunter Hall and Jackson Field, athletic stadium, afford ample 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 Women's Athletic Association has charge of and encourages intramural participation in athletic sports suitable for women, including swimming, basketball, softball, volleyball, tennis, track and field, archery, and fencing.

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;
 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.

Social Organizations—At Colorado State College there are nine national social sororities, six national social fraternities, and one local fraternity.

Sororities

Alpha Delta Pi
 Alpha Gamma Delta
 Alpha Xi Delta
 Alpha Phi
 Alpha Sigma Alpha
 Alpha Sigma Tau
 Delta Zeta
 Sigma Kappa
 Sigma Sigma Sigma

Fraternities

Acacia
 Alpha Kappa Lambda
 Phi Alpha
 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.

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. The Religious Affairs Association composed of students, college chaplains and faculty members is the coordinating agency for campus religious activities.

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, SPRING OR SUMMER 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	30.00	30.00
Total	\$115.00	\$265.00

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

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

*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 Campus Health Office, 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, a Student Health Certificate providing for contractual hospitalization and medical treatment, admission to campus athletic events, performing arts plays and productions, 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.

During the Summer Quarter, the Student Services Fees do not provide for contractual medical treatment or hospitalization service. They are committed for use in an expanded and varied program of campus social, recreational and instructional activities as well as carrying the costs 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 1966 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:

	Status	
	Resident of Colorado	Non-Resident of Colorado
FALL, WINTER, AND SPRING QUARTERS		
Tuition and Student Services Fee.....	\$ 345.00	\$ 795.00
Books and Supplies (estimated).....	240.00	240.00
Board and Room (average).....	860.00	860.00
*Personal Expenses	350.00	350.00
Total Expenses Academic Year of Three Quarters	\$1,795.00	\$2,245.00
SUMMER QUARTER, EXCLUSIVELY		
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
Total, Full Quarter	\$ 600.00	\$ 760.00

Incidental Extra Fees Applicable Under Specified Conditions

Late Registration: Assessed for an enrollment completed on the first day following the scheduled registration day	\$ 5.00
Assessed for each added day, during which late registration is permitted	2.00
Special Examination: Assessed when permission is granted to take an examination at a time other than regularly scheduled	2.00
Late Application for Graduation.....	2.00
Change of Program: Assessed for each change of program (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.	
Proficiency Examination	2.00
Official Transcript of College Records, per copy.....	1.00
Student Identification Card Replacement.....	1.00
Certified Statement of Issuance of Teaching Certificate and/or diploma....	1.00
Reading Improvement Programs:	
1. Reading Center Diagnosis	40.00
1. Reading Center Group Tutoring, per clock hour.....	2.50
3. College Study Skills Laboratory Registration, per quarter.....	10.00
General Education Development Tests	5.00
(May be used to qualify for a High School Equivalent Certificate from the Colorado State Department of Education)	
Special tests by the Counseling Service.....	5.00
Special Billing: Assessed when an itemized invoice of an account is requested by the student or a supporting agency.....	1.00

*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.

Placement Center Charges:

(The Placement Year begins October 1 and ends September 30)

Initial Enrollment before December 1.....	10.00
Initial Enrollment after December 1.....	15.00
Re-enrollment before February 1.....	10.00
Re-enrollment after February 1.....	15.00
Six sets of credentials furnished with enrollment fee. Seventh and subsequent copies of credentials sent out, per copy.....	1.00
First and subsequent copies of credentials mailed when applicant has not re-enrolled, per copy.....	2.00
Telephone calls, telegrams, postage for air mail or special delivery 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

Binding and mailing Master's Thesis, Practicum or Doctoral Research Study (4 copies required)..... 16.00

Comprehensive Examination Retesting Fee..... 5.00

Foreign Language Examination required for doctoral program fee..... 5.00

Writing Laboratory for Graduate Students (required of students assigned to the laboratory following tests)..... 10.00

Graduate Record Examinations: Advanced Test in Education, Aptitude, Area Tests in Social Science, Natural Science, and Humanities (for specialist and doctoral students)..... 10.00

Admission to examinations bearing graduate study fees is arranged on presentation of a receipt from the Accounting Office indicating payment of the applicable charge.

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

Individual music lessons, less than full quarters

Violin, piano, organ, strings, each.....	3.00
Other instruments, each.....	2.50

Practice room per quarter (includes piano rental)..... 5.00

Orchestra or band instrument rental per quarter..... 5.00

Organ rental per quarter..... 10.00

*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 formally 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.

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. Refunds are not provided on a proration of time in attendance. 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 Quarters of 1968 and the Winter and Spring Quarters of 1969, 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.

	Minimum	Maximum
Board and Room per person		Per Week
Partial Session in the Summer Quarter, one or more weeks for either Men's or Women's Residences		
Occupancy, two persons to a room.....	\$ 30.00	\$ 30.00
Occupancy, single person per room.....	34.00	34.00
Occupancy where permitted for an approved, special or 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 weeks) service rate hereinafter quoted.		
		Quarterly
	Minimum	Maximum
All Residence Halls		
Single student occupancy, two persons per room.....	\$275.00	\$290.00
Occupancy, single person per room (available in summer quarter only)	325.00	325.00
Board Service Only		
Is available at the College Center for students not occupying space in the residence halls.		
Rooms Only		
College-owned Fraternity or Sorority houses (restricted to organization members, fall, winter or spring quarters) single persons.....	80.00	80.00
Married couples, rates for two persons (summer quarters only)	180.00	180.00

Family facilities (limited to the student and three dependents; not available for single students) summer only per family, 10 weeks.....	275.00	275.00
	Minimum Maximum Monthly	
Apartments, Student-Family Development, East Campus (includes furnishings and utilities).....	\$ 97.50	\$ 97.50
Apartments, Jackson Village	40.00	48.00

All rentals are restricted to student families.

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 1, \$40.00 will be refunded. For cancellations received from August 1 through August 31, \$25.00 will be refunded. Cancellations received on or after September 1 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 1, \$40.00 will be refunded. For cancellations received from November 1 through December 1, \$25.00 will be refunded. Cancellations received on or after December 2 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 1, \$40.00 will be refunded. For cancellations received from February 1 through March 1, \$25.00 will be refunded. Cancellations received on or after March 2 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 1, \$40.00 will be refunded. For cancellations received from May 1 through June 1, \$25.00 will be refunded. Cancellations received on or after June 2 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 leaves the campus 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 by calculating all days remaining in the quarter and the account credited or refunded from the balance assessed.

Major Facilities Provided in College Housing

A resident of a college dormitory 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. Dormitories contain all furniture required; the student is not encouraged to provide supplements to the college pieces available. All dormitory 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 dormitories 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. Bachelor of Arts degrees may be earned in any of the three areas, while the Bachelor of Science degree is offered only under the Applied and Professional Studies program. The Teaching Professions program prepares for teacher certification at the elementary or secondary levels in Colorado and other states. The Arts and Sciences and Applied and Professional Studies programs do not fulfill teacher certification requirements.

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 the approval of the Assistant Dean of Students, a maximum of 18 academic credit hours plus the required physical education activity may be taken by students who have 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 16 hour maximum load when they are enrolled for 16 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, 1968, to May 31, 1969. 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.

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 an A.B. 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."

No student 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.

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

Quarter Hour—All credit toward graduation is computed in “quarter hours.” The term “quarter 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.

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.

Course Numbers—The course numbers are divided into three groups: (a) 1 to 199 may be taken for undergraduate credit only; (b) 200 to 299 may be taken by undergraduates for undergraduate credit and by graduates for graduate credit; (c) 300 to 499 may be taken for graduate credit only. Third quarter seniors may be admitted to 300 level courses by petition to the graduate council. 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, and 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. The late registration fee will be charged all students who complete registration later than the stated catalog date.

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.

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—A student is expected to be a good citizen of his college community. When a student shows evidence of lacking any of the essential qualities of scholarship, health, and character, he may be suspended by the college.

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 20 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.

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 30 days prior to the date a student expects to graduate.

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 close of the first semester of the senior year in high school and not later than 30 days prior to registration day.
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 freshman orientation 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) American College Test scores; (f) CSC Statistical Information Form.

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.*)

Off-Campus Instruction

A total of 45 quarter hours of credit may be taken by correspondence or off-campus instruction (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, Colorado State College off-campus courses, Tele-Lecture courses, and correspondence and extension work transferred from other colleges and universities. Colorado State College correspondence courses must be completed and graded 30 days before the end of the quarter in which the student expects to graduate.

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 should obtain a copy of the Correspondence Bulletin for complete information and regulations concerning correspondence courses. This bulletin is 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 course work is unlimited, but cannot be counted as residence credit in meeting the 45 quarter hours on-campus requirement.

4. Forty-five quarter hours in correspondence and/or extension work (Colorado State College 1948 and correspondence and/or extension courses transferred from other colleges) is the maximum number of quarter hours which will apply toward a degree. Correspondence courses must be completed and graded 30 days before the end of the quarter in which the student expects to graduate. This includes the completion and grading of the final examination.

5. Transcripts from all colleges and universities that contain credit necessary for completion of degree requirements must be received by the Registrar at least 30 days prior to the date of graduation.

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 Card photograph taken during the regular school year have met the photograph requirement. Other students must furnish a recent photograph (approximately 3" x 4") for the Records Office files.

9. A student must provide the Registrar's Office a "health clearance" form obtained from the Student Health Services at Colorado State College at the time of his application for graduation.

10. 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 Friday of mid-term week at 4:00 p.m. of the quarter in which the student expects to graduate.

11. 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.

12. Requirements for graduation are checked in accordance with the requirements in one particular college catalog—that is, a student cannot ask that his chosen major be selected from one catalog and his minor from another, etc.

13. 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.

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

The Honors Program

Dr. Eugene D. Koplitz, Associate Dean

Program Description—The Honors Program at Colorado State College was conceived and created in 1957 as an experimental project for the purpose of enriching the lives of students who perform at high academic levels. Continuous evaluations and revisions of the program are made annually 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 Committee to enter the Honors Program at the end of his freshman year at Colorado State College. Selection is limited to approximately the highest five percent of the fresh-

man 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 Honors Committee.

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.

During the sophomore year, a series of weekly lecture-discussions, called Sophomore Honors Symposia Forum (ID 51, 52, and 53) is offered for Honors Students fall, winter and spring quarters to enrich the educational experience of students who qualify for the program. Symposia are organized and planned around present day issues in Professional Education, the Arts and Sciences, and carry one hour credit per quarter.

In the junior year, each Honors Student enrolls in a Junior Honors Project (ID 151) 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. ID 151 carries regular college credit at the rate of one hour per quarter for a total of three credits; credit and a grade are withheld until three hours are earned. Students will sign up for the course each quarter. At the end of the first three hours of work, an evaluation of work done up to that time is made.

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 two 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. It is preferred that the final draft be turned in the same quarter that the student graduates from the college. Credit is withheld for ID 251 until three credit hours have been earned.

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.

Accumulative grade averages of Honors Students shall be reviewed at the end of each academic year by the Honors Committee. 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. A student will graduate "with Honors" who has maintained a 3.20 accumulative average in the work taken at Colorado State College and has completed an approved and accepted Honors Project.

UNDERGRADUATE PROGRAMS

Undergraduate Curriculum

The undergraduate curriculum consists of the following areas totaling at least 186 quarter hours:

A. General Requirements—The following two programs are required of all students and are usually completed during the freshman and sophomore years:

1. *General Education*—Humanities, Communications, Sciences, Social Sciences, General Psychology, and Personal Living for a total of at least 45 academic quarter hours.
2. *Physical Education Activity Courses*—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 Corps Training Courses for Physical Education Activity Courses.

B. Broad Areas of Concentration—A major of not less than 48 quarter hours and a minor of not less than 27 quarter hours, if required by a School or department) must be selected from one of the following three programs of the college: Arts and Sciences, Teaching Professions (Teacher Education), or Applied and Professional Studies.

1. *Programs in the Arts and Sciences*

- a. Biological Science
- b. Chemistry
- c. English
- d. Fine Arts
- e. French
- f. German
- g. History
- h. Mathematics
- i. Medical Technology
- j. Music
- k. Physical Science
- l. Physics
- m. Social Sciences
- n. Spanish
- o. Speech
- p. Theatre Arts

2. *Programs in the Teaching Professions (Teaching Education)*

- a. Biological Science (Major and Minor)
- b. Business Education (Major and Minor)
- c. Chemistry (Major and Minor)
- d. Dietetics Major
- e. Dance Education (Minor)
- f. Earth Science (Major and Minor)
- g. Economic Education (Minor)
- h. Educational Media (Minor)
- i. Elementary Education Certification (Major)
- j. Elementary Science (Major and Minor)
- k. English (Major and Minor)
- l. Fine Arts (Major and Minor)
- m. French (Major and Minor)
- n. German (Major and Minor)
- o. History (Major and Minor)
- p. Home Economics (Major and Minor)
- q. Industrial Arts (Major and Minor)
- r. Journalism (Minor)
- s. Language and Speech — Jr. High School (Minor)
- t. Mathematics (Major and Minor)
- u. Music Education (Major and Minor)

- v. Outdoor Education (Emphasis)
- w. Physical Education — Men (Major and Minor)
- x. Physical Education — Women (Major and Minor)
- y. Physical Science Major
- z. Physics (Major and Minor)
- aa. Preschool (Minor)
- bb. Psychology (Minor)
- cc. Recreation (Major)
- dd. Science — Jr. High School (Major)
- ee. Spanish — (Major and Minor)
- ff. Social Science (Major and Minor)
- gg. Social Studies (Major)
- hh. Special Education (Major and Minor)
- ii. Speech (Major and Minor)
- jj. Theatre Arts (Major and Minor)

Special Note: The Advanced Teacher Education Program (ATE), consisting of Educational Psychology, Basic Concepts of Education, Methods and Observation, Student Teaching, and Philosophy of Education for a total of not less than 29 quarter hours, is required of all students choosing the Teacher Education area.

3. Programs in Applied and Professional Studies.

- a. Aerospace Studies
- b. Business
- c. Home Economics
- d. Nursing
- e. Recreation

C. **Electives**—Sufficient free electives to complete the requirement for graduation.

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	
COM	2—Elementary Composition II	3	
COM	3—Principles of Speech	3	
PCG	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	

Sophomore Year

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	
SS	81*—The Individual and His Social Relations.....	3	
SS	82*—American Life and Institutions	3	
SS	83*—Contemporary World Cultures	3	
	Electives**	3	
HPER	—Physical Education Activity courses (1-60)***.....	6	

*The student may substitute for the nine hour social requirement any two of the following courses: GEO 10, ANT 20, ECON 30, PSCI 40, SOC 50, HIST 75; or the nine-hour series of HIST 25, 26, and 27.

**To be sure that North Central Association accreditation standards are met, students must elect three additional quarter hours in any of the following fields: English, history, social sciences, science, mathematics, fine arts, languages, and psychology.

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

Statement on 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 45 hours of liberal arts 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

Physical Education Activity Program for Women—A total of six quarters of physical education activity courses is required. Courses meeting these requirements are numbered from 1 to 60 inclusive. Courses may be repeated only with the approval of departmental faculty members.

It is recommended that women students in earning their first three credits in this area enroll for one course in dance, one group sport, and one individual activity. After the first three credits are earned, students may register for any one-hour course not previously taken, for a total of six hours credit. Credit may be earned in only one course each quarter. It is recommended that this requirement be met during the first portion of the undergraduate program.

Women students registered for physical education activity courses are required to obtain a locker padlock in the College Bookstore.

The required regulation uniform is available at the College Bookstore. Students are expected to appear dressed for activity the first class meeting.

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.*

Physical Education Activity Program for Men—A total of six quarters of physical education activity courses is required. Courses meeting these requirements are numbered from 1 to 60 inclusive. Courses may be repeated only with the approval of departmental faculty members.

It is recommended that men students in earning their first three credits in this area enroll for one course in dance, one team sport, and one individual activity. Credit may be earned in only one course each quarter. It is recommended that this requirement be met during the first portion of the undergraduate program.

Men students registered for physical education activity courses will be issued lockers, and certain items of equipment from the Men's Equipment Room in the basement of Gunter Hall. A cash deposit of \$5 is required prior to any such issue. This deposit is refundable upon return of all issued items at the conclusion of the quarter or program.

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.*

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.

*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 education, and recreation are exceptions to the above and will be expected to complete all physical education activity requirements.

AEROSPACE STUDIES

History—A four-year Air Force ROTC program was established at Colorado State College Fall Quarter, 1951. The ROTC Vitalization Act of 1964 expanded the traditional four-year program to include a two-year curriculum designed primarily for transfer students. Beginning Fall Quarter, 1964, Air Force ROTC became a voluntary program.

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 will enter active duty in the grade of Second Lieutenant with all pay and allowances of that grade.

Physically qualified graduates will receive additional pilot or navigator training and the non-flying officer will be given an initial duty assignment in a specialty closely related to his academic major.

AFROTC Program

Four-Year Program—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 Program—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 preceding 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 academic work to include a B.A. 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 open to all full-time male students.

The General Military Course is a two-year program.

Air Force uniforms and textbooks are furnished.

Credit for portions of the GMC program will be granted to veterans making application for waiver.

Freshmen enroll in the following courses:

Course No.	Course Title	Hours	Credit
AS 11, 15	—Corps Training I, II		1°
AS 22	—World Military Systems I		1
AS 24	—World Military Systems II		2

Sophomores enroll in the following courses:

AS 21, 25	—Corps Training III, IV		1°
AS 104	—World Military Systems III		2
AS 106	—World Military Systems IV		1

*The four quarter hours of AFROTC Corps Training may be substituted for four of the required six quarter hours of physical education activity courses. These hours do not apply toward 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 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.

AFROTC Financial Assistance Grants—Grants include full tuition, fees, a quarterly book allowance of \$25, and \$50 per month. Selected cadets participating in the four year AFROTC program are eligible.

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.

THE SCHOOL OF THE ARTS

Dr. Kenneth F. Perry, Dean

The School of the Arts offers programs in the Arts and Sciences and in the Teaching Professions.

Degree Programs in Arts and Sciences

Bachelor of Arts Degree
Fine Arts

Degree Programs in the Teaching Professions

Bachelor of Arts Degree
Fine Arts
Home Economics
Industrial Arts

Degree Programs in Applied and Professional Studies

Bachelor of Arts Degree
Dietetics
Home and Family Living

Department of Fine Arts

Mr. John I. Mariani, Chairman

Professors: Ball, Mariani.

Associate Professors: W. Green, Leacock.

Assistant Professors: Emrick, D. Johnson, Schumacher.

Instructors: Blubaugh, Cordiner, O. Green, Hutchinson, Settje.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Fine Arts Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.
2. 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	
FA	11—Introduction to Design	5	
FA	17—Introduction to Pottery	3	
FA	51—Introduction to Color	3	
FA	54—Drawing and Painting Techniques	3	
FA	58—Introduction to Sculpture	3	
FA	116—Craft Processes and Design	5	
FA	120—Introduction to Oil Painting	3	
FA	135—Life Drawing	2	
FA	203—Watercolor Painting	5	
FA	220—Oil Painting	5	
FA	221—Art History I	3	
FA	222—Art History II	5	
		48	

3. One minor of 27 quarter hours outside the departmental major.
4. Electives to complete requirements for graduation.

Fine Arts Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
FA	1—Drawing	3	
FA	11—Introduction to Design	5	
FA	51—Introduction to Color	3	
FA	54—Drawing and Painting Techniques	3	
FA	116—Craft Processes and Design	5	
FA	120—Introduction to Oil Painting	3	
FA	223—Survey of Art	5	
		27	

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Fine Arts Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
FA	1—Drawing	3
FA	11—Introduction to Design	5
FA	13—Lettering	2
FA	17—Introduction to Pottery	3
FA	50—Figure Construction	3
FA	51—Introduction to Color	3
FA	58—Introduction to Sculpture	3
FA	101—Philosophy of Art Education	2
FA	103—Introduction to Watercolor Painting	2
FA	116—Craft Processes and Design	5
FA	120—Introduction to Oil Painting	3
FA	123—Art Education for the Secondary School	3
FA	126—Instructional Techniques in Art Education	3
FA	221—Art History I	3
FA	222—Art History II	5
		48

4. One minor of 27 quarter hours outside of the departmental major.
5. Electives to complete requirements for graduation.

Fine Arts Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
FA	1—Drawing	3
FA	11—Introduction to Design	5
FA	17—Introduction to Pottery	3
FA	51—Introduction to Color	3
FA	54—Drawing and Painting Techniques	3
FA	116—Craft Processes and Design	5
FA	223—Survey of Art	5
		27

Fine Arts Major (Junior High School Level)

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
FA	1—Drawing	3
FA	11—Introduction to Design	5
FA	13—Lettering	2
FA	17—Introduction to Pottery	3
FA	51—Introduction to Color	3
FA	54—Drawing and Painting Techniques	3
FA	58—Introduction to Sculpture	3
FA	101—Philosophy of Art Education	2
FA	103—Introduction to Watercolor Painting	2
FA	104—Commercial Design and Poster	2
FA	116—Craft Processes and Design	5
FA	120—Introduction to Oil Painting	3
FA	126—Instructional Techniques in Art Education	3
FA	223—Survey of Art	5
FA	240—Art in the 7th, 8th, and 9th Grades	5

4. One minor of 27 quarter hours outside of the departmental major.
5. Electives to complete requirements for graduation.

Fine Arts Minor (Junior High School Level)

Course No.	Course Title	Hours	Credit
FA	1—Drawing	3	
FA	11—Introduction to Design	5	
FA	13—Lettering	2	
FA	17—Introduction to Pottery	3	
FA	54—Drawing and Painting Techniques	3	
FA	104—Commercial Design and Poster	2	
FA	116—Craft Processes and Design	5	
FA	240—Art in the 7th, 8th, and 9th Grades	5	
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Department of Home Economics

Dr. Myrtle Bailey, Chairman

Assistant Professors: Bailey, Burns, Cadigan, Funderburk.

Instructors: Broughton, Gade, Oslund, Reeves, Sinkovich, Taylor.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Home Economics Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

Course No.	Course Title	Hours	Credit
HEC	70—Clothing Selection	2	
HEC	71—Textile Fundamentals	3	
HEC	72—Fundamentals of Clothing Construction	3	
HEC	77—Food Selection and Preparation	4	
HEC	81—Art in Home Living	2	
HEC	98—Basic Nutrition	3	
HEC	170—The Home and Its Furnishings	5	
HEC	173—Intermediate Clothing Construction	4	
HEC	178—Principles of Food Preparation	4	
HEC	180—Family Relationships	3	
HEC	191—Management in Family Living	3	
HEC	203—Development and Guidance of the Young Child	3	
HEC	219—Infant and Child Care	4	
HEC	284—Demonstration Techniques	2	
HEC	298—Meal Planning and Service	4	
HEC	299—Home Management Residence	3	
CHEM	40—Principles of Chemistry I	5	
		<hr/>	
			57

4. The 22 quarter hours listed under the requirements for a credential to teach Vocational Homemaking in secondary schools in Colorado;

OR

One minor of 27 quarter hours selected in any school.

5. Electives to complete 180 quarter hours of academic credit required for graduation. Recommended electives: HEC 255, 261, 274, 295, four hours of Fine Arts, and Chemistry 41, Principles of Chemistry II.

Credential for Teaching Vocational Homemaking

In order to qualify for a Vocational Homemaking Credential under the State Board for Vocational Education, the following courses are required. If these are successfully completed, a minor is not required for the Bachelor of Arts degree in teacher education.

Course No.	Course Title	Hours	Credit
HEC	183—Home Nursing	2	2
HEC	188—Costume Design—Flat Pattern	3	3
HEC	255—Consumer Problems of the Family	3	3
HEC	293—Adult Education in Homemaking	3	3
EDCI	249—Principles of Vocational Education	3	3
PCG	285—Mental Hygiene and Emotional Adjustment	3	3
	Electives in the Science Division	5	5
			22

Home Economics Minor

Course No.	Course Title	Hours	Credit
HEC	70—Clothing Selection	2	2
HEC	72—Fundamentals of Clothing Construction	3	3
HEC	81—Art in Home Living	2	2
HEC	94—Basic Food Preparation and Service	4	4
HEC	98—Basic Nutrition	3	3
HEC	170—The Home and Its Furnishings	5	5
HEC	180—Family Relationships	3	3
HEC	191—Management in Family Living	3	3
HEC	203—Development and Guidance of the Young Child	3	3
			28

Recommended electives for Home Economics minors who want to teach homemaking in the secondary schools:

Course No.	Course Title	Hours	Credit
HEC	219—Infant and Child Care	4	4
EDCI	141—Methods of Teaching in the Secondary School	3	3
	Additional Home Economics courses selected in terms of student's background	5	5

Preschool Minor

Course No.	Course Title	Hours	Credit
HEC	98—Basic Nutrition	3	3
HEC	176—Introduction to Preschool	2	2
HEC	203—Development and Guidance of the Young Child	3	3
HEC	219—Infant and Child Care	4	4
HEC	257—Curriculum Enrichment for Young Children	3	3
HEC	261—Participation in Preschool	3	3
HEC	264—Preschool Practicum	3	3
	Electives	6	6
			27

Recommended electives for Preschool Minor:

Course No.	Course Title	Hours	Credit
HEC	180—Family Relationships	3	3
HEC	240—Parent Education	3	3
ELED	227—Kindergarten Education	3	3
SP	16—Voice and Diction	4	4

Dietetics Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
HEC	70—Clothing Selection	2	2
HEC	71—Textile Fundamentals	3	3
HEC	72—Fundamentals of Clothing Construction	3	3
HEC	77—Food Selection and Preparation	4	4
HEC	81—Art in Home Living	2	2
HEC	98—Basic Nutrition	3	3
HEC	170—The Home and Its Furnishings	5	5
HEC	178—Principles of Food Preparation	4	4
HEC	180—Family Relationships	3	3
HEC	191—Management in Family Living	3	3
HEC	203—Development and Guidance of the Young Child	3	3
HEC	219—Infant and Child Care	4	4
HEC	278—Advanced Nutrition	3	3
HEC	282—Diet Therapy	3	3
HEC	284—Demonstration Techniques	2	2
HEC	285—Experimental Cookery	3	3
HEC	287—Institutional Management	5	5
HEC	298—Meal Planning and Service	4	4
HEC	299—Home Management Residence	3	3
			62

4. One minor of 30 quarter hours in the Sciences to include:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BOT	230—General Bacteriology	5	5
CHEM	40—Principles of Chemistry I	5	5
CHEM	41—Principles of Chemistry II	5	5
CHEM	42—Introductory Organic Chemistry	5	5
CHEM	147—General Biochemistry	5	5
ZOO	117—Human Physiology	5	5
			30

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

American Dietetics Association Internship Requirements

In order to qualify for an internship approved by the American Dietetics Association, the following credits are required:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
HEC	274—Equipment Selection and Maintenance	4	4
HEC	286—Quantity Cookery	4	4
BUS	20—Principles of Accounting I	4	4
			12

Recommended Courses:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BUS	150—Principles of Management	5	5
<i>or</i>			
BUS	253—Personnel Management	5	5
PCG	184—Industrial Psychology	3	3

PROGRAMS IN APPLIED AND PROFESSIONAL STUDIES

Bachelor of Arts Degree

Dietetics Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. At least 62 quarter hours in Dietetics.
3. One minor of 30 quarter hours in the Department of Science to include BOT 230, General Bacteriology (five hours); CHEM 40, Principles of Chemistry I (five hours); CHEM 41, Principles of Chemistry II (five hours); CHEM 42, Introductory Organic Chemistry (five hours); CHEM 147, General Biochemistry (five hours).
4. Electives to complete requirements for graduation.

Home and Family Living Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.
2. At least 57 quarter hours in Home Economics.
3. One minor of 27 quarter hours.
4. Electives to complete requirements for graduation.

Home and Family Living Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HEC	70—Clothing Selection	2
HEC	71—Textile Fundamentals	3
HEC	72—Fundamentals of Clothing Construction	3
HEC	94—Basic Food Preparation and Service	4
HEC	98—Basic Nutrition	3
HEC	191—Management in Family Living	3
HEC	203—Development and Guidance of the Young Child	3
	Electives in Home Economics	6
		27

Department of Industrial Arts

Dr. David Jelden, Chairman

Professors: Erwin, F. M. Johnson, Perry.

Associate Professors: Hammond, Jelden, Lubbers, D. Olson.

Assistant Professor: J. Davis.

Instructor: Kruger.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Industrial Arts Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 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	71—Art Metal and Metal Spinning	3
IA	72—Gas and Electric Welding	2
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—Design and Freehand Drawing	3
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
IA	236*—Principles of General Shop Organization	3

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*Should be taken prior to student teaching if possible.

4. Elect 9 additional hours in one of the following areas of industrial arts: Wood, Drafting, Metal, Crafts, Power, Graphic Arts, and Electricity-Electronics (Total IA major is 65 hours).

5. One minor of 27 quarter hours outside of the departmental major.

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

Industrial Arts Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
IA	50—Bench Woodwork	3	3
IA	61—Principles of Drafting	3	3
IA	70—Introduction to General Metal	3	3
IA	71—Art Metal and Metal Spinning	3	3
IA	72—Gas and Electric Welding	2	2
IA	150—Woodworking Technology	5	5
IA	161—Pictorial Drafting	2	2
IA	162—Working Drawings	3	3
IA	220—Course Organization in Industrial Arts	3	3

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An alternate minor to meet requirements for teaching in three areas of industrial arts may be elected.

Alternate Industrial Arts Minor

Required courses in this minor:

IA	61—Principles of Drafting	3
IA	161—Pictorial Drafting	2
IA	162—Working Drawings	3
IA	220—Course Organization in Industrial Arts	3

Select any two areas of eight quarter hours each to complete 27 quarter hours required for a minor:

Crafts

FA	17—Introduction to Pottery	3
IA	115—General Crafts	5
	<i>and/or</i>	
IA	116—General Leathercraft	3
IA	118—General Plastics	3
IA	173—Jewelry Design and Construction	2

Drafting

IA	163—Sheet Metal Drafting	2
IA	261—Architectural Drawing	3
IA	262—Machine Drawing	3

Electricity and Electronics

IA	80—General Electricity	3
IA	283—Electronic Hardware and Components	2
IA	284—Electronic Circuitry	3

Graphic Arts

IA	41—Graphic Arts Fundamentals	3
IA	141—Graphic Arts	2
IA	142—Photography	3

Metal

IA	70—Introduction to General Metal	3
IA	71—Art Metal and Metal Spinning	3
IA	72—Gas and Electric Welding	2

Power

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

THE SCHOOL OF ARTS AND SCIENCES

Dr. Forrest W. Frease, Dean
Dr. Harley F. Glidden, Associate Dean of Sciences
and Mathematics

The School of Arts and Sciences offers programs in Arts and Sciences and in the Teaching Professions.

Degree Programs in Arts and Sciences

Bachelor of Arts Degree

Anthropology	Medical Technology
Biological Science	Physical Science
Chemistry	Physics
English	Political Science
French	Social Science
Geography	Sociology
German	Spanish
History	Speech
Mathematics	Theatre Arts

Degree Programs in the Teaching Professions

Bachelor of Arts Degree

Biological Science	Physics
Chemistry	Science
Earth Science	(Junior High Level)
Elementary Science	Social Science
English	Social Studies
French	(Junior High Level)
German	Spanish
History	Speech
Mathematics	Theatre Arts
Physical Science	

Department of Anthropology-Sociology

Mr. John R. Mickey, Chairman

Associate Professor: Quammen.

Assistant Professors: Fay, B. Mickey, J. Mickey, F. Rubenstein, Willoughby.

Instructors: Barasch, Cleere, Haug, Khleif, Knudson.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Anthropology Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activities courses. (In lieu of SS 81, 82, 83, the Anthropology majors and minors will take two of the following: GEOG 10, ECON 30, PSCI 40, or SOC 50. Consult your adviser.)

2. The following required courses in the major (48 hours):

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
ANT	20—General Anthropology	5	
	Courses from each of the following areas:		
	Cultural Anthropology	7	
	Archaeology	7	
	Linguistics	4	
	Theory (including ANT 284).....	7	
	Electives in Anthropology	18	
		—	
			48

3. One minor of at least 27 quarter hours.

4. Electives to complete requirements for graduation.

Anthropology Minor

1. Twenty-seven quarter hours in Anthropology.

2. The following courses are required:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
ANT	20—General Anthropology	5	
	Advanced electives from the following areas:		
	Cultural Anthropology	4	
	Archaeology	4	
	Linguistics	4	
	Theory (including ANT 284).....	7	
	Advanced electives in Anthropology	3	
		—	
			27

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

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

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Sociology Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activities courses. (In lieu of SS 81, 82, 83, the Sociology majors and minors will take two of the following: GEOG 10, ANT 20, ECON 30, or PSCI 40. Consult your adviser.)

2. The following required courses in the major (48 hours):

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
SOC	50—Principles of Sociology		5
SOC	211—History of Social Thought		5
SOC	212—Contemporary Sociological Theory		3
SOC	271—Social Research		4
	One course from each of the following areas:		
	Social Psychology, Social Institutions, Social		
	Organization and Processes, Social Disorganization	12	
	Advanced electives in Sociology	19	
			48

3. One minor of at least 27 quarter hours.

4. Electives to complete requirements for graduation.

Sociology Minor

1. Twenty-seven quarter hours in Sociology.

2. The following is the required program:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
SOC	50—Principles of Sociology		5
	One course from each of the following areas:		
	Social Psychology, Social Institutions, Social		
	Organization and Processes, Social Disorganization	12	
	Advanced electives in Sociology	10	
			27

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

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

Department of Biological Science

Dr. Maynard N. Stamper, Chairman

Professors: Stamper, Winchester.

Associate Professor: Thomas.

Assistant Professors: Buss, Gapter, Plakke, Rich, G. Schmidt, Vest.

PROGRAMS IN THE ARTS AND SCIENCES**Bachelor of Arts Degree****Biological Science Major**

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required courses in the major:

a. **Concentration in Botany:**

Course No.	Course Title	Hours	Credit
BIO	152—Genetics		5
BIO	250—Cellular Physiology		5
BOT	23—General Botany I		5
BOT	24—General Botany II		5
BOT	221—Plant Anatomy		5
BOT	222—Plant Physiology I		5
BOT	225—Plant Ecology I		5
BOT	227—Identification of Seed Plants of the Local Flora.....		5
BOT	229—Plant Diseases		5
BOT	228—Mycology	5	
	or		
BOT	230—General Bacteriology	5	5
ZOO	11—General Zoology—Invertebrate		5
ZOO	12—General Zoology—Vertebrate		5
			<u>60</u>

b. **Concentration in Zoology:**

Course No.	Course Title	Hours	Credit
BIO	152—Genetics		5
BIO	250—Cellular Physiology		5
BIO	254—Aquatic Biology	5	
	or		
ZOO	214—Faunistics	5	5
BOT	23—General Botany I		5
BOT	24—General Botany II		5
ZOO	11—General Zoology—Invertebrate		5
ZOO	12—General Zoology—Vertebrate		5
ZOO	117—Human Physiology	5	
	or		
ZOO	221—Mammalian Physiology I	5	
	and		
ZOO	222—Mammalian Physiology II	5	5-10
ZOO	211—Comparative Anatomy of the Vertebrates	5	
	or		
ZOO	212—Comparative Mammalian Anatomy	5	5
ZOO	215—Vertebrate Embryology		5
ZOO	219—Animal Ecology		5
	Electives to be selected with approval of adviser.....		0-5
			<u>60</u>

3. One minor of 27 or more quarter hours in chemistry, physics, or mathematics.

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

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

6. Biology majors may substitute equivalent hours in biology, botany, or zoology for Science 3 and Science 4.

7. Electives to complete requirements for graduation.

Biological Science Minor

Course No.	Course Title	Hours	Credit
BOT	23—General Botany I		5
BOT	24—General Botany II		5
ZOO	11—General Zoology—Invertebrate		5
ZOO	12—General Zoology—Vertebrate		5
	Electives in biology to be selected with approval of student's minor adviser. It is recommended that BIO 250, Cellular Physiology, be included as one of the electives.....		7
			<u>27</u>

1. Biology minors may substitute equivalent hours in biology, botany, or zoology for SCI 4.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Biological Science Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

a. General Approach

Course No.	Course Title	Hours	Credit
BIO	152—Genetics		5
BIO	250—Cellular Physiology		5
BIO	254—Aquatic Biology	5	
	or		
BOT	227—Identification of Seed Plants of the Local Flora.....	5	
	or		
ZOO	214—Faunistics	5	5
BOT	23—General Botany I.....		5
BOT	24—General Botany II.....		5
BOT	221—Plant Anatomy	5	
	or		
ZOO	211—Comparative Anatomy of the Vertebrates	5	5
BOT	225—Plant Ecology	5	
	or		
ZOO	219—Animal Ecology	5	5
BOT	222—Plant Physiology I	5	
	or		
ZOO	117—Human Physiology	5	5
ZOO	11—General Zoology—Invertebrate		5
ZOO	12—General Zoology—Vertebrate		5
	Electives in biology, botany, or zoology to be selected with approval of student's adviser.....		6
			<u>56</u>

4. A minor of 27 or more quarter hours is required. Chemistry or physics is recommended.

5. CHEM 40 or 44, 41 or 45, and 42. (These courses will count on a chemistry minor, if elected)

6. Biology majors may substitute equivalent hours in biology, botany, or zoology for Science 3 and Science 4.

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

b. Ecological Approach

Course No.	Course Title	Hours	Credit
BIO	152—Genetics		5
BIO	250—Cellular Physiology		5
BIO	254—Aquatic Biology	5	
	or		
ZOO	214—Faunistics	5	5
BOT	23—General Botany I.....		5
BOT	24—General Botany II.....		5
BOT	225—Plant Ecology	5	
BOT	227—Identification of Seed Plants of the Local Flora.....		5
ZOO	11—General Zoology—Invertebrate		5
ZOO	12—General Zoology—Vertebrate		5
ZOO	219—Animal Ecology		5
	Electives in biology, botany, or zoology to be selected with approval of student's adviser.....		6
			<u>56</u>

4. 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.

5. CHEM 40 or 44, 41 or 45, 42.

6. Biology majors may substitute equivalent hours in biology, botany, or zoology for Science 3 and Science 4.

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

c. Physiological Approach

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BIO	152—Genetics		5
BIO	250—Cellular Physiology		5
BOT	23—General Botany I		5
BOT	24—General Botany II		5
BOT	222—Plant Physiology I		5
ZOO	11—General Zoology—Invertebrate		5
ZOO	12—General Zoology—Vertebrate		5
ZOO	117—Human Physiology	5	
	or		
ZOO	221—Mammalian Physiology I	5	
	and		
ZOO	222—Mammalian Physiology II	5	5-10
	Electives in biology, botany, or zoology to be selected with approval of student's major adviser.....		3-8
			<hr/> 48

4. 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.

5. CHEM 40 or 44, 41 or 45, 141, 142, 147.

6. Biology majors may substitute equivalent hours in biology, botany, or zoology for Science 3 and Science 4.

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

Biological Science Minor

a. Secondary Level

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BOT	23—General Botany I		5
BOT	24—General Botany II		5
ZOO	11—General Zoology—Invertebrate		5
ZOO	12—General Zoology—Vertebrate		5
	Electives in biology to be selected with approval of student's minor adviser. It is recommended that BIO 250, Cellular Physiology, be included as one of the electives		7
			<hr/> 27

1. Biology minors may substitute equivalent hours in biology, botany, or zoology for SCI 4.

b. Elementary Level

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BIO	1—Principles of Biology I		5
BIO	2—Principles of Biology II		5
	Electives in biology to be selected with approval of student's minor adviser.....		17
			<hr/> 27

1. Biology minors may substitute equivalent hours in biology, botany, or zoology for SCI 4.

Students with the approval of their minor adviser should select electives from the following list to give them a balanced program in biological science: BIO 152, Genetics; BIO 251, Evolution; BIO 254, Aquatic Biology; BOT 123, Survey of Microbiology; BOT 220, Economic Botany; BOT 221, Plant Anatomy; BOT 222, Plant Physiology; BOT 225, Plant Ecology; BOT 227, Identification of Seed Plants of the Local Flora; BOT 228, Mycology; ZOO 114, Ornithology; ZOO 117, Human Physiology; ZOO 210, Entomology; ZOO 211, Comparative Anatomy of the Vertebrates; ZOO 212, Comparative Mammalian Anatomy; ZOO 213, Animal Parasitology; ZOO 214, Faunistics; ZOO 219, Animal Ecology.

Department of Chemistry

Dr. John A. Beel, Chairman

Professors: Beel, Koch, Woerner.

Associate Professor: Tomasi.

Assistant Professors: Fields, James, Schreck.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Chemistry Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required 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		4
CHEM	285—Chemical Literature		1
			<hr/>
			65

3. A minimum of 27 quarter hours of mathematics including MATH 31, 32, 33, and 131.

4. Physics 65, 66, 67.

5. One year of foreign language (preferably German).

6. Electives to complete requirements for graduation.

Chemistry Minor

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	15
	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 with approval of student's minor adviser		2
			27

Medical Technology Major

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 139 quarter hours will be earned on the campus of Colorado State College during the first three years and 47 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.

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required courses in the major:

Course No.	Course Title	Hours	Credit
MTEC 250	Urinalysis and Clinical Microscopy	4	
MTEC 251	Basal Metabolism and Electrocardiography	1	
MTEC 252	Hematology	8	
MTEC 253	Pretransfusion Tests and Blood Bank Procedures.....	3	
MTEC 254	Clinical Chemistry	12	
MTEC 255	Serology	4	
MTEC 256	Medical Microbiology	12	
MTEC 257	Histologic Technique	3	
	Electives	1	
			48

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

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, BOT 230, CHEM 147, PHYS 61, 62, ZOO 11, 12, 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 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	
	<i>or</i>		
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
			<hr/> 30

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Chemistry

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

<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	5
	<i>or</i>		
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
			<hr/> 58

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

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

Chemistry Minor

<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
			<hr/> 27

Department of Earth Sciences

Dr. O. W. Tollefson, Chairman

Professor: Tollefson.

Assistant Professors: Lilliequist, Shropshire.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Earth Sciences Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
AST	166—Introduction to Astronomy	4	
GEOL	101—Physical Geology	5	
GEOL	102—Historical Geology	5	
GEOL	151—General Oceanography	3	
MET	181—General Meteorology	4	
	Earth Science electives to be selected with approval of student's minor adviser.....		6
			27

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Earth Sciences Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
AST	161—General Astronomy I: Solar System	4	
AST	162—General Astronomy II: Stellar	3	
GEOL	101—Physical Geology	5	
GEOL	102—Historical Geology	5	
GEOL	151—General Oceanography	3	
GEOL	211—Mineralogy	5	
MET	181—General Meteorology	4	
MET	282—Climatology	3	
	Electives to be selected with approval of student's major adviser		16
			48

4. One minor of 27 or more quarter hours. It is recommended that this minor be in biology, or chemistry, or mathematics, or physics.
5. It is strongly recommended that the student also complete at least ten hours in each of the three science fields not selected as a minor.
6. Earth Sciences majors should substitute courses in chemistry or physics, biology, and earth science for SCI 3, 4, and 5 requirements.
7. Additional electives to complete 180 quarter hours of academic credit required for graduation.

Earth Sciences Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
AST	166—Introduction to Astronomy	4	
GEOL	101—Physical Geology	5	
GEOL	102—Historical Geology	5	
GEOL	151—General Oceanography	3	
MET	181—General Meteorology	4	
	Electives to be selected with approval of student's minor adviser.....	6	
			27

Department of Economics

Dr. Orvel L. Trainer, Chairman

Professor: Turner.

Associate Professor: Trainer.

Assistant Professor: Ozawa.

Instructors: Cauley, Garrison.

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

Department of English

Dr. Neal M. Cross, Chairman

Professors: Carriar, Cross, F. Frease, Gates, Hartman.

Associate Professors: Boyle, Freeman, Harrison, Starr.

Assistant Professors: C. Frease, Huff, Jones, Prinic, Zimmerman.

Instructors: Agan, Applegate, Bennett, Bratton, Brewer, D. Brown, Dobson, Finnegan, Heiser, Howard, Kavanagh, E. Kearns, Luere, Marberry, Meyer, Doris Myers, Peyton, Speckmann, Witwer.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

English Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. Course requirements listed below.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
ENG	10—Freshman Literature	4	
ENG	50—Shakespeare	3	
Five of the following six courses:		15-16	
ENG	48—English Literature from the Beginnings to 1500.....	3	
ENG	49—English Literature from 1500 to 1660	3	
ENG	51—The Restoration and Eighteenth Century	3	
ENG	52—The Romantic Movement	3	
ENG	53—Victorian Prose and Poetry	3	
ENG	54—Contemporary English and American Literature	4	
ENG	60—American Literature to the Civil War.....	4	
ENG	61—American Literature Since the Civil War	4	

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ENG	109,		
	110 or 111—Creative Writing I, II or III		2
ENG	210—Advanced Expository Writing		3
ENG	211—The English Language		5
ENG	212—Generative-Transformational Grammar		4
ENG	257—History of Ideas in Literature		3
	Electives in English		1
			48

3. One minor of 27 quarter hours.
4. Electives to complete requirements for graduation.

English Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
ENG	57—Survey of English Literature (700-1800)		4
ENG	58—Survey of English Literature (1800-present)		4
ENG	59—Survey of American Literature		4
ENG	210—Advanced Expository Writing		3
ENG	211—The English Language		5
	Electives in English		7
			27

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

English Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
ENG	10—Freshman Literature		4
ENG	50—Shakespeare		3
	Five of the following six courses:	15-16	
ENG	48—English Literature from the Beginnings to 1500.....	3	
ENG	49—English Literature from 1500 to 1660	3	
ENG	51—The Restoration and Eighteenth Century	3	
ENG	52—The Romantic Movement	3	
ENG	53—Victorian Prose and Poetry	3	
ENG	54—Contemporary English and American Literature	4	
ENG	60—American Literature to the Civil War		4
ENG	61—American Literature Since the Civil War		4
ENG	109,		
	110, or 111—Creative Writing I, II or III		2
ENG	210—Advanced Expository Writing		3
ENG	211—The English Language		5
ENG	212—Generative-Transformational Grammar		4
ENG	257—History of Ideas in Literature		3
EED	226—Literature and Materials in the Secondary School.....		4
			51

4. At least one minor of 27 quarter hours.
5. Twenty-four to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

English Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
ENG	57—Survey of English Literature (700-1800)	4
ENG	58—Survey of English Literature (1800-present)	4
ENG	59—Survey of American Literature	4
ENG	210—Advanced Expository Writing	3
EED	226—Literature and Materials in the Secondary School	4
	Electives in English	8
		—
		27

Journalism Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours 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
SP	260—Introduction to General Semantics	4
BUS	162—Advertising	3
IA	145—Publication Production	5
	Electives in Journalism or Social Sciences.....	4
		—
		27

Department of Foreign Languages

Mr. Frank E. Keppeler, Chairman

Associate Professor: Graham.

Assistant Professors: Baer, Colby, Freyschlag.

Instructors: Brown, Freyre, Keppeler, LaBorne, Notto, Stelljes.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

French Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

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

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
FR	5—Intermediate French I	4
FR	6—Intermediate French II	4
FR	7—Intermediate French III	4
FR	105—Survey of French Literature I	4
FR	106—Survey of French Literature II	4
FR	107—Survey of French Literature III	4
FR	110—Intermediate French Composition	3
FR	111—Intermediate French Conversation	3
FR	112—Intermediate French Syntax and Stylistics	3
	Electives in French (to be chosen with the consent of the adviser).....	15
		—
		48

3. At least one minor of 27 quarter hours.

4. Twenty-four to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

German Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. All work in German must be beyond the first-year level. The following required courses in the major (or their equivalents):

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
GER	5-Intermediate German Composition	4	4
GER	6-Intermediate German Reading and Conversation	4	4
GER	7-Introduction to German Classics	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-German Conversation	4	4
GER	136-Advanced German Composition	4	4
GER	137-Advanced German Grammar:	4	4
GER	141-Goethe	3	3
GER	142-Schiller	3	3
GER	225-Eighteenth Century German Literature	3	3
GER	226-Nineteenth Century German Literature	3	3
GER	227-Twentieth Century German Literature	3	3
		48	

3. At least one minor of 27 quarter hours.

4. Twenty-four to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

Spanish Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

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

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
SPAN	5-Intermediate Spanish I	4	4
SPAN	6-Intermediate Spanish II	4	4
SPAN	7-Intermediate Spanish III	4	4
SPAN	110-Advanced Spanish Grammar	4	4
SPAN	125-Advanced Spanish Composition	3	3
SPAN	135-Spanish Conversation	4	4
SPAN	145-Spanish Pronunciation	4	4
A minimum of 14 hours from the following six courses:		14	
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	5	5
SPAN	156-Survey of Spanish Literature II	5	5
SPAN	157-Survey of Spanish Literature III	5	5
Electives in Spanish (to be chosen with the consent of the adviser)		7	
		48	

3. At least one minor of 27 quarter hours.

4. Twenty-four to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

French, German, Latin, Russian or Spanish Minor

The requirement for a minor is 27 quarter hours in one language.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

French Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus EDCI 140, two hours credit, and EDCI 141, three hours credit.
3. All work in French must be beyond the first-year level. The following required courses in the major (or their equivalents):

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
FR	5-Intermediate French I	4	
FR	6-Intermediate French II	4	
FR	7-Intermediate French III	4	
FR	105-Survey of French Literature I	4	
FR	106-Survey of French Literature II	4	
FR	107-Survey of French Literature III	4	
FR	110-Intermediate French Composition	3	
FR	111-Intermediate French Conversation	3	
FR	112-Intermediate French Syntax and Stylistics	3	
	Electives in French (to be chosen with the consent of the adviser)	15	

4. At least one minor of 27 quarter hours.
5. Twenty-four to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

German Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus EDCI 140, two hours credit, and EDCI 141, three hours credit.
3. All work in German must be beyond the first-year level. The following required courses in the major (or their equivalents):

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
GER	5-Intermediate German Composition	4	
GER	6-Intermediate German Reading and Conversation	4	
GER	7-Introduction to German Classics	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-German Conversation	4	
GER	136-Advanced German Composition	4	
GER	137-Advanced German Grammar	4	
GER	141-Goethe	3	
GER	142-Schiller	3	
GER	225-Eighteenth Century German Literature	3	
GER	226-Nineteenth Century German Literature	3	
GER	227-Twentieth Century German Literature	3	

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4. At least one minor of 27 quarter hours.
5. Twenty-four to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

Spanish Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

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

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

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>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—Spanish Conversation	4	
SPAN	145—Spanish Pronunciation	4	
	A minimum of 14 hours from the following six courses	14	
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	155—Survey of Spanish Literature I	5	
SPAN	156—Survey of Spanish Literature II	5	
SPAN	157—Survey of Spanish Literature III	5	
	Electives in Spanish (to be chosen with the consent of the adviser)	7	
			48

4. At least one minor of 27 quarter hours.

5. Twenty-four to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

French, German, Latin, Russian or Spanish Minor

1. The requirement for a minor in French, German, or Spanish is 27 quarter hours in one language beyond the first-year level.

2. The requirement for a minor in Latin or Russian is 27 quarter hours in one language.

Department of Geography

Mr. Lee R. West, Chairman

Professor: West.

Associate Professor: Lehrer.

Assistant Professors: Dietz, K. Kearns.

Instructors: Boswell, Farren.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Geography Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarters hours of physical education activity courses. (Instead of taking SS 81, 82, and 83, 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</i>	<i>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. One minor of at least 27 hours.

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

Geography Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
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
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PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

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

Department of History

Miss Pauline C. Pogue, Chairman

Professors: Arnold, Boeck, Reynolds.

Associate Professors: Byerly, Larson, Pogue.

Assistant Professors: Cornebise, Powers, Rothaus.

Instructors: Underwood, Watkins, M. Willcoxon.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

History Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required courses in the major (72 hours):

	<i>Hours Credit</i>
a. HIST 30, 31, 32—World History I, II, III	12
b. HIST 70, 71, 72—United States History I, II, III	9
c. Social Science—twenty-five hours in five social science areas. Two of these courses <i>must</i> be substituted for the 9 hour General Education requirement in Social Sciences; hence only 16 hours of the introductory courses can be applied to the major	16
d. HIST 200—Introduction to Historical Research	3
e. Advanced electives:	
At least 12 hours in U. S. History	12
At least 12 hours in World History	12
At least 8 hours in U. S. or World History	8
	<hr/> 72

3. One minor of at least 27 quarter hours.
4. Free electives to complete the 180 quarter hours of academic credit required for graduation.

World History Minor

Twenty-seven quarter hours in World History. The following courses are required:

	<i>Hours Credit</i>
HIST 30, 31, 32	12
Advanced electives in World History	15
In lieu of SS 81, 82, 83, world history minors will take 9 hours in social science or history (HIST 70, 71, 72). (Consult your adviser.)	

United States History Minor

Twenty-seven quarter hours in United States History. The following courses are required:

	<i>Hours Credit</i>
HIST 70, 71, 72	9
Advanced electives in United States History	18
In lieu of SS 81, 82, 83, United States history minors will take 9 hours in social science or history (HIST 30, 31, 32). (Consult your adviser.)	

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

History Major

The following is the required program:

1. General Education totaling 45 academic quarter hours plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours plus EDCI 140, two hours credit, and EDCI 141, three hours credit. (See "Advanced Teacher Education—History" below for special requirements and prerequisites for admission.)
3. The following required courses in the major (72 hours):

	<i>Hours Credit</i>
a. HIST 30, 31, 32—World History I, II, III	12
b. HIST 70, 71, 72—United States History I, II, III	9
c. Social Science—twenty-five hours in five social science areas. Two of these courses <i>must</i> be substituted for the 9 hour General Education requirement in Social Sciences; hence only 16 hours of the introductory courses can be applied to the major	16
d. HIST 200—Introduction to Historical Research	3
e. Advanced electives:	
At least 12 hours in U. S. History	12
At least 12 hours in World History	12
At least 8 hours in U. S. or World History	8
	72

4. One minor of at least 27 quarter hours.
5. Free electives to complete the 180 quarter hours of academic credit required for graduation. (Suggested elective: EM 206, Introduction to Educational Resources—5 hours.)

World History Minor

Twenty-seven quarter hours in World History. The following courses are required:

	<i>Hours Credit</i>
HIST 30, 31, 32	12
Advanced electives in World History	15

In lieu of SS 81, 82, 83, world history minors will take 9 hours in social science or history (HIST 70, 71, 72). (Consult your adviser.)

United States History Minor

Twenty-seven quarter hours in United States History. The following courses are required:

	<i>Hours Credit</i>
HIST 70, 71, 72	9
Advanced electives in United States History	18

In lieu of SS 81, 82, 83, United States history minors will take 9 hours in social science or history (HIST 30, 31, 32). (Consult your adviser.)

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 social science and/or history, and until he has passed at least eight hours of social science and/or history at Colorado State College. General Education courses are not counted.

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 PCG 140, and the following courses or their equivalents in the relevant major:

	<i>Hours Credit</i>
History Major	
HIST 70, 71, 72—U. S. History I, II, III	9
HIST 30, 31, 32—World History I, II, III	12
Two of the introductory courses in the social sciences	10
Advanced electives in history	3
	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.

Department of Mathematics

Mr. Forest N. Fisch, Chairman

Professor: Popejoy.

Associate Professors: Fisch, D. Schmidt, Woods.

Assistant Professors: Anders, Cavanagh, Elliott, R. Johnson, Raghunandan, Rumford, Schweers.

Instructors: Kieft, Johnston, Steffensen, Teeters, Tolar.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Mathematics Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required courses in the major:

Course No.	Course Title	Hours	Credit
MATH	31*—Calculus with Analytic Geometry I	5	5
MATH	32*—Calculus with Analytic Geometry II	5	5
MATH	33*—Calculus with Analytic Geometry III	5	5
MATH	122 —Introduction to Modern Algebra I	4	4
MATH	131 —Introduction to Mathematical Analysis I	4	4
MATH	132 —Introduction to Mathematical Analysis II	4	4
MATH	133 —Introduction to Mathematical Analysis III	4	4
MATH	150 —Elementary Probability Theory	4	4
MATH	230 —Differential Equations I	5	5
	Electives in mathematics numbered 100 or above selected with approval of the Mathematics Department	20	20
			60

*Qualified students may be exempted by examination.

3. One minor of 27 quarter hours preferably in physics.
4. Electives to complete requirements for graduation.

Mathematics Minor

Course No.	Course Title	Hours	Credit
MATH	31*—Calculus with Analytic Geometry I	5	5
MATH	32*—Calculus with Analytic Geometry II	5	5
MATH	33*—Calculus with Analytic Geometry III	5	5
	Electives in mathematics in courses numbered 100 and above selected with approval of the Mathematics Department	12	12
			27

*Qualified students may be exempted by examination.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Mathematics Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:
 - a. **Elementary Emphasis**

Course No.	Course Title	Hours	Credit
MATH	31*—Calculus with Analytic Geometry I	5	5
MATH	32*—Calculus with Analytic Geometry II	5	5
MATH	33*—Calculus with Analytic Geometry III	5	5
MATH	101 —Basic Mathematical Logic	3	3
MATH	102 —Theory of Sets	3	3
MATH	122 —Introduction to Modern Algebra I	4	4
MATH	123 —Introduction to Modern Algebra II	4	4
MATH	141 —Introduction to Modern Geometry I	4	4
MATH	150 —Elementary Probability Theory	4	4
	Electives: MATH 1, 2, 3, 24, 25, or any MATH or MED courses numbered 100 or higher. (Elementary Education majors cannot count MATH 1 or 2 in this major.)	11	11
			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.

b. Secondary Emphasis

<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	5
MATH 33*	—Calculus with Analytic Geometry III	5
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 131	—Introduction to Mathematical Analysis I	4
MATH 132	—Introduction to Mathematical Analysis 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 mathematics education selected with approval of the Department of Mathematics.	11
		60

*Qualified students may be exempted by examination.

4. One minor of at least 27 quarter hours.
5. Electives to complete requirements for graduation.

Mathematics Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
MATH 24* #	—College Algebra	5
MATH 25* #	—Plane Trigonometry	5
MATH 31*	—Calculus with Analytic Geometry I	5
MATH 32*	—Calculus with Analytic Geometry II	5
MATH 122	—Introduction to Modern Algebra I	4
	<i>and</i>	
MATH 123	—Introduction to Modern Algebra II	4
	<i>or</i>	
MATH 141	—Introduction to Modern Geometry I	4
	<i>and</i>	
MATH 142	—Introduction to Modern Geometry II	4
		28

#If student is exempted from MATH 24 and/or 25, electives in mathematics to complete 28 hours must be selected from the following: MATH 101, 102, 122, 123, 141, 142, 150, 203, 222, 281.

*Qualified students may be exempted by examination.

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.

Medical Technology Major

(See Medical Technology program as listed on page. 48 in Department of Chemistry.)

Department of Physics

Mr. Wallace Aas, Chairman

Associate Professor: Aas.

Assistant Professors: Fiel, Fry, Hamerly.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Physics Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required courses in the major:

<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
PHYS	65—General Physics—Mechanics	5	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	167—Optics I	4	
PHYS	264—Thermodynamics	4	
PHYS	265—Mechanics II	3	
PHYS	266—Electricity and Magnetism II	3	
PHYS	267—Optics II	4	
PHYS	268—Atomic Physics	5	
PHYS	269—Nuclear Physics I	5	
	Electives to be selected with approval of student's adviser.....	4	
			65

3. A mathematics minor of 27 or more quarter hours (through calculus).

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

5. Electives to complete requirements for graduation.

Physics Minor

<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 minor adviser		8
			27

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

Physical Science Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required 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
	Physics Electives (200 course)	5	
			58

3. One minor of 27 or more quarter hours, preferably in mathematics.
4. Substitute PHYS 68, Modern Physics, for SCI 3 requirement.
5. Electives to complete requirements for graduation.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Physics Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

Course No.	Course Title	Hours	Credit
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
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 with approval of student's adviser		10
			58

4. Mathematics minor of 27 or more quarter hours.
5. Additional hours of electives to complete 180 quarter hours of academic credit required for graduation.
6. Substitute PHYS 68, Modern Physics, for SCI 3 requirement.

Physics Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
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 minor adviser		8
			27

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

Physical Science Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
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
CHEM	40—Principles of Chemistry I	5	
	or		
CHEM	44—Principles of Chemistry IA	5	5
CHEM	41—Principles of Chemistry II	5	5
	or		
CHEM	45—Principles of Chemistry IIA	5	5
CHEM	46—Qualitative Analysis	5	5
CHEM	141—Organic Chemistry I	5	
	and		
CHEM	142—Organic Chemistry II	5	
	and		
CHEM	243—Organic Chemistry III	5	
			15
	or		
CHEM	42—Introductory Organic Chemistry	5	
	and		
CHEM	145—Quantitative Analysis I	5	
	and		
CHEM	281—Physical Chemistry I	5	
			15
	Physics Electives (200 course)		5
			58

4. Twenty-seven or more quarter hours Mathematics Minor required.

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.

Department of Political Science

Dr. Richard Perchlik, Chairman

Professor: Christensen.

Associate Professor: Perchlik.

Assistant Professors: Ahn, Bookman, Knapp.

Instructor: Evans.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Political Science Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses. (Instead of taking SS 81, 82, and 83, 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 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	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	3	
PSCI	214—Government and Politics of the Soviet Union	4	
c. PSCI	200—Research and Inquiry in Political Science	3	
			48

3. One minor of at least 27 quarter hours.

4. Free 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 of the Department of Political Science	18	
			27

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

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

Department of Science Education

Dr. Leslie W. Trowbridge, Chairman

Professors: Decker, Glidden, Neal, Shoemaker

Associate Professors: K. Olson, Sund, Trowbridge

Assistant Professor: Crockett.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Elementary Science Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. Advanced Teacher Education, 29 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. The following required courses in the major:

Course No.	Course Title	Hours	Credit
AST	166—Introduction to Astronomy		4
BOT	23—General Botany I		5
BOT	24—General Botany II		5
CHEM	40—Principles of Chemistry I	5	
	and		
CHEM	41—Principles of Chemistry II	5	
	or		
PHYS	60—Introductory Physics—Mechanics	4	
	and		
PHYS	61—Introductory Physics—Heat, Sound, and Light	4	8-10
GEOL	106—General Geology	4	
MET	181—General Meteorology	4	
ZOO	11—General Zoology—Invertebrate	5	
ZOO	12—General Zoology—Vertebrate	5	
ZOO	219—Animal Ecology	5	
	or		
SCI	206—Conservation of Natural Resources	4	4-5
BIO	152—Genetics		5
SCI	109—Science for Elementary Teachers	3	
	or		
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

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Recommended Electives:

Course No.	Course Title	Hours	Credit
BIO	250—Cellular Physiology		5
BIO	251—Evolution		3
BIO	254—Aquatic Biology		5
BOT	123—Survey of Microbiology		4
BOT	230—General Bacteriology		5

CHEM	42—Introductory Organic Chemistry	5
GEOL	102—Historical Geology	5
MET	282—Climatology	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	4
SCI	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.

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

Elementary Science Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
SCI	109—Science for Elementary Teachers	3
SCI	203—Elementary Biological Science	3
SCI	205—Physical Science Concepts	4
SCI	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:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
AST	166—Introduction to Astronomy	4
BIO	251—Evolution	3
BOT	23—General Botany I	5
GEOL	106—General Geology	4
MET	181—General Meteorology	4
SCI	208—Elementary Science Workshop	3
ZOO	11—General Zoology—Invertebrate	5
ZOO	114—Ornithology	3

Science Major (Junior High School Level)

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
BOT	23—General Botany I	5
BOT	24—General Botany II	5
CHEM	40—Principles of Chemistry I	5
	<i>or</i>	
CHEM	44—Principles of Chemistry IA	5
CHEM	41—Principles of Chemistry II	5
	<i>or</i>	
CHEM	45—Principles of Chemistry IIA	5
PHYS	60—Introductory Physics—Mechanics	4
PHYS	61—Introductory Physics—Heat, Sound, and Light	4
ZOO	11—General Zoology—Invertebrate	5
ZOO	12—General Zoology—Vertebrate	5
GEOL	106—General Geology (If an Earth Sciences Minor is elected, replace GEOL 106 with four hours of additional electives.)	4
	Electives°	14
		56

4. One minor of 27 or more hours.
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:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
AST	166—Introduction to Astronomy	4
BIO	152—Genetics	5
BIO	250—Cellular Physiology	5
BIO	251—Evolution	3
BOT	123—Survey of Microbiology	4
BOT	230—General Bacteriology	5
CHEM	42—Introductory Organic Chemistry	5
GEOL	102—Historical Geology	5
MET	181—General Meteorology	4
MET	282—Climatology	3
MET	284—Physical Meteorology	3
PHYS	82—Introductory Physics—Electricity and Magnetism	4
SCI	206—Conservation of Natural Resources	4
ZOO	117—Human Physiology	5

Science Minor for Home Economics Majors

This minor consists of three or four quarters of chemistry and bacteriology (BOT 230) and electives with approval of the minor adviser to complete 27 hours.

Social Sciences

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Social Science Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required courses in the major (72 hours):

	<i>Hours Credit</i>
a. The introductory courses in the five social science fields (GEOG 10, ANT 20, ECON 30, PSCI 40, and SOC 50). Two of these courses <i>must</i> be substituted for the 9 hour General Education requirement in Social Sciences; hence only 16 hours of the introductory courses can be applied to the major	16
b. Advanced electives in one, two or three social science areas. In each area of concentration that is selected, the following courses must be taken:	35
Anthropology 280 or 281	
Economics 220	
Geography 48	
Political Science 176 or 275	
Sociology 211 and 291	
c. HIST 70, 71, 72—United States History I, II, III	9
d. HIST 30, 31, 32—World History I, II, III	12

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3. One minor of at least 27 quarter hours.

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

Social Science 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. These introductory courses are the following:

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	

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Social Science Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. Advanced Teacher Education, 29 hours, plus EDCI 140, two hours credit, and EDCI 141, three hours credit. (See "Advanced Teacher Education—Social Sciences" below for special requirements and prerequisites for admission in the Social Sciences.)

3. The following required courses in the major (72 hours):

	Hours	Credit
a. The introductory courses in the five social science fields (GEOG 10, ANT 20, ECON 30, PSCI 40, and SOC 50). Two of these courses <i>must</i> be substituted for the 9 hour General Education requirement in Social Sciences; hence only 16 hours of the introductory courses can be applied to the major	16	
b. Advanced electives in one, two, or three social science areas. It is recommended that one of the areas be political science. In each area of concentration that is selected, the following courses must be taken:.....	35	
Anthropology 280 or 281		
Economics 220		
Geography 48		
Political Science 176 or 275		
Sociology 211 and 291		
c. HIST 70, 71, 72—United States History I, II, III.....	9	
d. HIST 30, 31, 32—World History I, II, III.....	12	
	72	

4. One minor of at least 27 quarter hours.

5. Free electives to complete the 180 quarter hours of academic credit. (Suggested elective: EM 206, Introduction to Educational Resources—5 hours.)

Social Science 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. These introductory courses are the following:

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	

Social Studies Major (Junior High School)

The following is the required program:

1. General Education totaling 45 academic quarter hours plus six quarter hours of physical education activity courses.

2. Advanced Teacher Education, 29 hours, plus EDCI 140, two hours credit, and EDCI 141, three hours credit. (See "Advanced Teacher Education—Social Studies" below for special requirements and prerequisites for admission in the Social Studies.)

3. The following required courses in the major (72 hours):

		<i>Hours Credit</i>
a. The introductory courses in the five social science fields (GEOG 10, ANT 20, ECON 30, PSCI 40, and SOC 50). Two of these courses <i>must</i> be substituted for the nine hour General Education requirement in Social Sciences; hence only 16 hours of the introductory courses can be applied to the major		16
<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
b. 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	3
	Advanced Electives in Social Sciences	6
e. HIST	30, 31, 32—World History I, II, III	12
HIST	70, 71, 72—United States History I, II, III	9
HIST	250—History of Colorado	3
HIST	253—Great Men in American History	3
d. SSED	231—Instructional Materials for the Social Studies in the Junior High School	2
		72

4. One minor of at least 27 quarter hours.

5. Free electives to complete the 180 quarter hours of academic credit. (Suggested elective: EM 206, Introduction to Educational Resources—5 hours.)

Advanced Teacher Education—Social Sciences

1. The faculty of the Social Sciences will not consider any student's application for the ATE program until he has passed at least twenty-one hours in social science and/or history, and until he has passed at least eight hours of social science and/or history at Colorado State College. General Education courses SS 81, 82, and 83 are not counted.

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, SS 81, 82, and 83.

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

		<i>Hours Credit</i>
Social Science Major		
All five introductory courses in the social sciences		25
HIST	70, 71, 72—U. S. History I, II, III	9
		34

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

Advanced Teacher Education—Social Studies

1. The faculty of the Social Sciences will not consider any student's application for the ATE program until he has passed at least twenty-one hours in social science and/or history, and until he has passed at least eight hours of social science and/or history at Colorado State College. General Education courses SS 81, 82, and 83 are not counted.

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, SS 81, 82, and 83.

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

	<i>Hours Credit</i>
Social Studies Major	
All five introductory courses in the social sciences	25
HIST 70, 71, 72—U. S. History I, II, III	9
	34

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

Department of Speech and Theatre Arts

Dr. Donald L. Holley, Chairman

Professors: Ray DeBoer, W. Wolfe.

Associate Professors: Ahlberg, Crawford, Holley, J. Willcoxon.

Assistant Professors: Girault, Longwell.

Instructors: Bennion, D'Angelo, Ruth DeBoer, Fewel, Norton, R. J. Smith, Warnemunde.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Speech Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
SP	16—Voice and Diction	4
SP	62—Public Speaking	4
SP	117—Oral Interpretation	3
SP	118—Argumentation and Debate	4
SP	208—Introduction to Television Production	4
SP	218—Group Discussion	4
SP	260—Introduction to General Semantics	4
SP	280—American Public Address (to 1890)	3
	Electives in Speech	18
		48

3. One minor of 27 quarter hours.

4. Electives to complete requirements for graduation.

Speech Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
SP	16—Voice and Diction	4
SP	62—Public Speaking	4
SP	118—Argumentation and Debate	4
SP	218—Group Discussion	4
	Electives in Speech	11
		27

Theatre Arts Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
SP	13—Introduction to Stagecraft	3	
SP	16—Voice and Diction	4	
SP	63—First Course in Drama	4	
SP	65—Beginning Scene Design	3	
SP	113—Stagecraft	3	
SP	115—Beginning Characterization	3	
SP	116—Beginning Play Direction	4	
SP	200—Techniques of Play Direction	3	
SP	216—Senior Seminar in Dramatic Production	2	
SP	230—History of the Theatre I	3	
SP	231—History of the Theatre II	3	
SP	232—History of the Theatre III	3	
ENG	50—Shakespeare	3	
ENG	235—Contemporary American Drama	3	
	Electives in Theatre Arts	4	
			48

3. One minor of 27 quarter hours.

4. Electives to complete requirements for graduation.

Students majoring in Theatre Arts are expected to participate in productions each quarter.

Theatre Arts Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
SP	13—Introduction to Stagecraft	3	
SP	16—Voice and Diction	4	
SP	63—First Course in Drama	4	
SP	65—Beginning Scene Design	3	
SP	113—Stagecraft	3	
SP	114—Introduction to the Theatre	3	
SP	115—Beginning Characterization	3	
SP	116—Beginning Play Direction	4	
			27

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Speech Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
SP	16—Voice and Diction	4	
SP	62—Public Speaking	4	
SP	63—First Course in Drama	4	
SP	114—Introduction to the Theatre	3	
SP	117—Oral Interpretation	3	
SP	118—Argumentation and Debate	4	
SP	208—Introduction to Television Production	4	
SP	218—Group Discussion	4	

SP	260—Introduction to General Semantics	4
SP	280—American Public Address (to 1890)	3
SPED	64—Introduction to Speech Correction	3
	Electives in Speech	8
		<hr/>
		48

4. At least one minor of 27 quarter hours.

5. Meet the minimum requirements in English set up by the North Central Association for teachers of Speech. Consult your adviser.

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

Students majoring in Speech are expected to participate in intercollegiate forensics for a minimum of one year.

Speech Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
SP	16—Voice and Diction	4
SP	62—Public Speaking	4
SP	118—Argumentation and Debate	4
SP	218—Group Discussion	4
EDCI	141—Teaching Speech in the Secondary Schools	3
SPED	64—Introduction to Speech Correction	3
	Electives in Speech	5
		<hr/>
		27

Theatre Arts Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours 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 required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
SP	13—Introduction to Stagecraft	3
SP	16—Voice and Diction	4
SP	63—First Course in Drama	4
SP	65—Beginning Scene Design	3
SP	113—Stagecraft	3
SP	115—Beginning Characterization	3
SP	116—Beginning Play Direction	4
SP	200—Techniques of Play Direction	3
SP	216—Senior Seminar in Dramatic Production	2
SP	230—History of the Theatre I	3
SP	231—History of the Theatre II	3
SP	232—History of the Theatre III	3
ENG	50—Shakespeare	3
ENG	235—Contemporary American Drama	3
	Electives in Theatre Arts	4
		<hr/>
		48

4. At least one minor of 27 quarter hours.

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

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

Students majoring in Theatre Arts are expected to participate in productions each quarter.

Theatre Arts Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
SP	13—Introduction to Stagecraft	3
SP	16—Voice and Diction	4
SP	63—First Course in Drama	4
SP	65—Beginning Scene Design	3
SP	113—Stagecraft	3
SP	114—Introduction to the Theatre	3
SP	115—Beginning Characterization	3
SP	116—Beginning Play Direction	4
		27

Students minoring in Theatre Arts are expected to participate in productions for a minimum of one quarter.

THE SCHOOL OF BUSINESS

Dr. Ramon P. Heimerl, Dean

The School of Business offers Programs in Applied and Professional Studies and in the Teaching Profession.

Degree Programs in the Teaching Professions

Bachelor of Arts Degree

Business Education — Specializations in Accounting, Basic Business and Economics, Distributive Education, and Secretarial.

Degree Programs in Applied and Professional Studies

Bachelor of Science Degree

Business — Specializations in Accounting Finance, Management, Marketing, and Administrative Services. Secretarial (two-year non-degree).

Professors: Heimerl, Hillestad, Waterman.

Associate Professors: Damgaard, Kennedy, Yetka.

Assistant Professors: Cullor, Gordon, Kilpatrick, Randle.

Instructors: Hansen, Herbst, Ratliff, Thames, Wertz.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Business Education Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. Teacher Education Program courses as listed on page 89, 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 80 quarter hours.

4. Twenty-one 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	1 -The American Business System	5	
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	80 -Introduction to Business Data Processing	3	
BUS	115 -Business Communications	3	
BUS	150 -Principles of Management	5	
BUS	170*-Business Finance	3	
BUS	190 -Mathematics for Management	3	
BUS	191 -Business Statistics I	3	
ECON	30 -Introductory Economics	5	
ECON	102 -Contemporary Economic Problems	3	
			44

*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. A notarized affidavit must be approved by your adviser and filed in the school office.

BUS	11-Typewriting II	4
BUS	12-Typewriting III	4
BUS	22-Principles of Accounting III	4
BUS	81-Data Processing-Unit Record	3
BUS	120-Intermediate Accounting I	3
BUS	121-Intermediate Accounting II	3
BUS	228-Income Tax Accounting I	3
BUS	287-Electronic Data Processing	3
BUED	277-Adult Programs in Business Education	3
EDCI	249-Principles of Vocational Education	3
Electives in Business or Business Education		3

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 or Business Education	6
		36

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. A notarized affidavit must be approved by your adviser and filed in the school office.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
BUS	60—Marketing	3
BUS	61—Salesmanship	3
BUS	62—Display	2
BUS	151—Job Analysis	2
BUS	161—Retail Management	4
BUS	162—Advertising	3
BUED	145—Distributive Education Programs	3
BUED	147—Coordination Techniques	2
BUED	277—Adult Programs in Business Education	3
EDCI	249—Principles of Vocational Education	3
	Electives in Business or Business Education	8
		36

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. A notarized affidavit must be approved by your adviser 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	13—Secretarial Machines	2
BUS	14—Records Management	2
BUS	16—Beginning Gregg Shorthand	
BUS	17—Intermediate Gregg Shorthand	
BUS	18—Advanced Shorthand	
BUS	19—Shorthand Transcription	4-16
BUS	80—Introduction to Business Data Processing	3
BUS	110—Secretarial Procedures	3
EDCI	249—Principles of Vocational Education	3

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 Transcription or		4- 8
BUS	20, 21—Principles of Accounting I, II		8-16
	Electives to complete 27 hours.		
			27

Most states require courses in methods and materials of teaching specific subjects for certification. Students minorng 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
			27

The electives must be planned in cooperation with the minor adviser. Elective courses may be chosen from the economic courses listed on page 126-128, 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.

PROGRAMS IN APPLIED AND PROFESSIONAL STUDIES

Bachelor of Science Degree

Business Major

The following program is required:

1. General Education totaling 45 academic hours, plus six hours of physical education activity.
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 80 quarter hours.
3. Fifty-five hours of free electives to complete the 180 quarter hours of academic credit required for graduation.
4. A minor is not required.

Business Core

Course No.	Course Title	Hours	Credit
BUS	1 —The American Business System		5
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	80 —Introduction to Business Data Processing		3

BUS	115	—Business Communications	3
BUS	150	—Principles of Management	5
BUS	170	—Business Finance	3
BUS	190	—Mathematics for Management	3
BUS	191	—Business Statistics I	3
ECON	30	—Introductory Economics	5
ECON	102	—Contemporary Economic Problems	3
			44

*One year of typwriting 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.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BUS	22—Principles of Accounting III		4
BUS	120—Intermediate Accounting I		3
BUS	121—Intermediate Accounting II		3
BUS	122—Cost Accounting		5
BUS	131—Principles of Business Law		5
BUS	221—Advanced Accounting		5
BUS	228—Income Tax Accounting I		3

At least six hours of additional accounting chosen from among the following:

BUS	223—Governmental and Institutional Accounting	(3)	
BUS	227—Auditing	(4)	
BUS	229—Income Tax Accounting II	(3)	6
	Electives in Business		2
			36

Specialization in Finance

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
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		14
			36

Specialization in Management

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BUS	22—Principles of Accounting III		4
BUS	122—Cost Accounting		5
BUS	192—Business Statistics II		3
BUS	253—Personal Management		5
BUS	256—Business Policies and Management		3
BUS	270—Financial Management		3
ECON	277—Government and Business		3
	Electives in Business		10
			36

Specialization in Marketing

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BUS	22—Principles of Accounting III		4
BUS	60—Marketing		3
BUS	61—Salesmanship		3
BUS	161—Retail Management		4
BUS	162—Advertising		3
BUS	256—Business Policies and Management		3
BUS	260—Marketing Strategy		3
BUS	262—Marketing Research		3
	Electives in Business		10
			36

Specialization in Administrative Services

Course No.	Course Title	Hours	Credit
BUS 12*	Typewriting III	4	4
BUS 13	Secretarial Machines	2	2
BUS 14	Records Management	2	2
BUS 18*	Advanced Shorthand	4	4
BUS 19	Transcription	4	4
BUS 90	Calculating Machines and Business Arithmetic	4	4
BUS 110	Secretarial Procedures	3	3
BUS 252	Office Management	3	3
	Electives in Business	10	10
			36

*Prerequisites to these courses cannot be taken as part of the specialization.

Secretarial Major (Two-Year Non-Degree Program)

The following program is required:

Course No.	Course Title	Hours	Credit
BUS 1	The American Business System	5	5
BUS 11	Typewriting II	4	4
BUS 12	Typewriting III	4	4
BUS 13	Secretarial Machines	2	2
BUS 14	Records Management	2	2
BUS 16	Beginning Gregg Shorthand	4	4
BUS 17	Intermediate Gregg Shorthand	4	4
BUS 18	Advanced Shorthand	4	4
BUS 19	Shorthand Transcription	4	4
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 80	Introduction to Business Data Processing	3	3
BUS 81	Data Processing-Unit Record	3	3
BUS 90	Calculating Machines and Business Arithmetic	4	4
BUS 110	Secretarial Procedures	3	3
BUS 115	Business Communications	3	3
BUS 252	Office Management	3	3
COM 1	Elementary Composition I	3	3
COM 2	Elementary Composition II	3	3
COM 3	Principles of Speech	3	3
PCC 20	General Psychology	3	3
	Business Electives	16	16

Minimum 90

Business Minor

Course No.	Course Title	Hours	Credit
BUS 1	The American Business System	5	5
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 115	Business Communications	3	3
BUS 150	Principles of Management	5	5
ECON 30	Introductory Economics	5	5

Minimum 29

THE SCHOOL OF EDUCATION

Dr. Edward J. Kelly, Dean

The School of Education offers the following programs.

Degree Programs in the Teaching Professions

Bachelor of Arts Degree

Elementary Education

Special Education: Teaching the Acoustically
Handicapped

Special Education: Mental Retardation

Department of College Student Personnel Work

Dr. June E. Stuckey, Chairman

Professors: Hause, Oppelt, Shaw, Stuckey.

Associate Professors: H. Collins, T. Nelson

Assistant Professors: Bowen, Kinnick, Miller, Quinlan, Tanner.

Instructors: Henderson, Stutler.

GRADUATE DEGREE PROGRAM ONLY.

Department of Curriculum and Instruction

Dr. Robert R. Dunwell, Chairman

Professors: Kerns, Morrison.

Associate Professors: Dunwell, Stoffer.

GRADUATE DEGREE PROGRAM ONLY.

Department of Educational Administration

Dr. Arthur R. Partridge, Chairman

Professor: Partridge.

Associate Professor: Jardine.

Assistant Professors: Luketich, Ritter.

GRADUATE DEGREE PROGRAM ONLY.

Department of Educational Media

Dr. D. Harold Bowman, Chairman

Professors: Bowman, Cyphers.

Instructors: Card, Donald Seager.

PROGRAMS IN THE TEACHING PROFESSIONS

Undergraduate Minor: Educational Media

Required Courses:

	<i>Hours Credit</i>
EM 208—Introduction to Educational Resources	5
EM 208—Design and Construction of Audio-Visual Materials	3
EM 281—Processing Educational Materials	5
EM 282—Reference Materials for Educational Resource Center	3
EM 283—Evaluation and Selection of Educational Materials	5
EM 287—Organization and Administration of Educational Resource Center.....	5

26 hours

Electives:

EM	284—The Librarian and Reading Guidance for Youth	5
EM	286—Utilization of Educational Resources	3
ELED	115—Improvement of Instruction in Literature in the Elementary School.....	2

Outdoor Education

An interdisciplinary emphasis on 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

Department of Elementary Education

Dr. Alvin O. Mosbo, Chairman

Professors: Claybaugh, Harkness, Kelly, Lewis, Mosbo.

Associate Professors: Clark, Gagon, Glaser, Lowry, Nebel.

Assistant Professor: Hunn.

Instructors: Bruce, Gunning, Krafft, Trigg, Williams.

PROGRAMS IN THE TEACHING PROFESSIONS**Bachelor of Arts Degree**

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus physical educational requirement.

2. Major in a subject field of specialization or in a special major called Arts and Sciences. The following are requirements for an Arts and Sciences Major. (All courses are in addition to general education requirements.)

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
FA	124—Elementary Art	3
	Electives in fine art (not art education).....	2- 3
	Electives in humanities, English, and speech (not English education or speech education)	6
MUS	48—Music Appreciation	2
MUS	49—Music Fundamentals	2
	Electives in music (not music education)	2
MATH	1—Basic Mathematics I	3
MATH	2—Basic Mathematics II	3
	Electives in science (not science education)	5
GEOG	10—World Geography	5
	or	
GEOG	48—Anglo-America	5
HIST	75—Unit Survey of United States History	5
PSCI	40—National Government of the United States	5
	Electives in history and social science (not social studies education)	4- 5

Minimum of 48

3. Minor in a subject field of specialization or in a special minor called Arts and Sciences. The minor must be Arts and Sciences if the major is in a subject field of specialization. The minor must be in a subject field of specialization if the major is Arts and Sciences.

The following are requirements for a minor in Arts and Sciences. (All courses are in addition to general education requirements.)

Course No.	Course Title	Hours	Credit
FA	124—Elementary Art		3
	Electives in humanities, English, and speech (not English education or speech education)	2-	3
MUS	49—Music Fundamentals		2
MATH	1—Basic Mathematics I		3
MATH	2—Basic Mathematics II		3
	Electives in science (not science education)	3-	4
GEOG	10—World Geography		
	or		
GEOG	48—Anglo-America		5
HIST	75—Unit Survey of United States History		5
			Minimum of 27

4. The following requirements in the Elementary Education Major:

Professional Core

Course No.	Course Title	Hours	Credit
EDHP	101—Basic Concepts of Education		5
PCG	140—Educational Psychology		5
•SFE	251—Student Teaching		16
EDHP	295—Philosophy of Education		3
			29

Elementary Teacher Education

Course No.	Course Title	Hours	Credit
ELED	109—Teaching Handwriting and Spelling in the Elementary School		2
ELED	110—Improvement of Instruction in Reading in the Elementary School		3
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	115—Improvement of Instruction in Literature in the Elementary School		2
ELED	139—Introduction to Student Teaching in the Elementary School		2
ELED	222—Reading in the Primary Grades		
	or		
ELED	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		3
§CED	270—Teaching Science in the Elementary School		3
			32

*A minimum of eight of the sixteen hours of student teaching must be in kindergarten or in grades one through six.

†Not required if a Fine Arts major in teacher education.

‡Not required if a Physical Education major or minor at elementary level.

§Not required if a Music major or minor at elementary level.

5. ELED 109, 111, 112, 113, 222, and 223 taken at Colorado State College.

6. Completion of EDHP 101, PCG 140, and a minimum of eighteen quarter hours in Elementary Teacher Education courses including ELED 110, 112, and 139 before student teaching. Of these requirements, ELED 110, 112, and 139 must be completed prior to the quarter in which the student submits his application for student teaching.

7. Sufficient electives to complete 180 quarter hours of academic credit.

Department of Higher Education

Dr. Kenneth Hogan, Chairman

Professors: Hillway, Holmes.

Associate Professor: Hogan.

Assistant Professor: Leach.

GRADUATE DEGREE PROGRAM ONLY.

Department of History and Philosophy of Education

Dr. John E. Bothell, Chairman

Professors: Bothell, Chaloupka.

Associate Professors: Hogan, Sanderson.

Assistant Professors: Cordell, Stoffler, D. Turner.

GRADUATE DEGREE PROGRAM ONLY.

Department of Psychology, Counseling and Guidance

Dr. Arno Luker, Chairman

Professors: Blanchard, Fulbright, Koplitz, Luker, Lutey.

Associate Professors: D. Anderson, Clevenger, Lakin, Meier, L. Montgomery.

Assistant Professors: Bear, Bergmann, Berreman, Praul, Rave, S. Shaw, Usher.

Instructor: Morgenstern.

Psychology, Counseling and Guidance offers an undergraduate minor in psychology which 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.

PROGRAMS IN THE 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>
PCG	21—General Psychology and Human Performance	3	
PCG	170—Introduction to Measurement and Evaluation	3	
PCG	222—Seminar: Psychological Issues	3	
PCG	230—Psychology of Childhood and Adolescence	3	
PCG	240—Psychology of Learning	3	
PCG	280—Personality Dynamics	3	
PCG	285—Mental Hygiene and Emotional Adjustment	3	
	Electives (see list in Department of Psychology, Counseling and Guidance)	6	

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>
PCC	21—General Psychology and Human Performance	3	
PCC	101—Principles of Philosophies of Guidance	3	
PCC	170—Introduction to Measurement and Evaluation	3	
PCC	222—Seminar: Psychological Issues	3	
PCC	285—Mental Hygiene and Emotional Adjustment	3	
SPED	10—Education of Exceptional Children	3	
	Electives (see list in Department of Psychology, Counseling and Guidance)	9	

 27

Department of Research and Statistical Methodology

Dr. John Schmid, Acting Chairman

Professor: Schmid.

Assistant Professors: B. Heimerl, Roscoe, Williamson.

GRADUATE DEGREE PROGRAM ONLY.

Department of Special Education

Dr. Tony D. Vaughan, Chairman

Professors: Kolstoe, Lundeen, Reid, Vaughan.

Associate Professors: Gearheart, McAlees, Smitherman.

Assistant Professors: Eldredge, Forgnone, Gelhart, Lowenbraun, Napier, Peterson, Weishahn, R. Wolfe.

Instructors: Bliier, Henkels, Hunt, Townsend.

Special Education offers a major or minor at the undergraduate level.

The program affords undergraduate students the opportunity to qualify for a Colorado Teacher Certificate with endorsement for acoustically handicapped or mental retardation. Junior and senior students may take course work in the areas of teaching the visually handicapped and physically handicapped and in speech correction and audiology. 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 in which students may observe and do 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 complete audiometric evaluations as well as speech correction services; a research suite; and provision for testing and measuring exceptional children.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Special Education Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus methods and observation courses.
3. The required courses in either of 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.

Concentration in Mental Retardation

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
SPED 10	—Education of Exceptional Children	3
SPED 64	—Introduction to Speech Correction	3
SPED 202	—Counseling Parents of Exceptional Children	3
SPED 203	—Measurement of the Handicapped	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	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
PCG 230*	—Psychology of Childhood and Adolescence	3
	Electives in Special Education	12
		48

*If PCG 30 has been taken in the last five years, a Special Education elective may be substituted for PCG 230.

One minor of 27 hours outside the field of Special Education.
Special Education majors must student teach in their minor area.

Concentration in Acoustically Handicapped

Required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
SPED 10	—Education of Exceptional Children	3
SPED 203	—Measurement of the Handicapped	3
SPED 250	—Pathology and Introduction to Education of the Deaf	3
SPED 251	—Speech Development for Acoustically Handicapped Children	6
SPED 252	—Language Development for Acoustically Handicapped Children	6
SPED 253	—Methods of Teaching Content Subjects to the Deaf	6
SPED 257	—Speech Reading	3
SPED 260	—Speech Pathology I	3
SPED 265	—The Auditory and Speech Mechanism	3
SPED 270	—Audiology	3
PCG 230*	—Psychology of Childhood and Adolescence	3
	Electives	6
		48

*If PCG 30 has been taken in the last five years, a Special Education elective may be substituted for PCG 230.

Recommended electives to complete the 180 quarter hours of academic credit required for graduation are ELED 222, 223, HPER 88, MATH 1, and PSCI 172.

Student Field Experiences

Dr. Everett H. Van Maanen, Coordinator

Professors: Findley, Ninemires, Van Maanen.

Assistant Professors: Broderius, Lindauer, Nichols, Richardson.

Instructors: Burns, J. Johnson, Kavajecz.

Student Teaching

Student teaching assignments are made in cooperating public schools in the state and in the campus laboratory schools (Ernest Horn Elementary School, College High School, Special Education School). All assignments for student teaching are made with the approval of the Coordinator of Student Field Experiences upon the recommendation by the student's major department.

The minimum requirement for graduation with a teaching certificate is 16 quarter hours of student teaching. Eight hours of student teaching must be in a major field.

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 teaching, he will be exempted from that requirement. Exemption from a course does not reduce the number of hours required for graduation, however.

Only limited student teaching is offered during the Summer Quarter.

College policy does not allow student teachers to be employed by the district in which the assignment is made.

Prerequisites for Student Teaching—The following requirements must be completed before beginning student teaching. The student teacher must have:

1. Completed at least two quarters as a full time student on the college campus.
2. Completed the following courses or their equivalent: PCG 140 and EDHP 101.
3. Completed a minimum of 18 quarter hours in Elementary Teacher Education courses including ELED 110, 112, and 139 if applying for student teaching at the elementary education level. Of these requirements, ELED 110, 112, and 139 must be completed prior to the quarter in which the student submits his application for student teaching.
4. Complete EDCI 140 and 141 in all subject matter areas, major or minor wherein secondary school student teaching is contemplated.
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 teaches 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 teaching and/or securing a student teaching assignment. Many districts are reluctant to accept student teachers who do not possess at least an above average grade point average.
7. Been admitted to the Advanced Teacher Education Program in his major(s) where he will be doing student teaching. A student shall be prohibited from student teaching while that student is on ATE or academic probation.
8. Been approved by the Advanced Teacher Education Committee for student teaching 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 during the first two weeks of the academic year 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 adviser.

Teacher Education

At Colorado State College, only students of definite professional promise are admitted to the Advanced Teacher Education Program (ATE) and allowed to pursue one of the teacher education curricula at an advanced level.

Admission and Retention—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 the Advanced Teacher Education Program. Application forms are obtainable from the School of Education. Transfer students possessing no fewer than 85 quarter hours will receive ATE application forms at the time they apply for admission to the college and may be granted tentative admission if they qualify. Transfer students seeking ATE 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. 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 or endorsed for teaching in the liberal arts minor*. Departmental endorsement for ATE admission must be sought for each major declared by the student.

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 before beginning the Advanced Teacher Education Program.

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.

If at any time after admission to ATE, the 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.

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

Appeal by Students Denied Admission—Any student who has been denied admission to the Advanced Teacher Education 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 Subcommittee of the Teacher Education Committee shall then be transmitted in writing to the student within 24 hours.

Professional Education Core—The professional education component of the teacher education curricula includes the courses listed below which are required of and open only to students who have been formally admitted to the Advanced Teacher Education Program.

Junior Year

Course No.	Course Title	Hours	Credit
EDHP	101—Basic Concepts of Education		5
PCC	140—Educational Psychology		5

Senior Year

EDHP	295—Philosophy of Education		3
SFE	251—Student Teaching		16*
			<hr/>

29

*No student shall be allowed to student teach while on ATE probation.

The courses listed above meet North Central Association requirements of 27 quarter hours of professional preparation. In addition to these courses required of all students admitted to the Advanced Teacher Education Program, there is required a minimum of five quarter hours of work in methods and observation courses which is also a part of the professional education component but listed under the departmental requirements of the particular academic schools or departments.

THE SCHOOL OF HEALTH, PHYSICAL EDUCATION AND RECREATION

Dr. L. C. Butler, Dean

The School of Health, Physical Education and Recreation offers Programs in the Teaching Professions and in Applied and Professional Studies.

Degree Programs in the Teaching Professions

Bachelor of Arts Degree

Physical Education for Men—Secondary Level

Physical Education for Men—Elementary Education

Majors

Physical Education for Women—Secondary Level

Physical Education for Women—Elementary Education

Majors

Degree Programs in Applied and Professional Studies

Bachelor of Science Degree

Recreation Major for Men and Women

All majors and minors in this school will earn academic credit in HPER 61, Personal and Community Health.

Professors: Butler, Cyphers, Everett, Pearson, Van Anne.

Associate Professors: Behling, Blasi, Hardy, Heiss, Latham, Lindahl, Maria-Rossi, R. Montgomery, Shirley, Steffy.

Assistant Professors: Barham, Benich, Fri, LaBonde, McKain, Malumphy, Mosser, Sage, Wright.

Instructors: Berry, Cody, McMillen, Notto, Rollins, Shanahan, Van Dinter, Zenor.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Physical Education Major for Women

The following is the required program:

1. General Education totaling 45 academic quarter hours. HPER 80, 81, 89, 95 and 98 will be substituted for the six hours of physical education activity courses required as a part of the General Education.

2. Advanced Teacher Education, 29 hours, plus HPER 144, three hours credit, and HPER 145, two hours credit.

3. The following required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER	62—First Aid	2
HPER	82—Techniques of Hockey and Soccer	2
HPER	84—Techniques of Tennis and Softball	2
HPER	85—Techniques of Tumbling and Gymnastics	2
HPER	90—Techniques in Folk Dance	2
HPER	92—American Square and Social Dance	2
HPER	93—Techniques in Contemporary Dance	2
HPER	94—Problems in Dance Composition	2
HPER	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	125—Teaching of Team Sports	2
HPER	126—Teaching of Dance	2
HPER	127—Teaching of Individual Sports	2
HPER	226—Tests and Measurements in Physical Education	3
HPER	232—Adapted Physical Education	3
HPER	235—Educational Interpretations of Health, Physical Education, and Recreation	3
HPER	272—Recreation Leadership	3
		50

4. One minor of 27 quarter hours outside the School of Health, Physical Education, and Recreation.

5. Twenty-four quarter hours of free electives to complete the 180 quarter hours of academic credit for graduation.

6. 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 Women (Secondary Level)

The following courses will be substituted for the six hours of Physical Education Activity Courses required as a part of General Education: HPER 84, 89, 90, 95.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER	62—First Aid	2
HPER	81—Techniques of Volleyball and Basketball	2
HPER	82—Techniques of Hockey and Soccer	2
HPER	85—Techniques of Tumbling and Gymnastics	2
HPER	92—American Square and Social Dance	2
HPER	102—Health Education in the Secondary School	4
HPER	120—Anatomical Kinesiology	3

HPER	121—Mechanical Kinesiology	3
HPER	122—Physiological Kinesiology	3
HPER	145—Methods and Observation of Teaching Physical Education in the Secondary School (Women)	2
HPER	226—Tests and Measurements in Physical Education	3
	or	
HPER	235—Educational Interpretations of Health, Physical Education, and Recreation	3
		28

Physical Education Major for Women (Elementary Education Majors Only)

The following is the required program:

1. General Education totaling 45 academic quarter hours. HPER 90, 91, and 92 will be substituted for the six hours of physical education activity courses required as a part of General Education.

2. Advanced Teacher Education, 29 hours.

3. The Elementary Teacher Education Core, 28 hours. (HPER 144 will be substituted for HPER 88. HPER 144 and 101 are included in the Physical Education Major Program.)

4. The following required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER	62—First Aid	2
HPER	81—Techniques of Volleyball and Basketball	2
HPER	82—Techniques of Hockey and Soccer	2
HPER	83—Techniques of Swimming	2
HPER	85—Techniques of Tumbling and Gymnastics	2
HPER	89—Techniques of Track and Field	1
HPER	95—Techniques of Movement Fundamentals	1
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	124—Maturational Kinesiology	3
HPER	144—Methods and Observation of Teaching Physical Education in the Elementary School	3
HPER	226—Tests and Measurements in Physical Education	3
HPER	232—Adapted Physical Education	3
HPER	235—Educational Interpretations of Health, Physical Education, and Recreation	3
HPER	272—Recreation Leadership	3
	Electives to be planned with major adviser	4
EM	80—Introduction to Outdoor Education	3
		48

5. One minor in Arts and Sciences, 27 hours.

6. Electives to complete 180 quarter hours of academic credit for graduation.

Physical Education Minor for Women (Elementary Level)

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER	62—First Aid	2
HPER	81—Techniques of Volleyball and Basketball	2
HPER	82—Techniques of Hockey and Soccer	2
HPER	85—Techniques of Tumbling and Gymnastics	2
HPER	89—Techniques of Track and Field	1
HPER	90—Techniques in Folk Dance	2
HPER	91—Rhythms for the Elementary School	2
HPER	95—Techniques in 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 the Elementary School	3
HPER	235—Educational Interpretations of Health, Physical Education, and Recreation	3
		28

Physical Education Major for Men

The following is the required program:

1. General Education totaling 45 academic quarter hours. HPER 70, 71 and 72 will be substituted for the six hours of physical education activity courses required as a part of General Education.
2. Advanced Teacher Education, 29 hours, plus HPER 144, three hours credit, and HPER 145, two hours credit.
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	73—Theory and Practice of Basketball	2	
HPER	74—Theory and Practice of Swimming	1	
HPER	75—Theory and Practice of Wrestling	1	
HPER	76—Theory and Practice of Football	2	
HPER	77—Theory and Practice of Track	1	
HPER	78—Theory and Practice of Baseball	1	
HPER	90—Techniques in Folk Dance	2	
HPER	92—American Square and Social Dance	2	
HPER	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, and Recreation	3	
HPER	250—Administration of Physical Education	3	
HPER	272—Recreation Leadership	3	
			50

4. One minor of 27 quarter hours outside the School of Health, Physical Education, and Recreation.

In addition, men majoring in this field will complete the following in the minor outside the major school. Introduction to Student Teaching and Methods of Teaching.

5. Twenty-four quarter hours of free electives to complete the 180 quarter hours of academic credit for graduation.

6. 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)

Before enrolling in courses in this minor, secure application form from the school office. Entry to this minor is by school approval only.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
A minimum of 5 hours elected from:			
HPER	70—Theory and Practice of Gymnastics and Tumbling	5	
HPER	73—Theory and Practice of Basketball		
HPER	74—Theory and Practice of Swimming		
HPER	75—Theory and Practice of Wrestling		
HPER	76—Theory and Practice of Football		
HPER	77—Theory and Practice of Track		
HPER	78—Theory and Practice of Baseball		
A minimum of 4 hours elected from:			
HPER	161—Coaching of Football	4	
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, and Recreation	
	<i>or</i>	
HPER	260—Scientific Principles of Coaching	4
HPER	270—Administration of Athletics	3
HPER	280—Care of Sports Injuries	3
		28

Physical Education Minor for Men (Teaching Emphasis—Secondary Level)

The following courses will be substituted for the six hours of Physical Education Activity Courses required as a part of General Education: HPER 76, 77, 78, 90.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER	62—First Aid	2
HPER	70—Theory and Practice of Gymnastics and Tumbling.....	2
HPER	71—Theory and Practice of Team Sports	2
HPER	72—Theory and Practice of Individual and Dual Sports.....	2
HPER	73—Theory and Practice of Basketball	2
HPER	74—Theory and Practice of Swimming	1
HPER	75—Theory and Practice of Wrestling	1
HPER	92—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 in the Secondary School	2
HPER	226—Tests and Measurements in Physical Education	
	<i>or</i>	
HPER	235—Educational Interpretations of Health, Physical Education, and Recreation	3
		28

Physical Education Major for Men (Elementary Education Majors Only)

The following is the required program:

1. General Education totaling 45 academic quarter hours. HPER 90, 91, and 92 will be substituted for the six hours of physical education activity courses required as a part of General Education.

2. Advanced Teacher Education, 29 hours.

3. The Elementary Teacher Education Core, 28 hours. (HPER 144 will be substituted for HPER 88. HPER 144 and 101 are included in the Physical Education Major Program.)

4. The following required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER	62—First Aid	2
HPER	70—Theory and Practice of Gymnastics and Tumbling.....	2
HPER	71—Theory and Practice of Team Sports	2
HPER	73—Theory and Practice of Basketball	2
HPER	74—Theory and Practice of Swimming	1
HPER	75—Theory and Practice of Wrestling	1
HPER	77—Theory and Practice of Track	1
HPER	78—Theory and Practice of Baseball	1
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	124—Maturational Kinesiology	3

HPER	144—Methods and Observation of Teaching Physical Education in the Elementary School	3
HPER	226—Tests and Measurements in Physical Education	3
HPER	232—Adapted Physical Education	3
HPER	235—Educational Interpretations of Health, Physical Education, and Recreation	3
HPER	272—Recreation Leadership	3
EM	80—Introduction to Outdoor Education	3
	Electives to be planned with major adviser.....	4
		<hr/> 48

5. One minor in Arts and Sciences, 27 hours.

6. Electives to complete 180 quarter hours of academic credit for graduation.

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	70—Theory and Practice of Gymnastics and Tumbling.....	2
HPER	71—Theory and Practice of Team Sports	2
HPER	73—Theory and Practice of Basketball	2
HPER	77—Theory and Practice of Track	1
HPER	78—Theory and Practice of Baseball	1
HPER	90—Techniques in 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 in the Elementary School	3
HPER	235—Educational Interpretations of Health, Physical Education, and Recreation	
	<i>or</i>	
HPER	272—Recreation Leadership	3
		<hr/> 28

Health Education Minor (Men and Women)

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER	62—First Aid	2
HEC	98—Basic Nutrition	
	<i>or</i>	
HEC	209—New Trends in Nutrition	3
HPER	99—Introduction to Community Health	4
HPER	102—Health Education in the Secondary School.....	4
HPER	271—Safety Education	3
PCG	285—Mental Hygiene and Emotional Adjustment	3
	Electives to complete 27 quarter hours from the following:	
	HPER 205, 213, 274; BIO 152; BOT 230.....	8
		<hr/> 27

Dance Education Minor (Men and Women)

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER	90—Techniques in Folk Dance	2
HPER	91—Rhythms for the Elementary School	2
HPER	92—American Square and Social Dance	2
HPER	93—Techniques in Contemporary Dance	2
HPER	94—Problems in Dance Composition	2
HPER	126—Teaching of Dance	2
HPER	255—Contemporary Dance Techniques and Composition	4
HPER	256—Workshop in Contemporary Dance	4
HPER	257—Dance History and Philosophy	4

	Electives to complete 27 quarter hours from the following:	3
HEC	72—Fundamentals of Clothing Construction	
MUS	49—Music Fundamentals	
MUS	58—Music Literature and Styles I	
MUS	267—Music in America	
SP	13—Introduction to Stagecraft	
SP	63—First Course in Drama	
SP	65—Beginning Scene Design	
SP	116—Beginning Play Direction	

PROGRAMS IN APPLIED AND PROFESSIONAL STUDIES

Bachelor of Science Degree

Recreation

Recreation Major for Men and Women

The following is the required program:

1. General Education totaling 45 academic quarter hours. For women, HPER 80, 81, 89, 95 and 98 will be substituted for the six hours of physical education activity courses required as a part of General Education; for men, HPER 70, 71, and 72 will be substituted for the above six hours.

2. Course requirements listed for the Recreation Major:

Course No.	Course Title	Hours	Credit
HPER	62—First Aid		2
HPER	74—Theory and Practice of Swimming (Men)		
	and		
HPER	77—Theory and Practice of Track (Men)		
	or		
HPER	84—Techniques of Tennis and Softball (Women)		2
HPER	88—Physical Education Activities for the Elementary School		2
HPER	90—Techniques in Folk Dance		2
HPER	92—American Square and Social Dance		2
HPER	97—Introduction to Health, Physical Education, and Recreation		2
HPER	172—Social Recreation		2
HPER	173—Camp Counseling		3
HPER	235—Educational Interpretations of Health, Physical Education, and Recreation		3
HPER	251—Administration of Community Recreation		4
HPER	268—Programs in Recreation		4
HPER	269—Recreation for the Handicapped		3
HPER	271—Safety Education		3
HPER	272—Recreation Leadership		3
FA	127—Craft Techniques		3
MUS	206—Music and Recreation		2
PCG	230—Psychology of Childhood and Adolescence		3
SP	112—Creative Dramatics		3

3. One minor of 27 quarter hours, or 27 quarter hours of supporting courses selected with approval of the major adviser.

4. Senior recreation majors will complete HPER 252, Internship in Recreation, 15 hours.

5. Electives to complete requirements for graduation.

THE SCHOOL OF MUSIC

Dr. James E. Miller, Dean

The School of Music is an Associate Member of the National Association of Schools of Music.

The School of Music offers programs in the Arts and Sciences and in the Teaching Professions.

Degree Programs in Arts and Sciences

Bachelor of Arts Degree
Music

Bachelor of Music Degree
Music (Vocal or Instrumental Emphasis)
Music (5-year program in combination with music education)

Degree Programs in the Teaching Professions

Bachelor of Arts Degree
Music Education
Music Education and Elementary Education (a double major program)
Music Education and Music (5-year program in combination with music)

Professors: Garlick, Hutcherson, King, J. Miller, Mohr, Schenkman.

Associate Professors: Dykins, Evans, Fluke, Goodbrod, Himmel, Mickens, Schmitz, Skinner, Walker.

Assistant Professors: Baker, Bartlett, R. James, Menk, Nofziger, Smith.

Instructors: Ginsburg, Goes, Jamieson, G. Johnson, Linscome, Lowrey, Robinson.

PROGRAMS IN THE ARTS AND SCIENCES

Bachelor of Arts Degree

Music Major

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. A 48-hour major in music as outlined below:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
MUS	1, 2, 3—Sight Singing and Theory I, II, III	9	9
MUS	52, 53, 54—Harmony I, II, III	9	9
MUS	58, 59, 60—Music Literature and Styles I, II, III	6	6
MUS	152—Counterpoint	3	3
MUS	153—Form and Analysis	3	3
MUS	158, 159, 160—History of Music I, II, III	9	9
	Electives in Music	9	9
		48	48

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 103.

7. Electives to meet requirements for graduation.

Bachelor of Music Degree

Music Major

The following is the required program:

1. General Education totaling 51 academic quarter hours, which includes six quarter hours of physical activity courses.

2. An 84-hour major in the Music Core as outlined for the B.Mus. degree.

3. Complete 4-6 additional quarter hours in the area of major emphasis: instrumental or vocal music.

4. Two years of either French or German. Students electing the vocal emphasis will be required to take one additional year of a second language.

5. Meet all music performance and recital attendance requirements as listed on page 103.

6. Electives to meet requirements for graduation.

Music Core

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
MUS	1, 2, 3—Sight Singing and Theory I, II, III	9	9
MUS	52, 53, 54—Harmony I, II, III	9	9
MUS	58, 59, 60—Music Literature and Styles I, II, III	6	6
MUS	152—Counterpoint	3	3
MUS	153—Form and Analysis	3	3
MUS	154—Instrumentation	3	3

MUS	158, 159, 160—History of Music I, II, III	9
MUS	131, 231—Music Performance—Piano	3
	*Music Performance	39
		<hr/> 48

*Two hours of applied music credit must be earned in each quarter in the student's major performance medium. Additional hours of credit are to be earned by performance in musical organizations appropriate to the performance emphasis.

Instrumental Music Emphasis

1. Elect a total of at least six music electives from the following courses:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
MUS	215—Instrumental Literature	3
MUS	219—Improvisation	2
MUS	223—Practicum in Band Conducting and Performance	3
MUS	225—Practicum in Orchestral Conducting and Performance	3
MUS	237—Individual Instruction in Composition	2
MUS	262—Symphonic Literature	3

Vocal Music Emphasis

1. Elect a total of at least four hours of music electives from the following courses:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
MUS	201—Stage and Opera Techniques	2
MUS	184, 284—Opera Workshop	3
MUS	213—Choral Literature to 1750	3
MUS	224—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

Combination Program—It is possible to combine the Bachelor of Music and the Bachelor of Arts (Teacher Preparation) in a five-year program. For information, please consult page 101.

Music Minor

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
MUS	48— Music Appreciation	2
MUS	58, 59, 60— Music Literature and Styles I, II, III	6
	*Music Performance	6
	**Music Electives	13
		<hr/> 27

*Three hours of applied music credit must be earned by taking three continuous quarters of individual instruction in a single musical medium. The other three hours of credit are to be earned by performance in a musical organization such as Band, Choir or Orchestra.

**To be selected upon consultation with minor adviser.

PROGRAMS IN THE TEACHING PROFESSIONS

Bachelor of Arts Degree

Music Education Major

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. Advanced Teacher Education, 29 hours.

3. The required courses listed in the Music Core plus the required courses for the Instrumental Music Teaching Emphasis or the Vocal and General Music Teaching Emphasis.

Music Core

Course No.	Course Title	Hours	Credit
MUS	1, 2, 3—Sight Singing and Theory I, II, III.....	9	6
MUS	40, 41, 42—Introduction to Music Education I, II, III.....	6	3
MUS	52, 53, 54—Harmony I, II, III.....	9	9
MUS	58, 59, 60—Music Literature and Styles I, II, III.....	6	6
MUS	141—Introduction to Teaching Elementary General Music (ATE).....	2	2
MUS	142—Teaching Music in the Secondary School (ATE).....	3	3
MUS	152—Counterpoint.....	3	3
MUS	153—Form and Analysis.....	3	3
MUS	154—Instrumentation.....	3	3
MUS	158, 159, 160—History of Music I, II, III.....	9	9
MUS	165—Teaching Instrumental Music.....	3	3
MUS	190—Clarinet Class.....	1	1
MUS	191—Trumpet and French Horn Class.....	1	1
MUS	194—Percussion Class.....	1	1
MUS	Applied Music.....	11	11
MUS	Band, Orchestra or Choir.....	11	11
			81

Instrumental Music Teaching Emphasis

Course No.	Course Title	Hours	Credit
MUS	10, 11, 12—Beginning Class Piano I, II, III		
	or		
	20, 21, 22—Intermediate Class Piano I, II, III		
	or		
	Electives in Music (upon evidence of piano proficiency).....	6	6
MUS	13, 14, 15—Beginning String Instruction I, II, III.....	3	3
MUS	162, 163, 164—Instrumental Techniques and Conducting I, II, III.....	3	3
MUS	192—Brass Class.....	1	1
MUS	195—Double Reed Class.....	1	1
MUS	196—Voice Class.....	1	1
MUS	197—Flute and Saxophone Class.....	1	1
MUS	220—Instrument Repair and Care.....	2	2
MUS	Choral Activity.....	3	3
MUS	*Music Electives.....	7	7
	(to be selected from courses below)		
			28

*Electives in Music

MUS	210—Music Literature for Elementary Grades.....	3	3
MUS	212—Music Activities for Classroom Teachers.....	3	3
MUS	215—Instrumental Literature.....	3	3
MUS	217—Methods and Materials for Class Instrumental Instruction.....	3	3
MUS	241—Marching Band Techniques.....	2	2
MUS	266—Teaching Music Appreciation.....	3	3

Vocal and General Music Teaching Emphasis

Course No.	Course Title	Hours	Credit
MUS	10, 11, 12—Beginning Class Piano I, II, III		
	or		
	20, 21, 22—Intermediate Class Piano I, II, III		
	or		
MUS	131, 231—Piano (for voice majors).....	(6)	(6)
	or		
	130, 230—Voice (for piano majors).....	3	3
MUS	166, 167, 168—Choral Techniques and Conducting I, II, III.....	3	3
MUS	193—String Class.....	1	1
MUS	*Music Electives.....	(15)	15
	(to be selected from courses below)		
			(28) 28

*Music Electives	
MUS	201—Stage and Opera Techniques..... 2
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	213—Choral Literature to 1750..... 3
MUS	214—Choral Literature from 1750..... 3
MUS	216—Methods and Materials for Class Voice Instruction..... 2
MUS	226—Principles of Piano Teaching I..... 2
MUS	227—Principles of Piano Teaching II..... 2
MUS	228—Principles of Piano Teaching III..... 2
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..... 3

**Proficiency level II in piano or voice is required as prerequisite for these courses.

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 musical organization such as Band, Orchestra or Choir.

5. Meet all music performance and recital attendance requirements as listed on page 103.

6. Electives to meet requirements for graduation.

7. Meet requirements for Admission to the Teacher Education Program. (see below)

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 solfège.

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.

Music Education and Music Major

Five-year Combined Program

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.

The following is required for the completion of the combined degrees program:

1. Complete the requirements for the Bachelor of Arts Degree (Teacher Education).

2. Complete 27 additional quarter hours of applied music and performance.

3. Present a complete graduation recital.

4. Meet all music performance and recital attendance requirements as listed on page 103.

5. Elect a minimum of 18 quarter hours from the following courses:

Course No.	Course Title	Hours	Credit
MUS 184,	284—Opera Workshop	3	3
MUS	242—Vocal Repertoire: German Art Song	2	2
MUS	243—Vocal Repertoire: French Art Song	2	2
MUS	244—Vocal Repertoire: 17th and 18th Centuries	2	2
MUS	262—Symphonic Literature	3	3
MUS	263—Eighteenth Century Harmony and Forms	3	3
MUS	264—Nineteenth Century Harmony and Forms	3	3
MUS	265—Twentieth Century Harmony and Forms	3	3
MUS	268—Church Music	3	3

Music Education and Elementary Education Major

Double Major Program

The following is the required program:

1. General Education totaling 45 academic quarter hours, plus six quarter hours of physical education activity courses.

2. A 48-hour major in music as outlined below:

Course No.	Course Title	Hours	Credit
MUS	1, 2, 3—Sight Singing and Theory I, II, III	9	9
MUS	52, 53—Harmony I, II	6	6
MUS	162—Instrumental Techniques and Conducting I or		
MUS	166—Choral Techniques and Conducting I	1	1
MUS	10, 11, 12—Beginning Class Piano I, II, III or		
MUS	20, 21, 22—Intermediate Class Piano I, II, III or		
MUS	Music Performance (Piano)	3	3
MUS	Music Performance (Individual Instruction)	6	6
MUS	Music Performance (Major Ensemble)	3	3
MUS	209—Music Methods and Materials for Elementary Teachers	2	2
			30

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. It is suggested that the student teaching assignment shall include eight 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 103.

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	2
MUS	58, 59, 60—Music Literature and Styles I, II, III	6	6
MUS	262—Symphonic Literature	3	3
MUS	267—Music in America	3	3

Music Theory

(Elect 5-6 hours from the following courses)

Course No.	Course Title	Hours	Credit
MUS	54—Harmony III		3
MUS	152—Counterpoint		3
MUS	153—Form and Analysis		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, 41, 42—Introduction to Music Education I, II, III.....		6
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—Music for the Exceptional Child (required of Special Education Double Major).....		3
MUS	266—Teaching Music Appreciation		3
			(6-7)

Music Minor (For Elementary Education Majors)

Course No.	Course Title	Hours	Credit
MUS	1, 2, 3—Sight Singing and Theory I, II, III.....		9
MUS	10, 11, 12—Beginning Class Piano I, II, III or		
MUS	20, 21, 22—Intermediate Class Piano I, II, III or		
MUS	131, 231, 331—Individual Performance in Piano		6
MUS	209—Music Methods and Materials for Elementary Teachers		2
MUS	210—Music Literature for Elementary Grades		3
MUS	212—Music Activities for Classroom Teachers or		
MUS	266—Teaching Music Appreciation		3
MUS	Choral Activity		4
			27

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

Each undergraduate music major will be required to attend 80% of all college sponsored music events (faculty recitals, major performances) during his undergraduate residency. An evaluation will be made at the end of each quarter for each student so that deficiencies in one quarter may be compensated for by excess in another quarter. If a deficiency continues to exist the student will have the final academic quarter in residence to meet the requirement. Such recital attendance will constitute a School of Music requirement for graduation regardless of the successful completion of the academic program. If the requirement is not met at the conclusion of the final quarter, then an additional quarter of residence will be required to fulfill this obligation.

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 tutorage 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, 332. 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.*

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. STAGE BAND. *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 hour credit.*
184, 284, 384. OPERA WORKSHOP. *One hour 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.*

THE SCHOOL OF NURSING

Miss L. Elaine McMinn, Dean

Professor: McMinn.

Associate Professors: Rubenstein, Huber, O'Neal.

Assistant Professors: Sawatzky, Self, Thiele, Carlson, Swingle, Payton, Hallan, Gramzow, Woods.

Instructor: Dahms.

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 in any setting and to provide the foundation for graduate study in nursing. Graduates are also prepared for positions which require beginning competence in administrative skills.

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.

PROGRAMS IN APPLIED AND PROFESSIONAL STUDIES

Bachelor of Science Degree

Nursing Major

The following is the required program:

1. General education, foundation, and contributory courses totaling 93 quarter hours.
2. Nursing courses totaling 87 quarter hours.
3. Six quarter hours of physical education activity courses. These should be taken the freshman and sophomore years.
4. A minor is not required.

Freshman Year

Course No.	Course Title	Hours	Credit
CHEM	40 —Principles of Chemistry I	5	5
CHEM	41 —Principles of Chemistry II	5	5
CHEM	42 —Introductory Organic Chemistry	5	5
COM	1 —Elementary Composition I	3	3
COM	2 —Elementary Composition II	3	3
COM	3 —Principles of Speech	3	3
PCG	20 —General Psychology	3	3
PCG	21 —General Psychology and Human Performance	3	3
PHYS	50 —Principles of Physics	5	5
PSCI	40* —National Government of the U.S.	5	5
SOC	50 —Principles of Sociology	5	5
HPER	—Physical Education Activity Course	3	3
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*Students may substitute ANT 20, GEOG 10, ECON 30 or USH 75 for PSCI 40.

Sophomore Year

Course No.	Course Title	Hours	Credit
BOT	230 —General Bacteriology	5	5
CHEM	147 —General Biochemistry	5	5
HEC	98 —Basic Nutrition	3	3
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

NURS	10—Introduction to Nursing	2
PCG	30—Human Growth Processes and Developmental Tasks	5
ZOO	5—General Zoology	5
ZOO	112—Mammalian Anatomy	5
ZOO	117—Human Physiology	5
HPER	—Physical Education Activity Courses	3
		—
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Junior Year

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
NURS	100—Basic Principles of Nursing	10
NURS	101—Pharmacology	3
	(Fall, Winter, Spring)	
NURS	102—Maternity Nursing	10
NURS	103—Medical-Surgical Nursing	10
NURS	104—Psychiatric Nursing	10
NURS	105—Human Relations in Nursing	3
HEC	282—Diet Therapy	3
PCG	142—Teaching Learning Process	3
		—
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Senior Year

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
NURS	200—Public Health Nursing	10
NURS	201—Preventive Medicine and Public Health	3
NURS	202—Nursing of Children	10
NURS	203—Advanced Medical-Surgical Nursing	13
NURS	204—Trends in Nursing	3
		—
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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.

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. Each student shall complete during the first quarter on campus the Minnesota Multiphasic Personality Inventory in addition to other required matriculation tests.

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 C. 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. After the completion of the required pre-nursing courses graduate nurse students may request placement examinations in selected nursing courses. 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 C 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 of 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: smallpox, 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 (May be inexpensive)	Variable
Senior	Spring	School pin	12.95
		Chest x-ray	10.00

*Costs listed above are approximate and are subject to change.

Public health 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 anywhere in Weld County. 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.

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.

COURSE DESCRIPTIONS

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 the instructor.

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 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 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. *Three 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. *Three hours credit.*

The purpose of the course is to provide information about current important ideas in special fields of Anthropology.

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 225. AFRICA SOUTH OF THE SAHARA. *Four hours credit.*

Emphasis will be placed on the tribal backgrounds and the acculturation that is taking place between European and African systems.

ANT 226. INDIA AND SOUTHEAST ASIA. *Four hours credit.*

Study of a selected number of ethnic groups inhabiting India, Burma, Thailand, Laos, Cambodia and Vietnam.

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 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 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 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.*

Examination of 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.

Aerospace Studies

AS 11, 15. CORPS TRAINING I, II. *One hour credit per course.*

An introduction to the methods of Air Force organization at the squad and flight level. Opportunities are provided for the cadet to learn personal and group discipline.

AS 21, 25. CORPS TRAINING III, IV. *One hour credit per course.*

Practical training in elementary leadership activities involving small groups and an introduction to Cadet Corps organization at the flight and squadron level.

AS 22. WORLD MILITARY SYSTEMS I. *One hour credit.*

An introductory course to survey the causes of present world conflict, including the roll of military power as an instrument of national policy, the organization and mission of the U. S. Army and Navy, and a study of how the Defense Department is organized to effectively use U. S. Military power.

AS 24. WORLD MILITARY SYSTEMS II. *Two hours credit.*

A study exploring the organization and mission of the United States Air Force including strategic offensive and defensive forces and civil defense, and how these forces provide support in the defense of the United States and the free world.

AS 104. WORLD MILITARY SYSTEMS III. *Two hours credit.*

A study of the doctrine, organization and mission of the U. S. general support forces and aerospace support forces. The course includes the study of military airlift, research and development, education and training, and other support functions.

AS 106. WORLD MILITARY SYSTEMS IV. *One hour credit.*

An analysis of the trends and implications of the world power struggle in which nations are striving to accomplish their national objectives. Primary emphasis is placed on the political and military strategy behind these conflicts. Also includes a study of the conflict between democracy and communism.

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 also 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, and the initial study of astronautics and space age programs, the spatial environment and space orbits and trajectories. The development of communicative skills is also 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 also 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. In addition, the need for discipline, within the military, the study of non-judicial punishment, 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. The study of the Command-Staff team pays particular attention to principles 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.

ASTRONOMY

AST 161. GENERAL 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. This course and AST 162 are required of earth science majors. Students cannot receive credit for both AST 161 and 166.

AST 162. GENERAL ASTRONOMY II: STELLAR. *Three hours credit.*

Prerequisite, *AST 161.* A continuation of general astronomy as begun in AST 161. 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 166. INTRODUCTION TO 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 263. OBSERVATIONAL ASTRONOMY. *Four hours credit. (Two hours lecture, six hours laboratory.)*

Prerequisite, AST 162. 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 162. 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.

BIOLOGY

BIO 1. PRINCIPLES OF BIOLOGY I. *Five hours credit. (Three hours lecture, four hours laboratory.)*

A study of biological principles from the biosphere to the organism. Aspects of ecology, reproduction, genetics, adaptation, speciation, and evolution will be studied. This course is recommended as a substitute for SCI 4.

BIO 2. PRINCIPLES OF BIOLOGY II. *Five hours credit. (Three hours lecture, four hours laboratory.)*

A study of biological principles from the ultrastructure of the cell to the organism. Aspects of the chemical and structural basis of life, the functional basis of life, chemical and neural control of life and the coordination of the organism will be studied. This course is recommended as a substitute for SCI 4.

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 eugenic and population problems. Especially appropriate for non-science majors. Credit not allowed toward major or minor in Biological Science.

BIO 152. GENETICS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, BOT 24 or ZOO 12. A study of the fundamental laws of heredity and their application to plants and animals, with emphasis on the heredity of man.

BIO 250. CELLULAR PHYSIOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 11, 12, or BOT 23, 24, CHEM 40 or 44, 41 or 45, 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.)*

Prerequisite, BOT 23, 24, ZOO 11, 12. A course in the study of fresh water plants and animals of the Rocky Mountains 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.*

BOTANY

BOT 23. GENERAL BOTANY I. *Five hours credit. (Three hours lecture, four hours laboratory.)*

A survey of the plant kingdom including the life cycles, habitats, relationships and evolutionary aspects of the great groups of plants, the algae, fungi, mosses, liverworts, ferns, conifers and flowering plants. Economic relationships are also emphasized.

BOT 24. GENERAL BOTANY II. *Five hours credit. (Three hours lecture, four hours laboratory.)*

A study of seed plants, the conifers and flowering plants, their structure and functions, economic aspects and classification.

BOT 121. MORPHOLOGY OF THE LOWER PLANTS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BOT 23, 24. Morphology of the algae and bryophytes. Structure, development, and relationships of the algae and of the bryophytes.

BOT 123. SURVEY OF MICROBIOLOGY. *Four 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.)*

Prerequisite, BOT 24. 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. PLANT PHYSIOLOGY I. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BOT 24, CHEM 42 or 141. A course dealing with the fundamental principles of absorption of water and minerals, transpiration, photosynthesis, translocation, and respiration of plants, including biochemical mechanisms.

BOT 224. MORPHOLOGY OF THE VASCULAR PLANTS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BOT 23, 24, 221. A comparative study of the structure, development and relationships of the vascular plants.

BOT 225. PLANT ECOLOGY I—PHYSIOLOGICAL PLANT ECOLOGY.*Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BOT 23, 24. A study of the interrelations between the individual plant and the environment including soil, climatic and biotic factors. The responses of plants to such factors are studied primarily under the controlled conditions of the greenhouse and the growth chamber.

BOT 226. BOTANICAL MICROTECHNIQUE. *Two hours credit. (Four hours laboratory.)*

Prerequisites, BOT 23, 24, 221. Study of plant tissues and the preparation of permanent slides of tissues and other plant materials.

BOT 227. IDENTIFICATION OF SEED PLANTS OF THE LOCAL FLORA. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BOT 23, 24. An introductory course concerned with recognition and identification of plants at the species and family levels. Use of keys, manuals, and collecting techniques.

BOT 228. MYCOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BOT 23, 24. A survey of the fungi emphasizing how they live, grow, and reproduce. Isolation and cultural techniques of some of the common fungi will be demonstrated. Also, emphasis will be placed on terms and techniques needed to identify the common fleshy fungi found in this area.

BOT 229. PLANT DISEASES. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BOT 23, 24. A study of the diseases of the higher plants caused by bacteria, fungi, and viruses. Emphasis is placed on disease cycles and control measures.

BOT 230. GENERAL BACTERIOLOGY. *Five hours credit. (Three hours lecture, four 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.

BUSINESS EDUCATION

BUED 140. INTRODUCTION TO BUSINESS EDUCATION. (ATE) *Two hours credit.*

Prerequisites, EDHP 101, PCG 140 (before 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. 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. 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. 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. 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. DISTRIBUTIVE EDUCATION PROGRAMS.** (ATE) *Three hours credit.*
Prerequisites, EDHP 101, PCG 140 (before or currently). 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 147. COORDINATION TECHNIQUES.** (ATE) *Two hours credit.*
Prerequisite, BUED 145. An analysis of the duties involved in coordinating the classroom instruction and the on-the-job experiences provided through the cooperative program. Actual problems encountered will be studied.
- 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.
- BUED 277. ADULT PROGRAMS IN BUSINESS EDUCATION.** *Three hours credit.*
Organizing, promoting, and supervising an adult program. Selecting and preparing teachers, course building, forms of effective presentation, public relations, and community organization are included.
- BUED 280. WORKSHOP IN BUSINESS EDUCATION.** *Maximum of nine hours credit.*
Through cooperative effort, problems in business education will be solved. Not more than three of these courses may be applied to any one degree.
- BUED 281. WORKSHOP IN DISTRIBUTIVE EDUCATION.** *Maximum of nine hours credit.*
An intensive course designed primarily for distributive education coordinators.

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, or 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. PRINCIPLES OF ACCOUNTING III. *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 60. MARKETING. *Three 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. DISPLAY. *Two hours credit.*

This course introduces the students to techniques of display. Emphasis is placed upon show card writing and upon dressing display windows.

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 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, 14, 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. *Three hours credit.*

Prerequisite, BUS 22. 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. *Three hours credit.*

Prerequisite, BUS 120. A continuation of BUS 120 and, in addition, includes the study of funds-flow reporting.

BUS 122. COST ACCOUNTING. *Five 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 150. PRINCIPLES OF MANAGEMENT. *Five hours credit.*

A study of the managerial functions of planning, organizing, staffing, directing and controlling. An analysis of the on-going processes, the knowledge of which a manager must have in order to achieve desired coordination in the attainment of company objectives.

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 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. MATHEMATICS FOR MANAGEMENT. *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.*

A course designed to orient the business student to statistics and their use in business affairs. The major emphasis will be on the nature of statistics, decisions 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. *Five hours credit.*

Prerequisite, BUS 22. This course includes a study of the accounting problems caused by multiple proprietorship—partnerships, corporations, and business combinations.

BUS 223. GOVERNMENTAL AND INSTITUTIONAL ACCOUNTING. *Three 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. *Three 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. 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.*

Study and application of the principles in preparing federal income tax returns for individuals.

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. INSURANCE LAW AND TAXATION. *Six hours credit. (Two per quarter.)*

In this course basic elements of business law are applied to life insurance. Student is given a broad background in subjects of guardianship, administration and distribution of property, administration of estates, wills and trusts. Federal income, estate, and gift tax systems are explained with particular reference to the taxation of life insurance and annuities. (C.L.U. Part III.)

BUS 239. BUSINESS LAW AND PROPERTY INSURANCE. *Six hours credit. (Two per quarter.)*

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.*

The different types of insurance coverage available and the kinds of policies are presented in this course. Primary emphasis is placed on life insurance. Each student will develop a tentative insurance program.

BUS 241. LIFE AND HEALTH INSURANCE. *Six hours credit. (Two per quarter.)*

This course is designed to provide the student with a firm foundation in meaning of human life concept; life insurance and annuity contracts; various uses of life insurance and annuities; and fundamental principles underlying calculation of life insurance and annuity premiums, reserves, forfeiture values and dividends. (C.L.U. Part I)

BUS 242. GROUP INSURANCE AND PENSIONS. *Six hours credit. (Two per quarter.)*

Prerequisite, BUS 241. This course provides a thorough analysis of the important and rapidly growing fields of group insurance, individual and group health insurance, and pensions. It also covers the problems of old age, unemployment and disability along with the various plans which have been developed to meet these problems. (C.L.U. Part II)

BUS 244. FINANCE AND ECONOMICS OF INSURANCE. *Six hours credit. (Two per quarter.)*

Prerequisite, BUS 241. The course deals with the financial and economic system within which life and health insurance exist. Different aspects of family finance are presented, including investments in common stocks, bonds, and mutual funds; bank deposits and other saving media; and property and liability insurance coverages. The subject of economics is considered, dealing with the individual and the complex American market system. (C.L.U. Part IV)

BUS 245. BUSINESS INSURANCE AND ESTATE PLANNING. *Six hours credit. (Two per quarter.)*

Prerequisite, BUS 241. The course covers advanced subjects in life underwriting such as the use of settlement agreements in estate planning, business uses of life insurance, and estate planning in general including a section on the particular uses of life insurance in the estate planning process. A section on human behavior and ethics is also included. (C.L.U. Part V)

BUS 246. PROPERTY AND LIABILITY INSURANCE. *Six hours credit. (Two per quarter.)*

This course covers in detail the various kinds of property and liability insurance available. The emphasis is not only on principles but also on practices currently in the insurance industry. (C.P.C.U. Part I)

BUS 247. ANALYSIS OF INSURANCE FUNCTIONS. *Six hours credit. (Two per quarter.)*

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. INSURANCE BUSINESS AND GOVERNMENT. *Six hours credit. (Two per quarter.)*

This course covers a study of the insurance business as part of our economic structure and the control of government over business. Besides a review of the economy and its operation, the economic role of government and the taxation structure are studied. (C.P.C.U. Part III)

BUS 249. INSURANCE MANAGEMENT. *Six hours credit. (Two per quarter.)*

This course reviews the basic principles of management and then applies them specifically to the management of insurance businesses. A brief unit on personal finance is also included to help persons manage. Also included in the course are units on accounting and business finance as applied to the insurance business. (C.P.C.U. Part V)

BUS 252. OFFICE MANAGEMENT. *Three hours credit.*

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. *Three 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. MARKETING RESEARCH. *Three hours credit.*

Prerequisite, BUS 60. 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 267. TRANSPORTATION. *Three hours credit.*

A course to provide basic theory and principles of public transportation. The economics, financing, regulation, and operation of common carriers is related to other business functions. Railroads, motor, water, pipeline, and air transport are studied as related to each other and the business environment.

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 280. SYSTEMS AND PROCEDURES. *Three hours credit.*

Prerequisite, BUS 80. 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 287. ELECTRONIC DATA PROCESSING. *Three hours credit. (Laboratory required.)*

Prerequisite, BUS 80 or equivalent. This course includes an introduction to electronic computers and to programming. The student's work involves analyzing and developing a program relative to his field of interest.

BUS 288. ADVANCED ELECTRONIC DATA PROCESSING. *Three hours credit. (Laboratory required.)*

Prerequisite, BUS 287. 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 287.

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 148. 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 40 or 44. A beginning course in organic chemistry for students with no previous background in organic chemistry. Some of the fundamental types of aliphatic and aromatic organic compounds are treated with regard to theory and application.

CHEM 243. ORGANIC CHEMISTRY III. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 142. 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 hours 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 hours 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 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 280. ORGANIC QUALITATIVE ANALYSIS. *Three hours credit. (Nine hours laboratory.)*

Prerequisite, CHEM 248, 243. This course is an advanced laboratory course in organic chemistry. The identification of organic compounds constitute the laboratory work. No classwork is required but a paper on some phase of organic chemistry is required.

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. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, CHEM 145, 282. 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.

College Student Personnel Work

CSPW 252. WORKSHOP FOR RESIDENCE HALL DIRECTORS AND HOUSEMOTHERS. *Two hours credit.*

The course will be designed for present and prospective residence hall directors and fraternity housemothers. The philosophy and purpose of college housing, together with various methods of supervision, direction, and programing will be discussed. Meal planning, student health, etiquette, budgeting, and advising students will also be considered.

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 200. LABOR-MANAGEMENT RELATIONS. *Five 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 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 209. ECONOMIC HISTORY OF THE UNITED STATES. *Four hours credit.*

A review of the historical changes in the major American economic institutions with emphasis on the post-Civil War period.

ECON 210. HISTORY OF ECONOMIC SYSTEMS: SOCIALISM, COMMUNISM, CAPITALISM, FASCISM. *Five hours credit.*

A survey of social economic reform movements, including Utopian schemes, mercantilism, monopolistic capitalism, socialism, communism, fascism and modified capitalism.

ECON 212. 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 220. 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 course in economics. Emphasis is upon value and distribution theory. It is assumed that students will have had an introductory course in economics.

ECON 231. 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 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. *Five hours credit.*

Prerequisite, ECON 220 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 220, 250 or the consent of the instructor. The course will present a theoretical and empirical investigation of economic fluctuations.

ECON 254. DEVELOPMENTAL ECONOMICS. *Three hours credit.*

Prerequisites, ECON 30, 220, 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 266. 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 employment by governments on the state and local level in the U. S. economy.

ECON 270. AGRICULTURAL 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.

ECON 277. 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 286. 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 288. 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 290. 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.

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.

EDAD 244. SCHOOL AND COMMUNITY RELATIONS. *Three hours credit.*

This course considers the problems of human and professional relationships for teachers. It examines the factors which create and influence public and personal opinion. It shows how skills and techniques may be developed and utilized in a sound school community relations program.

Curriculum and Instruction

EDCI 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. The course develops skill, as differentiated from a remedial course, which will include flexibility in reading and promote vocational growth and reading skills.

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 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 skills. Special consideration will be given to effective skills, vocabulary development in specific areas and study skills.

EDCI 249. PRINCIPLES OF VOCATIONAL EDUCATION. *Three hours credit.*

A study of the philosophy and development of vocational education, legislation, state policies, school programs, and non-school agencies and programs.

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 261. SECONDARY INSTRUCTION. (ATE) *Three hours credit.*

Designed to provide a comprehensive understanding of basic instructional practices and trends in the secondary school. Includes determining instructional goals, selecting and organizing appropriate learning experiences, evaluation, marking and reporting, classroom management, and extra class activities. *Enrollment limited to beginning teachers.*

History and Philosophy of Education

EDHP 101. BASIC CONCEPTS OF EDUCATION. (ATE) *Five hours credit.*

A unified course designed to familiarize students with the fundamentals of the history of American education, educational sociology, the professional role of the teacher, school administration as it pertains directly to the classroom teacher, and key knowledge unique to the elementary school, the junior high or senior high schools.

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.

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) *Four 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.

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 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.

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 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.

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 222. READING IN THE PRIMARY GRADES. (ATE) *Three hours credit.*

Prerequisite, ELED 110, SFE 251. 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.

ELED 223. READING IN THE INTERMEDIATE GRADES. (ATE) *Three hours credit.*

Prerequisites, ELED 110, SFE 251. 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.

ELED 226. PRACTICUM IN DIAGNOSTIC ORAL READING. *One hour credit.*

Prerequisite, enrollment in or completion of one of the following: ELED 222, 223, 324, EDCI 317. 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.

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.

ELED 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.

Educational Media

EM 80. INTRODUCTION TO OUTDOOR EDUCATION. *Three hours credit.*

Introductory course to orient students with 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 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 281. PROCESSING EDUCATIONAL MATERIALS. *Five hours credit.*

In this course the student learns the fundamentals of classification according to the Dewey System and the construction of a dictionary catalog for the school resource center. It will include all necessary processes from the time the books, pamphlets, and audio-visual 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. *Five 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 284. THE LIBRARIAN AND READING GUIDANCE FOR YOUTH. *Five hours credit.*

Acquaintance with and appreciation of books on various reading levels. The use of non-book materials and aids to stimulate and guide young people's reading. Deals with techniques to aid the individual student in selecting materials at his level and to meet his needs.

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.

ENGLISH

ENG 10. FRESHMAN LITERATURE. *Four hours credit.*

An introductory course in literature, designed to acquaint students with literary terminology and to introduce students to outstanding examples of various types of literature: poetry, short story, essay, novel, and drama. Emphasis will be placed on the technique of reading and explicating works of literature.

ENG 48. 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 Darthur*.

ENG 49. 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 50. SHAKESPEARE. *Three hours credit.*

A basic Shakespeare course, with special stress on the types of plays: histories, comedies, tragedies.

ENG 51. 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 52. 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 53. 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 54. 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 57. SURVEY OF ENGLISH LITERATURE (700-1800). *Four hours credit.*

Comprehensive reading in English literature following its development from *Beowulf* to the Romantic Movement.

ENG 58. SURVEY OF ENGLISH LITERATURE (1800-the present). *Four hours credit.*

Comprehensive readings in English literature following its development since the Romantic Movement.

ENG 59. SURVEY OF AMERICAN LITERATURE. *Four hours credit.*

Readings of major writers from the beginning to the present with particular attention to democratic values.

ENG 60. 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 61. 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 109, 110, 111. CREATIVE WRITING I, II, III. *Two hours credit.*

Opportunity to write creatively under criticism with emphasis upon the individual's own purposes and experiences.

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 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.

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.

Fine Arts

FA 1. DRAWING. *Three hours credit.*

A foundation course open to anyone who wishes to learn to draw. Visual training, technical procedures, the essentials of perspective. Media; chiefly charcoal and pencil.

FA 7. ELEMENTARY EARTHENWARE. *Two hours credit.*

The creative application of pottery to a grade school or junior high school art teaching situation with few, if any, existing facilities.

FA 11. INTRODUCTION TO DESIGN. *Five hours credit.*

A study of the basic elements of design and the techniques of organization. Creative projects in abstract and applied fields.

FA 12. ELEMENTARY CRAFTS DESIGN. *Two hours credit.*

A beginning course in constructing three dimensional form. Emphasis will be on approaches and techniques of simple forms suitable for use in the elementary school program.

FA 13. LETTERING. *Two hours credit.*

The basic letter forms and useful variants. A study of layout and design. The course includes work in manuscript, showcard and poster.

FA 17. INTRODUCTION TO POTTERY. *Three hours credit.*

A beginning course in the design and construction of handbuilt clay objects with emphasis on a fundamental knowledge of clay, glazes, and firing.

FA 20. ART APPRECIATION. *Three hours credit.*

This course provides broad experiences for the development of knowledges and understandings of art.

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 50. FIGURE CONSTRUCTION. *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 51. INTRODUCTION TO COLOR. *Three hours credit.*

Color study developed from various theories and its particular application in design and pictorial organization.

FA 53. MATTING, FRAMING AND DISPLAY. *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.*
Basic technology of sculpture, clay and plaster modeling, and simple mold-making. Elements of three-dimensional design related to sculpture problems.

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 101. 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 103. INTRODUCTION TO WATERCOLOR PAINTING. *Two hours credit.*
Prerequisite, FA 1. A beginning course in watercolor painting.

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.*
Prerequisite, FA 11. A study of color relationships and organizational principles pertinent to the color unit.

FA 108. SCULPTURE I. *Three hours credit.*
Traditional and experimental materials and technology in sculpture. Emphasis on significant sculptural form and expression.

FA 111. THREE DIMENSIONAL DESIGN. *Five hours credit.*
Prerequisite, FA 11. 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 116. CRAFT PROCESSES AND DESIGN. *Five hours credit.*
Prerequisite, FA 11. Creative expression with a variety of media in sculpture, textiles, carving, modeling, metals, and construction.

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.*
Prerequisite, FA 1. A beginning course in oil painting.

FA 123. ART EDUCATION FOR THE SECONDARY SCHOOL. *Three hours credit.*
A study of the relationship of art activities to the school program of general education.

FA 124. ELEMENTARY ART. *Three hours credit.*
Organization of art units at the various grade levels and 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 126. INSTRUCTIONAL TECHNIQUES IN ART EDUCATION. *Three hours credit.*
Orientation to problems of teaching and teacher preparation in art for the elementary school. This course is to give the prospective teacher the objectives, philosophy, psychology and methods necessary for the teaching of art at various grade levels.

FA 127. CRAFT TECHNIQUES. *Three hours credit.*

Construction and basic techniques in a variety of craft processes, including puppets, paper mache, stitchery, silk screen, clay, weaving, soap sculpture, scrap craft.

FA 135. LIFE DRAWING. *Two hours credit.*

Prerequisite, FA 1. Opportunity to draw from the human figure.

FA 200. TECHNIQUES OF CREATIVE WEAVING. *Three hours credit.*

Prerequisite, FA 100. A study of the problems and various processes of weaving. Emphasis on original designing of patterns for color and texture.

FA 203. WATERCOLOR PAINTING. *Five hours credit.*

Prerequisites, FA 1 and 103. This course seeks to develop individual expression in creative painting and technical mastery of the medium.

FA 204. FIGURE AND COMPOSITION. *Three hours credit.*

Prerequisite, FA 50. An advanced study of the human figure in composition. Creative work in a variety of media.

FA 205. MONOPRINTS. *Two hours credit.*

This course provides an initial experience in an expressive use of oils as a graphic transfer technique.

FA 208. SCULPTURE II. *Three hours credit.*

Prerequisites, FA 58, FA 108. Advanced application of sculpture technology. Emphasis on aesthetic and functional considerations: monumental, architectural, environmental sculpture.

FA 209. PRINT MAKING. *Three hours credit.*

A study of print processes: etching, dry-point, lithograph, stencil, woodcut and block printing. Experience is offered in the making of prints and the adaptation of print making to secondary school uses.

FA 212. PROBLEMS IN DESIGN. *Three hours credit.*

Prerequisite, FA 11. A 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.*

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. Advanced throwing techniques on the potter's wheel. Individual competence and craftsmanship stressed in this phase of the potter's craft.

FA 219. THE SILK SCREEN PROCESS. *Three hours credit.*

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.*

Prerequisite, FA 120. This course seeks 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.*

The important arts of the world studied toward understanding and appreciating the forms produced by man from the dawn of pre-history 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. Student participation in selected area.

FA 230. SEMINAR IN ELEMENTARY ART. *Two hours credit.*
This course is designed to give the graduate student a philosophy of art education; an understanding of and an opportunity to participate in the essential art activities for the elementary school; 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 232. CONTEMPORARY OIL PAINTING. *Five hours credit.*
Prerequisite, FA 120. This course is designed to give the student more time and experience in a search for his own personal expression through the medium of oil paint.

FA 240. ART IN THE 7TH, 8TH, AND 9TH GRADES. *Five hours credit.*
A study of the problems and techniques in art at the junior high school level, with emphasis on objectives, philosophy, and the actual experiments in the areas of drawing, painting, design, graphic arts, and crafts.

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 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 111. 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 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 125. PHONETICS OF THE FRENCH LANGUAGE. *Three hours credit.*

Prerequisite, two years of college French. The development of the sounds of the French language from earliest recorded times to the present day. The theories of sound change as applied to French. The influence of accent shift and the phenomenon of nasalization and denasalization as they apply to French. Present phonetic trends in the language as observed in our own century.

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 127. THE FRENCH THEATER FROM 1918 TO 1950. *Three hours credit.*

Prerequisite, two years of college French. The main currents in the French theater from 1918 to 1950, with main emphasis on Cocteau, Giraudoux, and Anouilh.

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 FRENCH NOVEL FROM 1800 TO 1850. *Three hours credit.*

Prerequisite, two years of college French. The development of the novel in France during the first half of the nineteenth century with emphasis on Balzac, Stendhal, Sand, and Mérimée. Four novels, one by each author named, will form the core of this course.

FR 142. THE FRENCH NOVEL FROM 1850 TO 1900. *Three hours credit.*

Prerequisite, two years of college French. The development of the novel in France during the second half of the nineteenth century, with emphasis on Zola, Flaubert, Daudet, and the Goncourts. Four significant novels will form the basis of the course, all in the original.

FR 205. THE SEVENTEENTH CENTURY FRENCH THEATER: CORNEILLE. *Three hours credit.*

Prerequisite, two years of college French. Pierre Corneille and the French theater during the reign of Louis XIII. Three plays will be studied in depth. The class will be conducted in French.

FR 206. THE SEVENTEENTH CENTURY FRENCH THEATER: MOLIÈRE. *Three hours credit.*

Prerequisite, two years of college French. The life and work of Molière, with emphasis on three of his plays. The class will be conducted in French.

FR 207. THE SEVENTEENTH CENTURY FRENCH THEATER: RACINE. *Three hours credit.*

Prerequisite, two years of college French. The life and works of Jean Racine, with emphasis on three of his plays. 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. FRENCH WRITERS FROM 1900 TO 1914. *Three hours credit.*

Prerequisite, two years of college French. The study of French writers—novelists and poets—from the beginning of the twentieth century until World War One, mainly Jules Romains, Gide, Proust, and Apollinaire.

FR 251. FRENCH WRITERS FROM 1919 TO 1930. *Three hours credit.*

Prerequisite, two years of college French. The study of French writers—novelists and poets—during the post-war period. They are Jules Romains, Duhamel, Martin du Gard, Valéry, Colette, Claudel, and Mauriac.

FR 252. FRENCH WRITERS FROM 1930 TO 1955. *Three hours credit.*

Prerequisite, two years of college French. The study of French novelists and poets during the period extending from 1930 to 1955. The emphasis will be on Malraux, Mauriac, Bernanos, Sartre, and Camus.

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 20th 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 19th and 20th centuries. Special attention will be devoted to the French literary journals and their role. The class will be conducted in French.

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 in the classroom. 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 203. WORLD RESOURCES AND INDUSTRIES. *Three hours credit.*

A functional appraisal of the resources and industries of the world, including a consideration of their geographical, historical, sociological, technological, and political aspects.

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. *Five hours credit.*

The countries of Asia in terms of their physiography, climates, regions, cultural landscapes, social organizations and economic activities.

GEOG 250. GEOGRAPHY OF COLORADO. *Two 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.

GEOLOGY

GEOL 101. PHYSICAL GEOLOGY. *Five hours credit. (Four hours lecture, three hours laboratory.)*

A study of the minerals and rocks that make up the Earth's crust, the building-up processes of vulcanism and diastrophism, and the counter-processes of

weathering and erosion. Two Saturday field trips required. This course or an equivalent is required of all earth science majors and minors. Students cannot receive credit for both GEOL 101 and GEOL 106.

GEOL 102. HISTORICAL GEOLOGY. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, GEOL 101. The course stresses methods of reading Earth history from rocks and fossils. Then follows a survey of changes the Earth has undergone by action of the various geologic processes through geologic time. Fossil study is emphasized, including suites of fossils for each of the geologic systems.

GEOL 106. GENERAL GEOLOGY. *Four hours credit.*

This course stresses the recognition of common minerals and rocks and the processes at work wearing down or building up the Earth's crust. The geologic history of the Earth is reviewed briefly. The course is arranged primarily for teachers (non-science majors) who will take no additional work in geology. Two Saturday field trips required. Students cannot receive credit for both GEOL 101 and GEOL 106.

GEOL 151. GENERAL OCEANOGRAPHY. *Three hours credit.*

This course will be concerned in an elementary way with the biological, chemical, physical, and geological aspects of the oceans and the ocean basins.

GEOL 200. PRINCIPLES 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 101. 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 rock thin sections.

GEOL 220. PALEONTOLOGY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, GEOL 102. 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 102. 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.)*

Prerequisite, GEOL 211. 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. 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 235. ROCKY MOUNTAIN GEOLOGY. *Three hours credit.*

Prerequisite, GEOL 102. 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 101. 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 223 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.

GERMAN

GER 1. ELEMENTARY GERMAN I. *Five hours credit.*

Credit is not given until three quarters are completed. The course aims to develop an accurate pronunciation, a moderately large active vocabulary, a large passive vocabulary, and sufficient understanding of grammar and sentence structure to enable the student to read without mental translation.

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 COMPOSITION. *Four hours credit.*

Prerequisite, two years of high school German or one year of college German. A review of grammar, with oral and written exercises based on the reading of an adapted novel.

GER 6. INTERMEDIATE GERMAN READING AND CONVERSATION. *Four hours credit.*

Prerequisite, two years of high school German or one year of college German. A reader tracing the cultural history of Germany from the first century of our era to the present will be studied and used as a basis for discussion in German. (This course may be taken without having had GER 5.)

GER 7. INTRODUCTION TO GERMAN CLASSICS. *Four hours credit.*

Prerequisite, at least one quarter of Intermediate German. The class will study one five-act play of the classical period, and an anthology of short poems, with questions and discussion 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 17th 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.

GER 106. SURVEY OF GERMAN LITERATURE II. *Three hours credit.*
Prerequisite, two years of college German. German literature of the 18th and 19th 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.

GER 107. SURVEY OF GERMAN LITERATURE III. *Three hours credit.*
Prerequisite, two years of college German or equivalent. A survey of modern German literature—latter 19th and 20th century writing. Emphasis on development and importance of Naturalism, Impressionism and Expressionism. Importance of Rainer Maria Rilke. Prose writings of Thomas and Heinrich Mann, Kafka and Hesse.

GER 135. 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 some understanding of Goethe's world-view (*Weltanschauung*) as expressed in *Faust*. The unique vocabulary will be studied intensively, as will Goethe's dramatic technique.

GER 142. SCHILLER. *Three hours credit.*
Prerequisite, two years of college German. This course is designed as an introduction to the life and work of one of Germany's greatest classics. While stress will be placed upon an intensive study of one or two of Schiller's greatest dramas, Schiller's times and background will be discussed.

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.

Home Economics

HEC 60. FASHION SEWING. *Three hours credit. (One hour lecture, four hours laboratory.)*

Non-majors. 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 70. 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 71. 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 72. 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 77. 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 81. ART IN HOME LIVING. *Two hours credit.*

Course is 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 94. 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 98. BASIC NUTRITION. *Three hours credit.*

Enables students to select food suited to their needs in the light of the newer knowledge of nutrition and individual physical fitness. A study of the use of food nutrients in the body.

HEC 170. THE HOME AND ITS FURNISHINGS. *Five hours credit.*

Prerequisite, HEC 81. 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 173. INTERMEDIATE CLOTHING CONSTRUCTION. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, HEC 70, 71, 72. A costume of the latest fabrics is constructed using the method appropriate to the pattern and fabric.

HEC 176. 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 178. PRINCIPLES OF FOOD PREPARATION. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, CHEM 40 and HEC 77. 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 180. 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 183. HOME NURSING. *Two hours credit.*

The chief purpose of this course is 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 188. COSTUME DESIGN—FLAT PATTERN. *Three hours credit. (One hour lecture, four hours laboratory.)*

Prerequisites, HEC 72, 173. 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 191. MANAGEMENT IN FAMILY LIVING. *Three hours credit.*

A study of management in relation to successful home living. Family values, goals, decision making, managerial responsibilities, principles and techniques used in managing time, energy and money are stressed.

HEC 203. DEVELOPMENT AND GUIDANCE OF THE YOUNG CHILD. *Three hours credit. (Two 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 209. NEW TRENDS IN NUTRITION. *Three hours credit.*

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 219. INFANT AND CHILD CARE. *Four hours credit. (Three hours lecture, two hours laboratory.)*

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. Observation of and participation in the nursery school.

HEC 222. PROBLEMS IN HOME ECONOMICS. *Three hours credit.*

A study of current trends and problems in selected areas in home economics. Consideration of present conditions and corresponding problems in managing the family resources and their implications as applied to home economics education.

HEC 240. 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. 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 244. PERSONAL IMPROVEMENT FOR THE TEACHER. *Three hours credit.*

A workshop in 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 255. 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 257. CURRICULUM ENRICHMENT FOR YOUNG CHILDREN.*Three hours credit.*

Prerequisite, HEC 203. A study of the sources and use of art, literature, music and science activities in the development of preschool children's curriculum. (Majors take at the same time as HEC 261).

HEC 261. PARTICIPATION IN PRE-SCHOOL. *Three hours credit. (Six hours laboratory per week.)*

Prerequisite, HEC 203. Experience with children in the pre-school situation supplemented by readings, films and discussions. Emphasis on child growth through children's interests and activities.

HEC 264. PRE-SCHOOL PRACTICUM. *Three hours credit. (Six hours laboratory per week.)*

Prerequisite, HEC 203. Sources and uses of play equipment for large and fine coordinations, for dramatic play and for the materials used in musical and creative development in the pre-school are studied. The laboratory sessions give students practical application of these uses as they apply to the child's needs.

HEC 265. 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 267. 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 269. HOUSE PLANNING AND MATERIALS. *Three hours credit. (Three hours lecture.)*

Prerequisite, HEC 170. 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 utensil may be evaluated. Basic scientific principles of heat, mechanics, electricity, and light are studied.

HEC 278. ADVANCED NUTRITION. *Three hours credit.*

Prerequisite, HEC 98. 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 279. 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 280. 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 282. DIET THERAPY. *Three hours credit.*

Prerequisite, HEC 98. A study of the fundamental principles involved in the treatment of disease through diet. Emphasis is given to modification of normal diet.

HEC 284. DEMONSTRATION TECHNIQUES. *Two hours credit. (One hour lecture, three hours laboratory.)*

Prerequisites, HEC 72, 77. Practice in the techniques of demonstrating before audiences. All phases of the Home Economics field will be used to furnish types of demonstrations.

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.*

Prerequisite, HIST 30. World History—800 to 1800. Major civilizations.

HIST 32. WORLD HISTORY III. *Four hours credit.*

Prerequisites, HIST 30 and 31. 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. *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 169. THE FAR EAST. *Five 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 171. ENGLISH HISTORY. *Five hours credit.*

The emphasis of the course will be on the economic, political and social transitions since the defeat of the Spanish Armada. A brief survey of the background of English history will be made.

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 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 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 235. HISTORY OF AFRICA. *Five hours credit.*

A general history of Africa from the early civilization throughout the early European explorations and settlements to European colonizing activities of the nineteenth century and the African nationalism of the post-World War II era.

HIST 246. GEOGRAPHIC INFLUENCES IN UNITED STATES HISTORY. *Two hours credit.*

Relationships of geography to the discovery, exploration, settlement, and development of the United States.

HIST 250. 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 251. COLONIAL AMERICA: 1607-1763. *Three hours credit.*

Political, economic, and social aspects of the transplanting of European civilization to North America, with the beginnings of the rise of a distinctive American civilization.

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 254. HISTORY OF THE EARLY WEST. *Three hours credit.*

Prerequisites, HIST 70, 71, and 72. 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 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 260. ANCIENT HISTORY. *Five hours credit.*

The life and institutions of the Ancient Near East and Greece, cultural development, living conditions, and recent archaeological discoveries.

HIST 261. ROMAN HISTORY. *Five hours credit.*

Prerequisites, HIST 30, 31, 32. 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 262. THE MIDDLE AGES. *Five hours credit.*

An advanced coverage of history from the end of ancient times to the beginnings of modern Europe.

HIST 263. RENAISSANCE AND REFORMATION. *Five hours credit.*

A study of political, social, economic, religious and cultural development from 1300-1600.

HIST 264. MEDIEVAL INTELLECTUAL HISTORY. *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 social-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 272. CONTEMPORARY AMERICAN FOREIGN POLICY. *Three hours credit.*

The course examines American foreign policy by visiting Washington, D. C., and the United Nations in New York City. In Washington the class hears lectures at the State Department and observes the foreign relations committees of both Houses of Congress. At the United Nations headquarters in New York the class is briefed on America's role in the world organization. May count toward a major or minor in history or the social sciences.

HIST 273. DIPLOMATIC HISTORY OF THE UNITED STATES. *Five hours credit.*

Survey of the diplomacy which has affected the United States during its entire history. Supplementary readings required in the original and secondary sources.

HIST 274. AMERICA COMES OF AGE: 1877-1916. *Three hours credit.*

The course will examine the events, trends, and movements in the United States from 1877 to 1916. Major themes are political developments, the rise of Big Business and Big Labor, the settlement of the last frontier, America's emergence as a world power, and social and intellectual movements. Political developments to be studied include growth of congressional government, Populism and Free Silver, Progressivism, and Wilson's New Freedom.

HIST 275. CONTEMPORARY UNITED STATES HISTORY. *Three hours credit.*

Brief summary of the great trends in the United States in the period following 1900. World War I, League of Nations, normalcy and reaction, the great depression, New Deal, World War II, United Nations, Korean "Police Action," contemporary problems.

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.*

Prerequisite, HIST 280. Surveys the political, social, economic, and 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.*

Prerequisite, HIST 280. 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 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. *Five 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. *Five 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. *Five 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.

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 Community 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 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 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 COMMUNITY HEALTH. *Three hours credit.*

Designed to develop the understandings, attitudes, and practices which contribute to better individual and group 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 70 and higher are intended primarily for the professional preparation of degree candidates completing a major or a minor in the various programs of the school.

HPER 70. THEORY AND PRACTICE OF GYMNASTICS AND TUMBLING. (*Men*). *Two hours credit.*

Fundamental skills on parallel bars, rings, side horse, horizontal bar, trampoline, and mats.

HPER 71. THEORY AND PRACTICE OF TEAM SPORTS (*Men*). *Two hours credit.*

Fundamental skill techniques in team sports such as: volleyball, soccer, and softball. An emphasis will be placed on rules, offensive and defensive strategy, lead-up drills, game courtesies and the value of the activity to immediate and ultimate fitness. Volleyball and soccer will be the primary sports activities taught.

HPER 72. THEORY AND PRACTICE OF INDIVIDUAL AND DUAL SPORTS (*Men*). *Two hours credit.*

Fundamental skill techniques in sports. Emphasis on fundamental skill techniques in individual and dual sports such as tennis, badminton, golf, archery, casting, horseshoe and others. Instruction will be given on rules, strategy, special skill techniques, game courtesies and the value of the activity to immediate and ultimate fitness.

HPER 73. THEORY AND PRACTICE OF BASKETBALL (*Men*). *Two hours credit.*

Fundamental skill techniques in basketball.

HPER 74. THEORY AND PRACTICE OF SWIMMING (*Men*). *One hour credit.*

Fundamental skill techniques in swimming (Intermediate level).

HPER 75. THEORY AND PRACTICE OF WRESTLING (*Men*). *One hour credit.*

Fundamental skill techniques of teaching wrestling.

HPER 76. THEORY AND PRACTICE OF FOOTBALL (*Men*). *Two hours credit.*

Fundamental skill techniques in football.

HPER 77. THEORY AND PRACTICE OF TRACK (*Men*). *One hour credit.*

Fundamental skill techniques in track, covering form in starting, running, field events and jumping.

HPER 78. THEORY AND PRACTICE OF BASEBALL (*Men*). *One hour credit.*

Fundamental skill techniques in baseball.

HPER 80. TECHNIQUES OF BADMINTON (*Women*). *One hour credit.*

Fundamental skills, strategies and rules of badminton.

HPER 81. TECHNIQUES OF VOLLEYBALL AND BASKETBALL (Women). *Two hours credit.*

Fundamental skills, team play, and rules.

HPER 82. TECHNIQUES OF HOCKEY AND SOCCER (Women). *Two hours credit.*

Fundamental skills, team play, and rules.

HPER 83. TECHNIQUES OF SWIMMING (Women). *Two hours credit.*

Fundamental skills of swimming and diving.

HPER 84. TECHNIQUES OF TENNIS AND SOFTBALL (Women). *Two hours credit.*

Fundamental skills, team play, and rules.

HPER 85. TECHNIQUES OF TUMBLING AND GYMNASTICS (Women). *Two hours credit.*

Fundamental skills and techniques in tumbling, side horse vaulting, floor exercise, balance beam, uneven parallel bars, and trampolining. Experience in organization of meets and demonstrations is included.

HPER 86. TECHNIQUES OF ARCHERY AND BOWLING. *Two hours credit.*

Fundamental skills, strategies, and rules of archery and bowling.

HPER 87. TECHNIQUES OF FENCING AND GOLF. *Two hours credit.*

Fundamental skills, strategies, and rules of fencing and golf.

HPER 88. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY 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 89. TECHNIQUES OF TRACK AND FIELD (Women). *One hour credit.*

Fundamental skills and rules of track and field activities for women.

HPER 90. TECHNIQUES IN 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. AMERICAN SQUARE AND SOCIAL DANCE. *Two hours credit.*

Fundamental and advanced skills of square and social dancing.

HPER 93. TECHNIQUES IN CONTEMPORARY 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. TECHNIQUES OF MOVEMENT FUNDAMENTALS (Women). *One hour credit.*

Skills and techniques of conditioning, body mechanics and movement patterns.

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. INTRODUCTION TO COMMUNITY HEALTH. *Four hours credit.*

Prerequisite, HPER 61. Designed to acquaint prospective teachers 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.*

Prerequisite, HPER 61. Designed to give the prospective elementary teacher a foundation in school health education, including health services, healthful school living, and health instruction.

HPER 102. HEALTH EDUCATION IN THE SECONDARY SCHOOL. *(ATE) Four hours credit.*

Prerequisite, HPER 61. Designed to give the prospective secondary teacher a foundation in school health education, including health services, healthful school living, and health instruction.

HPER 120. ANATOMICAL KINESIOLOGY. *Three hours credit. (Two hours lecture, two hours 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.*

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. (Two hours lecture, two hours 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 120 and 121. 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 TEAM SPORTS (Women). *(ATE) Two hours credit.*

Prerequisites, HPER 81, 82, 84. 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. TEACHING OF INDIVIDUAL SPORTS (ATE) (Women). *Two hours credit.*

Prerequisites, HPER 80, 84, 85, 89. A consideration of the basic techniques of individual and dual sports, including skills, rules and strategy, emphasizing teaching techniques.

HPER 130. OFFICIATING FALL SPORTS FOR GIRLS. *One hour credit.*
Prerequisite, HPER 81. A course designed to give a background and understanding of the rules and techniques of officiating various sports found in the women's program. Officials' ratings will be given in volleyball.

HPER 131. OFFICIATING WINTER SPORTS FOR GIRLS. *One hour credit.*

Prerequisite, HPER 81. A course designed to give a background and understanding of the rules and techniques of officiating various sports found in the women's program. Officials' rating will be given in basketball.

HPER 132. OFFICIATING SPRING SPORTS FOR GIRLS. *One hour credit.*
Prerequisite, HPER 84. A course designed to give a background and understanding of the rules and techniques of officiating various sports found in the women's program. Officials' rating will be given in softball or tennis.

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 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 201. PROBLEMS IN SCHOOL HEALTH PROGRAMS. *Four hours credit.*

Problems and trends in school health and safety education, health services and guidance, and healthful school living.

HPER 205. FAMILY HEALTH PROBLEMS. *Three hours credit.*

The relationship of health to marriage is presented. Some of the problems encountered in marriage which would be typical of this course are health as a qualifying factor for marriage; maternal and child care; accident prevention in the home; and medical care plans for the family.

HPER 213. HEALTH COUNSELING AND APPRAISAL. *Two hours credit.*

Prerequisite, HPER 101, 102 or 201. Designed to give prospective teacher an insight into the purpose of health appraisals of school children, the use of the health records in health counseling, techniques in observing for deviations from normal, counseling with pupils, parents, and teachers, and how to make referrals to private and public agencies.

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 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, program.

HPER 252. INTERNSHIP IN RECREATION. *Fifteen hours credit.*

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 255. CONTEMPORARY DANCE TECHNIQUES AND COMPOSITION. *Four hours credit.*

Prerequisites, HPER 93, 94. Basic techniques, movement analysis and composition for the advanced physical education major student.

HPER 256. WORKSHOP IN CONTEMPORARY 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 in education.

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 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.*
Comprehensive course for teachers and administrators in public schools.

HPER 272. RECREATION LEADERSHIP. *Three hours credit.*
Reading, reports and projects covering the philosophy, methods, and materials for the recreation leader.

HPER 274. METHODS AND MATERIALS IN DRIVER EDUCATION.
Three hours credit.

Designed to give prospective teachers some experiences in methods techniques and materials necessary to develop a driver education program. The course is divided into two parts, classroom and behind the wheel experiences. This course requires laboratory time in which prospective teachers of driver education practice driving.

HPER 275. ADVANCED DRIVER EDUCATION. *Three hours credit.*
Prerequisite, HPER 274. An advanced course, designed for Driver Education teachers, in which problems related to administration, instruction, evaluation, and research in Driver Education programs will be studied. Particular emphasis will be placed upon the development of improved testing procedures and instructional aids.

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.

HUMANITIES

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.

HCM 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 in the use of hand tools and materials for the wood shop. Emphasis is on the study of wood characteristics, orderly procedures, safe working practices, and care of hand tools.

IA 61. PRINCIPLES OF DRAFTING. *Three hours credit.*

Lettering, freehand sketching, geometric construction, orthographic projection, sectional views, and dimensioning in drafting.

IA 70. INTRODUCTION TO GENERAL METAL. *Three hours credit.*

Basic shop procedures, objectives, and relationship to other types of work in metal. Emphasis on elementary bench metal, sheet metal, and forge practice.

IA 71. ART METAL AND METAL SPINNING. *Three hours credit.*

Elementary course in art metal work including bowl and tray construction, etching, pierce work, soft and hard soldering, planishing and finishing of copper and aluminum.

IA 72. GAS AND ELECTRIC WELDING. *Two hours credit.*

An introductory course in the field of gas and electric welding. Fabrication of projects to apply these processes.

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.*

Design, construction, and demonstration in crafts with simple tools and inexpensive materials, including experience in block printing, bookbinding, braiding and weaving, chip carving, copper enameling, leather, metal tooling, 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. SHEET METAL DRAFTING. *Two hours credit.*

Intersections and development of flat surfaces to three-dimensional objects. Emphasis placed on intersections of planes and surfaces and layout techniques.

IA 164. DESIGN AND FREEHAND DRAWING. *Three hours credit.*

The principles of design and freehand drawing as related to materials, construction techniques, and their application to industrial arts problems.

IA 173. JEWELRY DESIGN AND CONSTRUCTION. *Two hours credit.*

An introduction to the basic processes of jewelry construction including silver soldering, sawing, filing, ring construction, simple silversmithing and setting stones.

IA 174. MACHINE TOOL OPERATION. *Two hours credit.*

An introduction to machine tool operation including work on the lathe, shaper, drill press, surface grinder and the use of precision measurement tools.

IA 181. ELECTRICAL-MECHANICAL EQUIPMENT. *Two hours credit.*

Prerequisite, IA 80. Advanced principles of electricity that are applicable to projects in the junior and senior high schools and construction of such projects. Emphasis placed on motors, generators, electrical wiring, and electrical measuring devices.

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 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 and metal spinning including work in extreme raising, repousse, chasing, use of sectional chucks and other processes.

IA 272. ADVANCED GAS AND ELECTRIC WELDING. *Three hours credit.*

Advanced study in oxyacetylene and electric welding which includes flat, horizontal, vertical, and overhead welding, cast iron welding, and the use of low temperature alloy rods. Consideration is given to principles of teaching, course content, welding supplies and the equipment suitable for the teaching of welding at the junior and senior high school level.

IA 273. ADVANCED JEWELRY AND LAPIDARY WORK. *Three hours credit.*

Designed to give advanced work in jewelry construction and silversmithing with the student cutting and polishing his own setting as an introduction to lapidary work.

IA 274. ADVANCED MACHINE TOOL OPERATION. *Two hours credit.*

Advanced machine tool operation concerned with the basic operations performed on the engine lathe, shaper, milling machine, surface grinder and cylindrical grinder. Consideration is given to instructional techniques at the junior and senior high school levels.

IA 275. ADVANCED MACHINE SHOP THEORY. *Three hours credit.*

Advanced instruction in the practice for the secondary and junior college levels in machine tool operation, maintenance, construction specifications and machine shop theory.

IA 281. PROBLEMS IN TEACHING GENERAL SHOP ELECTRICITY. *Three hours credit.*

An opportunity for teachers of industrial arts who have to include a "doing" course in electricity in their general shop program to develop such a unit. Selection of content and the development of projects to meet the objectives of the work. Laboratory organization and equipment problems are also considered.

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. Also discusses electrical wiring and devices used to measure electrical energy.

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 0100. SPEED READING. *No hours credit. (Regular tuition for three hours.)*

A course designed for college students and mature readers to increase their rate of reading and to develop flexibility in reading rates through completion at various reading exercises.

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 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 200. WORKSHOP. *One to three hours credit.* This course is concerned with the instructional problems 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, Reading, Kindergarten, Curriculum, etc. Each workshop will have a sub-title and no sub-title may be repeated for credit.

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.

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.*

Emphasizes highlights of the history of American journalism, including newspapers, magazines, special types of publications, radio and television; analysis of commercial media, their functions and responsibilities in a democratic society.

JOUR 96. NEWSWRITING. *Three hours credit.*

Principles of gathering and writing of news and feature stories, writing of editorials, editing and preparing of copy with emphasis upon educational news.

JOUR 97. ADVANCED NEWSWRITING. *Three hours credit.*

Prerequisite, JOUR 96. Principles of gathering and writing of news and feature stories, writing of editorials, editing and preparing of copy with emphasis upon educational news.

JOUR 106. JOURNALISM INTERNSHIP. *Maximum of six quarters, one hour credit per quarter.*

Students gain practical experience in editorial and production aspects of the student newspaper and annual by working on CSC student publications. Emphasis is on providing a complete practical background needed by the publications adviser.

JOUR 197. FEATURE AND DEPTH WRITING FOR NEWSPAPERS. *Two hours credit.*

A study of the characteristics of feature and depth reporting and an analysis of this type of writing appearing in leading commercial and student publications. Evaluation of potential educational subjects. Researching and writing stories for local media.

JOUR 198. ETHICS AND LIBEL. *Three hours credit.*

A study of the laws of libel, changing tendencies historically and their relevance for both practitioners and involved citizens, along with an examination of ethical problems confronting the mass media. A usable capability to detect libel or slander quickly is a prime objective.

JOUR 199. THE PRESS AND CURRENT AFFAIRS. *Two hours credit.*

An examination in depth of the value positions and the views flowing from the various influential periodicals of news and opinion in the United States along with some English publications. The course aims at broadening student awareness and understanding of conflicting value positions on key news issues.

JOUR 201. METHODS OF TEACHING JOURNALISM IN THE SECONDARY SCHOOL. (ATE) *Three hours credit.*

Instruction in all phases of preparation and publication of school newspapers and annuals.

JOUR 205. WORKSHOP FOR SCHOOL PUBLICATION SPONSORS.
(ATE) *One hour 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 297. MASTER JOURNALISTS AND THEIR TIMES. *Three hours credit.*

A concentration on the great journalists of British and American culture, emphasizing the excellence of their writings and focusing upon the dramatic moments in history and their response to such moments.

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. INTRODUCTION TO MODERN MATHEMATICS. *Three hours credit.*

Set language and symbolism, operations on sets, relations, functions, and simple logic.

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 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. This is a course in modern plane trigonometry which 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.*

Prerequisites, MATH 24 and 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. *Five 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. *Five 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 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 131. INTRODUCTION TO MATHEMATICAL ANALYSIS I. *Four hours credit.*

Prerequisite, MATH 33. An introductory course in the calculus of functions of several variables. Topics covered are vectors in three dimensions, infinite series and partial differentiation.

MATH 132. INTRODUCTION TO MATHEMATICAL ANALYSIS II. *Four hours credit.*

Prerequisite, MATH 131. Topics covered are multiple integration and an introduction to the study of vector spaces and linear transformation.

MATH 133. INTRODUCTION TO MATHEMATICAL ANALYSIS III. *Four hours credit.*

Prerequisite, MATH 132. A study of elementary implicit function theorems, functions defined by integrals, and an introduction to differential equations.

MATH 141. INTRODUCTION TO MODERN GEOMETRY I. *Four hours credit.*

Prerequisite, MATH 133. 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 102, 132. 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 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 225. LINEAR ALGEBRA. *Four hours credit.*

Prerequisite, MATH 125. 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 133 or taken concurrently. A study of the theory and solution of different 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 133. 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 240. INTRODUCTION TO TOPOLOGY. *Four hours credit.*

Prerequisites, MATH 102, 132. 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 281. INTRODUCTION TO COMPUTER MATHEMATICS. *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, MATH 131. 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 I. *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 II. *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.

METEOROLOGY

MET 181. GENERAL METEOROLOGY. *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. Attention will be given to the formation of air masses and fronts, their movements, and associated clouds and storms. There will be two hours per week laboratory for work with meteorological instruments, plotting and interpretation of various weather charts and maps.

MET 280. PRINCIPLES OF METEOROLOGY. *Four hours credit. (Three hours lecture, two 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 two 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 181. 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 181. 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 299. SEMINAR IN EARTH SCIENCE. *One hour credit.*

Prerequisite, consent of instructor. The subject matter for this seminar will be selected from a field of earth science to be announced in advance of the class schedule. It will provide earth science majors with an opportunity to investigate and discuss current literature, research, and topics of special interest beyond the scope of existing course offerings in astronomy, geology, meteorology, or oceanography.

MEDICAL TECHNOLOGY

These courses are open only to majors in Medical Technology.

MTEC 250. URINALYSIS AND CLINICAL MICROSCOPY. *Four 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. *Eight 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. *Three 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. *Twelve 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. *Four 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 opsonocytaphagic 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. *Three 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.

MUSIC

MUS 1. SIGHT-SINGING AND THEORY I. *Three 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.

MUS 2. SIGHT-SINGING AND THEORY II. *Three 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.

MUS 3. SIGHT-SINGING AND THEORY III. *Three 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.

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 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 43. ADVANCED SIGHT-SINGING I. *One hour credit.*

Prerequisites, MUS 1, 2, and 3. This course is a continuation of the first year courses in sight-singing and will provide additional and more advanced training in the techniques of sight-singing and ear training of melodic, harmonic and rhythmic materials.

MUS 44. ADVANCED SIGHT-SINGING II. *One hour credit.*

Prerequisite, MUS 43. Continuation of training in sight-singing, ear training, and includes rhythmic, melodic and harmonic dictation. Emphasis will be given to the reading of a wide variety of standard choral works graded to supply reading experiences of progressive difficulty.

MUS 45. ADVANCED SIGHT-SINGING III. *One hour credit.*

Prerequisite, MUS 44. A continuation of the sight-singing, ear training, and dictation experiences given in the preceding courses of this series. Reading experience in this course will include standard materials for mixed women's and men's choruses, and the large vocal forms; opera and oratorio.

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. *Two hours credit.*

A comprehensive study of the rudiments of music for the classroom teacher. Practice is given in simple ear training, music writing through dictation, rhythm work, syllable reading, and group singing. For non-music majors.

MUS 52. HARMONY I. *Three hours credit.*

Prerequisite, MUS 3. A review of scales, intervals, triads and their inversions. Correlated studies in ear training, dictation, sight-singing and composition. Normal chord progressions.

MUS 53. HARMONY II. *Three hours credit.*

Prerequisite, MUS 52. A structural harmony unit consisting of seventh chords, inversions, ninth chords and modulations. Correlated studies of ear training, dictation, sight-singing and composition.

MUS 54. HARMONY III. *Three hours credit.*

Prerequisite, MUS 53. A structural unit of chromatic harmony, altered chords, embellishing chords, modulations and original compositions.

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 hour 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 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 MUSIC IN THE SECONDARY SCHOOL. (ATE)
Three hours credit.

The course consists of presenting to the student methods and materials of teaching general and choral music in the junior-senior high school. Techniques of conducting units and rehearsals in relation to the humanities are stressed.

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. FORM AND ANALYSIS. Three hours credit.

Prerequisite, MUS 54. The purpose of this course is to acquaint the student with the structure of music, beginning with the single note or figure through 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. CHORAL TECHNIQUES AND CONDUCTING III. *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. STAGE BAND. *One hour credit.*

Membership in the Stage Band 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 Stage Band must be enrolled in either Concert Band or Symphonic Wind Band.

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. *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 CLASS.** *One hour credit.*

To develop a teaching knowledge of the clarinet family, 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 clarinet.

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. 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 AND SAXOPHONE CLASS. *One hour credit.*

Prerequisite, MUS 190. To develop a teaching knowledge of the flute and saxophone, 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 problems of tone production and to acquire sufficient skill to demonstrate these instruments.

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 203. MUSIC WORKSHOP. *Three hours credit.*

Workshops are 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 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. *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 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 251. TEACHING SECONDARY SCHOOL MUSIC. *Three hours credit.*

Previous teaching experience important. A study of the total instructional use of music in the junior and senior high school, with special emphasis on the integration of related humanities in the general music classes and in the performing group rehearsals.

MUS 252. SEMINAR IN MUSIC EDUCATION. *Three hours credit.*

Prerequisites, MUS 40, 41, 42, 141, 142; SFE 251. A course designed for seniors who have completed student teaching. Each student will work independently on a problem occurring in his student teaching work. The class will be conducted as a seminar with reports and discussion of the student's problems.

MUS 253. MUSIC FOR THE EXCEPTIONAL CHILD. *Three hours credit.*

Prerequisite, MUS 49. No prerequisite for music majors. Music experiences, methods, and materials for retarded, physically handicapped, emotionally maladjusted, academically gifted and the musically talented; discussed from the viewpoint of both music therapy and music education. Observation of music classes in the campus special education school.

MUS 262. SYMPHONIC LITERATURE. *Three hours credit.*

A study of the literature for the symphony orchestra from the time of Haydn and Mozart to the writings of present-day composers, leading to an understanding and appreciation of the larger works in music.

MUS 263. EIGHTEENTH CENTURY HARMONY AND FORMS. *Three hours credit.*

Construction and harmonization of melodies. Review of figured bass and harmonic practices deriving from a study of Bach chorales, part forms, rondo, variation, and sonata principles appearing in eighteenth century music. Altered chords, modulation, non-chordalism, and tonality concepts within Baroque and Classic periods.

MUS 264. NINETEENTH CENTURY HARMONY AND FORMS. *Three hours credit.*

Harmonic materials of the nineteenth century, beginning with a brief review of secondary sevenths, diminished sevenths, and continuing with augmented chords, ninth chords, modulation, sequence, and the whole tone scale. Study of simple part forms—song form with trio, rondo forms, variations and the sonata allegro—as used in the nineteenth century. Analysis of compositions in all major forms. Original compositions in shorter forms.

MUS 265. TWENTIETH CENTURY HARMONY AND FORMS. *Three hours credit.*

This course is concerned with new compositional techniques employed in twentieth century music as revealed in new concepts of melody, harmony, rhythm and form. When possible, this course should be combined with MUS 368. Seminar: New Music.

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 267. MUSIC IN AMERICA. *Three hours credit.*
 A comprehensive study of the music of our country and the people who have produced it, tracing the development of vocal and instrumental music from the time of the Puritans and Pilgrims to today. Some topics are folk music, symphony orchestra, jazz, and new film music.

MUS 268. CHURCH MUSIC. *Three hours credit.*
 This course gives a brief survey of music in the history of the Christian church. The philosophy of church music and its real function in worship is studied. The administration of the total music program in the church is outlined. Suitable materials for all occasions are evaluated and classified.

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. STAGE BAND. *One hour credit.*
 Membership in the Stage Band 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 Stage Band must be enrolled in either Concert Band or Symphonic Wind Band.

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. *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.*

NURSING

NURS 10. INTRODUCTION TO NURSING. *Two hours credit.*

An introduction to the broad field of nursing in the present social order. Explores roles and relationships of various workers in the health occupations. Present day health problems are studied in relation to their implications for nursing. Emphasis is on current trends, requirements and responsibilities in nursing.

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 cultural factors affecting maternal and infant health are considered. Supervised practice in the nursing care of selected mothers and infants.

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. PUBLIC HEALTH NURSING *Ten hours credit.*

Prerequisites, NURS 102, 103, 104. An introduction to the philosophy and principles of Public Health Nursing. Responsibilities and activities of the nurse in a generalized Public Health Nursing program are studied. Emphasis is given to the role of the Public Health Nurse in family and community health service. Guided Public Health Nursing field practice.

NURS 201. PREVENTIVE MEDICINE AND PUBLIC HEALTH. *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. *Thirteen hours credit.*

Prerequisites, NURS 102, 103, 104. Designed to increase the student's ability to identify and analyze problems of selected medical-surgical patients and to evolve and implement a plan of nursing care. Also introduces administrative skills applicable to nursing. Guided participation in planning for, directing, and evaluating the nursing care of groups of patients.

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. Historical and 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.

Psychology, Counseling and Guidance

PCG 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.

PCG 21. GENERAL PSYCHOLOGY AND HUMAN PERFORMANCE.

Three hours credit.

Prerequisite, PCG 20. 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.

PCG 30. HUMAN GROWTH PROCESSES AND DEVELOPMENTAL TASKS. *Five hours credit.*

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.

PCG 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.

PCG 140. EDUCATIONAL PSYCHOLOGY. (ATE) *Five hours credit.*

Prerequisite, PCG 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.

PCG 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.

PCG 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.

PCG 184. INDUSTRIAL PSYCHOLOGY. *Three hours credit.*

Students will study the basic methods used by psychologists in selecting placement, training, and motivation of industrial personnel. They will examine the psychological factors involving inter-personal relations influencing morale, production, job satisfaction, etc.

PCG 200. GREAT IDEAS SEMINAR: CREATIVE THINKING. *Three hours credit.*

The Great Ideas Seminars are conducted by authorities nationally known in their fields of specialization. The purpose of the seminar is to provide information about current important ideas in each field of knowledge.

PCG 201. GUIDANCE IN THE ELEMENTARY SCHOOL. *Three hours credit.*

A study of the principles of guidance and their application at the elementary level. Emphasis is upon the functioning of the guidance worker in meeting children's needs.

PCG 207. GUIDANCE INSTITUTE. *Maximum of fifteen hours credit.*

A course designed to meet the needs of teachers and counselors wishing to upgrade their proficiencies in guidance activities.

PCG 214. GUIDANCE WORKSHOP. *Maximum of six hours credit.*

This course is designed to provide concentration of time and study in a special problem in guidance. The needs and interests of class members will help determine the course content and class activities.

PCG 220. GENERAL PSYCHOLOGY AND THE PRINCIPLES OF BEHAVIOR. *Three hours credit.*

An introductory 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. Recommended as a substitute for PCG 20.

PCG 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.

PCG 230. PSYCHOLOGY OF CHILDHOOD AND ADOLESCENCE. *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.

PCG 240. PSYCHOLOGY OF LEARNING. *Three hours credit.*

A course designed to develop attitudes, understandings, and proficiencies in the application of psychological principles to the educative process. Principles, theories and research are applied to learning, motivation, transfer, readiness, remembering and forgetting, individual differences, social and emotional adjustment and evaluation.

PCG 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.

PCG 280. PERSONALITY DYNAMICS. *Three hours credit.*

The personal and interpersonal dynamics of individual behavior are discussed and influences contributing to an understanding of personality are examined. Variables pertaining to the characteristics and the development of self, and to identifying and dealing with problems of self development are considered.

PCG 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.

PCG 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.

PCG 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.

PHILOSOPHY

PHIL 210. ETHICS AND VALUE-THEORY. *Three hours credit.*

A consideration of the major philosophers' views 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' views on problems in epistemology, metaphysics, and aesthetics, from early Greek to contemporary thought.

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. Open to nursing students only.

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 62. 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 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.

PHYS 162. ELECTRICAL MEASUREMENTS. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, PHYS 67 and MATH 33. A study of Kirchoff'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. PHYSICS OF 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 131. 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 131. 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 131. 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 131. 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 131. 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 131. 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 132. 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 132. 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.

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.

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.

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 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. *Three 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 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.

Research and Statistical Methodology

RSM 204. DESCRIPTIVE STATISTICS. *Four hours credit.*

Study of problems in organizing, summarizing, and interpreting statistical information. Topics: Measures of central tendency, variation, and simple relationship; frequency distributions and their graphic representation; transformed scores, such as standard scores and percentiles. Three class meetings and two hours of laboratory work on calculating machines per week.

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.

SCIENCE EDUCATION

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 270. TEACHING SCIENCE IN THE ELEMENTARY SCHOOL. (ATE) *Three hours credit. (Two hours lecture, two 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, four 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.

SCIENCE

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, two 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 203. ELEMENTARY BIOLOGICAL SCIENCE. *Three hours credit. (Two hours lecture, two 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 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.

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 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.

Student Field Experiences

SFE 251. STUDENT TEACHING. (ATE) *Sixteen hours credit.*

A course which provides a practical application of the principles of learning and the techniques of instruction in the classroom. Opportunity is provided for the student to progressively assume the responsibilities related to teaching. Twelve weeks of full-time activity is normally required.

SFE 252. INTERNSHIP IN ADVANCED STUDENT TEACHING. (ATE)
Eight hours credit.

An invitational program for individuals showing professional promise. Provides advanced laboratory experience in teaching and dealing with educational problems.

SOCIOLOGY

SOC 50. PRINCIPLES OF SOCIOLOGY. *Five hours credit.*

A study of social organization, culture, socialization, social stratification, as-sociations, collective behavior, population and ecology with detailed applica-tions 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 organiza-tions 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. 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 dis-cussed.

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 in-teraction 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 de-veloped 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 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 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.

Speech and Theatre Arts

SP 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.

SP 16. VOICE AND DICTION. *Four hours credit.*

A study of the development and use of the speaking voice 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 63. FIRST COURSE IN DRAMA. *Four hours credit.*

An introduction to the basic principles of acting and dramatic production. A minimum of twenty clock hours of activity in theatre production is expected of the student.

SP 65. BEGINNING SCENE DESIGN. *Three hours credit.*

Prerequisite, SP 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.

SP 75, 76, 77. STAGE MOVEMENT I, II, III. *(Three hours credit given upon completion of all three sections.)*

Prerequisite, SP 63, or permission of instructor. A laboratory class in the development of the actor's basic tools, his body and his voice. Emphasis is upon skills needed to communicate various styles of acting; movement in period costume, stage fighting, and essentials of choreographed movement for non-dancers.

SP 108. PARLIAMENTARY PROCEDURE. *Two hours credit.*

A study of the rules which govern procedure in organized groups and practice in the application of those rules.

SP 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.

SP 112. CREATIVE DRAMATICS. *Three hours credit.*

A lecture and laboratory course in dramatics for elementary and secondary school teachers. Contribution of creative dramatics to education. Demonstration of procedure best adapted to work in children's dramatics.

SP 113. STAGECRAFT. *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisite, SP 13 or 65. This course deals specifically with the problems and materials of play production. Materials and methods of staging, an introduction to lighting and lighting practices, and techniques of costuming the play receive the major emphasis in this course.

SP 114. 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.

SP 115. BEGINNING CHARACTERIZATION. *Three hours credit.*

Prerequisite, SP 63. A lecture and laboratory course in characterization in which the student participates in college theatre productions.

SP 116. BEGINNING PLAY DIRECTION. *Four hours credit.*

Prerequisite, SP 63. A lecture and laboratory course in the principles of direction in which the student participates in college theatre productions.

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. ARGUMENTATION AND DEBATE. *Four hours credit.*

A basic course designed to give the speaker experience and skill in debate.

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 200. TECHNIQUES OF PLAY DIRECTION. *Three hours credit.*

Prerequisites, SP 63, 115, and 116. An advanced course in the direction of three-act and one-act plays for public presentation.

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 210, 211, 212. SUMMER THEATRE WORKSHOP I, II, III. *Five hours credit each.*

Workshop in techniques of acting, directing and technical work as observed 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 actor or technical assistant.

SP 213. ADVANCED STAGING TECHNIQUES. *Four hours credit.*

Prerequisites, SP 65, 113. 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 stage mechanics and materials of the modern theatre.

SP 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.

SP 216. SENIOR SEMINAR IN DRAMATIC PRODUCTION. *Two hours credit.*

Emphasis will be upon problems of major concern to the prospective teacher-director. Reports and discussions will focus upon specific areas related to the teaching of theatre.

SP 217. ADVANCED ORAL INTERPRETATION. *Three hours credit.*

Prerequisite, SP 117. The development of greater artistic skill in reading various forms of literature.

SP 218. GROUP DISCUSSION. *Four hours credit.*

Principles and practice in organizing, conducting, and participating in all forms of public discussion including round-tables, symposiums, debates, and forums.

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 220. STAGE COSTUMING. *Four hours credit.*

Prerequisites, SP 65, 113, 116. A study of the styles of costume used in the theatre from primitive times to the present. Practical experience is gained through actual work in costume construction required by the Little Theatre of the Rockies productions.

SP 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.

SP 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.

SP 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.

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 250. SPEECH EDUCATION. (ATE) *Four hours credit.*

A seminar study of speech education: history, practices, and trends.

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. INTRODUCTION TO GENERAL SEMANTICS. *Four hours credit.*

An analysis of the factors in communication that lead to misunderstandings and conflict, with suggestions for improving communication.

SP 265. ADVANCED SCENE DESIGN. *Three hours credit.*

Prerequisite, SP 113. 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, and lighting are practiced within the theatre laboratory.

SP 270. THE PSYCHOLOGY OF SPEECH. *Four hours credit.*

A study of the nature and origin of speech; the relationship of speech to emotion, learning, meaning and thought; the development of speech in the child; speech and personality.

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 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. *Four hours credit.*

A study of inductive and deductive reasoning with special emphasis on the fallacies in reasoning.

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. *Five 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. *Five 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. *Five 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 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.

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 64. INTRODUCTION TO SPEECH CORRECTION. *Three hours credit.*

Brief review of identifying characteristics and comprehensive study of causes and diagnostic techniques pertaining to the following speech disorders: articulation, delayed speech, bilingualism, voice disorders, and speech of the hard-of-hearing.

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 exceptional children. How to interpret a handicapped to parents and how the parents and family can accept the children in the home is also developed.

SPED 203. MEASUREMENT OF THE HANDICAPPED. *Three hours credit.*

This course is designed to develop an understanding of, and ability to integrate the results of psychological and educational tests. Emphasis on diagnosis and problems encountered in testing children and adults who are visually, acoustically, orthopedically, mentally handicapped or speech defective.

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. *Four hours credit.*

Prerequisites, SPED 10 or 300, 210. This course will have as its main purpose the development of integrated experience-units for primary, intermediate, and pre-vocational mentally retarded children. Experience-centered units will be built around the following three areas: occupational, economic, and social. The course will consist of reading, lectures, observation, experimentation and meetings.

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. STRUCTURE AND FUNCTION OF THE EYE *Three hours credit.*

An ophthalmologist presents the anatomy and physiology of the eye and the medical eye examination. An educator presents functional implications of various pathologies in the educational setting. Educational interpretation of the medical eye report.

SPED 241. 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 THE DEAF. *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 ACOUSTICALLY HANDICAPPED CHILDREN *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 ACOUSTICALLY HANDICAPPED CHILDREN. *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. *Maximum of six hours credit.*

Prerequisite, SPED 250. The use of the communication skills in all content subject areas. Methods of teaching advanced reading skills. Improvement of speech and language usage. Development of an interest in recreational reading and reading of current literature. Means of preparing pupils to enter regular high schools or Gallaudet College

SPED 256. EDUCATION OF HARD-OF-HEARING CHILD. *Three hours credit.*

Sociologic, psychological 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 260. SPEECH PATHOLOGY. *Three hours credit.*

Prerequisite, SPED 64. An introduction to the area of speech difficulties on the elementary, secondary, and college levels. Training in recognition, diagnosis, and treatment of minor speech problems.

SPED 261. METHODS FOR SPEECH PATHOLOGY I. *Three hours credit.*

Prerequisite, SPED 64. Will be enrolled in conjunction with SPED 260. Speech Pathology I. The presentation of methods, materials, and techniques appropriate to speech correction in individual and group therapy situations for speech disorders of: articulation, delayed speech, bilingualism, voice disorders, and speech of the hard-of-hearing.

SPED 262. CLINICAL PRACTICE IN SPEECH CORRECTION. *Maximum of eight hours credit. Two credit hours in Clinical Practice may be earned per quarter.*

This course supplements the methods of speech diagnosis and treatment with observation and supervised teaching in the college speech clinic. A minimum of 275 clock hours in the laboratory is one of the requirements necessary to qualify for ASHA as a speech correctionist.

SPED 263. SPEECH PATHOLOGY II. *Three hours credit.*

Prerequisite, SPED 261. Brief review of identifying characteristics and comprehensive study of course and diagnostic techniques pertaining to the following speech disorders: speech of the cerebral palsied, cleft palate, aphasic, stutterers, and the emotionally disturbed.

SPED 264. METHODS FOR SPEECH PATHOLOGY II. *Three hours credit.*
Prerequisite, SPED 261. Will be enrolled in conjunction with SPED 263, Speech Pathology II. The presentation of methods, materials, and techniques appropriate to speech correction in individual and group therapy situations for speech disorders of: speech of the cerebral palsied, cleft palate, aphasic, stuttering, and the emotionally disturbed.

SPED 265. THE AUDITORY AND SPEECH MECHANISMS. *Three hours credit.*

A study of the structure and physiology of the voice and hearing mechanisms.

SPED 266. PROGRAMING SPEECH CORRECTION IN THE PUBLIC SCHOOL. *Three hours credit.*

The organization, administration, and evaluation of speech correction programs in public school settings. Special emphasis is placed on methods of screening large public school populations, organizing therapy on a basis of communication needs, fitting standard practices of therapy to the needs of the school.

SPED 267. DIAGNOSIS IN SPEECH PATHOLOGY. *Three hours credit.*

Prerequisite, SPED 264. The techniques of clinical diagnosis and evaluation of speech disorders will be discussed. The student will participate in all phases of assessment of speech and language problems.

SPED 268. SPEECH AND LANGUAGE DEVELOPMENT FOR MENTALLY RETARDED. *Three hours credit.*

Prerequisites, SPED 263, 264 and graduate standing. Study of classification, etiology, abnormalities in growth and development, relationship of speech to mental retardation, diagnosis of speech of the mentally retarded and therapeutic measures used in the development of speech and language of the mentally retarded.

SPED 270. AUDIOLOGY. *Three hours credit*

A consideration of factors essential to the measurement of the loss of hearing acuity. Administration of hearing tests and interpretation of test results. The organization of hearing conservation programs, identification audiometry, and referral procedure.

SPED 271. SPEECH AUDIOMETRY. *Three hours credit.*

A presentation of the rationale for speech audiometry, the development of test materials, the techniques necessary for presentation, interpretation, and counseling from the results of speech tests of auditory acuity. Participation in a testing program to gain facility in the use of equipment of speech audiometry.

SPED 272. ADVANCED AUDIOMETRY. *Three hours credit.*

Prerequisites, SPED 270 and 271. The theory and practice of advanced pure tone and speech audiometry. 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. A study of the rationale and conduct of clinical programs.

SPED 273. THE HEARING MECHANISM. *Three hours credit.*

A detailed study of the human ear, the processes of audition, and special attention to the psychophysics of audition. A consideration of the abnormalities and diseases of the hearing mechanism.

SPED 274. PRACTICUM IN AUDIOLOGY. *Maximum of nine hours credit. Three credit hours in Practicum may be earned per quarter.*

Principles of and experience in the administration of hearing tests and their evaluation.

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.

SOCIAL SCIENCES**SS 81. THE INDIVIDUAL AND HIS SOCIAL RELATIONS.** *Three hours credit.*

The importance of general education and of general education in the social sciences; critical thinking and scientific method in relation to the alleviation of insistent social problems; analysis of the social behavior of the individual based upon data from all fields in the social sciences; intergroup relations; and major social institutions, in relation to their provisions for freedom and security for individuals and groups.

SS 82. AMERICAN LIFE AND INSTITUTIONS. *Three hours credit.*

Major problems in the life of the citizens of the United States in the contemporary period; problems connected with the maintenance of the family, relationships between man and government, man's organization for production, the role of labor in an industrial society, the position of agriculture.

SS 83. CONTEMPORARY WORLD CULTURES. *Three hours credit.*

The geographic framework of contemporary world cultures; some world cultures, the interdependent and interrelated nature of world cultures, and the problem of the maintenance of world peace; the search for freedom and security in the contemporary world situation.

SS 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.

SS 221. CULTURAL BACKGROUND OF WESTERN-SOVIET RUSSIAN RELATIONS. *Fifteen hours credit.*

The background of Soviet Russia's conflict with Western Europe is studied on campus for five weeks and then in Europe for one month. International agencies such as the European Economic Community are visited as well as national government offices in London, Amsterdam, Brussels, Paris, Berlin, Warsaw, Moscow, and Leningrad.

SS 250. NEW VIEWPOINTS IN THE 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.

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.

ZOOLOGY

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 11. GENERAL ZOOLOGY—INVERTEBRATE. *Five hours credit. (Three hours lecture, four hours laboratory.)*

The principles of animal biology are considered as they apply to the invertebrate phyla. In the laboratory a series of animals from protozoa through arthropods are used to illustrate the concepts developed in the classroom.

ZOO 12. GENERAL ZOOLOGY—VERTEBRATE. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 11. The principles of animal biology are considered as they apply to the vertebrates. Anatomy and physiology of typical vertebrates are studied in the laboratory using representative specimens from each vertebrate class. The principles of ecology and evolution of vertebrates are considered.

ZOO 112. MAMMALIAN ANATOMY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 12. 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.)*

Prerequisites, ZOO 5 or 12. Recommended, ZOO 112 and CHEM 42, 142 or 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, ZOO 11, 12. 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 211. COMPARATIVE ANATOMY OF THE VERTEBRATES. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 12. A detailed study of the systems of the vertebrates. The student is expected to make careful dissections of selected types. Sharks through mammals are used for laboratory study.

ZOO 212. COMPARATIVE MAMMALIAN ANATOMY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 12. A detailed study of the morphological adaptations of the mammalian systems. The student is expected to make careful dissections of injected laboratory mammals and other anatomical material. The anatomy of the skeletal, muscular, digestive, respiratory, excretory, reproductive, endocrine, circulatory, and nervous systems are considered.

ZOO 213. ANIMAL PARASITOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 12. A study of the symbiotic relationships of parasitism as exemplified by typical parasites of man, domesticated and wild animals. In the laboratory methods of clearing, staining, and mounting are practiced.

ZOO 214. FAUNISTICS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 12. 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 215. VERTEBRATE EMBRYOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 12. A study of biological processes and fundamental principles of embryology. In the laboratory embryos of the frog, chick, and pig are used to illustrate concepts developed in lecture sessions.

ZOO 218. ANIMAL MICROSCOPIC TECHNIQUES. *Three hours credit. (Six hours laboratory.)*

Prerequisite, ZOO 12. The skills of killing, staining, and preparing animal tissues for study. Collections prepared by students are assumed to have value for future reference.

ZOO 219. ANIMAL ECOLOGY. *Five hours credit. (Two hours lecture, six hours laboratory.)*

Prerequisites, BOT 24, ZOO 12. The principles 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, four hours laboratory.)*

Prerequisites, ZOO 12, 112, or 211. 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, four 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.

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JOHN I. MARIANI, M.A.	<i>Chairman, Department of Fine Arts</i>
DAVID L. JELDEN, Ed.D.	<i>Chairman, Department of Industrial Arts</i>

School of Arts and Sciences

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WALLACE AAS, M.A.	<i>Chairman, Department of Physics</i>
JOHN A. BEEL, Ph.D.	<i>Chairman, Department of Chemistry</i>
NEAL M. CROSS, Ed.D.	<i>Chairman, Department of English</i>
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DONALD L. HOLLEY, Ed.D.	<i>Chairman, Department of Speech and Theatre Arts</i>
FRANK E. KEPPELER, M.A.	<i>Chairman, Department of Foreign Languages</i>
JOHN R. MICKY, B.S.	<i>Chairman, Department of Anthropology-Sociology</i>
RICHARD A. PERCHLIK, Ed.D.	<i>Chairman, Department of Political Science</i>
PAULINE C. POGUE, M.A.	<i>Chairman, Department of History</i>
MAYNARD N. STAMPER, Ph.D.	<i>Chairman, Department of Biological Science</i>
OSCAR W. TOLLEFSON, Ph.D.	<i>Chairman, Department of Earth Science</i>
ORVEL L. TRAINER, Ph.D.	<i>Chairman, Department of Economics</i>
LESLIE W. TROWBRIDGE, Ph.D.	<i>Chairman, Department of Science Education</i>
LEE R. WEST, M.A.	<i>Chairman, Department of Geography</i>

School of Business

RAMON P. HEIMERL, Ph.D.	<i>Dean, School of Business</i>
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School of Education

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- D. HAROLD BOWMAN, Ed.D. *Chairman, Department of Educational
Media*
- ROBERT R. DUNWELL, Ed.D. *Chairman, Department of Curriculum
and Instruction*
- KENNETH HOGAN, Ed.D. *Chairman, Department of Higher Education*
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- JOHN SCHMID, Ph.D. *Chairman, Department of Research
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- ALVIN O. MOSBO, Ed.D. *Chairman, Department of Elementary
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- JUNE E. STUCKEY, Ph.D. *Chairman, Department of College
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- EVERETT H. VAN MAANEN, Ed.D. *Coordinator of Student Field
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- 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
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- VIRGIL Y. LINDAHL, P.E.Dir. *Director of Intercollegiate Athletics*

School of Music

- JAMES E. MILLER, Ph.D. *Dean, School of Music*

School of Nursing

- L. ELAINE MCMINN, M.S. *Dean, School of Nursing*

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Directors of College Academic Services

- J. GILBERT HAUSE, Ed.D. *Dean of College Academic Services*
- JACK BLENDINGER, M.A. *Campus Coordinator, Pakistan Project*
- D. HAROLD BOWMAN, Ed.D. *Instructional Materials Center*
- OTIS COFFEY, M.A. *Chief of Party, Colorado State College
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Technical Education, East Pakistan*
- VIRGIL Y. LINDAHL, P.E.Dir. *Intercollegiate Athletics*
- JOHN MEIER, Ph.D. *Institute for Child Study*
- GERALD BRUDENELL, M.A. *Associate Director, Institute for Child Study*
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- DEMPSEY BLACK *Associate Director, Computer Center*
- ARTHUR R. PARTRIDGE, Ed.D. *Educational Planning Service*
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1967-1968

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Chairman, Department of Physics*

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orado State College.

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rado.

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Surgical Nursing*

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On Leave Summer Quarter, 1968

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University.

*Associate Professor of Elementary
Education*

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Nursing*

JOHN A. DAMGAARD, JR., A.B., Colo-
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On Leave Spring Quarter, 1968*

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Instructor in Speech

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*Assistant Professor of
Industrial Arts*

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Assistant Professor of Geography

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State College.

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On Leave Fall Quarter, 1967*

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ROBERT GROVE HAMMOND, B.Ed., Illinois State University; M.A., Colorado State College; Ed.D., University of Missouri.

Associate Professor of Industrial Arts

BEATRICE ELIZABETH HANSEN, B.S., Northwest Missouri State Teachers College; M.A., Columbia University.
Instructor in Business

RICHARD J. HARDY, B.S., University of Utah; M.A., Teachers College, Columbia University; Ed.D., University of Utah.
Associate Professor of Health Education

MARJORIE LOU HARKNESS, B.S., University of Minnesota; M.A., Ed.D., Colorado State College.
Professor of Elementary Education

JOHN WILLIAM HARRISON, B.S., California Institute of Technology; M.A., University of Denver; Ph.D., University of Colorado.
Associate Professor of English

WILLIAM HARTMAN, A.B., Nebraska State Teachers College, Chadron; M.A., Ed.D., Colorado State College.
Professor of English

JAMES DAVID HAUG, A.B., M.A., University of Colorado.
Instructor in Anthropology

J. GILBERT HAUSE, A.B., M.A., Colorado State College; Ed.D., University of Colorado.
Professor of College Student Personnel Work

RICHARD O. HAYES, A.B., University of California; M.S., University of Utah; Ph.D., Cornell University.
Research Associate Professor

BEATRICE B. HEIMERL, A.B., St. Cloud State College; M.A., University of Minnesota; Ed.D., Colorado State College.
Assistant Professor 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

HOPE HEISER, A.B., Bradley University; M.A., University of Wisconsin.
Temporary Instructor in English

WILLIAM C. HEISS, B.S., University of Illinois; M.A., Teachers College, Columbia University.
Associate Professor of Health and Physical Education

DUANE EDWIN HENDERSON, A.B., M.A., Colorado State University.
Instructor in Psychology, Counseling and Guidance

MILO PAUL HENKELS, B.A. in Ed., Nebraska State Teachers College; M.A. in Ed., University of Michigan.
Assistant Professor of Special Education

MARY-MARGARET HEPP, A.B., Beloit College; M.A., Colorado University.
Temporary Instructor in Earth Science

MYRA 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

MILDRED C. HILLESTAD, B.Ed., Wisconsin State College; M.Bus.Ed., University of Colorado; Ph.D., University of Minnesota.
Associate Professor of Business

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.Mus., Northwestern University.
Associate Professor of Music

SAM LEE HOFER, A.B., M.S., Kansas State Teachers College; M.A., University of Denver.
Instructor in Library Science

KENNETH EDGAR HOGAN, B.A., Ottawa University; M.A., Ed.D., Colorado State College.
Associate Professor of Education

PRESTON HOLDEN, M.P.H., D.P.H., University of Pittsburgh.
Research Associate Professor; Chief, Virology Section, Public Health Service

DONALD LEAGUE HOLLEY, B.Ed., Illinois State Normal University; M.A., University of Illinois; Ed.D., Colorado State College.
Associate Professor of Speech; Chairman, Department of Speech and Theatre Arts

DARRELL HOLMES, B.A., M.A., Ph.D.,
Ohio State University.

Professor of Education

JOE V. HOLST, JR., A.B., Southern
Colorado State College.

Instructor in Education

RONNALIE JOANNE HOWARD, A.B.,
M.A., Montana State University.

Instructor in English

HELEN MARY HUBER, B.S., College of
Mt. Saint Joseph; M.S.N. in Psychi-
atric Mental Health Nursing, Catholic
University of America.

*Associate Professor of Psychiatric
Nursing, Fort Logan Mental Health
Center*

CHESTER C. HUFF, JR., B.S., Indiana
University; M.A., DePaul University.

Assistant Professor of English

On Leave Fall Quarter, 1967

BERNICE ELEANOR HUNN, B.S., Kans-
as State Teachers College, Emporia;
M.A., Ed.D., Colorado State College.

*Associate Professor of Elementary
Education*

HUDINE CLARYL HUNT, A.B., M.A.,
University of Denver.

Instructor in Special Education

JAMES EDMUND HURD, A.B., M.A.,
Colorado State College.

Instructor in Social Studies

RITA JOHNSON HUTCHERSON, A.B.,
Culver-Stockton College, Missouri;
Certificate in Theory, Yale University
School of Music; M.A., Ph.D., State
University of Iowa.

Professor of Music

On Leave Summer Quarter, 1968

JOSEPH MILLS HUTCHINSON, B.F.A.,
M.A., University of Denver.

Instructor in Fine Arts

QUAIN JAHRMAN, B.S., Dickinson
State Teachers College; M.A., Colo-
rado State College; Ed.D., University
of Arkansas.

Professor of Industrial Arts,

Pakistan Project

MARLYNN REES JAMES, B.S., M.S.,
Brigham Young University; Ph.D.,
University of Utah.

Assistant Professor of Chemistry

ROBERT S. JAMES, B.M.E., M.Mus.,
Northwestern University; Ed.D., Colo-
rado State College.

Assistant Professor of Music

WILLIAM R. JAMIESON, A.B., M.A.,
Colorado State College.

Instructor in Music

ALEX JARDINE, A.B., M.A., Indiana
State Teachers College; Ed.D., Teach-
ers College, Columbia University.

Associate Professor of Education

DAVID L. JELDEN, A.B., Nebraska
State Teachers College, Kearney;
M.A., Colorado State College; Ed.D.,
University of Missouri.

*Associate Professor of Industrial
Arts*

On Leave Fall Quarter, 1967

DANA FRANCIS JOHNSON, B.F.A.,
Ed.D. University of Kansas.

Assistant Professor of Fine Arts

F. MORRIS JOHNSON, A.B., M.A., Col-
orado State College; Ed.D., Univer-
sity of Denver.

Professor of Industrial Arts

GERMAINE ROSE JOHNSON, B.S. in Ed.,
Midland College; M.M., University of
Michigan.

Instructor in Music

On Leave Fall Quarter, 1967

JOHN MORROW JOHNSON, A.B., Colo-
rado State College; M.A., University
of Denver.

Instructor in Education

ROBERT LEO JOHNSON, A.B., M.A.,
Colorado State College; M.S., Uni-
versity of Illinois.

Assistant Professor of Mathematics

On Leave Summer Quarter, 1968

HILLIARD AUDRIE JOHNSTON, A.B.,
Kansas Wesleyan University; M.A.,
Fort Hays State College.

Instructor in Mathematics

DOROTHY CAMERON JONES, A.B.,
M.A., Wayne State University; Ph.D.,
University of Colorado.

Assistant Professor of English

TERUKO KACHI, A.B., Girton College,
Cambridge; M.A., Radcliffe College;
Ph.D., University of Chicago.

Fulbright Lecturer

LEONARD G. KAVAJECZ, B.S., Wiscon-
sin State College; M.S., Wisconsin
State University.

Temporary Instructor in Education

M. CAROLYN KAVANAGH, A.B., Prin-
cippia College; M.A., Northwestern
University.

Instructor in English

EDWARD ARNOLD KEARNS, A.B., M.A.,
University of Arizona.
Instructor in English

KEVIN CORRIGAN KEARNS, B.S., Wash-
ington University; M.A., Ph.D., St.
Louis University.
Assistant Professor of Geography

EDWARD JAMES KELLY, B.A., Defiance
College, Ohio; M.A., Ph.D., State
University of Iowa.
Professor of Elementary Education

LOYAL L. KELSEY, Major. U.S. Air
Force; B.A., Colorado State College.
*Assistant Professor of Aerospace
Studies*

CALVIN EDWARD KENNEDY, B.S.,
Southeastern Oklahoma State College;
M.S., Oklahoma State University;
Ph.D., University of Nebraska;
C.P.A., Oklahoma and Colorado.
Assistant Professor of Business

FRANK E. KEPPELER, B.S., University
of Illinois; M.A., University of Ne-
braska.
*Instructor in German; Chairman,
Department of Foreign Languages*

LEROY RAYMOND KERNS, A.B., M.A.,
Colorado State College; Ed.D., Uni-
versity of Colorado.
Professor of Education

BAHEEJ KHLEIF, M.A., International
Institute of Social Studies, The Hague,
Holland.
Instructor in Sociology

LEWIS KIDDER, B.S., Kansas State
University; M.D., University of Kans-
as.
*Associate Professor of Medical
Technology; Director, Department
of Pathology, Weld County General
Hospital*

RAYMOND N. KIEFT, B.S., Calvin Col-
lege; M.S., Colorado State University.
*Temporary Instructor in Mathe-
matics*

WILLIAM CLARKSON KILPATRICK, B.S.,
M.S., Colorado State University;
C.P.A., Colorado University.
Assistant Professor of Business

RALPH ROY KING, A.B., M.A., Colo-
rado State College; Ed.D., University
of Denver.
*Professor of Music
On Leave Summer Quarter, 1968*

BERNARD CONRAD KINNICK, A.B., St.
John's University; M.A., University
of North Dakota; Ed.D., Auburn Uni-
versity.
*Assistant Professor of Psychology,
Counseling and Guidance*

LORENE I. KNAPP, A.B., M.A., Los
Angeles State College.
Instructor in Education

RAY B. KNAPP, A.B., Los Angeles
State College; Ph.D., University of
Southern California.
*Assistant Professor of Political
Science*

RUTH ANN KNUDSON, A.B., M.A.,
University of Minnesota.
Instructor in Anthropology

WILLIAM GEORGE KOCH, B.S., Uni-
versity of Notre Dame; M.A., Montana
State University; Ph.D., University of
Illinois.
Professor of Chemistry

CAROL L. KOEHMSTEDT, B.A., College
of St. Scholastica; M.A., University of
Minnesota.
*Instructor in Library Science;
Assistant Reference Librarian*

OLIVER PAUL KOLSTOE, A.B., State
Teachers College, North Dakota;
M.A., University of North Dakota;
Ph.D., State University of Iowa.
Professor of Special Education

EUGENE DE VERE KOPLITZ, B.S., Wis-
consin State College; M.S., Ph.D., The
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
On Leave Summer Quarter, 1968*

EDWARD KRAFFT, A.B., B.S., Concor-
dia, Illinois; M.A., Washington Uni-
versity.
Instructor in Elementary Education

JOHN MOTT KRUGER, B.S., Western
Michigan University; M.A., Colorado
State College.
Instructor in Industrial Arts

JACK JOSEPH LABONDE, A.B., M.A.,
Colorado State College.
*Assistant Professor of Health
and Physical Education*

PAUL C. LABORNE, A.B., North Texas State College; M.A., Colorado State College.

Instructor in Foreign Languages

FRANK P. LAKIN, A.B., M.A., Colorado State College; Ed.D., Oregon State University.

Associate Professor of Psychology

MELVIN J. LANE, A.B., State College of Iowa; M.A., Colorado State College.

Temporary Instructor in Special Education

ROBERT WALTER LARSON, B.A., M.A., University of Denver; Ph.D., University of New Mexico.

Associate Professor of Health Education

JESSIE EMILY LATHAM, A.B., M.A., Colorado State College.

Associate Professor of Health Education

Will Retire September 30, 1968

GEORGE LEACH, A.B., M.A., M.S., Texas University.

Assistant Professor of Education

ROSE AILEEN LEACOCK, B.S., M.A., George Peabody College for Teachers.

Associate Professor of Art

Will Retire September 30, 1968

PAUL LINDNER LEHRER, B.S., University of Cincinnati; M.A., Ohio State University; Ph.D., University of Nebraska.

Associate Professor of Geography

ALICE JUANITA LEWIS, B.S., West Texas State College; M.A., Ph.D., University of Iowa.

Professor of Elementary Education

CARL G. LILLIEQUIST, B.A., Earlham University; M.S., University of Wisconsin.

Assistant Professor of Astronomy

VIRGIL Y. LINDAHL, A.B., Nebraska State College, Wayne; M.A., Colorado State College; P.E. Dir., Indiana University.

Associate Professor of Physical Education

IVO E. LINDAUER, B.S., Colorado State University; M.A., Colorado State College.

Assistant Professor of Science

BERNARD J. LINENBERGER, A.B., Colorado State College.

Instructor in Education

SANFORD ABEL LINSCOME, B.M.E., McNeese State College; M.Mus., University of Illinois.

Instructor in Music

ROBERT LEROY LONGWELL, A.B., Kearney State College; M.A., Colorado State College.

Assistant Professor of English and Speech

On Leave Fall, Winter and Spring Quarters, 1967-68.

SHEILA LOWENBRAUN, A.B., Barnard College; M.A., Ph.D., Teachers College, Columbia.

Assistant Professor of Special Education

ALVIN LEON LOWREY, A.B., University of Kansas; M.S., University of Illinois.

Instructor in Music

BETTY LUCILLE LOWRY, A. B., M.A., Colorado State College; Ph.D., University of Iowa.

Associate Professor of Elementary Education

J. MAX LUBBERS, A.B., M.A., Colorado State College.

Associate Professor of Industrial Arts

JEANE L. LUERE, B.A., B.S. M.A., Ohio State University.

Instructor in English

ARNO HENRY LUKER, LL.B., B.S., University of South Dakota; A.M., Michigan State University, Ed.D., Colorado State College.

Professor of Psychology, Counseling and Guidance; Chairman, Department of Psychology, Counseling and Guidance.

DONALD M. LUKETICH, B.S.E., Arkansas State College; M.S.E., Illinois University; Ed.D., Colorado State College.

Assistant Professor of Education

DALE JULIAN LUNDEEN, B.S., Western Michigan College; M.A., Indiana University; Ph.D., University of Minnesota.

Professor of Special Education

CAROL L. LUTEY, B.S., M.A., University of Minnesota; Ph.D., Michigan State University.

*Professor of Psychology,
Counseling and Guidance*

ORALIE D. MCAFEE, A.B., Oklahoma State University; M.A., Colorado State College.

Instructor in Education

DANIEL C. MCALEES, A.B., Albright College, Pennsylvania; M.A., Ed.S., Ph.D., Michigan State University.

*Associate Professor of
Special Education*
On Leave Summer Quarter, 1968

HAROLD LEROY MCKAIN, JR., B.S., Central Missouri; M.Ed., University of Oklahoma; Ph.D., State University of Iowa.

*Assistant Professor of
Physical Education*

WARREN JEROME MCMILLEN, A.B., M.A., Colorado State College.

*Instructor in Physical
Education*

L. ELAINE MCMINN, B.S., University of Tulsa; M.S., Western Reserve University.

Professor of Nursing

THERESA MARY MALUMPHY, B.S., State College, Massachusetts; M.S., University of Wisconsin; Ph.D., Ohio State University.

*Assistant Professor of Health and
Physical Education*

JOHN MARBERRY, B.S., M.S., University of Wisconsin.

Instructor in English

JOHN IRVING MARIANI, A.B., University of Nevada; B.F.A., Chicago Art Institute; M.A., Colorado State College.

Professor of Art

ANTHONY MARIA-ROSSI, B.S., New York University; M.A., Colorado State College.

*Associate Professor of Physical
Education*

JOHN HENRY MEIER, B.A., Regis College; M.A., Ph.D., University of Denver.

*Associate Professor of
Psychology, Counseling and
Guidance*

On Leave Fall, Winter, Spring
and Summer Quarters, 1967-68

ANTHONY MENK, A.B., M.A., Colorado State College.

Assistant Professor of Music
On Leave Winter Quarter, 1968

CHARLES AUGUST MEYER, A.B., 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*

On Leave Summer Quarter, 1968

BARBARA H. MICKEY, B.A., M.A., Ph.D., Indiana University.

*Assistant Professor of
Anthropology*

JOHN ROBERT MICKEY, B.S., Kansas State Teachers College, Emporia.

*Assistant Professor of
Anthropology; Chairman, Department of Anthropology—Sociology*

GARY EVAN MILLER, A.B., M.A., Colorado State College.

Assistant Professor of Education

JAMES EARL MILLER, B.M., Michigan State University; 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. MILLSLAGLE, A.B., Black Hills State College; M.A., Colorado State College.

*Temporary Instructor in Special
Education*

ESTELL E. MOHR, B.S., Teachers College, Columbia University; M.A., Colorado State College; Ed.D., Stanford University.

Professor of Public School Music

LOLA J. MONTGOMERY, A.B., University of Kansas; M.A., Colorado State College; Ed.D., Teachers College, Columbia University.

*Associate Professor of Psychology,
Counseling and Guidance*

ROBERT A. MONTGOMERY, A.B., Pepperdine College; M.S., University of Southern California; Ed.D., Colorado State College.

*Associate Professor of Physical
Education*

HOLLIS R. MOOMAW, Lt. Col., U.S. Air Force; B.A., M.A., Arizona State University.

Professor of Aerospace Studies

ROBERT E. MORGENSTERN, A.B., University of Montana; M.A., Michigan State University.

*Instructor in Psychology,
Counseling and Guidance*

GAYLORD DEAN MORRISON, B.S., Northwest Missouri State College; M.A., University of Nebraska; Ed.D., University of Missouri.

Professor of Education

ALVIN O. MOSBO, A.B., Luther College; M.A., State University of Iowa; Ed.D., Colorado State College.

*Professor of Elementary Education;
Chairman, Department of
Elementary Education
On Leave Spring Quarter, 1968*

L. CAROL MOSSER, B.S., East Stroudsburg State College; M.A., Colorado State College.

*Assistant Professor of Physical
Education*

LOUISE S. MUELLER, A.B., M.A., Colorado State College.

Instructor in Library Science

DANA K. MURTON, Capt., U.S. Air Force; B.S., Oregon State College.

*Assistant Professor of Aerospace
Studies*

DONALD LEE MYERS, B.A., Washburn University; M.A., Kansas State University.

Assistant Professor of Education

DORIS EVALINE MYERS, B.S., Arkansas State Teachers College; M.A., M.S., Ohio University; Ph.D., University of Nebraska.

Instructor in English

GRACE D. NAPIER, A.B., Douglas College; M.A., New York University; M.Ed., Ed.D., Temple University.

*Assistant Professor of Special
Education*

LOUISE ADELAIDE NEAL, A.B., Friends University, Wichita, Kansas; A.M., University of Colorado; Ed.D., Colorado State College.

*Professor of Elementary Science
On Leave Spring Quarter, 1968*

DALE A. NEBEL, A.B., M.A., University of Iowa; Ed.D., Colorado State College.

*Associate Professor of Elementary
Education*

THEODORE MURRAY NELSON, B.S., M.A., Ph.D., University of Minnesota.

*Associate Professor of Psychology
On Leave Fall Quarter, 1967*

JOE NICHOLS, B.S., M.S., Kansas State College; Ed.D., University of Colorado.

Assistant Professor of Education

GLENDON P. NIMNIGHT, B.A., M.A., University of Wyoming; Ed.D., Stanford University.

*Professor of Education;
Consultant, Institute of Child
Study*

HOWARD DANIEL NINEMIRES, A.B., M.A., Colorado State College.

*Professor of Education
Will Retire August 31, 1968*

DWIGHT E. NOFZIGER, B.E. in Ed., Bowling Green State University; M.A., Teachers College, Columbia University; Ed.D., Colorado State College.

Assistant Professor of Music

LLOYD A. NORTON, A.B., M.A., Colorado State College.

Instructor in Speech

CAROLE YVONNE NOTTO, B.S., Northern Illinois University; M.A., Texas Woman's University.

*Instructor in Physical Education
On Leave Summer Quarter, 1968*

RONALD A. NOTTO, A.B., Colorado State College; M.A., University of Colorado.

Instructor in French

DAVID OLIN OLSON, B.S., Northern Illinois University; M.A., Colorado State College.

*Associate Professor of Industrial
Arts*

KENNETH V. OLSON, B.A., Augsburg College; M.A., Ph.D., University of Minnesota.

*Associate Professor of Science
Education*

RETA O'NEAL, B.S. in Nursing, University of Colorado; M.P.H., University of North Carolina.

*Associate Professor of Public
Health 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
On Leave Summer Quarter, 1968

CHARLOTTE OSLUND, B.S., North Dakota State University; M.A., Colorado State University.

Instructor in Home Economics

TERUTOMO OZAWA, A.B., Tokyo University of Foreign Studies; M.B.A., Ph.D., Columbia University.

Assistant Professor of Economics

ARTHUR R. PARTRIDGE, A.B., M.S. in Ed., University of Kansas; Ed.D., Stanford University.

Professor of Education; Chairman, Department of Educational Administration

RITA J. PAYTON, B.S., St. Mary's College; M.S., Indiana University.

Assistant Professor of Nursing of Children

GEORGE BRUBAKER PEARSON, B.S., Lock Haven State College; M.Ed., Springfield College; Ed.D., University of Oregon.

Professor of Physical Education

RUSSELL GEORGE PECKENS, A.B., Drake University; M.A., University of South Dakota; Ed.D., University of Tennessee.

Professor of Psychology, Counseling and Guidance, Pakistan Project

RICHARD ADOLPH PERCHLIK, B.S. in Bus., B.S. in Ed., M.A., Ohio State University; Ed.D., University of Colorado.

Associate Professor of Social Science; Chairman, Department of Political Science

KENNETH FREDERICK PERRY, A.B., M.A., Colorado State College; Ph.D., Columbia University.

Professor of Industrial Arts
Will Retire September 30, 1968

DWAYNE DOUGLAS PETERSON, B.A., Pacific Lutheran University; M.A., San Francisco State College; Ed.D. Colorado State College.

Assistant Professor of Special Education

RICHARD W. PEYTON, B.A., Occidental College; M.A., Los Angeles State College.

Instructor in English

RONALD KEITH PLAKKE, A.B., Colorado State College; Ph.D., University of Montana.

Assistant Professor of Zoology

PAULINE CRAIG POGUE, A.B., M.A., Colorado State College.

Associate Professor of History; Chairman, Department of History

WILLIAM DEAN POPEJOY, B.S. in Ed., M.A. in Ed., Illinois State Normal University; Ed.D., Colorado State College.

Professor of Mathematics

STÉPHEN TALLICHET POWERS, B.S., U.S. Naval Academy; M.A., Rice University; Ph.D., University of Notre Dame.

Assistant Professor of History

JUDITH ANN PAUL, B.S., Western Illinois University; M.S., Ed.D., Indiana University.

Assistant Professor of Psychology

WALTER FRANK PRINCIC, B.A., Baldwin-Wallace College; M.A., University of Illinois.

Assistant Professor of English
On Leave, Fall, Winter and Spring Quarters, 1967-68

FRANCIS RUSHFORD QUAMMEN, A.B., M.A., Colorado State College.

Associate Professor of Sociology

CLAIRE A. QUINLAN, B.A., University of Rhode Island; M.A., Ph.D., Colorado State College.

Assistant Professor of Psychology

KUNHUNNI RAGHUNANDANAN, B.S., University of Kerala, India; M.Sc., Central Research Institute; M.S., University of Wyoming; Ph.D., Colorado State University.

Assistant Professor of Mathematics

PAUL A. RANDLE, B.S., M.B.A., University of Utah.

Assistant Professor of Business

JERRY L. RATLIFF, A.B., M.A., Colorado State College.

Instructor in Business and Physical Education

WILLARD F. REESE, A.B., University of Wisconsin; M.A., Ed.D., Colorado State College.

Professor of Science Education, Pakistan Project

MARILYN LAREE REEVES, B.S., Colorado State University; M.S., Oregon State University.

Instructor in Home Economics

WILLIAM R. REID, A.B., Missouri Valley College; M.A., Ph.D., State University of Iowa.

Professor of Special Education

ARTHUR RAE REYNOLDS, A.B., Nebraska State Teachers College, Peru; M.A., Ph.D., University of Minnesota.

Professor of History

ROYAL ALLEN RICH, B.S., University of Nebraska; M.S., Ph.D., Utah State University.

Assistant Professor of Zoology

PAUL W. RICHARD, A.B., M.A., Colorado State College.

Instructor in Science

ROBERT CLAYTON RICHARDSON, A.B., M.A., University of Michigan; Ph.D., University of Colorado.

Assistant Professor of Education

WINNIFRED S. RICHARDSON, B.A., M.A. in Library Science, University of Denver.

*Instructor in Library Science;
Assistant Reference Librarian
On Leave Fall Quarter, 1967*

MARY ETTA RIDER, B.A., Miami University, Oxford, Ohio; B.S. in Library Science, University of Illinois.

Assistant Professor of Library Science; Assistant Reference Librarian

FRED A. RIETBROCK, B.Ed., Wisconsin State College; M.A., Ed.D., Colorado State College.

Professor of Educational Administration, Pakistan Project

EMMETT ALLISON RITTER, A.B., M.A., Ed.D., University of Oregon.

Assistant Professor of Education

DONALD THOMAS ROBINSON, B.M., Colorado State University; M.A., University of Denver.

Instructor in Music

BOBBY HARRISON ROLLINS, B.S., Colorado State University; M.A., Arizona State University.

Instructor in Physical Education

JOHN THOMAS ROSCOE, B.E., Colorado State University; M.A., Ph.D., Colorado State College.

Assistant Professor of Education

BARRY ROTHSAUS, A.B., Hunter College; M.S., Ph.D., University of Wisconsin.

Assistant Professor of History

FRANK J. RUBENSTEIN, B.S., University of Illinois; M.S.W., Ph.D., University of Pittsburgh.

Assistant Professor of Sociology

VERA MARIE RUBENSTEIN, B.A., University of New Mexico; M.Litt., University of Pittsburgh.

Associate Professor of Mental Health Nursing

FRED K. RUMFORD, B.S., M.S., Kansas State University.

Assistant Professor of Mathematics

HAROLD A. RUPERT, JR., A.B., Colorado State University; M.A., Colorado College.

Temporary Instructor in Special Education

GEORGE HARVEY SAGE, A.B., M.A., Colorado State College; Ed.D., University of California, Los Angeles.

Associate Professor of Physical Education

On Leave Summer Quarter, 1968

GEORGE FRANKLIN SANDERSON, A.B., M.A., Colorado State College.

Associate Professor of Education

GORDON HOWARD SAWATZKY, B.A., Bethel College; M.N., Yale University; M.S., University of Colorado.

Assistant Professor of Psychiatric Nursing

WALTER ALLEN SCHENKMAN, A.B., Harvard University; Diplome d'Etudes, Paris Conservatory; M.Mus., Yale Music School; D.Mus., Indiana University.

Professor of Music

ROBERT W. SCHMEDING, A.B., Wittenberg University; M.A., Ed.D., Ohio University.

*Professor of Education,
Pakistan Project*

JOHN SCHMID, B.S., M.A., Ph.D., University of Wisconsin.

*Professor of Education;
Chairman of Department of
Research and Statistical
Methodology*

DONALD LEE SCHMIDT, A.B., Bethel College; M.A., Ph.D., Iowa State University.

Associate Professor of Mathematics

GERALD D. SCHMIDT, A.B., Colorado State College; M.S., Ph.D., Colorado State University.

Assistant Professor of Zoology

CLAUDE MATTHIAS SCHMITZ, A.B.,
M.A., Colorado State College.
Associate Professor of Music

JAMES OTTO SCHRECK, A.B., University
of St. Thomas; M.S., Ph.D., Texas
A & M University.
Assistant Professor of Chemistry

HERBERT C. SCHUMACHER, B.F.A.,
M.F.A., University of Kansas.
Assistant Professor of Fine Arts

REX R. SCHWEERS, JR., A.B., M.A.,
Colorado State College.
Assistant Professor of Mathematics

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, A.B., Gene-
seo State Teachers College; M.S., Sy-
racuse University; Ed.D., Brigham
Young University.
*Assistant Professor of
Educational Media*

EVELYN LATIMER SELF, B.S., M.S.,
Montana State College.
*Assistant Professor of Public
Health Nursing*

LYNN SETTJE, A.B., Midland College;
M. A., Colorado State College.
Instructor in Art

WILLIAM J. SHANAHAN, B.A., Huron
College; M.A., Adams State College.
Instructor in Physical Education

JACK SHAW, A.B., University of Sas-
katchewan; B.Ed., M.Ed., University
of Manitoba; Ph.D., University of
Minnesota.
*Professor of Educational
Psychology and Guidance;
Chief-of-Party, Institute of
Education and Research, Pakistan
Project*

SARAH FIELD SHAW, B.A., West Vir-
ginia University; M.A., Marshall Uni-
versity.
Assistant Professor of Psychology

JOHN MAX SHIRLEY, B.S., M.A., Uni-
versity of New Mexico; Ed.D., Colo-
rado State College.
*Associate Professor of Physical
Education
On Leave Summer Quarter, 1968*

JOSEPH LESLIE SHOEMAKER, A.B.,
M.A., Colorado State College; Ed.D.,
University of Colorado.
Professor of Science

KENNETH LEE SHROPSHIRE, B.A., Mi-
ami University.
*Assistant Professor of Geology
On Leave Fall, Winter, Spring and
Summer Quarters, 1967-68*

VALERIE LEE SINKOVICH, M.Ed., B.S.,
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

RICHARD JERRY SMITH, A.B., M.A.,
Eastern Michigan University.
Instructor in Speech

ROBERT SMITH, L.R.A.M., Royal
Academy of Music; M.M.E., Ed.D.,
Florida State University.
Assistant Professor of Music

DONALD W. SMITHERMAN, B.S., Fort
Hays State College; M.A., University
of Wichita; Ph.D., University of Kan-
sas.
*Associate Professor of Special
Education*

GRACE E. SPECKMANN, A.B., M.A.,
University of Colorado.
Instructor in English

MAYNARD N. STAMPER, B.S., Eastern
Kentucky State College; M.A., Colo-
rado State College; Ph.D., Ohio State
University.
*Professor of Zoology; Chairman,
Department of Biological Science
On Leave Summer Quarter, 1968*

WENDELL R. STARR, A.B., Ottawa
University; M.A., University of Colo-
rado; Ph.D., University of Minnesota.
Associate Professor of English

ARNOLD STEFFENSEN, A.B., Colorado
State College; M.S., Colorado State
University.
*Temporary Instructor in
Mathematics*

DORIS CAROL STEFFY, B.A., State Col-
lege of Iowa; M.A., State University
of Iowa.
*Associate Professor of Physical
Education*

CONNIE K. STELLJES, B.S., University of Kansas; M.A., University of Colorado.

Instructor in Spanish

JAMES A. STOFFLER, B.S., Southern Illinois University; M.A., Marquette University; Ph.D., Southern Illinois University.

Associate Professor of Education

JUNE ELIZABETH STUCKEY, A.B., B.S. in Ed., Wilmington College; M.A., Ph.D., Ohio State University.

Professor of Psychology; Chairman, Department of College Student Personnel Work

DOUGLAS LEE STUTLER, A.B., M.A., Colorado State College.

Instructor in Education

ROBERT B. SUND, B.A., Reed College; M.S., Oregon State University; M.A., Ed.D., Stanford University.

Associate Professor of Science Education

On Leave Summer Quarter, 1968

MARIAN SWINGLE, B.S., University of Vermont; M.S., Boston University.

Assistant Professor of Psychiatric Nursing

GERALD E. TANNER, A.B., 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

JOSEPH L. TEETERS, B.S., Colorado School of Mines; M.A., Colorado State College.

Temporary Instructor in Mathematics

JAMES PENDLETON THAMES, B.B.A., M.B.A., University of Texas.

Instructor in Business

JOAN ELIZABETH 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

LINDA I. THOMPSON, B.S., Utah State University; M.A., University of Iowa.

Instructor in Speech

VIVIAN B. TILDEN, A.B., Hastings College; M.A., Colorado State College.

Assistant Professor of Library Science; Assistant Catalog Librarian

ROBERT ADEN TOLAR, B.S., Lamar College; M.A., University of Texas.

Instructor in Mathematics

OSCAR WILLIAM TOLLEFSON, B.S., Huron College; M.A., Ph.D., University of Colorado.

Professor of Geology; Chairman, Department of Earth Science

GORDON ERNEST TOMASI, A.B., M.A., Colorado State College; Ph.D., University of Louisville.

Associate Professor of Chemistry

JOSEPH L. TOWNSEND, A.B., M.A., Colorado State University; Ed.D., Colorado State College.

Instructor in Special Education

ORVEL LEROY TRAINER, A.B., M.A., Ph.D., University of Colorado.

Associate Professor of Economics; Chairman, Department of Economics

DORRIS E. TRIGG, B.S., M.S., Kansas State College, Pittsburg.

Associate Professor of Elementary Education

LESLIE WALTER TROWBRIDGE, B.S., Central State 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

THOMAS W. TRUMBULL, A.B., Texas Western College; M.A., Colorado State College.

Temporary Instructor in Special Education

DEAN EDSON TURNER, A.B., Centro Estudios University, Mexico; M.Ed., Adams State College; Ph.D., Texas University.

Assistant Professor of Education

GLEN CORBIN TURNER, A.B., Pomona College; M.B.A., Harvard University.

Professor of Business Administration
Will Retire June 30, 1968

KINSLÖE ALBERT UNDERWOOD, A.B., M.A., Colorado State College.

Instructor in Economics

RICHARD HAROLD USHER, B.S., Murray State College; M.Ed., Ed.D., University of Florida.

Assistant Professor of Psychology, Counseling and Guidance

NANCY VAN ANNE, A.B., State College of Iowa; 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 Physical Education

HENRY A. VAN KIRK, A.B., Wayne State College; M.A., Colorado State College.

Instructor in Guidance and Counseling

EVERETT HENRY VAN MAANEN, B.S., Northern State Teachers College; M.A., Colorado State College; Ed.D., University of Oregon.

Professor of Education

TONY DALE VAUGHAN, A.B., Northeastern State College, Oklahoma; M.Ed., Ed.D., University of Oklahoma.

Professor of Special Education; Chairman, Department of Special Education

E. DEAN VEST, A.B., Weber College; M.A., Ph.D., University of Utah.

Assistant Professor of Botany

WAYMAN E. WALKER, B.M.E., University of Colorado; M.Mus., University of Southern California.

Associate Professor of Instrumental Music

DENNIS ERWIN WARNEMUNDE, A.B., Wayne State Teachers College; M.A., University of Nebraska.

Instructor in Speech

RONALD ROSS WARNER, A.B., Abilene Christian; M.A., Colorado State College.

Temporary Instructor in Education

ROLAND CORNELL WATERMAN, B.S., New York State College for Teachers; M.A., Ed.D., Columbia University.

Professor of Business

JERRY LEE WATKINS, B.S., Mississippi Baptist College; M.A., Colorado State College.

Contract Instructor in History

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. WEISHAHN, A.B., M.A., Colorado State College.

Assistant Professor of Special Education

MARILYN KAY WEISS, A.B., North Texas State University; M.A., Colorado State College.

Instructor in Health and Physical Education

CLINTON G. WELLS, B.S., M.A., Central State College.

Temporary Instructor in Special Education

LORENA M. WERTZ, A.B., M.A., Colorado State College.

Instructor in Business

LEE R. WEST, B.S., Southwestern State Teachers College, Oklahoma; M.A., George Peabody College for Teachers.

Professor of Geography; Chairman, Department of Geography

Will Retire September 30, 1968

JOHN WEIR WILLCOXON III, B.A., M.A., Washington and Lee University; M.A., Ph.D., University of Minnesota.

Associate Professor of Drama

MARCIA IRENE WILLCOXON, B.A., M.A., University of Minnesota.

Temporary Instructor in History

ELMER DEAN WILLIAMS, B.S., Chadron State College; M.A., Colorado State College.

Instructor in Elementary Education

JOHN ANDERSON WILLIAMSON, B.B.A., University of Texas; M.Ed., Stephen Austin State College; Ed.D., University of Arkansas.

Assistant Professor of Education

GARY G. WILLOUGHBY, B.A., M.A., University of Colorado.

*Assistant Professor of Sociology
On Leave Summer Quarter, 1968*

ALBERT MCCOMBS WINCHESTER, A.B., Baylor University; M.A., Ph.D., University of Texas.

*Professor of Biology
On Leave Winter Quarter, 1968*

MARIAN WITWER, B.A., University of Michigan; M.A., University of Colorado.

Instructor in English

DALE EARL WOERNER, B.S., Kansas State College; M.S., Ph.D., University of Illinois.

Professor of Chemistry
On Leave Summer Quarter, 1968

RICHARD RUSSELL WOLFE, B.S., Thiel College; M.S., Westminster College; Ph.D., University of Pittsburgh.

Assistant Professor of
Special Education

WELBY B. WOLFE, A.B., M.A., Colorado State College; Ed.D., Teachers College, Columbia University.

Professor of Art

ERNEST JUDSON WOODS, A.B., 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, Nursing, Weld County
General Hospital

THURMAN N. WRIGHT, A.B., Colorado State College; M.S., Dir. of P.E., Indiana University.

Assistant Professor of
Physical Education

WILLIAM SCOTT WRIGHT, A.B., Kansas Wesleyan College; M.A., Colorado State College.

Temporary Instructor in
Special Education

ALICE MARY YETKA, B.S., University of Minnesota; M.A., Ed.D., Colorado State College.

Associate Professor of Business

GEORGE W. YOUNG, A.B., Florida State University; M.A., Chapman College.

Instructor in Social Studies

MINA LEE ZENOR, B.F.A., Drake University; M.A., Bowling Green University.

Instructor in Physical Education

DONALD E. ZIMMERMAN, B.S. in Ed., M.S., Kansas State Teachers College, Emporia.

Assistant Professor of English

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

LEROY RAYMOND KERNS, Ed.D., Director of the Laboratory School; Chairman of Curriculum Development for Laboratory School; Supervisor and Instructor in Secondary School Science and Mathematics.

DONALD WAYNE CHALOUPKA, Ed.D., Secondary School Principal; Chairman of Curriculum Development for the Secondary School.

DOUGLAS M. BROWN, M.A., Supervisor and Instructor in Secondary School English.

MARGARET BROUGHTON, M.A., Supervisor and Instructor in Home Economics.

JOSEPHINE MAE BRUCE, M.A., Kindergarten Supervisor and Instructor.

SHIRLEY MAY CARRIAR, Ed.D., Supervisor and Instructor in Secondary School English.

JOHN S. GIRAULT, M.A., Chairman of Curriculum Development in Dramatics; Supervisor and Instructor in Dramatics.

THOMAS LEE GROOM, M.A., Supervisor and Instructor in Secondary School Social Studies.

LELLOINE GUNNING, M.A., Third Grade Supervisor and Instructor.

MARJORIE LOU HARKNESS, Ed.D., Fourth Grade Supervisor and Instructor.

BERNICE ELEANOR HUNN, Ed.D., Second Grade Supervisor and Instructor.

JAMES EDMUND HURD, M.A., Supervisor and Instructor in Secondary School Social Studies.

H. AUDRIE JOHNSTON, M.A., Supervisor and Instructor in Secondary School Mathematics.

JOHN MOTT KRUGER, M.A., Chairman of Curriculum Development in the Arts; Supervisor and Instructor in Industrial Arts.

PAUL LABORNE, A.M., Supervisor and Instructor in the Foreign Languages.

ROBERT LEROY LONGWELL, M.A., Supervisor and Instructor in Secondary School Speech and English.

HOWARD M. MICKENS, M.M., Supervisor and Instructor in Intermediate and Secondary School Instrumental Music.

LOUISE S. MUELLER, M.A., Elementary and Secondary School Librarian.

LOUISE ADELAIDE NEAL, Ed.D., Chairman of Curriculum Development in Elementary School Science; Supervisor and Instructor in Elementary School Science.

DWIGHT E. NOFZIGER, M.A., Supervisor and Instructor in Intermediate School and Secondary School Vocal Music.

CHESTER A. POPKE, M.A., Elementary School Principal; Chairman of Curriculum Development for the Elementary School.

JERRY L. RATLIFF, M.A., Supervisor and Instructor in Physical Education and Business Education.

PAUL W. RICHARD, M.A., Supervisor and Instructor in Science.

LYNN SETTJE, M.A., Supervisor and Instructor in Fine Arts.

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.

DORRIS E. TRIGG, M.A., First Grade Supervisor and Instructor.

HENRY VAN KIRK, M.A., Director of Counseling and Guidance in the Laboratory School.

MARILYN KAY WEISS, M.A., Supervisor and Instructor in Girls' Health and Physical Education for the Intermediate Grades and High School.

LORENA M. WERTZ, M.A., Chariman of Curriculum Development in Business Education; Supervisor and Instructor in Secondary School Shorthand, Bookkeeping and Accounting.

ELMER D. WILLIAMS, M.A., Sixth Grade Supervisor and Instructor.

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

GRACE MAE BAKER, B.Art Ed., B.S., A.M. Appointed, 1917; Emeritus since 1941.

Professor Emeritus of Art

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

MARGARET ELIZABETH BRYSON, A.B., A.M., M.D. Appointed, 1921; Emeritus since 1942.

Professor Emeritus of Health Education

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.D., 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

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. LUCILLE 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; Emeritus 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

ELIZABETH LEHR, B.A., A.M. Appointed, 1926; Emeritus since 1959.

Associate Professor Emeritus of Elementary Education

ANNIE MARGARET MCCOWEN, A.B., B.S., A.M., Ph.D. Appointed, 1921; Emeritus since 1958.

Professor Emeritus of Elementary Education

CHARLES WILLIAM McLAIN, B.S., M.S., Ed.D. Appointed, 1951; Emeritus 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

ANNA EVELYN NEWMAN, Ph.B., Ph.M., Ph.D. Appointed, 1920; Emeritus since 1964.

Professor Emeritus of English

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

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

EARLE UNDERWOOD RUGG, A.B., A.M., Ph.D. Appointed, 1923; Emeritus since 1957.

Professor Emeritus of Education

EDITH MARIE SELBERG, A.B., A.M. Appointed, 1926; Emeritus since 1962.

Professor Emeritus of Biology

OLIVER LEONARD TROXEL, B.S., A.M., Ph.D. Appointed, 1929; Emeritus since 1958.

Professor Emeritus of Education

SYLVESTER ROY TOUSSAINT, B.A., M.A., Ph.D. Appointed 1938; Emeritus since 1967.

Professor Emeritus of Speech

EDITH GALE WIEBKING, A.B., A.M. Appointed, 1918; Emeritus since 1949.

Professor Emeritus of Home Economics

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



