

# BULLETIN

1961-62 General Catalog

*Colorado State College*

Greeley, Colorado

## HOW TO APPLY FOR ADMISSION

### *Undergraduate Students Attending College for the First Time*

1. Get an Application for Admission form from your high school principal. Out-of-state students write to Registrar, 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 Registrar. 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. 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.
4. Additional information regarding the freshman orientation program, health examination, etc., will be mailed prior to the opening of college in September.

### *Undergraduate Transfer Students*

1. File with the Registrar, Colorado State College: a. An Application for Admission including high school record; b. An official transcript of all credits earned at other colleges or universities; c. An application for transfer of credit; d. A report of health examination.

In order to insure admission, these materials should be sent to the Registrar's Office 30 days in advance of the quarter for which the transfer student wishes to enroll. Necessary forms may be obtained from the Registrar and the letter of inquiry should state specifically that the student is a transfer student.

*Graduate Students (Please see the Graduate Division Section of this Catalog).*

**Effective Dates of this Catalog**—The effective dates of this catalog are from September 1, 1961, to August 31, 1962. This includes Fall, Winter and Spring Quarters, 1961-62, and the 1962 Summer Sessions. Students enrolling for the first time at the college during these effective dates will follow the rules and regulations in this catalog until their graduation.

### —PLEASE NOTE—

Students must retain until their graduation the copy of the catalog that they receive.

Please bring this catalog with you when you register. Only one catalog will be given to a student.

Nº 26934



# BULLETIN

## Colorado State College 1961-62

### GENERAL CATALOG

Greeley, Colorado

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# 1961

JANUARY							APRIL							JULY							OCTOBER						
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8	9	10	11	12	13	14	9	10	11	12	13	14	15	9	10	11	12	13	14	15	8	9	10	11	12	13	14
15	16	17	18	19	20	21	16	17	18	19	20	21	22	16	17	18	19	20	21	22	15	16	17	18	19	20	21
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12	13	14	15	16	17	18	21	22	23	24	25	26	27	20	21	22	23	24	25	26	19	20	21	22	23	24	25
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# 1962

JANUARY							APRIL							JULY							OCTOBER						
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21	22	23	24	25	26	27	22	23	24	25	26	27	28	22	23	24	25	26	27	28	21	22	23	24	25	26	27
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FEBRUARY							MAY							AUGUST							NOVEMBER						
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MARCH							JUNE							SEPTEMBER							DECEMBER						
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25	26	27	28	29	30	31								30							30	31					

# College Calendar

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- **Fall Quarter—1961**

September 11 - - - Laboratory School opens  
September 13 - - - New undergraduate students report  
September 18 - - - Registration for all students  
September 19 - - - Classes begin\*  
October 26-27 - - - C.E.A. convention, no classes  
October 27-28 - - - Homecoming  
November 22-24 - - - Thanksgiving vacation  
(Starts noon, Nov. 22)  
Dec. 6, 4:15 p.m. - - Graduation Exercises  
December 7-8 - - - Final examinations  
December 15 - - - Laboratory School closes

- **Winter Quarter—1962**

January 2 - - - - Registration for all students  
January 3 - - - - Classes begin\*  
January 26-27 - - - Mid-Year Education Conference  
March 9, 4:15 p.m. - Graduation Exercises  
March 12-13 - - - Final examinations

- **Spring Quarter—1962**

March 19 - - - - Registration for all students  
March 20 - - - - Classes begin\*  
May 25 - - - - Senior Ceremonial  
May 26 - - - - Insignia Day  
May 27, 2 p.m. - - - Graduation Exercises  
May 30 - - - - Memorial Day holiday  
May 31-June 1 - - - Final Examinations  
June 8 - - - - Laboratory School closes

- **Summer Sessions—1962**

June 11-21 - - - - Pre-Session  
June 23 - - - - Registration for Summer Session  
June 25 - - - - Classes begin  
July 4 - - - - Independence Day holiday  
August 17, 7 p.m. - - Graduation Exercises  
August 18 - - - - Final examinations

\*However, evening classes on Registration Day meet on the first day of the quarter.

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# Administration

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EUGENE CARTER, A.M., Supervisor and Instructor in Mechanical Drawing and Drafting.

FERN DELIA CAZEL, A.M., Nursery School and Kindergarten Supervisor and Instructor.

DONALD WAYNE CHALOUKKA, Ed.D., Chairman of Curriculum Development in Secondary School Social Studies; Supervisor and Instructor in Secondary School Social Studies and Physical Education.

RHODA FOSS HALL, M.S., Chairman of Curriculum Development in Home Economics; Supervisor and Instructor in Home Economics.

MARJORIE LOU HARKNESS, A.M., Fourth Grade Supervisor and Instructor.

DONALD LEAGUE HOLLEY, A.M., Supervisor and Instructor in Sec-

ondary School Speech and English.

EDNA MARY HOYDAR, M.Mus., Primary School Music Supervisor and Instructor.

BERNICE ELEANOR HUNN, A.M., Second Grade Supervisor and Instructor.

KENNETH LEE JONES, A.M., Chairman of Curriculum Development in Dramatics; Supervisor and Instructor in Dramatics.

FREDERICK DAVID KAGY, Ed.D., Supervisor and Instructor in Graphic Arts.

RALPH ROY KING, Ed.D., Supervisor and Instructor in Instrumental Music.

PAUL LABORNE, A.M., Supervisor and Instructor in the Foreign Languages.

LEONARD PETER LANDRY, A.B., Chairman of Curriculum Development in Secondary School English; Supervisor and Instructor in Secondary School English.

IVO LINDAUER, A.M., Supervisor and Instructor in Secondary School Science.

BETTY LUCILLE LOWRY, A.M., First Grade Supervisor and Instructor.

DORINNE L. MCKEAG, A.B., Supervisor and Instructor in Junior High School Social Studies.

LOUISE ADELAIDE NEAL, Ed.D., Chairman of Curriculum Development in Elementary School Science; Supervisor and Instructor in Elementary School Science.

DWIGHT E. NOFZIGER, A.M., Supervisor and Instructor in Intermediate School and Secondary School Vocal Music.

DAVID OLIN OLSON, A.M., Chairman of Curriculum Development in the Arts; Supervisor and Instructor in Industrial Arts.

RICHARD ADOLPH PERCHLIK, A.M., Supervisor and Instructor in Secondary School Social Studies and Physical Education.

GUY GENE REIFF, A.M., Director of Athletics; Supervisor and Instructor of Health and Boys' Physical Education in Intermediate Grades and High School.

ALBERTA ELOISE REITZE, M.S., Nursery School Supervisor and Instructor.

WILLIAM RUPP, A.M., Supervisor and Instructor in Secondary School English and Journalism.

REX SCHWEERS, A.M., Supervisor and Instructor in Secondary School Mathematics.

JOSEPH LESLIE SHOEMAKER, A.M., Chairman of Curriculum Development in Secondary School Science; Supervisor and Instructor in Secondary School Science.

WAYNE H. SMITH, A.M., Fifth Grade Supervisor and Instructor.

DORIS CAROL STEFFY, A.M., Supervisor and Instructor of Girls' Health and Physical Education for the Intermediate Grades and High School.

PAUL H. STONER, D.M.A., Supervisor and Instructor in Instrumental Music in Elementary Grades.

DAVID TAVEL, Ed.D., Instructor and Supervisor in Secondary School Social Studies.

JOHN TRYBA, A.M., Supervisor and Instructor in Fine Arts.

ROLAND CORNELL WATERMAN, Ed.D., Supervisor and Instructor in Secondary School Bookkeeping.

ERNEST JUDSON WOODS, A.M., Chairman of Curriculum Development in Secondary School Mathematics; Supervisor and Instructor in Secondary School Mathematics.

ALICE MARY YETKA, A.M., Chairman of Curriculum Development in Business Education; Supervisor and Instructor in Secondary School Shorthand and Typing.

## Emeritus Faculty

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WINFIELD DOCKERY ARMENTROUT, A.B., A.M., Ed.D., LL.D. Appointed, 1920; Emeritus since 1955.

*Vice President Emeritus*

CLARENCE THEODORE BAAB, A.B., A.M., Ed.D. Appointed, 1935; Emeritus since 1960.

*Professor Emeritus of Industrial Arts*

GRACE MAE BAKER, B.Art Ed., B.S., A.M. Appointed, 1917; Emeritus since 1941.

*Professor Emeritus of Art*

SAMUEL CLAY BEDINGER, A.B., A.M. Appointed, 1922; Emeritus since 1948.

*Assistant Professor Emeritus of Business Education*

RALPH THOMAS BISHOP, A.B., A.M. Appointed, 1917; Emeritus since 1955.

*Professor Emeritus of Industrial Arts*

MARGARET ELIZABETH BRYSON, A.B., A.M., M.D. Appointed, 1921; Emeritus since 1942.

*Professor Emeritus of Health Education*

LUCY ROSENQUIST CHAMBERLAIN, Ph.B., A.M. Appointed, 1923; Emeritus since 1949.

*Associate Professor Emeritus of Elementary Education*

AMBROSE OWEN COLVIN, B.C.S., A.M., Ph.D. Appointed, 1918; Emeritus since 1947.

*Professor Emeritus of Business Education*

ETHAN ALLEN CROSS, A.B., A.M., Ph.D., Litt.D., L.H.D. Appointed, 1906; Emeritus since 1940.

*Professor Emeritus of English*

OLIVER MORTON DICKERSON, A.B., A.M., Ph.D. Appointed, 1923; Emeritus since 1940.

*Professor Emeritus of History and Political Science*

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*

EZRA CLARENCE HARRAH, A.B., A.M., Ph.D. Appointed, 1926; Emeritus since 1954.

*Professor Emeritus of Zoology*

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*

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*

ELIZABETH HAYS KENDEL, A.B., L.H.D. Appointed, 1893; Emeritus since 1938.

*Associate Professor Emeritus of Mathematics*

WINFIELD LEROY KNIES, A.B., M.B.A. Appointed, 1922; Emeritus since 1957.

*Associate Professor Emeritus of Business Education*

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*

FLORENCE MARGUERITE MEYER, A.B., A.M. Appointed, 1930; Emeritus since 1960.

*Associate Professor Emeritus of English*

ANNA EVELYN NEWMAN, Ph.B., Ph.M., Ph.D. Appointed, 1920; Emeritus since 1946.

*Professor Emeritus of English*

ORA BROOKS PEAKE, A.B., A.M., Ph.D. Appointed, 1919; Emeritus since 1949.

*Professor Emeritus of History*

EARL UNDERWOOD RUGG, A.B., A.M., Ph.D. Appointed 1923; Emeritus since 1957.

*Professor Emeritus of Education*

OLIVER LEONARD TROXEL, B.S., A.M., Ph.D. Appointed, 1929. Emeritus since 1958.

*Professor Emeritus of Education*

FLOSS ANN TURNER, Ph.B., A.M. Appointed, 1925; Emeritus since 1954.

*Associate Professor Emeritus of Elementary Education*

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*

ARTHUR FRANKLIN ZIMMERMAN, A.B., A.M., B.D., Ph.D. Appointed, 1928; Emeritus since 1958.

*Professor Emeritus of History*

# General Information

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**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 ninety-six 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 management of a Board of Trustees of seven members. All are appointed by the Governor of the State. Money for the maintenance of the college comes from special appropriations made by the legislature, and student tuition and fees.

**Location** — Colorado State College is in Greeley, a city of 26,314 population (1960 census). Greeley is 52 miles north of Denver and 52 miles south of Cheyenne, Wyoming. Estes Park is 51 miles west. The Rocky Mountains, which provide much recreation for students, are 30 miles west of the campus. The elevation of Greeley is 4,648 feet. The ideal climate is invigorating and conducive to study.

**Laboratory Schools** — The college maintains a Laboratory School which includes Ernest Horn Elementary School with nursery school, kindergarten and the first six grades, and College High School, with grades seven to twelve. For information on tuition and fees, the Director of the Laboratory School should be consulted.

The campus Special Education School, a cooperative project of the Greeley public schools and the college, is a laboratory school enrolling physically and mentally handicapped children. College students observe and do student teaching in this school.

**Campus** — The city campus, in a beautiful residential area of Greeley, has three parts—the main campus, the East campus and a new West campus.

The main campus is the site of all academic buildings, the student union, and the women's residence halls. Two blocks east of the main campus is the East campus, site of the men's residence halls, baseball and football facilities of Jackson Field, and a portion of college housing for students. Land for the new 148-acre West campus was acquired in 1956 and a \$2,000,000 Laboratory School is being built there. The physical plant of the city campus includes thirty-five buildings exclusive of college-owned fraternity and sorority houses.

The mountain campus, acquired late in 1956, includes 80 acres of land nearly adjacent to Estes Park village amid some of the most spectacular scenery in the Rockies. The mountain campus is being developed as a site for educational conferences and meetings and as a base for field trips.

**Library Facilities** — The college library has over 170,000 volumes catalogued, over 600 different periodicals, plus many government documents, pamphlets, and reference materials. The library is in Carter Hall, a modern building with many comfortable, well-lighted study areas. The book stacks are open to all students and other patrons.

The Curriculum Materials Center in the library is completely stocked with the latest textbooks and courses of study and is one of the finest of its kind. Publishing companies provide the newest editions for this laboratory.

**Instructional Materials Center** — Primarily a service unit of the college, the Instructional Materials Center has two major functions. It provides a library of some 1,700 motion picture films, 1,000 filmstrips and several hundred recordings. Services are available to the faculty and to the public schools and other organizations. The Center also provides services of an auditory and/or visual nature for the faculty. These services range from providing projector and projectionist for classroom instruction to the production of a variety of teaching materials.

**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.

**Public Services** — Coordinated through the Department of Public Relations, 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 teaching positions, scheduling staff members and students for speaking engagements, and assisting schools and communities with their education problems.

**Off-Campus Instruction**—One of the many services the college provides for Colorado is an extensive program of off-campus instruction. Two types of programs are offered to help certify and upgrade more teachers for the public schools. These two programs are (1) off-campus classes and (2) correspondence courses.

Off-campus classes are offered by CSC from time to time in various sections of the state primarily as in-service courses to the teachers and the school systems. Every effort is made to notify interested persons of the development of a class through announcements in the public schools, newspapers, radio and by mail.

The college provides correspondence courses for the convenience of those students who want to earn college credit but for some reason cannot do so through classes on or off the campus. Courses offered by correspondence are listed in this catalog.

All off-campus classes and correspondence courses are taught by regular members of the Colorado State College faculty.

Complete details of the off-campus instruction programs, including off-campus classes and correspondence study, will be found in the Off-Campus Instruction Bulletin which may be obtained from the Off-Campus Study Office, Department of Public Relations, Colorado State College, Greeley, Colorado. All inquiries about off-campus instruction should be made at this office.

**Appointments** — The Office of Appointments of the Colorado State College offers its services to present and former students of this college who are seeking positions. It also offers its services to the principals, superintendents, and Boards of Education who are seeking employees for their school systems.

The purpose of the office is to bring the students of this college and the employment authorities together either by exchange of correspondence or by personal interview. The functions of the Office of Appointments 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.



# Student Personnel Services

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All out-of-class activities and services for resident students are supervised 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, certification, transcription of records, student health services, counseling of a personal nature as well as academic guidance, 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. These services provide an opportunity for them 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, health, finances, or 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.

**Residence Regulations**—All women students are required to be in their places of residence not later than 11:00 p.m. on Sundays through Thursdays and by 1:00 a.m. on Friday and Saturday nights. Freshman women are required to be in their places of residence by 10:00 p.m. on Sundays through Thursdays during their first quarter of enrollment. In subsequent quarters the freshman women who are maintaining satisfactory grades are permitted the 11:00 p.m. hours.

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

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

**Dining Rooms**—Students living in the residence halls have their meals in the dining rooms maintained on the campus. Rates are established on a room-and-board basis. These rates

may vary slightly depending upon location and size of the room as well as upon any marked fluctuations in food costs. Such changes are authorized by the Board of Trustees. Notification of changes in rates is given at least thirty days in advance of any school quarter.

**Application for Rooms**—Application blanks may be obtained from the Department of Student Personnel. The completed application for housing, with a \$25.00 deposit, must be returned to the Director of Student Housing, Department of Student Personnel. If the applicant desires to cancel his application for Fall Quarter accommodations and notifies the Director of Student Housing on or before August 15th, \$10.00 of the deposit will be refunded. If the applicant attends Colorado State College, he or she may not cancel the contract for accommodations in the residence halls after August 15th. If the applicant does not attend Colorado State College and cancels after August 15th the college will retain the entire \$25.00 deposit. These same regulations apply to reservations for other quarters, except that the cancellation date is 20 days prior to the beginning of that quarter.

If all provisions of the contract have been complied with and no damage charges have been assessed, the \$25.00 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. Except for Greeley residents, first-year freshmen students are required to live in the residence halls.

**Off-Campus Housing**—The Director of Student Housing has also examined and approved many Greeley homes near the campus, and will assist students who are not required to live in residence halls to obtain rooms in the private houses. Boarding places near the college are available for students living off-campus. All undergraduate students are required to live either in the college residence halls or in approved private residences.

**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. The housing project is located on college-owned property, near the men's residence halls and the stadium, Jackson Field. Applications for rentals are made to the Director of Student Housing, Department of Student Personnel. A \$25 deposit must accompany an application for Jackson Field 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 con-

cerning employment should be addressed to the Director of Student Aid, Department of Student Personnel.

**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.

**Health Service**—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 given a health certificate with the names, addresses and telephone numbers of all physicians in Greeley. A student may go to the office of any Greeley physician, or he may call the physician to his residence. Fees and costs of certain operations are paid for from this health fund.

**Automobile Registration**—Any student having a car on the campus or driving one to the campus must register the car with the Department of Student Personnel for security purposes.

## Student Activities

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**Student Government**—Student government and the direction of student affairs on the campus are administered by the members of the Associated Students, under the guidance 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 six 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 year-book, are provided without charge to members. Facilities of the Student Union are also available to members.

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

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

**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. The students also edit and publish a magazine.

**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.

**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 contests are systematically carried on in football, basketball, baseball, field and track, wrestling, swimming, gymnastics, and tennis. Gunter Hall, the large modern and thoroughly equipped gymnasium, 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 Faculty Athletic Conference, and is bound by the rules of that body in governing eligibility of athletes 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.

**Religious Program**—The college emphasizes the value 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 Council, composed of student representatives of all religious groups on the campus, is the coordinating agency for campus religious activities. Several religious organizations have student centers near the campus.

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

**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 the college. The organization is very active in assuring a friendly welcome to each new woman student.

**Clubs and Honorary Fraternities**—Each division of the college sponsors honorary fraternities and clubs of various types which are of interest to students majoring or minoring in the division. 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:

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 seven social sororities and seven social fraternities.

**Sororities**

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

**Fraternities**

Acacia  
Alpha Kappa Lambda  
Sigma Chi  
Sigma Phi Epsilon  
Tau Kappa Epsilon  
Theta Chi Colony  
Theta Xi

All of the sororities are affiliated with National Panhellenic Conference.

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.

The Independent Students Association maintains an active program of social events on the campus.

## Scholarships and Awards

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Several scholarships and awards have been established for students of the college. To keep scholarships in force, the recipient must maintain a minimum grade average as follows: freshmen, 3.0; sophomores, 3.5; juniors and seniors, 3.75. Unless otherwise noted, applications for scholarships should be made to the Dean of Students, Department of Student Personnel, Colorado State College.

**“Around the World with Dobby” Scholarship**—The “Around the World with Dobby” scholarship was established by members of “Dobby’s Gang” in memory of former Colorado State College students who lost their lives in World War II.

The Scholarship Committee of the college selects the man or woman to receive the scholarship for each school year. The scholarship was made possible by a fund of unsolicited contributions from members and friends of “Dobby’s Gang.”

**Associated Students Scholarship**—The Associated Students of Colorado State College provide an annual scholarship to be awarded to a citizen of the United States resident in Colorado who is a member of a racial minority group. This scholarship covers the cost of tuition for the academic year and may be renewed for four years provided the recipient remains in college each quarter of the academic year and maintains a satisfactory grade average.

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

**The Helene Zahnen Memorial Award**—A fund was established as a memorial to Helene Zahnen, who was a 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 the Principal of College High School, Greeley, Colorado.

**The Harry V. Kepner Memorial Award**—A fund has been established as a memorial to their father by the family of Harry V. Kepner, a former member of the Board of Trustees of the College and former Principal of West High School, Denver. The fund provides financial assistance to a graduating senior of West High School who enters Colorado State College to become a teacher. Applications should be made to the Principal, West High School, Denver, Colorado.

**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 freshman applicants from Weld and Morgan counties, Colorado.

**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 Chairman, Division of the Sciences, Colorado State College.

**Colorado State College Awards** — Colorado State College awards a limited number of scholarships and tuition waivers to graduates of Colorado high schools and junior colleges who deserve such recognition and are especially interested in becoming teachers. These scholarships cover the cost of tuition, but do not include the payment of college fees.

To keep these scholarships and tuition waivers 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 Dean of Students not later than April 1.

**Joint Honor Scholarships**—Cooperating with other state institutions of higher learning in Colorado, the college honors Joint Honor Scholarships which are awarded at high school commencements to outstanding students under a program arranged by the participating institutions. The Joint Honor Scholarship covers the cost of tuition. College and student services fees must be paid by the student. A high school senior is advised to inquire of the principal or superintendent of his school concerning the eligibility standards for such scholarships.

**Associated Students Publications Scholarships**—Two scholarships in the form of one-year tuition awards have been established by the Associated Students of Colorado State College. One will be granted to an outstanding freshman or sophomore member of the *Mirror* or *Cache la Poudre* staffs and one to a high school senior who has done outstanding work as a staff member of one of the high school publications. Inquiries should

be addressed to the Dean of Students for referral to the Associated Students Committee on Publications prior to April 1.

**The Soroptimist Club of Greeley Scholarship** — An annual scholarship of \$150 has been established by the Soroptimist 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 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.

## Loan Funds

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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 Student Aid.

**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 Student Aid, Colorado State College.

**College Loan Funds**—Sixteen college loan funds with aggregate resources of over \$131,000 are available to help worthy students. Applications for loans may be made through the Director of Student Aid.

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. Over six thousand 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, Pankhellenic, High School Loan Fund, Merriman Memorial Fund, Andrew P. Bengtson and Gertrude Bengtson Memorial, Phi Delta Kappa, Associated Students, and Alfred L. and Carena L. Jex Fund.



# Expenses

## Quarterly Tuition and Fees

REQUIRED OF ALL STUDENTS enrolled in college instructional programs: Effective with the Fall Quarter of 1961, combined charges for tuition and Student Services Fees will be collected which are based on the number of unit credit hours per quarter fixed in the courses for which the student registers. Charges are applicable to all enrollments whether they be for partial or full study programs and whether the registrant is enrolled with Colorado or Non-Colorado Residence Status.

<i>Tuition and Student Services Fees for On Campus Instruction</i>	<i>Per Credit Hour of Enrollment</i>
<b>FALL, WINTER AND SPRING QUARTERS</b>	
Colorado Resident	
Tuition - - - - -	3.00
Student Services Fee - - - - -	2.00
	\$ 5.00
Non-Colorado (Out-of-State) Resident	
Tuition - - - - -	6.50
Student Services Fee - - - - -	2.00
	8.50
<b>SUMMER QUARTER</b>	
Pre-Session, Regular Session, or both	
Colorado Resident	
Tuition - - - - -	4.50
Student Services Fee - - - - -	2.00
	6.50
Non-Colorado (Out-of-State) Resident	
Tuition - - - - -	8.50
Student Services Fee - - - - -	2.00
	10.50
<i>Tuition for Off-Campus Instruction*</i>	
Group Instruction - - - - -	8.00
Correspondence Study - - - - -	8.00
*Residence status is not determined for or applied to off-campus programs	
<i>Tuition for Doctoral Research Credit</i>	
Tuition for research (course numbered 423) in lieu of regular tuition and student services fees - -	6.00

The above listed charges supersede those listed in the Bulletin, 1960-1961, General Catalog, Colorado State College, Series LX of March 1960, effective to September 1, 1961, and abolish the segregated charges formerly made for a Registration Fee, a College Service Fee and an Associated Students' Fee.

Tuition and Student Services Fee charges for any registration are computed by multiplying the number of course credit hours for which registered by the applicable charge quoted above. A typical registration for a full program each quarter will be between 12 and 17 credit hours. Registrations from quarter to quarter may vary considerably and are dependent on the adviser's recommendations coordinated with the student's needs and interests.

Payment of the Tuition and Student Services Fee charges will entitle each student on campus to instruction and a number of campus services. In addition to instruction, a student on campus in the academic year who is enrolled for five or fewer credit hours, is entitled to student health office services, normal course materials, the student newspaper, library privileges, and use of the Student Union facilities.

In addition to instruction, a student on campus or on student teaching assignment in the academic year who is enrolled for six credit hours or more, is entitled to all regular college services normally accorded full-time students. These services include those listed in the paragraph above plus a validated identification card, a student health certificate providing the holder with contractual medical and hospitalization services, admission to athletic events, Little Theatre plays, the community concert series, and all musical productions. The college annual, the Cache La Poudre, will be available each spring quarter to those students in residence enrolled for six or more quarter hours of credit for each of the three quarters of the academic year.

During the summer quarter, the fees' portion of the Tuition and Student Services Fee charges do not provide contractual medical and hospital services, but are used for an expanded program of campus activities.

Recipients of scholarships or tuition waivers receive, as a credit against all charges, the value of that portion of the credit hour charge which is represented by tuition only; the Student Services Fee portion of the total credit hour charge is never waived and becomes due and payable at registration.

Determination of residence for the purpose of assessing tuition is made in accordance with a statute which applies uniformly to all registrants in the state institutions of higher education in Colorado. Administrative rulings which fix status at registration have received the approval of the Association of State Institutions of Higher Education in Colorado and the Trustees of the State Colleges in Colorado. Upon appeal, following registration, a college committee will review the status conferred on a student. A declaration by a student of intent to be or to become a resident of Colorado will have no bearing on the determination of status.

In planning a full program of courses, the typical single student in residence should be prepared to meet charges in approximately the following amounts:

ACADEMIC YEAR—FALL, WINTER AND SPRING—

	<i>Status</i>	
	<i>In-State</i>	<i>Out- of-State</i>
Tuition and Student Services Fee		
(16 Credit Hours per Quarter) - -	\$ 240.00	\$ 408.00
Books and Supplies (estimated) - -	75.00	75.00
Board and Room - - - - -	705.00	705.00
*Personal Expenses - - - - -	225.00	225.00
	<hr/>	<hr/>
Total Expenses Academic Year - - -	\$1,245.00	\$1,413.00

SUMMER SESSIONS—

	<i>In-State</i>	<i>Out- of-State</i>
Pre-Session (two weeks)		
Tuition and Student Services fee - \$	19.50	\$ 31.50
Books and Supplies (estimated) - -	8.00	8.00
Board and Room (2 to a room) - -	50.00	50.00
*Personal expenses - - - - -	15.00	15.00
<b>Total Pre-Session Expense - - - -</b>	<b>\$ 92.50</b>	<b>\$ 104.50</b>
Regular Session (8 weeks)		
Tuition and Student Services Fee - \$	78.00	\$ 126.00
Books and Supplies (estimated) - -	20.00	20.00
Board and Room (2 to a room) - -	180.00	180.00
*Personal Expenses - - - - -	75.00	75.00
<b>Total Regular Session Expenses - - -</b>	<b>\$ 353.00</b>	<b>\$ 401.00</b>
<b>Total Expenses, Summer Quarter</b> (2 sessions totaling 10 weeks) - - -	<b>\$ 445.50</b>	<b>\$ 505.50</b>

\*Amounts given for personal expenses are estimated, normal expenses for clothing, entertainment, etc. Travel, unusual expenses for clothing and auto maintenance should be added.

Graduate fees, music fees and incidental fees, hereunder given, if applicable, must also be added.

**Incidental Tuition and Fees**

The terms of individual registrations may make applicable each quarter additional fees as below listed:

Late registration (assessed for enrollment completed after the scheduled hours of registration any quarter) - - - - -	\$5.00
Special examination (assessed when permission is granted to take an examination at a time other than the hour scheduled)	2.00
Late application for graduation - - - - -	2.00
Change of program (assessed for each program change permitted) - - - - -	1.00
Extension of credit where permitted and arranged	
Tuition and Student Services Fee Charge - - - - -	1.00
Board and Room - - - - -	1.50
(All college assessed charges are due and payable at registration in each quarter. Deferred payment may be arranged only for sufficient cause and for payments by installments within the quarter for which the student registers. No registration is accepted without a down payment of at least one-third of total charges assessed in any quarter of the academic year or at least one-half of the assessment in the regular session of the summer quarter. No deferment for tuition, fees or other charges is ever issued to a Pre-Session student.)	
Proficiency examination - - - - -	2.00
Official transcript of college credits, per copy - - - - -	1.00
Student Identification Card Replacement - - - - -	1.00
Certified Statement of Issuance of Life Teaching Certificate -	1.00
Office of Appointments' Charges (The placement year begins October 1 and ends September 30).	
Initial enrollment before Dec. 1 - - - - -	10.00
Initial enrollment after Dec. 1 - - - - -	15.00
Re-enrollment before Feb. 1 - - - - -	10.00
Re-enrollment after Feb. 1 - - - - -	15.00
Seventh and subsequent copies of credentials sent out, per copy - - - - -	1.00

Summarization of high school and college credits on request - - - - -	\$5.00
First and subsequent copies of credentials sent out during a placement year when applicant has not re-enrolled, per copy - - - - -	1.00
Telephone calls, telegrams and postage for sending credentials by air mail or special delivery - - - - -	actual cost

Incidental Fees, Graduate Study Fees, Tuition for Individual Music Instruction—Assessable in the regular academic year, are also applicable in the Summer Sessions.

### 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 in the sixth quarter of doctoral studies) - - - - - 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

Ed.S. Research Studies fee per quarter - - - - - 25.00

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

Doctoral candidates, when requesting registration of research credit, presumably during the quarter in which the study is formally accepted and approved, will pay \$6 tuition per quarter hour of research credit recorded. Tuition and student services fees are not assessed on research credit earned in course numbered 423.

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 applicable to the advanced degree program entered.

Binding and mailing Master's Thesis, Practicum or Doctoral Research Study (4 copies required) - - - - -	10.00
Comprehensive Examination Retesting Fee - - - - -	5.00
Remedial Writing Laboratory (required of a student assigned to the laboratory following tests) - - - - -	10.00
Advanced Test in Education and Psychology and Area Test in Social Science, Natural Science, and Humanities (for doctoral students) - - - - -	10.00

### Fees for Music Instruction

Individual music lessons per quarter	
Music majors - - - - -	\$12.50
Other college students - - - - -	15.00
Persons not enrolled in the college or affiliated schools - - - - -	25.00
Individual music lessons, less than full quarter	
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

## Policy on Refunds

To be eligible for a refund of any kind under the following regulations, the student must have presented to the Business Office a copy of a formal withdrawal notice. Consult the Records Office and the Housing Office, Department of Student Personnel for the procedure required.

A partial refund of Tuition and Student Services Fees is made under rulings of the Board of Trustees on the following terms:

### FALL, WINTER AND SPRING QUARTERS—

Within the first week following registration—all tuition and fees, less the change of program fee which, as above listed, is \$1.00 for each course for which registered.

Within the second week following registration, three-fourths of tuition and fees.

Within the third week following registration, one-half of tuition and fees.

Within the fourth week following registration, one-fourth tuition and fees.

### SUMMER SESSIONS—

Pre-Session, no refund at any time.

Within the first week of the eight weeks' regular session, all tuition and fees less the change of program fee which, as above listed, is \$1.00 per course for which registered.

Within the second week of the eight weeks' regular session, one-half of tuition and fees.

Within the third week of the eight weeks' regular session, one-fourth of tuition and fees.

### ROOM AND BOARD CHARGES AND APARTMENT RENTALS—

Consult the Residence Halls Lease for the terms applicable to withdrawals and allowable refunds of payments and deposits.

## College Residence Halls Charges

Fall, Winter and Spring Quarters, 1961-1962—

	<i>Per Quarter</i>	
	<i>Minimum</i>	<i>Maximum</i>
Board and Room (includes bedding and bed linens)		
Men's Residence Halls - - - - -	\$235.00	\$235.00
Women's Residence Halls - - - - -	215.00	230.00
Board Only (limited to students not resident in College Halls, 14 meals per week)		
Women's Residence Halls - - - - -	135.00	135.00
Rooms, College-owned Fraternity or Sorority Houses (restricted to organization mem- bers) - - - - -	60.00	60.00

The student is expected to provide towels and personal linens. The college furnishes and launders college-owned sheets, pillow-cases, pads and blankets for the residence halls and the fraternity and sorority houses.

	<i>Per Month</i>	
Apartments, Jackson Village (Rentals restricted to married students) -	\$ 40.00	\$ 52.00

Address the Housing Office, Department of Student Personnel, when applying for any type of campus housing. To confirm a reservation, a \$25.00 deposit must be advanced. When a reservation is cancelled, \$10.00 will be refunded if notification is given at least 30 days prior to the quarter for which accommodations have been reserved except for the Fall Quarter when notification must be furnished by August 15. A deposit of a student who enters a residence will be held to his credit as a protection against penalty charges and restoration of property damage. On withdrawal, the student's deposit less assessed deductions will be returned. If a residence hall contract is broken within the academic year at the close of any quarter, \$15.00 will be forfeited.

Summer Sessions (effective 1962)—

	<i>Pre- Session (2 weeks)</i>	<i>Regular Session (8 weeks)</i>
Board and Room*		
Men's Residence Halls - - - - -	\$ 48.00	\$187.00
Women's Residence Halls		
2 Persons Per Room - - - - -	48.00	177.00
Single Person Per Room - - - - -	55.00	195.00
Board Only Service		
14 meals per week limited to students not resident in the Residence Halls -	28.00	105.00
Room Only, College-owned houses*		
Single Women - - - - -	15.00	55.00
Married Couples (rate for two persons) -	30.00	110.00
Families (space reserved only for 10 weeks of registration) - - - - -		180.00

\*College-owned sheets, pillowcases and blankets furnished and laundered by the college. All reservations procedures and regulations applicable to the academic year are observed in the Summer Sessions.

The Board of Trustees reserves the right to alter tuition and fee rates and/or board and room charges on 30 days' notice prior to the announced day of registration for any quarter.

# Academic Information

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**Functions of the College**—The primary purpose of Colorado State College is to prepare teachers for many kinds of educational positions. The administration and faculty expect each student to maintain a high standard of scholarship and professional development, and to be thoroughly prepared at the time of his graduation. Four programs are offered—an undergraduate program and three graduate programs.

**Accreditation**—Colorado State College is accredited by the North Central Association of Colleges and Secondary Schools as an institution conferring the Bachelor of Arts, the Master of Arts, the Specialist in Education and the Doctor of Education 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 Doctor's degree as the highest degree approved beginning in 1954.

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.

**Undergraduate Program**—Bachelor of Arts (A.B.) degree with a teaching certificate. A certificate to teach in Colorado accompanies the degree. It is possible for a student to take courses leading to the Bachelor of Arts (A.B.) degree in liberal arts. This degree does not carry a teaching certificate. Less than ten per cent of the students are enrolled in this program.

**Graduate Program**—1. Master of Arts (A.M.) degree. This degree is offered in seven divisions of the college. A permanent certificate to teach in Colorado accompanies the degree.

2. Specialist in Education (Ed.S.) degree. This degree is granted for one year of work beyond the Master of Arts.

3. Doctor of Education (Ed.D.) degree. This degree is based upon advanced study, successful experience, and research.

**Quarter System**—The school year is divided into three quarters: Fall, Winter, and Spring. The Summer Sessions are held in June, July, and August.

**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.

**Course Numbers**—The course numbers are divided into five groups: (a) 1 to 99 are primarily for first and second-year students; (b) 100 to 199 are primarily for third and fourth-year students; (c) 200 to 299 are primarily for fourth-year and graduate students; (d) 300 to 399 are for graduate students; (e) 400 to 499 are primarily for candidates for the doctorate.

**Effective Dates of this Catalog**—The effective dates of this catalog are from September 1, 1961, to August 31, 1962. This includes Fall, Winter and Spring Quarters, 1961-62, and the 1962 Summer Sessions. Students enrolling for the first time at the college during these effective dates will follow the rules and regulations in this catalog until their graduation, if such graduation is within six years.

**Majors and Minors**—Majors and minors which may be obtained at the college are listed at the beginning of each division's section of this catalog. Specific courses required for the majors and minors are then listed in each division.

**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.

**Graduate Study**—Detailed information about the graduate program may be obtained from the graduate section in this catalog. Course work will be outlined by the student's major professor.

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

**Credit Offered** — Courses offered during Fall, Winter and Spring quarters will carry the credit designated in the catalog. The same course offerings scheduled in the Summer Sessions may vary in the amount of credit offered.

**Double-listed Courses**—Courses marked with a section mark (§) are listed in more than one division or in different departments within a division. Credit may be obtained in the division in which the course is listed, or in the division or department within a division indicated in parentheses following the course title. The student is responsible for indicating at the time of registration the division or department within a division in which credit is to apply.

**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 Sessions are listed in the Summer Bulletin.



**Transcripts**—Students may obtain official transcripts of their college records on payment of \$1.00 for each copy, payable in advance. Requests should be addressed to the Recorder, Department of Student Personnel.

**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 Student Aid, Department of Student Personnel.

**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 certification.

**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 Dean of Students, a maximum of 18 hours and the required physical education activity or the AFROTC basic course 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 Dean of Students. Graduation requirements and the academic standing of the student will be considered by the Dean of Students in making the decision.

**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** — Each of the letters of the marking system has a numerical value. The letter "A" has a value of 5 points; "B" a value of 4 points; "C" a value of 3 points; "D" a value of 2 points; and "F" a value of 1 point. If all the student's marks were "C's" they would have a numerical value of 3. If one-half of his marks were "C's" and the other half "D's" the numerical value of his marks would be 2.5.

**Scholastic Average and Academic Status**—Freshman students are required to maintain a minimum grade point average of 2.5 in each quarter and must attain a minimum cumulative grade point average of 2.75 for the freshman year. A freshman student achieving less than 2.75 in any quarter will be placed on academic probation for the succeeding quarter. Any freshman student attaining less than 2.5 in any quarter or less than 2.75 for the year may be suspended.

Sophomore, junior, and senior students are required to maintain a minimum grade point average of 2.75 in each quarter. Sophomore students must attain a cumulative grade point average of 3.0 by the close of their sophomore year. Juniors and seniors must maintain a cumulative grade point average of 3.0 throughout the junior and senior years. A sophomore, junior, or senior achieving less than 3.00 in any quarter will be placed on academic probation for the succeeding quarter. Any sophomore, junior or senior attaining less than 2.75 in any quarter or less than 3.00 cumulatively after the close of the sophomore year may be suspended.

A minimum cumulative grade average of 3.0 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.

**Late Enrollment**—No student will be permitted to enroll in a course after the first week of the Fall, Winter, and Spring quarters. No late enrollments will be approved for the two-week Pre-Session. No student may enroll in a course program after the first week of the eight-week Summer Session. These regulations apply 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. Permission to register after the date for registration stated in the college catalog must be obtained from the Dean of Students for undergraduate students or the Dean of the Graduate Division for graduate students. The late registration fee of \$5.00 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 Committee on Waivers. This committee meets between 9 and 10 a.m. the Saturday morning of the first week of the quarter in Frasier 201.

**Absences**—Students must, except for illness, emergency or such other reasons as the individual instructor concerned considers acceptable, be present at all classes for which they are enrolled. No matter what the reason for the absence, the student is held responsible for doing the full work of the class. No unexcused absence may be made up.

Emergency absences must be cleared by the Dean of Students. Illnesses must be reported to the Health Office by the householder or residence hall director. Any other reasons necessitating absence must be explained to the instructor concerned, in advance of the proposed absence, and arrangements must be made at that time with the instructor for the work required of the student at the time of his absence. Any student who is absent one or more times during the last week of the quarter will receive an "Incomplete" for the course.

Any instructor who asks that students be excused for field trips or other out-of-class activities under his sponsorship or supervision must send the list of the students to the Dean of Students for his approval at least one week before the absence.

**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 of \$2.00.

The schedule of final examinations will be posted on campus bulletin boards one week before the end of each quarter. Final examinations for Fall, Winter and Spring Quarters are usually scheduled during the last two days of the quarter.

## Undergraduate Program

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**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 and students of liberal arts.

**Academic Ability and Achievement** — A high school graduate or a person holding a high school equivalency certificate of the State Department of Education may be admitted to Colorado State College for a teacher-education program of studies or a liberal arts 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.

The minimal entrance requirements for admission of Colorado residents 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, foreign languages, mathematics, science, and social studies, and including not fewer than 3 units of English.

3. Rank in the upper two-thirds of graduating class with high school recommendation.

The minimal entrance requirements for admission of Out-of-State students 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, foreign languages, mathematics, science, and social studies, and including not fewer than 3 units of English.

3. Rank in the upper one-half of graduating class with high school recommendation.

A person 20 years of age or over who is not a high school graduate may be admitted to a teacher-education program or a liberal arts program if the results of a series of entrance examinations 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 satisfactory 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 admission and following a medical examination by a qualified medical practitioner, a student shall submit to the Health Service of the college a health report which is acceptable to the staff of the 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.

**Matriculation Requirements** — A new student, whether freshman or transfer, shall complete during the first quarter on campus the psychological and achievement 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 and previous college record, (2) filing an acceptable health record, (3) completing the psychological and achievement 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.

**Major and Minor Fields**—At the time of first registration a student must declare his major and minor fields of study and be assigned to a faculty adviser in his major division 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 divisions concerned, using forms obtained at the Records Office.

**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.

**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.

**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. 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.

**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 for courses in which "D's" have been earned. On and after September 26, 1960, transcripts from other college and universities presented for admission or transfer of credit purposes will be evaluated under this policy.

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.

Credit and exemptions are allowed for USAFI courses and college level GED tests when satisfactorily completed.

After a veteran has enrolled at Colorado State College, he may present his separation or discharge papers and service school papers to the Registrar. Evaluation and review of these papers will be made by the college's Committee on Military Credit and credit is granted according to the recommendations of the American Council on Education.

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

**Correspondence and Extension Courses**—Not more than 45 quarter hours of credit taken by correspondence or extension may be applied toward a 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 (the college no longer offers extension courses, only off-campus courses taught by regular faculty members), and correspondence and extension work transferred from other colleges and universities. Colorado State College correspondence courses must be completed, graded and recorded 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. Common course requirements are subject to the approval of the Registrar, and major and minor requirements require the additional approval of the Division involved.

Students should obtain a copy of the Off-Campus Instruction Bulletin for complete information about correspondence courses and off-campus classes. This bulletin, available from the CSC Off-Campus Study Office, explains all regulations and restrictions concerning off-campus study programs. Courses offered by correspondence, which are also described in this catalog in the appropriate division, include:

Course Number	Course Title	Hours	Credit
Ed. 105	American Education	- - - -	3
Ed. 214	The Elementary School	- - - -	3
Ed. 215	Teaching Handwriting and Spelling in the Elementary School	- - - -	2
Ed. 216	The Secondary School	- - - -	3
Ed. 295	Philosophy of Education	- - - -	3
Bus. 20	Principles of Accounting I	- - - -	4
Bus. 21	Principles of Accounting II	- - - -	4
Bus. 22	Principles of Accounting III	- - - -	4
Bus. 41	Introduction to Business	- - - -	3
Bus. 54	Consumer Economic Problems	- - - -	3
Bus. 64	Marketing	- - - -	3
Bus. 72	Salesmanship	- - - -	3
Bus. 115	Business Correspondence	- - - -	3
Bus. 131	Business Law I	- - - -	2
Bus. 132	Business Law II	- - - -	2
Bus. 133	Business Law III	- - - -	2
Bus. 134	Business Law IV	- - - -	2
Bus. 158	Psychology of Advertising	- - - -	3
Bus. 256	Business Organization and Management	- - - -	3
Bus. 257	Principles of Insurance	- - - -	3
E.P.G. 20	General Psychology and Personal Adjustment	- - - -	5
E.P.G. 30	Psychology of Childhood and Youth	- - - -	3
E.P.G. 40	Educational Psychology	- - - -	3
E.P.G. 101	Guidance in the Classroom	- - - -	3
Eng. 58a	Survey of English Literature (700-1800)	- - - -	4
Eng. 58b	Survey of English Literature (1800-Present)	- - - -	4
Eng. 58c	Survey of American Literature	- - - -	4
Eng. 289a	Literature of the Old Testament	- - - -	3
Eng. 289b	Literature of the New Testament	- - - -	3
Earth Sci. 131	Descriptive Astronomy	- - - -	3
Math. 20a	College Algebra I	- - - -	5
Math. 21	Plane Trigonometry	- - - -	5
Math. 22	Analytic Geometry I	- - - -	5
Math. 274	History of Mathematics	- - - -	5

Geog.	48	- -	United States	- - - - -	4
Econ.	30	- -	Introductory Economics	- - - - -	5
Pol. Sci.	40	- -	National Government of the United States	- - - - -	5
Pol. Sci.	171	- -	State and Local Government	- - - - -	4
Pol. Sci.	172	- -	Problems in United States Government	- - - - -	3
Soc.	50	- -	Principles of Sociology	- - - - -	5
Soc.	204	- -	Marriage and the Family	- - - - -	3
Hist.	30	- -	World History I	- - - - -	4
Hist.	31	- -	World History II	- - - - -	4
Hist.	32	- -	World History III	- - - - -	4
Hist.	70	- -	United States History I	- - - - -	3
Hist.	71	- -	United States History II	- - - - -	3
Hist.	72	- -	United States History III	- - - - -	3
Hist.	75	- -	Unit Survey of United States History	- - - - -	4

**Application for Graduation** — Upon completing 135 quarter hours of course work, students must apply for graduation at the office of the Registrar. Failure to apply at the stated time will result in the assessment of a \$2.00 fee and possible delay of graduation by one quarter for a student. It is the student's obligation to keep the Registrar informed at all times in regard to graduation plans, such as any change in the proposed quarter of graduation after the application was filed.

## Student Teaching

Student teaching assignments are made in the campus Laboratory Schools (Ernest Horn Elementary School, College High School, Special Education School), and in cooperating public schools in the state.

All assignments for student teaching are made with the approval of the Director of Student Teaching. Before assignments are made, students must have: (1) an average grade of "C" in major courses and a cumulative average of 3.00 (Grades are figured on course work taken at Colorado State College only); (2) completed the prerequisite courses in methods and observation; (3) health, personal characteristics, and professional attitudes considered essential for successful teaching.

A student who submits required evidence of at least three years of satisfactory teaching experience may obtain exemption from student teaching. Exemptions are based on quality of teaching experience, kind of school in which experience was obtained, and scholastic standing.

Any student electing more than sixteen hours of student teaching must have the approval of the Director of Student Teaching. The maximum number of hours of student teaching is twenty.

The minimum requirement for graduation with a teaching certificate is eight quarter hours of student teaching.

**Prerequisites for Student Teaching**—(1) Completion of at least two quarters as a full-time student on the college campus; (2) completion of the following courses, or their equivalent:



E.P.G. 20, 30, 40 and Ed. 85, 105, and 214 or 216 or 218; (3) classification of junior, senior, or graduate student. Graduate or transfer students applying for student teaching will be held for the same prerequisite courses or their equivalent. Students must take their methods and observation, Ed. 140, 141 in the subject field or fields in which they do their student teaching.

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

Students making application for student teaching must secure the approval and signature of their adviser, their methods instructor and their observation teacher.

A student may apply for eight, twelve or sixteen hours of student teaching in one quarter. Students applying for four hours of student teaching in one quarter must have the approval of the department in which they wish to do student teaching. Four or eight quarter hours of student teaching may be earned during the Summer Session on the elementary level only in the Laboratory School. During the Summer Session there is no student teaching on the secondary level.

It may be deemed necessary for a student to be asked to spend one quarter away from the campus in order that he be able to complete a student teaching assignment which will give him the best experience. 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.

## Graduation Requirements

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In addition to meeting the common, professional, major, minor, and physical education activity course requirements as specified below in this section of the catalog, each student expecting to graduate with a Bachelor of Arts degree must:

1. Apply for graduation on completing 135 quarter hours of course work. Total credits required for graduation are 180 academic quarter hours plus 6 quarter hours of physical quarter in which they wish to do student teaching.

2. Have a minimum of 45 quarter hours credit earned in courses taken on the campus in Greeley.

3. Not apply toward the degree more than 45 quarter hours of credit earned in: Colorado State College correspondence courses; and correspondence and extension courses transferred from other colleges and universities.

4. Have a cumulative grade point average of 3.00 or higher.

5. Have completed the Colorado State College matriculation examinations.

6. Have met the college photograph requirements.

7. Have a health examination within 12 months of his or her graduation date, and have this report filed with the Student Health Service.

8. Keep the Registrar informed at all times in regard to any change in graduation plans.

9. Participate in commencement exercises unless formally excused by the Graduation Committee.

In addition to the above, each male student must have completed the required Air Force ROTC program, unless exempted, according to college policy as explained in the Division of Air Science section of this catalog.

**Bachelor of Arts Degree (With Teaching Certificate)** — The Bachelor of Arts degree with teaching certificate may be conferred in one of the following fields:

- Fine Arts
- Home Economics
- Dietetics
- Industrial Arts
- Business Education (with concentration in Office Occupations or Distributive Education)
- Elementary Education
- Special Education
- Speech Correction
- Physical Education for Men
- Physical Education for Women
- English
- English and Speech (Junior High Level)
- Foreign Languages
- Speech
- Drama
- Music Education
- Science (with concentration in Biological Science or Physical Science)
- Chemistry
- Mathematics
- History
- Social Science
- Social Studies (Junior High Level)

**Undergraduate Curriculum**—The undergraduate curriculum consists of the following areas totaling 180 academic quarter hours, plus 6 quarter hours of physical education activity courses:

- a. *General Education Courses*—Humanities, English Composition, Sciences, Social Studies, General Psychology, Personal Living.
- b. *Professional Education Courses*—Psychology of Childhood and Youth, Educational Psychology, Community Life and Problems, American Education, The Elementary School or The Junior High School or The Secondary School, Methods and Observation, Student Teaching, Philosophy of Education.

- c. *Broad Areas of Concentration*—A major of 48 quarter hours and a minor of 27 quarter hours.
- d. *Electives*—Sufficient free electives to complete the requirements for graduation.

**Plans of Study**—A student may choose from two plans of study to obtain the Bachelor of Arts degree with a teaching certificate. They are (a) Major and Minor Plan and (b) Elementary Education Major.

**Bachelor of Arts Degree (With Teaching Certificate) Major and Minor Plan**—In this plan of study, a major is earned in a field of specialization. A minor and sufficient electives are required to provide a broad and thorough educational background. The program:

- a. Common Courses listed for the Bachelor of Arts degree with teaching certificate.
- b. Required major courses not to exceed 48 quarter hours.
- c. One or two minors with a minimum of 27 quarter hours each. The number of minors depends upon the field in which the major is taken. Methods courses are not included in the requirements for the minor.
- d. Free electives to complete 180 quarter hours of academic credit.
- e. Six quarter hours of physical education activity courses. Whenever possible, these should be taken in the freshman and sophomore years. These hours do not apply toward 180 hours of academic credit.

**Bachelor of Arts Degree (With Teaching Certificate) Elementary Education Major**—The Elementary Education Major prepares students to teach in the elementary school. Students who complete this major carry on a program of study in various subject matter fields as well as in the education courses required for this major. The program:

- a. Common Courses listed for the Bachelor of Arts degree with teaching certificate.
- b. Major Courses listed in the Division of Education for the Elementary Education Major, plus adequate preparation in content courses recommended by the student's adviser.
- c. Sufficient electives to complete 180 quarter hours of academic credit.
- d. Six quarter hours of physical education activity courses. Whenever possible, these should be taken in the freshman and sophomore years. These hours do not apply toward 180 hours of academic credit.

**Bachelor of Arts Degree (Liberal Arts)**—The curriculum leading to the Bachelor of Arts degree in Liberal Arts is similar to programs offered in liberal arts colleges. Courses in education are not required for the degree.

The Bachelor of Arts degree in Liberal Arts may be taken in one of the following fields:

Fine Arts	Physical Sciences
Dietetics	Biological Sciences
Home and Family Living	Chemistry
Business	Mathematics
English	Medical Technology
Speech	History
Drama	Social Science
Foreign Languages	

The degree may not be taken in the fields of Music, Health and Physical Education, Industrial Arts, and Education. Certain courses in these fields may be elected with the approval of the adviser and the Registrar. The only courses listed in the Education Division section of the catalog which are open to candidates for a liberal arts degree are E.P.G. 20, General Psychology, and all courses listed as "Business" but not as "Business Education."

This degree is offered only in a Major and Minor plan of study. The major is earned in a field of specialization. A minor outside of the field of specialization, and sufficient electives, are required to provide a broad and thorough educational background. The program:

- a. Common Courses listed for the Bachelor of Arts degree in liberal arts.
- b. Major courses required in a field of specialization not to exceed 48 quarter hours.
- c. A minor with a minimum of 27 quarter hours outside the major.
- d. Sufficient electives to complete 180 quarter hours of academic credit.
- e. Six quarter hours of physical education activity courses. Whenever possible, these should be taken in the freshman and sophomore years. These hours do not apply toward 180 hours of academic credit.

**Bachelor of Arts Degree (With Major in Medical Technology)**  
—Colorado State College and the Weld County General Hospital offer a four-year program leading to the Bachelor of Arts degree with a major in Medical Technology. Nine quarters of this program are given on the campus of Colorado State College. The clinical pathology staff is in charge of the program at Weld County General Hospital. The student must earn a total of 180 quarter hours plus 6 quarter hours of physical education activity courses. Of this, 45 quarter hours will be earned in the Weld County General Hospital and 141 quarter hours at Colorado State College. Student programs will be planned with the major professor.

# Common Courses

## Bachelor of Arts Degree (With Teaching Certificate)

The Common Courses listed here are required of all students who are studying for a Bachelor of Arts degree with teaching certificate.

### Freshman Year

<i>Course Number</i>		<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
E.P.G.	20	- - General Psychology and Personal Adjustment	-	5
Eng.	4a	- - Elementary English Composition	- - -	5
H.P.E.	61	- - Personal Living and Community Health	-	5
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 Centuries	-	3
Sci.	3	- - Physical Science	- - - - -	3
Sci.	4	- - Biological Science	- - - - -	3
Sci.	5	- - Earth Science	- - - - -	3

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H.P.E.	- -	Physical Education Activity Courses	- -	3
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### Sophomore Year

<i>Course Number</i>		<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
E.P.G.	30	- - Psychology of Childhood and Youth	- -	3
E.P.G.	40	- - Educational Psychology	- - -	3
Ed.	85	- - Community Life and Problems	- - -	3
S.S.	81	- - The Individual and His Social Relations	-	3
S.S.	82	- - American Life and Institutions	- - -	3
S.S.	83	- - Contemporary World Cultures	- - -	3

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H.P.E.	- -	Physical Education Activity Courses	- -	3
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### Junior Year

<i>Course Number</i>		<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Ed.	105	- - American Education	- - - - -	3
Ed.	139	- - Introduction to Student Teaching in the Elementary School	- - - - -	5
		<i>or</i>		
Ed.	140	- - Introduction to Student Teaching in the Secondary School	- - - - -	2
		<i>and</i>		
Ed.	141	- - Methods of Teaching in the Secondary School	-	3
Ed.	214	- - The Elementary School		
		<i>or</i>		
Ed.	218	- - The Junior High School		
		<i>or</i>		
Ed.	216	- - The Secondary School	- - - - -	3
		For a total of	- - - - -	11

### Senior Year

<i>Course Number</i>		<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Ed.	151	- - Student Teaching	- - - - -	8 to 16
Ed.	295	- - Philosophy of Education	- - - - -	3

11 to 19

### Interdivisional Courses

All divisions use these numbers without a prefix.

#### h50. HONOR SEMINAR. *No credit.*

A study of the problems of importance to honors students in a major division in a special honors program to develop master teachers, and a study of the characteristics of the master teacher and their implications for education of the honors student.

#### 222. INDIVIDUAL STUDIES. *Four hours credit.*

Qualified undergraduate students outline and spend a minimum of twenty-five clock hours per quarter 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 division.

### Bachelor of Arts Degree (Liberal Arts)

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

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
E.P.G. 20	- - General Psychology and Personal Adjustment	5
Eng. 4a	- - Elementary English Composition	5
H.P.E. 61	- - Personal Living and Community Health	5
H.P.E.	- - Physical Education Activity Courses	6
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 Centuries	3
Sci. 3	- - Physical Science	3
Sci. 4	- - Biological Science	3
Sci. 5	- - Earth Science	3
S.S. 81	- - The Individual and His Social Relations	3
S.S. 82	- - American Life and Institutions	3
S.S. 83	- - Contemporary World Cultures	3

# Graduate Division

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**Program**—Colorado State College offers three advanced programs of professional work leading to the Master of Arts degree, Specialist in Education degree, and Doctor of Education 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 in Education (Ed.S.) degree was approved.

**Organization**—The Graduate Council is the legislative body for graduate work. Each of the instructional divisions of the college offering a graduate program is represented on the Graduate Council.

**Objective**—Colorado State College is primarily an institution for the preparation of teachers, supervisors, and administrative personnel. In accord with this fundamental objective, the college grants the teaching degrees of Bachelor of Arts, Master of Arts, Specialist in Education, and Doctor of Education.

**Admission**—All candidates for the graduate degree must file with the Dean of the Graduate Division an application in triplicate and two copies of certified transcripts of all previous academic credits preferably *thirty days before registration*. Students failing to make formal application for admission prior to the date of registration should expect a delay of several hours in completing enrollment while IBM materials are being prepared.

All classified graduate students are required to take: (1) English usage examination; (2) a personality inventory. The English usage examination will consist of an objective English usage test and an essay.

Students in the Master of Arts program scoring between the 80th and the 21st percentiles on the standardized English usage examination may be excused from the Writing Laboratory for Graduate Students requirement on the basis of creditable essay evaluation.

Students in the Specialist in Education and Doctor of Education programs scoring between the 80th and the 40th percentiles are subject to the above consideration.

Students scoring above the 80th percentile are excused from the Writing Laboratory requirement.

A non-credit Writing Laboratory for Graduate Students (0300) will be required of those students who fail to meet these minimum standards (Laboratory fee, \$10.00). Students who are required to enroll in the Writing Laboratory will remain in the class until they can write acceptably according to standards set up by a committee composed of members of the Division of the Humanities.

### Interdivisional Courses

All divisions use these numbers without a prefix.

**0300. WRITING LABORATORY FOR GRADUATE STUDENTS. *No credit.***

A required remedial writing laboratory for graduate students whose English usage ability is low and who need help. (Laboratory fee of \$10 is assessed.)

**300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.***

An orientation to graduate study in general and the nature and methods of research in particular. Required of all first-year graduate students. Should be taken during the first quarter of graduate work.

**301. PRACTICUM. *Four hours credit.***

Open only by invitation to resident graduate students. Supervised professional activity in the student's major field, approximately two hours per day. A written report is required.

**322. INDIVIDUAL STUDIES. *Four hours credit.***

Qualified graduate students outline and spend a minimum of twenty-five clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the Dean of the Graduate Division.

**399. THESIS. *Eight hours credit.***

**400. INTRODUCTION TO DOCTORAL RESEARCH. *Four hours credit.***

Prerequisite, master's degree. An introduction to research and advanced study. Required if the student has not previously taken 300 or the equivalent.

**401. SPECIALIST DEGREE PRACTICUM. *Eight hours credit.***

Prerequisite, master's degree. Project or supervised professional activity, required of all candidates for the Specialist in Education degree. A written report of the project or activity must be submitted.

**423. DOCTORAL RESEARCH STUDY. *Eighteen hours credit maximum.***

Registration of hours will be during the quarter in which the research study is formally accepted.

**Health**—A student applying for admission to an advanced degree must file a medical examination. Prior to admission and following a medical examination by a qualified medical practitioner, a student shall submit to the Health Service of the college a health report which is acceptable to the staff of the 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.

**Photograph**—Each student is required to furnish two photographs, application size of 3" x 4", for the official files of the college. These photographs are for identification purposes only and not a criterion for admission.

**Courses for Seniors**—Senior students may, in their last quarter of undergraduate study, register for graduate courses which are in excess of the requirements for the bachelor's degree when formal application for admission is filed and approved



prior to the final quarter. Arrangements for admission to the Graduate Division must be made with the Dean of the Graduate Division.

**Registration and Advisement**—The Dean of the Graduate Division will appoint an adviser for those students who have completed admission requirements. All degree programs will be planned with and approved by the student's adviser. A change of an adviser must have the approval of the Dean of the Graduate Division.

Students who enroll in a non-degree program in an unclassified status are limited to a maximum of ten weeks' residence, regardless of the total number valid quarter hours credit, when they apply for admission to a degree program. Therefore, the minimum residence for any graduate student who has been unclassified in a non-degree program is 20 weeks.

Graduate students who are not candidates for advanced degrees will register as unclassified students. However, each student is urged to plan a degree program at the beginning of his graduate experience.

All registrations are subject to approval by the Dean of the Graduate Division.

**Student Responsibility**—The graduate student is expected to know the requirements for the degree he plans to earn. While the personnel of the Graduate Office and the student's adviser will endeavor to aid in every way possible, the responsibility for any error in his enrollment or in the interpretation of the rules rests with the student.

Doctor of Education and Specialist in Education degree candidates enrolled in evening and Saturday programs as part-time students who register at time of class meeting rather than on day of registration must report to the Graduate Division Office to have registration materials processed prior to reporting to the Accounting Office for payment of tuition and fees.

**Course Load, Credit, and Off-Campus Courses**—The normal load for graduate credit applicable to a degree is fifteen hours per quarter in the academic year, twelve quarter hours for the eight-weeks' summer session, and three quarter hours for the two-weeks' pre-session.

Courses bearing catalog numbers of 200 or above carry graduate credit.

*Graduate credit is not given for any courses taken by correspondence.*

A student may earn a maximum of eight quarter hours of credit applicable to the master's degree in off-campus courses taught by regular full-time Colorado State College faculty members. No off-campus credit is applicable to the specialist or doctorate degrees.

**Grading System** — Alphabetical grades are used: A, B, C, D, F. *No graduate credit applicable to a degree will be allowed for courses with a grade below C.* Other marks used are "Inc." incomplete; "W" approved withdrawal; "TF" unapproved withdrawal; "WF" failing at withdrawal.

Each of the letters of the grading system has a numerical value. The letter "A" has a value of 5 points per unit of credit; "B" a value of 4 points; "C" a value of 3 points; "D" a value of 2 points; and "F" a value of 1 point.

**Scholastic Average**—A minimum grade average of 3.66 (B-) or better is required for graduating with the Master of Arts degree. A minimum grade average of 4.00 (B) or better is required for graduating with the Specialist in Education or Doctor of Education degree.

**Late Enrollment and Changes in Programs**—An assessment of a five dollar late registration fee is made by the Accounting Office on all late registrations.

No student will be permitted to enroll after the first week of the Fall, Winter, and Spring quarters, and the regular eight-week summer session. No late enrollments will be approved for the two-weeks' pre-session.

Changes in programs will be permitted without penalty until *four o'clock on the Friday* following registration. *After that all changes will cost one dollar.*

**Withdrawal from Class**—No withdrawals from classes are permitted during the last two weeks of a quarter. Withdrawals prior to the final two weeks must have the approval of the candidate's adviser. If a student discontinues class attendance he must withdraw *officially* from the course or a grade of TF (technical failure) will be recorded.

**English Style-Form Standards** — The student's written material must conform with "A Manual for Writers of Term Papers, Theses and Dissertations," by Kate L. Turabian. This manual is available for purchase in the College Bookstore.

**Professional Requirements for Teacher Certification\***—All students receiving a graduate degree from Colorado State College must have at least 30 quarter hours of undergraduate and/or graduate credit in education and educational psychology regardless of the area in which they major.

A student must have an adequate background in the teaching area for which certification is desired, in education and educational psychology, and in general education, to be recommended for certification.

\*The Director of Student Teaching, the Dean of the Graduate Division, or the Chairman of the Division of Education may substitute approved courses for specific course work in case of schedule conflicts or other extenuating circumstances.

1. Teaching area requirements:

Any graduate of an accredited teacher training program who selects a teaching area other than that of his undergraduate major area and any graduate of an undergraduate degree program other than an accredited teacher training program must upon application for admission declare the teaching area for which certification is desired. To warrant recommendation for certification, the course work to be completed in the declared teaching area will be determined by the major department upon evaluation of the student's transcripts by the division chairman. Only courses in which a grade of "C" or better has been recorded will be recognized for purposes of evaluation.

2. Education and educational psychology requirements:  
All students recommended for certification by Colorado State College must have a minimum of 30 quarter hours of undergraduate and/or graduate credit in educational psychology and education including student teaching.

a. Requirements to be met prior to student teaching.  
(Mature students may be permitted to take the substitute courses listed in parentheses.)

E.P.G. 20, General Psychology and Personal Adjustment  
(E.P.G. 220)

E.P.G. 30, Psychology of Childhood and Youth (E.P.G. 230)

E.P.G. 40, Educational Psychology (E.P.G. 240)

Ed. 105, American Education (Ed. 296 or 398)

Ed. 214, The Elementary School

*or*

Ed. 216, The Secondary School

*or*

Ed. 218, The Junior High School

Ed. 139, Introduction to Student Teaching in the Elementary School

*or*

Ed. 140, Introduction to Student Teaching in the Secondary School

*and*

Ed. 141, Methods of Teaching in the Secondary School.

(See Ed. 141-150 series in specific subjectmatter area for precise catalog number.)

Completion of a minimum of two quarters as a full-time student on the Colorado State College campus. (A minimum of 12 quarter hours per quarter.)

Course work in the major teaching area as specified by the chairman of that division.

Health, personal characteristics, professional attitudes, and background of general education considered essential for successful teaching.

- b. Ed. 151 Student Teaching (minimum of 8 quarter hours, 16 quarter hours recommended).
  - c. Ed. 295 Philosophy of Education (may be taken prior to or following student teaching).
3. General education requirements:  
The course work, if any, to be completed in general education will be determined by the Dean of the Graduate Division upon evaluation of the student's transcripts. Only courses in which a grade of "C" or better has been recorded will be recognized for purposes of evaluation.

*In many instances candidates may use courses numbered 200 and above as elective credit in the degree program.*

**Limitations on Enrollment**—1. The first summer session or regular quarter in residence is a trial quarter.

2. Members of the faculty of Colorado State College above the rank of instructor are not permitted to enter any graduate degree program.

# Master of Arts Degree

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The degree of Master of Arts is offered in these seven instructional divisions of the college with majors in each division as follows:

**DIVISION OF THE ARTS** — Industrial Arts, Fine Arts, Home Economics;

**DIVISION OF EDUCATION**—Audio-Visual Education, Business Education, Educational Administration: Elementary<sup>1</sup>, Educational Administration: Junior High School<sup>1</sup>, Educational Administration: Secondary<sup>1</sup>, Educational Psychology and Guidance, Elementary Education, Junior High School Education, Secondary Education: Emphasis—Instruction<sup>2</sup>; Secondary Education: Emphasis—Curriculum and Supervision, Special Education: Teaching Mentally Retarded Children, Special Education: Teaching Physically Handicapped Children, Special Education: Teaching the Acoustically Handicapped, Special Education: Teaching the Visually Handicapped.

**DIVISION OF HEALTH AND PHYSICAL EDUCATION**—Physical Education, Health Education, Supervision of Physical Education<sup>1</sup>;

**DIVISION OF THE HUMANITIES**—English, Speech and Drama;

**DIVISION OF MUSIC** — Music Education, Supervision of Music<sup>1</sup>;

**DIVISION OF THE SCIENCES**—Biological Sciences, Physical Sciences, Science Education, Mathematics;

**DIVISION OF THE SOCIAL STUDIES** — History, Social Science, and Social Studies Education.

<sup>1</sup>These majors require two years of actual teaching experience as a prerequisite.

<sup>2</sup>Combined program: education and content with emphasis on content for the classroom teacher.

**Admission**—For admission to graduate courses applicable to the degree of Master of Arts, the student must hold a baccalaureate degree from an accredited college or university, and an over-all grade point average of C+ (3.5).

**Transfer of Credit** — A maximum of eight quarter hours of graduate credit in which grades of A and B are recorded may be transferred from institutions approved by a recognized accrediting agency to offer a graduate program leading to the master's degree. No transfer credit shall be counted that was earned more than five years prior to its transfer. This credit must be compatible with the student's

field of concentration. *Such transfer of credit may reduce load, but it will not reduce the residence requirements (thirty weeks).* Graduate credit is not transferable if earned in off-campus classes or in courses classified as "extension." Transferred credit may not be used to make up "D" or "F" received in required courses.

**Residence and Time Requirement** — The minimum residence requirement for the Master of Arts degree in the college is one academic year or thirty weeks. Graduate students who enroll in a partial academic program may apply the following formula to convert credit into weeks residence:

Formula: 45 quarter hours = 30 weeks residence  
 30 weeks residence = .66 weeks residence per quarter hour credit.  
 45 quarter hours

Quarter Hours		Weeks Residence	
1	=	.666	= .66
2	=	1.398	= 1.4
3	=	2.064	= 2.0
4	=	2.730	= 2.7
5	=	3.396	= 3.4
6	=	4.062	= 4.0
7	=	4.728	= 4.7
8	=	5.394	= 5.4
9	=	6.060	= 6.1
10	=	6.726	= 6.7
11	=	7.392	= 7.4
12	=	8.058	= 8.1
13	=	8.724	= 8.7
14	=	9.390	= 9.4
15	=	10.056	= 10.0

A maximum of 15 quarter hours may be used to establish residence during any quarter. An overload in academic credit may not be used to either accelerate or make up deficiencies in residence.

*The maximum time limit for completion of the graduate program for the master's degree is five calendar years.*

**Introduction to Graduate Study** — In the first quarter in residence all graduate students working toward the Master of Arts degree are required to register for the "300" course, "Introduction to Graduate Study." In this course standards for graduate study, research methods, evaluation of printed research, bibliographical tools and other items will be emphasized. The candidate should take Introduction to Graduate Study and a course with his adviser during his first quarter.

**Minimum Requirements for the Major** — For the degree of Master of Arts, the student must have a minimum of sixty-four quarter hours of graduate and undergraduate credit in the major field. At least 24 quarter hours of graduate credit for the degree of Master of Arts must be in the field of the major in the Colorado State College degree program.

Whenever possible within the framework of the above rules, the student whose undergraduate record shows a high specialization in a few areas at the expense of general cultural background in the liberal arts and sciences may be required to earn part of his graduate credit in these areas.

**Specific Requirements for Graduation** — All general requirements for a master's degree must be met. In addition, the candidate shall:

1. Earn a minimum of 45 quarter hours of graduate credit and maintain a 3.66 average. One-third or 15 quarter hours of this credit must be in courses open only to graduate students (courses numbered 300 and above). With the adviser's approval, the candidate may satisfy this one-third or 15 quarter hour requirement by taking Introduction to Graduate Study; at least one course numbered 301 or above in his major field; not more than one course numbered 301 or above outside his major field; and not more than one individual study in his own division (the course numbered 322).

It shall be the prerogative of the adviser in consultation with the Dean of the Graduate Division to invite certain candidates to write a thesis in partial fulfillment of the requirements for the degree.

At least seventeen days before the end of the quarter in which the candidate expects to graduate, present to the Graduate Division Office four copies of the thesis in final typed form, approved and signed by the adviser and ready for the approval and signature of the Dean of the Graduate Division. The thesis should be presented to the adviser for final reading by the beginning of the fourth week of the final quarter in residence. The thesis shall conform with "A Manual for Writers of Term Papers, Theses, and Dissertations," by Kate L. Turabian.

After being signed and bound, three copies of the thesis become the property of the college and one is sent to the student. The ribbon copy and the first carbon copy are filed in the college library; the third copy is delivered to the student's major adviser. A charge of \$10 is made for binding and mailing the four copies.

The student must provide with each bound copy of the thesis an abstract of the study. In addition an extra copy of the abstract shall be filed with the student's record in the Graduate Division Office.

Or with the approval of the adviser and the Dean of the Graduate Division, a creative project in fine arts, literature, or music may be undertaken as the equivalent of the thesis for the master's degree. Upon the completion of the project, the student shall submit a detailed written explanation of the problem's contribution to contemporary thought and life to be filed in the Graduate Office at least seventeen days before the end of the quarter in which the candidate expects to graduate.

Eight quarter hours of credit are granted for the thesis or creative project.

2. Pass a written comprehensive examination in the major field. The student's examination paper, after being evaluated by the adviser, will be filed in the Graduate Division Office at least ten days before the end of the last quarter in residence.

In case of failure to pass the comprehensive examination or any part of it, the student may be permitted, upon written request of the adviser, to retake the test. A special examination fee will be charged for this additional test. Failure to pass the retest will eliminate the candidate from further work applicable to a degree.

3. Make a formal application for graduation not later than 30 days prior to the quarter or session in which the candidate expects to graduate. A late fee of \$2.00 will be charged for failure to apply on time.

## Specialist in Education Degree

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The Specialist in Education degree program shall prepare one to be a specialist. It is not to be a program of more courses and more credits in the same divisional patterns as those usually found in the present master's and doctor's programs.

Each applicant for admission to the program will be considered as an individual case in terms of the area in which he wishes to specialize, his background and experience preparing him for such specialization, and the possibility of a program being provided to offer him the opportunity he desires. The applicant will be expected to have a very clear idea of his proposed area of specialization.

A candidate might wish to specialize in areas similar to the following:

- a. The Supervision of Student Teaching.
- b. The Supervision of Science Instruction.
- c. Conservation Education.
- d. Basic Programs in the Secondary School.
- e. Reading in the Elementary School.
- f. Guidance in the Elementary School.
- g. Guidance in the Secondary School.
- h. Testing in the Elementary School.
- i. Consultant in School Buildings.
- j. Teaching of Spelling and Grammar.
- k. Academic Records.
- l. Curriculum Specialization.



m. Psychometrics.

n. Specialization in Academic Areas (Preparation to teach on the junior college level).

The college does not have the facilities, offerings, or staff to support all of the areas that might be suggested by the applicant. Please note that many of the programs cut across divisional lines.

Candidates choosing to continue work toward the Ed.D. degree upon completion of the Ed.S. degree may apply for admission to the doctoral program. Courses which are ordinarily applicable to the doctorate degree will be considered transferable from the Ed.S. degree to the Ed.D. degree.

**Admission** — 1. For admission to graduate courses applicable to the degree of Specialist in Education, the student must hold a master's degree from an accredited college or university.

2. The applicant must have 30 or more quarter hours in education and psychology and satisfy Colorado teaching certification requirements.

3. The applicant must have an adequate academic background in the areas involved in his plan of specialization. If inadequate, the supervising committee will require course work in addition to the requirements of the Ed.S. degree.

4. The applicant must have an acceptable undergraduate and graduate scholastic average of 4.00 (B) or better.

5. Two years of successful teaching experience is a prerequisite requirement for admission to work for the Specialist in Education degree.

6. Upon the receipt of the application for admission, the Dean of the Graduate Division will appoint a committee of at least two faculty members, one of whom shall act as chairman, to help the student plan his program.

7. In addition to the admission requirements, the applicant is required to take the Graduate Record Examination Battery consisting of the Advanced Test in Education, the Area Test in Social Sciences, Natural Sciences and Humanities, and the General Aptitude Test, as well as the English usage examination and a personality inventory.

**Transfer of Credit** — A maximum of eight quarter hours of graduate credit in which grades of A and B are recorded may be transferred from institutions approved by a recognized accrediting agency to offer a graduate program leading to an advanced degree. No transfer credit shall be counted that was earned more than five years prior to its transfer. This credit must be compatible with the student's area of concentration. *Such transfer of credit may reduce load, but it will not reduce the residence requirements (thirty weeks).* Graduate credit is not transferable if earned in off-campus classes or in courses classified as "extension." Transferred credit may not be used to make up "D" or "F" received in required courses.

**Residence and Time Requirements** — The minimum residence requirement for the Specialist in Education degree in the college is one academic year or thirty weeks. Graduate students who enroll in a partial academic program may apply the following formula to convert credit into weeks residence:

Formula: 45 quarter hours = 30 weeks residence  
 30 weeks residence = .66 weeks residence per quarter hour credit.

45 quarter hours

Quarter Hours		Weeks Residence	
1	=	.666	= .66
2	=	1.398	= 1.4
3	=	2.064	= 2.0
4	=	2.730	= 2.7
5	=	3.396	= 3.4
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8	=	5.394	= 5.4
9	=	6.060	= 6.1
10	=	6.726	= 6.7
11	=	7.392	= 7.4
12	=	8.058	= 8.1
13	=	8.724	= 8.7
14	=	9.390	= 9.4
15	=	10.056	= 10.0

A maximum of 15 quarter hours may be used to establish residence during any quarter. An overload in academic credit may not be used to either accelerate or make up deficiencies in residence.

*The maximum time limit for completion of the graduate program for the specialist's degree is six calendar years.*

**Specific Requirements for Graduation** — All the general requirements for a specialist degree must be met. In addition the student shall:

1. Earn a minimum of 45 graduate quarter hours of credit in residence and maintain a 4.00 (B) average. Twenty-four quarter hours of the graduate credit, which will include the credit for the required practicum, shall be earned in courses numbered 300 or above.

Specialized interests of the student for which no regularly scheduled courses are available will be cared for through Individual Studies (322), Practice in School Administration (345), Practicum (in areas other than administration) (301), and the required Practicum (401).

2. In the first quarter or summer session in residence enroll for the course, "Introduction to Doctoral Research" (400), or its equivalent unless he has already had a comparable course on the graduate level.

3. Present at least one practicum (401) representing his major interest and for which eight quarter hours of credit will be given. This required practicum shall be enrolled for in the second and third quarters in residence. A written plan for the required practicum shall be filed in the Graduate Division Office by the end of the eighth week of the second quarter or summer session in residence and must have been approved by the supervising committee.

At least seventeen days before the end of the final quarter in residence, four typewritten copies of the report of the practicum which has been approved by the student's adviser and the supervisory committee shall be filed in the Office of the Graduate Division. The four copies will be bound. The original and first carbon copy will be placed in the library, the second carbon copy will be delivered to the faculty committee, and the third carbon copy will be sent to the student. A binding and mailing fee of \$10.00 will be charged. The report shall conform to "A Manual for Writers of Term Papers, Theses and Dissertations."

4. Pass a written comprehensive examination over his specialty and his practicum, and meet such other final requirements as his committee may prescribe. This written examination, when approved, shall be filed with the student's records in the Graduate Division Office at least ten days before the date of graduation. The adviser shall make all arrangements for final examination.

In case of failure to pass the comprehensive examination or any part of it, the student may be permitted, upon written request of his faculty committee, to retake the test. A special examination fee will be charged for this additional test. Failure to pass the retest will eliminate the student from further work applicable to the degree.

5. Pay the Specialist in Education Research Studies Fee of \$75.00. This fee is assessed to each applicant at the rate of \$25.00 per quarter of enrollment for three quarters.

6. Make formal application for graduation not later than 30 days prior to the quarter in which he expects to graduate. A late fee of \$2.00 will be charged for failure to apply on time.

# Doctor of Education Degree

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The degree of Doctor of Education is offered in the following areas of concentration:

- Business Education
- Educational Administration\*
- Educational Psychology and Guidance
- Elementary Education
- English Education
- Health and Physical Education
- Industrial Arts Education
- Music Education
- Secondary Education
- Science Education
- Social Studies
- Special Education

In most instances a candidate will complete 48 or more hours in his area of concentration. This does not include credit for his research study. In addition to his area of concentration a student must take a minimum of 24 quarter hours in one or more supporting areas. Supporting areas include the following:

- Business Education
- Curriculum
- Educational Administration
- Educational Psychology and Guidance
- Elementary Education
- English Education
- Health and Physical Education
- Higher Education
- History and Philosophy of Education
- Industrial Arts Education
- Mathematics
- Music Education
- Secondary Education
- Science
- Social Studies
- Special Education

A student may plan a general program in which he will select three areas of concentration. The required course work must be planned with his committee.

**Admission** — 1. For admission to graduate courses applicable to the degree of Doctor of Education, the student must possess a master's degree from an accredited graduate school. The applicant may be denied admission if his previous academic average has not been of high quality (B or better).

\*Candidates majoring in this area are required to spend three consecutive quarters in residence.

2. Sixty-four quarter hours in the fields of education and psychology are prerequisites for admission to courses applicable to the doctor's degree in the following areas of concentration: Administration, Elementary Education, Educational Psychology and Guidance, Secondary Education, and Special Education.

Forty quarter hours of professional education courses are prerequisites for admission to courses applicable to the doctor's degree in the following areas of concentration: Business Education, English Education, Health and Physical Education, Industrial Arts Education, Music Education, and Science Education.

Thirty quarter hours of professional education are prerequisites for admission to courses applicable to the doctor's degree in Social Studies.

3. In addition to the admission requirements, the applicant is required to take the Graduate Record Examination Battery consisting of the Advanced Test in Education, the Area Test in Social Sciences, Natural Sciences and Humanities, and the General Aptitude Test, as well as the English usage examination and personality inventory.

**Limitations on Enrollment for the Doctorate** — 1. The first summer session or regular quarter in residence is a trial session or quarter during which the Graduate Council has the right to discourage any student from continuing for the doctorate.

2. Two years of successful teaching experience is a prerequisite for admission to work for the doctor's degree.

**Course Program** — In the first quarter or summer session in residence all students in the doctoral program must enroll for the course, "Introduction to Doctoral Research" (400), or its equivalent unless they have already had a comparable course on the graduate level.

Not later than the second quarter in residence, the candidate will work out a long range program of studies with his adviser. One copy of this proposed program will be placed in the student's folder in the Graduate Office; one copy will be presented to the adviser; one copy will be placed on file in the major department.

Twenty-four quarter hours of course work applicable to the doctor's degree must be in courses numbered 300 or above. Only courses taught by members of the faculty with an earned doctor's degree will apply to the Ed.D.

Candidates concentrating in Business Education, Health and Physical Education, Industrial Arts Education, Music Education, or Science Education must complete the basic foundational courses which are: Ed. 461, Philosophical Foundations of Education; Ed. 462, Psychological Foundations of Education; Ed. 463, Sociological Foundations of Education.

**Research Studies** — One research study is required for which the student may receive eighteen quarter hours of research credit. Upon the recommendation of the adviser, a candidate may write, in lieu of one research study, two studies for nine hours credit each. The student will pay a research fee in addition to the regular tuition fees, and he may register for research credit, 18 quarter hours, in addition to his academic course load during the quarter that his study is formally accepted.

The preliminary outline of the study\* shall be under the supervision of the adviser and a research and examining committee. This committee will consist of four members representing the area of concentration, the supporting areas, and the faculty at large.

The committee will be appointed by the Dean of the Graduate Division.

**Candidacy for the Degree** — To be eligible for formal admission to candidacy for the degree of Doctor of Education, the student shall have earned at least 36 quarter hours of credit with a 4.00 (B) or better grade average, shall have passed satisfactorily the written and oral comprehensive examinations, shall have presented an approved outline for the research study, and shall have successfully completed all other classification requirements. No student will be graduated at the end of the quarter in which he is admitted to candidacy.

**Time and Residence Requirements** — The maximum time limit for earning the doctor's degree is *eight calendar years*. In the event of a manifest hardship delay which exceeds the time limit, the candidate may petition the Graduate Council for an extension which may be granted under such provisions as determined by the Graduate Council.

The minimum residence requirement for the degree of Doctor of Education is fifty-six weeks.

Candidates majoring in Educational Administration are required to spend three consecutive quarters in residence.

**Transfer of Credit**—Transfer of credit to the extent of twelve quarter hours in which grades of A and B are recorded may be granted toward the doctorate, *but in no case will this transfer of credit reduce the residence requirements*. Transfer of credits will be subject to the following rules: (1) That it may be made an integral part of the student's total plan; (2) that it was *earned on the campus of an accredited institution offering the doctor's degree*; (3) that it was earned within five years preceding the date of transfer.

The Graduate Council reserves the right to send doctoral students to another accredited institution which offers the

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\*Student is required to submit six copies of the research outline.

doctorate to earn a maximum of twelve quarter hours in specific courses. Off-campus and extension classes are not acceptable.

**Advisement** — Upon receipt of a statement of the prospective student's field of interest, the Dean of the Graduate Division will assign him to a member of the faculty, who will act as the adviser for the first quarter and with whom the student will register. This assignment will become permanent automatically unless the adviser or the student makes a request for a change.

**Research Adviser** — At the request of the adviser a research adviser may be appointed to direct the research study.

**Specific Requirements for Graduation** — In addition to all the general requirements for a doctor's degree the student shall:

1. Be recommended for graduation by his committee.
2. Earn a minimum of 90 quarter hours of graduate credit beyond the master's degree and maintain a 4.00 (B) grade average. Of this credit 24 hours must be in courses numbered 300 or above.
3. Demonstrate that he has at least a minimum knowledge and understanding in the three areas of Science, Social Science, and Humanities. Candidates who fail to make satisfactory scores on the Graduate Record Examinations battery may be held for deficiency course work. These requirements will be imposed in addition to the minimum requirements of 90 quarter hours.
4. Be in residence on the campus of Colorado State College at least fifty-six weeks.
5. Present one or two research studies for which the student receives 18 quarter hours of credit. The fully approved study or studies must be filed in the Graduate Division Office at least seventeen days before graduation.

A tuition charge of \$6 per quarter hour is assessed on this research credit. This tuition charge is in lieu of, and not an addition to, normal tuition and student services fees on the required 18 quarter hours of research credit. Registration of research hours will be during the quarter in which the research study is accepted.

6. Pass satisfactorily the following examinations in addition to the usual course examinations:

- (a) Comprehensive written and oral examinations. These examinations will take place normally after the student has successfully completed, with better than a 4.00 (B) grade average, 36 quarter hours of full-time course work. For students on a "Major-Minor" program, the written examination in the area of concentration will be given by the adviser and in the minor

area by an appropriate committee member. For students following a program with a major and supporting areas, the written examination will be given by the major adviser who may draw upon the supporting areas.

The written examination will be given before the oral examination and will be available to all members of the research and examining committee prior to the oral examination and finally shall be filed in the student's folder in the Graduate Division Office. The adviser who administers the written examination will be responsible for evaluating the examination. The members of the research and examining committee will evaluate the written and oral examinations as follows:

- (1) Satisfactory.
- (2) Unsatisfactory with the privilege of additional examinations for which a fee will be charged. One quarter or summer session must intervene before the examination may be given again. A second retest will not be permitted.
- (3) Failure. In case of failure the student will have eliminated himself from further work applicable to the doctorate and may not present himself for further examinations.

(b) Oral examination in defense of the research study.

7. Pay \$40 for the publication of each research study. The research study is microfilmed and a 1500-word abstract of the study is lithoprinted. For the purpose of publication the student files in the office of the Graduate Division two extra copies of the abstract of each study. This abstract cannot be more than 1500 words.

8. Pay \$10 for the binding and mailing of research study. At least four copies of the research study, including an abstract, are required to be bound. After being bound, the ribbon copy and the first carbon copy are filed in the college library, one copy is delivered to the student's adviser and one copy is sent to the student.

9. File a vita to be included in the permanent record.

10. Make formal application for graduation not later than 30 days prior to the quarter in which the candidate expects to graduate. A late fee of \$2.00 will be charged for failure to apply on time.



# **Division of Air Science**

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Air Force ROTC was first established in 1946 in leading colleges and universities as a part of the Army's ROTC program. Formal control of its own ROTC program was assumed by the Air Force at college level on July 1, 1949, and introduced at Colorado State College in the Fall quarter of 1951. The Air Force ROTC program is the primary source of junior officers for the United States Air Force.

The Air Force ROTC program of instruction is integrated with the regular college academic degree requirements to permit the student to receive undergraduate credit for Air Science courses. Upon successful completion of the Air Force ROTC program and attainment of a degree, the student upon the recommendation of the Professor of Air Science is offered a reserve commission as Second Lieutenant in the United States Air Force Reserve. When called to duty as a reserve officer, the student has an opportunity to apply for a regular commission in the United States Air Force. Physically qualified commissioned Air Force ROTC graduates are eligible to apply for pilot or aircraft observer training in the grade of Second Lieutenant with all pay and allowances of that grade. Present Air Force monthly pay for a Second Lieutenant is \$355.68 if married and \$338.58 if single. A Second Lieutenant undergoing flight training receives an additional \$100.00 per month.

**Purpose:** The mission of the Air Force ROTC is to develop in selected college students, through a permanent program of instruction at designated civilian institutions, those qualities of leadership and other attributes essential to their progressive advancement to positions of increased responsibilities as commissioned officers in the United States Air Force.

**Objectives:** 1. To develop in selected cadets, through a sound education and training program, the initial motivation to serve as career officers in the United States Air Force.

2. To develop in cadets by precept, example, and participation the attributes of character, personality, and attitudes essential for leadership.

3. To develop in the cadet an interest in the Air Force and an understanding of its mission, organization, operations, problems, and techniques.

4. To provide that military education and training which will prepare cadets to discharge the duties and responsibilities required of them as Air Force officers.

5. To select and motivate cadets for career fields as specifically required by the United States Air Force.

**General:** The Air Force ROTC program consists of academic courses which normally cover a four-year period of study. The freshman and sophomore AFROTC courses are commonly referred to as the "Basic Course" and are required for all incoming male freshmen. The junior and senior AFROTC courses are commonly referred to as the "Advanced Course" and enrollment in this course is optional and highly selective.

Once a student enrolls in either the Basic or Advanced Course, completion of that two-year course becomes a prerequisite for graduation unless officially excused.

A complete distinctive blue Air Force uniform will be issued, on a loan basis, to each student enrolled in the AFROTC program.

Textbooks are also issued, on a loan basis, to each AFROTC student.

**Deferment:** Deferment for students enrolled in the AFROTC program and in good standing is permitted by the National Selective Service Act. Students become eligible for deferment in the winter quarter of the freshman year. This is made possible by the need of the Air Force for college graduates with reserve commissions. This deferment, under present Department of Defense Policies, will remain in effect should a national emergency arise.

To qualify for an AFROTC deferment a student must willingly assume the following obligations:

1. To enroll in, and satisfactorily complete, the four-year AFROTC course of instruction (contingent upon remaining in school).
2. Upon graduation and completion of the AFROTC course, to accept and retain in an active status, as a member of the regular or reserve component, for a period of six years, a reserve commission in the United States Air Force.
3. After graduation to serve on active duty for a period of not less than four or five years if called by the Secretary of the Air Force.

Deferment of AFROTC students will be terminated if the student:

1. Fails to remain in good standing in either his military or academic courses.
2. Fails to demonstrate proper and sufficient aptitude.
3. Fails to enroll in an AFROTC course during any quarter in which he normally is expected to be in attendance.
4. Fails to attend summer camp when ordered to do so.

## **BASIC COURSE**

All incoming male freshmen are required to enroll in and satisfactorily complete (with exceptions as listed below) the Basic AFROTC Course.

Transfer students with 45 or more quarter hours credit are not required to enroll in the Basic Course. Transfer students may enroll in AFROTC courses on an optional and selective basis if they are found to be fully qualified.

Enrollment in the Basic Course is not required of freshman students who have served on active duty for a period of six months or more with any branch of the armed forces.

First quarter freshman students in any one of the following categories will not be permitted to enroll in AFROTC courses and the requirement for completion of the Basic Course as a prerequisite to graduation will be waived in their case:

1. Non-citizen of the United States.
2. Physically unfit.
3. 23 years of age.
4. Record of previous convictions by military or civil court.

Veterans desiring to enroll in AFROTC program will be excused from certain Basic Course requirements as deemed appropriate by the Professor of Air Science.

The Basic Course in the AFROTC program is of two years duration and includes Air Science (A.S.) 1s, 10f, 10w, 10s, 2f, 2w, 20f, 20w, 20s, and three of the common courses required of all students in science and social studies. Completion of the Basic Course, or credit for equivalent training is a prerequisite to enrollment in Advanced AFROTC Course.

The Basic Course offered by the Air Science Division is designed to establish an optimum foundation for the development of an Air Force officer and to develop in the student an awareness and understanding of our national defense program and the role of military aviation.

The freshman enrolls in the following courses:

**Fall Quarter**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
A.S. 10f	Leadership Training	0
and one of the following common courses:		
Sci. 3	Physical Science	3
Sci. 4	Biological Science	3
Sci. 5	Earth Science	3

If the student is officially excused from enrolling in any of the above listed science courses, the Professor of Air Science may accept any other course offered by any division as fulfilling the requirement, provided the accepted course would contribute to the professional education of a potential Air Force Officer.

**Winter Quarter**

A. S. 10w	Leadership Training	0
and one of the above common courses.		

**Spring Quarter**

A.S. 10s	Leadership Training	0
A.S. 1s	Foundations of Air Power	1

The sophomore enrolls in the following courses:

**Fall Quarter**

A.S.	20f	- -	Leadership Training	- - - - -	0
A.S.	2f	- -	Foundations of Air power	- - - - -	1

**Winter Quarter**

A.S.	20w	- -	Leadership Training	- - - - -	0
A.S.	2w	- -	Foundations of Air Power	- - - - -	1

**Spring Quarter**

A.S.	20s	- -	Leadership Training	- - - - -	0
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and one of the following common courses:

S.S.	81	- -	The Individual and His Social Relations	- - -	3
S.S.	82	- -	American Life and Institutions	- - -	3
S.S.	83	- -	Contemporary World Cultures	- - -	3

If the student is officially excused from enrolling in any of the above listed Social Studies courses, the Professor of Air Science may accept any other course offered by any division as fulfilling the requirement, provided the accepted course would contribute to the professional education of a potential Air Force officer.

**ADVANCED COURSE**

The Advanced Course is a two-year course of instruction with emphasis placed on subjects which will develop in the cadet a high growth potential as an Air Force officer. Each quarter of study in the Advanced Course requires attendance of at least four hours of instruction per week plus one hour per week in Leadership Training. Pilot trainees in addition will be required to take thirty-six and one-half hours of flight instruction and five hours of ground school instruction.

Eligibility Requirements—To be eligible for enrollment in the Advanced Course the student must submit an application to the Professor of Air Science. This application will include:

1. Documentary evidence of completion of the Basic Course or of equivalent training. (Veterans will submit a photostatic copy of discharge.)
2. Documentary evidence of age.
3. A statement that the student will attend an Air Force ROTC summer camp of four weeks' duration during his summer vacation between the junior and senior years.
4. A statement that the student has never been a member of a subversive organization.
5. A statement that, upon completion of the course and graduation, the student will accept and complete his service obligation. Also the student will serve a minimum of four or five years of active duty, if called by the Secretary of the Air Force.
6. A statement that the student will arrange his student teaching to permit his continued attendance of military classes on the campus.

7. A statement that the student has never been convicted by military or civil court. (A waiver can be requested for those students who have been found guilty of minor violations.)

8. Academic record and results of general survey and screening tests.

Selection for Advanced Course — The college and the Professor of Air Science will select those applicants found to be the most highly qualified for enrollment in the Advanced Course. The number of students selected is subject to quota limitations imposed by the Air Force. Maximum enrollment quota in the Advanced Course exists for students physically qualified and desirous of flight training with the Air Force after graduation.

The Required Courses in the Advanced Course:

Course Number	Course Title	Hours	Credit
A.S. 101f	Air Force Officer Development	- - - -	3
A.S. 100f	Leadership Training	- - - -	0
A.S. 101w	Air Force Officer Development	- - - -	3
A.S. 100w	Leadership Training	- - - -	0
A.S. 101s	Air Force Officer Development	- - - -	3
A.S. 100s	Leadership Training	- - - -	0
A.S. 201f	Weather and Navigation	- - - -	3
A.S. 200f	Leadership Training	- - - -	0
Geog. 260	Political Geography	- - - -	5
A.S. 200w	Leadership Training	- - - -	0
A.S. 201s	The Air Force Officer	- - - -	1
A.S. 200s	Leadership Training	- - - -	0
Pol. Sci. 276	International Relations	- - - -	3

In addition to the above listed courses, pilot trainees are required to enroll in the following courses:

A.S. 202	F.A.A. Regulations	- - - -	0
A.S. 203	Flight Instruction	- - - -	0

Benefits and Allowances for Advanced Course Cadets:

1. Commission in either the Regular Air Force or the United States Air Force Reserve.
2. Deferment from induction under Selective Service.
3. Officer-type uniform furnished by the government.
4. Monetary allowances:
  - a. 90 cents per day during period of enrollment in Advanced Course (596 day limit).
  - b. Pay of approximately \$78 while in attendance at a four-week summer encampment.
  - c. Travel allowance of 5 cents per mile to and from camp site.
5. Academic credit minimum of 3 hours each quarter.
6. AFROTC texts will be furnished on a loan basis.
7. Opportunity for graduate training in civilian institutions after call to active duty.
8. Thirty-six and one-half hours of flying time accreditable toward Private Pilots license for all potential Air Force Pilot Trainees.

An Advanced Course student who is discharged from the AFROTC program for any reason, other than the convenience of the Government, may be required to refund to the United States Government all pay received at a rate of 90 cents per day during his enrollment in the Advanced Course.

**Staff and Equipment**—Air Force personnel are detailed by Headquarters, United States Air Force, as instructors in the AFROTC unit. The Professor of Air Science, as well as his officers and airmen assistants, are highly qualified and are usually combat duty veterans.

Equipment for instruction is furnished by the Air Force, including many training aids, mock-ups, and visual training charts pertaining to the subjects taught.

### **Description of Courses**

#### **1s. FOUNDATIONS OF AIR POWER. *One hour credit.***

Prerequisite, the cadet must also enroll in A.S. 10s simultaneously. A general survey of air power designed to provide the student with an understanding of the elements and potentials of air power. It includes fundamentals of air power, military air powers of the world, military research and development, air vehicle industries, airlines and airways, and principles of flight.

#### **10f, w and s. LEADERSHIP TRAINING. *No Credit.***

An introduction to the methods of Air Force organization at the squad and flight level. Opportunities are provided for the cadet to subject himself to personal and group discipline, to identify himself with a group, and to acquire the training, poise, and self-confidence needed to conduct himself in a military manner.

#### **2f. FOUNDATIONS OF AIR POWER. *One hour credit.***

Prerequisites, A.S. 1s, 10f, 10w, and 10s or equivalent; the student must also enroll in A.S. 20f simultaneously. The military instrument of national security. A general survey of the professional opportunities in the United States Air Force. A study of the evolution of aerial warfare is undertaken to include the principles of war, aerial warfare in World War I, U.S. air doctrine, and strategic concepts and implications of modern aerial warfare.

#### **2w. FOUNDATIONS OF AIR POWER. *One hour credit.***

Prerequisites, A.S. 1s, 10f, 10w, and 10s or equivalent; the cadet must also enroll in A.S. 20w simultaneously. A treatment of aerial warfare is continued to include bases and facilities, and aerial operations. A general survey to stress an awareness of the vast potential of space environment. A survey of current space program and future space possibilities.

#### **20f, w, s. LEADERSHIP TRAINING. *No credit.***

Practical training in elementary leadership activities involving small groups and an introduction to leadership methods and Cadet Corps organization at the group and wing level. The cadet is provided the opportunities to test his leadership skill in situations dealing with small groups and to recognize and accept personal responsibility.

#### **100f, w, and s. LEADERSHIP TRAINING. *No credit.***

Prerequisites, A.S. 1s, 2f, 2w, 10f, 10w, 10s, 20f, 20w, 20s or equivalent. Development of leadership skills dealing with larger and more complex groups (i.e., groups and wings) and an introduction to command and staff principles and methods at all levels. The cadet is provided with an opportunity to assume full responsibility for significant parts of the Cadet Corps program.

**101f. AIR FORCE OFFICER DEVELOPMENT.** *Three hours credit.* Prerequisites, A.S. 1s, 2f, 2w, 10f, 10w, 20f, 20w, and 20s or equivalent; the cadet must also enroll in A.S. 100f simultaneously. Knowledge and skills required of a junior staff officer in the Air Force. This includes staff organization and developing skill in communicating and instructing.

**101w. AIR FORCE OFFICER DEVELOPMENT.** *Three hours credit.* Prerequisites, A.S. 1s, 2f, 2w, 10f, 10w, 10s, 20f, 20w, 20s or equivalent; the cadet must also enroll in A.S. 100w simultaneously. Problem solving techniques are taught as applied to Air Force staff and command problems. In addition the basic principles of leadership psychology are studied.

**101s. AIR FORCE OFFICER DEVELOPMENT.** *Three hours credit.* Prerequisites, A.S. 1s, 2f, 2w, 10f, 10w, 10s, 20f, 20w, 20s or equivalent; the cadet must also enroll in A.S. 100s simultaneously. Problems in leadership and management. Application of the principles and theories of problem solving and leadership to simulated Air Force problems. In addition the military justice system is taught.

**200f, w, and s. LEADERSHIP TRAINING.** *No credit.* Prerequisites, A.S. 100f, 100w, 100s, 101f, 101w, 101s or equivalent. Development of leadership and management understandings and skills at the command level. The cadet is given the opportunity to plan for the achievement of group objectives and supervise the implementation of cadet planning by coordination and control through cadet corps command and staff channels.

**201f. WEATHER AND NAVIGATION.** *Three hours credit.* Prerequisites, A.S. 100f, 100w, 100s, 101f, 101w, and 101s; the cadet must also enroll in A.S. 200f simultaneously. An introduction presenting the weather and navigational aspects of airmanship, such as temperature, pressure, air masses, precipitation, weather charts, navigational charts, dead reckoning navigation, globes and maps in the air age world, and the geography of climate.

**201s. THE AIR FORCE OFFICER.** *One hour credit.* Prerequisites, A.S. 100f, 100w, 100s, 101f, 101w, and 101s or equivalent; the cadet must also enroll in Pol. Sci. 276 and A.S. 200s simultaneously. Material to help the cadet make a rapid, effective adjustment to active duty as an officer of the United States Air Force.

**202. F.A.A. REGULATIONS.** *No credit.* Prerequisites, A.S. 100f, 100w, 100s, 101f, 101w, 101s, or equivalent; selection as Air Force Pilot Trainee. A study of the Federal Aeronautics Administration Regulations and associated requirements for obtaining a Private Pilot's license or certificate of "Evidence of Aeronautical Knowledge."

**203. FLIGHT INSTRUCTION.** *No credit.* Prerequisites, A.S. 100f, 100w, 100s, 101f, 101w, 101s or equivalent; selection as Air Force Pilot Trainee; the cadet must also enroll in A.S. 202 simultaneously. Thirty-six and one-half hours of dual and solo flying in 65 to 150 horsepower aircraft.

# Division of the Arts

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The Division of the Arts includes the fields of Fine Arts, Home Economics and Industrial Arts. Degrees and majors and minors offered are:

## **BACHELOR OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* Fine Arts, Home Economics, Dietetics, Industrial Arts.

*Minors:* Fine Arts, Home Economics, Industrial Arts.

## **BACHELOR OF ARTS DEGREE (Liberal Arts)**

*Majors:* Fine Arts, Home and Family Living, Dietetics.

*Minors:* Fine Arts, Home and Family Living.

## **MASTER OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* Fine Arts, Home Economics, Industrial Arts.

*Minors:* Fine Arts, Home Economics, Industrial Arts.

## **SPECIALIST IN EDUCATION DEGREE**

*Area of Specialization:* To be selected.

## **DOCTOR OF EDUCATION DEGREE (With Teaching Certificate)**

*Area of Concentration:* Industrial Arts Education.

*Supporting Area:* Industrial Arts Education.

## **FINE ARTS MAJOR**

### **Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
F.A. 1	Drawing	- - - - -	3
F.A. 4	Figure Construction	- - - - -	3
F.A. 11	Introduction to Design	- - - - -	4
F.A. 13	Lettering	- - - - -	2
F.A. 17	Introduction to Pottery	- - - - -	3
F.A. 102	Composition	- - - - -	3
F.A. 103	Introduction to Watercolor Painting	- -	
<i>or</i>			
F.A. 120	Introduction to Oil Painting	- - - - -	4
F.A. 105	Color Theory	- - - - -	4
F.A. 116	Craft Processes and Design	- - - - -	4
F.A. 123	Art Education for the Secondary School	- -	4
F.A. 125	Instructional Techniques in Art Education	- -	4
F.A. 221a	Art History I	- - - - -	5
F.A. 221b	Art History II	- - - - -	5



3. One minor of 27 quarter hours outside of the Division of the Arts (a second minor within the Division is optional).
4. Electives to complete requirements for graduation.

**FINE ARTS MAJOR (Junior High School Level)  
Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
F.A. 1	- - Drawing	- - - - - 3
F.A. 11	- - Introduction to Design	- - - - - 4
F.A. 13	- - Lettering	- - - - - 2
F.A. 14	- - Drawing and Painting Techniques	- - - - - 3
F.A. 17	- - Introduction to Pottery	- - - - - 3
F.A. 102	- - Composition	- - - - - 3
F.A. 103	- - Introduction to Watercolor painting	- - - - - 4
F.A. 105	- - Color Theory	- - - - - 4
F.A. 120	- - Introduction to Oil Painting	- - - - - 4
F.A. 125	- - Instructional Techniques in Art Education	- - - - - 4
F.A. 121	- - Survey of Art through the Ages	- - - - - 5
F.A. 240	- - Art Education in 7th, 8th, and 9th grades	- - - - - 5
F.A. 241	- - Craft Processes in 7th, 8th, and 9th grades	- - - - - 4
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3. One minor of 27 quarter hours outside the Division of the Arts (a second minor within the Division is optional).
4. Electives to complete requirements for graduation.

**Fine Arts Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
F.A. 1	- - Drawing	- - - - - 3
F.A. 11	- - Introduction to Design	- - - - - 4
F.A. 13	- - Lettering	- - - - - 2
F.A. 17	- - Introduction to Pottery	- - - - - 2
F.A. 103	- - Introduction to Watercolor Painting	- - - - - 4
F.A. 116	- - Craft Processes and Design	- - - - - 4
F.A. 124	- - Art in the Elementary School	- - - - - 5
	Elective	- - - - - 3
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**Fine Arts Minor for Elementary Education Majors**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
F.A. 3	- - Drawing for Elementary School Teachers	- - - - - 3
F.A. 11	- - Introduction to Design	- - - - - 4
F.A. 12	- - Lettering for Elementary School Teachers	- - - - - 2
F.A. 17	- - Introduction to Pottery	- - - - - 3
F.A. 103	- - Introduction to Watercolor Painting	- - - - - 4
F.A. 124	- - Art in the Elementary School	- - - - - 5
F.A. 127	- - Art Crafts in the Elementary School	- - - - - 3
	Elective	- - - - - 3
		27

### Fine Arts Minor for 7th, 8th, and 9th Grades (Junior High School).

Course Number	Course Title	Hours	Credit
F.A. 1	Drawing	3	3
F.A. 11	Introduction to Design	4	4
F.A. 13	Lettering	2	2
F.A. 14	Drawing and Painting Techniques	3	3
F.A. 17	Introduction to Pottery	3	3
F.A. 240	Art Education in 7th, 8th, and 9th grades	5	5
F.A. 241	Craft Processes in 7th, 8th, and 9th grades	4	4
	Electives	3	3

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### FINE ARTS MAJOR

#### Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.
2. At least 48 quarter hours in Fine Arts.
3. One minor of 27 quarter hours outside the Division of Arts.
4. Electives to complete requirements for graduation.

#### Fine Arts Minor

Courses required for a minor under this program are:  
F.A. 1, 11, 13, 17, 103 (or 120), 116, 221b.

#### Description of Courses

##### 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.

##### 3. DRAWING FOR ELEMENTARY SCHOOL TEACHERS. *Three hours credit.*

The fundamentals of beginning drawing specifically applied to the needs and methods of elementary school teachers.

##### 4. FIGURE CONSTRUCTION. *Three hours credit.*

Prerequisite, F.A. 1 or equivalent. The study of the human figure, its essential anatomy and construction. The figure as an important motif in design and composition. Study from life.

##### 11. INTRODUCTION TO DESIGN. *Four hours credit.*

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

##### 12. LETTERING FOR ELEMENTARY SCHOOL TEACHERS. *Two hours credit.*

Study of letter forms, manuscript writing, poster lettering, black-board writing, and holiday and unit displays.

##### 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.

- 14. DRAWING AND PAINTING TECHNIQUES.** *Three hours credit.*  
Prerequisite, F.A. 1. Techniques in advanced drawing and certain areas of painting for the junior high school.
- 17. INTRODUCTION TO POTTERY.** *Three hours credit.*  
Creative experience in the design and construction of pottery. Various methods are studied; glazing, casting, firing.
- 65. BEGINNING SCENE DESIGN.** *Three hours credit.*  
Prerequisite, Sp. 13. An introductory course in the fundamentals of scene design and stagecraft. The study includes the basic principles of design and color and their application to scenic design.
- 100. WEAVING.** *Four hours credit.*  
A study of the basic fundamentals of threading and weaving on two and four harness looms; emphasis on plain and pattern weaving.
- 102. COMPOSITION.** *Three hours credit.*  
Prerequisite, F.A. 1 or equivalent. The technical problems of pictorial composition involving the organization of all the visual elements. The course is recommended to precede the courses in painting.
- 103. INTRODUCTION TO WATERCOLOR PAINTING.** *Four hours credit.*  
Prerequisite, F.A. 1 or equivalent. A beginning course in watercolor painting.
- 105. COLOR THEORY.** *Four hours credit.*  
Prerequisite, F.A. 11. A study of color relationships and organizational principles pertinent to the color unit.
- 108. CLAY MODELING.** *Three hours credit.*  
The theory and techniques of modeling and casting.
- 116. CRAFT PROCESSES AND DESIGN.** *Four hours credit.*  
Prerequisite, F.A. 11. Creative experience in a variety of crafts including leathercraft, simple woodwork and metalcraft, plastics and others.
- 117. POTTERY.** *Three hours credit.*  
The principles of design applied to mass, volume and decoration. Experience in the coil, slab, potter's wheel, casting, glazing and firing. Beginning course.
- 120. INTRODUCTION TO OIL PAINTING.** *Four hours credit.*  
Prerequisite, F.A. 1 or equivalent. A beginning course in oil painting.
- 121. SURVEY OF ART THROUGH THE AGES.** *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.
- 123. ART EDUCATION FOR THE SECONDARY SCHOOL.** *Four hours credit.*  
Philosophy and methods of teaching art at the junior and senior high school levels. A study of the relationship of art activities to the school program of general education.
- 124. ART IN THE ELEMENTARY SCHOOL.** *Five hours credit.*  
Methods of teaching art at the elementary school level. Organization of work units at the various grade levels and practical creative experience in a wide variety of media.
- 125. INSTRUCTIONAL TECHNIQUES IN ART EDUCATION.** *Four 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.

**127. ART CRAFTS IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Practical creative experience in a variety of craft processes suitable for the elementary school classroom; includes clay, weaving, papier mache, simple bookkeeping, puppets, and cardboard and paper construction.

**135. LIFE CLASS.** *Two hours credit.*

Prerequisite, F.A. 1. Opportunity to draw from the human figure.

**200. TECHNIQUES OF CREATIVE WEAVING.** *Four hours credit.*

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

**202. ADVANCED COMPOSITION.** *Three hours credit.*

Prerequisites, F.A. 1 and 2. Advanced problems in pictorial and graphic composition.

**203. WATERCOLOR PAINTING.** *Four hours credit.*

Prerequisites, F.A. 1, 2, and 103 or equivalent. This course seeks to develop individual expression in creative painting and technical mastery of the medium.

**204. FIGURE AND COMPOSITION.** *Four hours credit.*

Prerequisites, F.A. 4, 102 or equivalent. An advanced study of the human figure in composition. Creative work in a variety of media.

**209. PRINT MAKING.** (Summers only.) *Four 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.

**211. DESIGN, COLOR AND COMPOSITION PROBLEMS.** (Summers only.) *Three hours credit.*

A study of the elements and principles of design, color relationships and organizational principles of color units and the organization of the visual elements relating to pictorial composition.

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

Prerequisite, F.A. 11 or equivalent. 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.

**216. CREATIVE JEWELRY AND DESIGN IN METAL.** *Four hours credit.*

Prerequisite, F.A. 11. An experimental approach to the problem of contemporary jewelry and metalwork. Emphasis on the techniques of enameling on copper, but also including the exploration of combining silver, wood and plastic.

**219. THE SILK SCREEN PRINTING PROCESS.** *Four hours credit.*

The study of various methods and techniques in the contemporary graphic process of silk screening. Applied problems in all the methods with emphasis on serigraphy, blockout, paper stencil, pro-film, tuche, and the photography stencil method.

**220. OIL PAINTING.** *Four hours credit.*

Prerequisite, F.A. 120 or equivalent. This course seeks to develop individual expression in creative painting and technical mastery of the medium.

**221a. ART HISTORY I.** *Five hours credit.*

A study of the development of art from prehistoric time to and including the Gothic Age.

**221b. ART HISTORY II.** *Five hours credit.*

A study of the development of art from the Renaissance to the present day.

**225. FIGURE PAINTING.** *Five hours credit.*

Prerequisite, F.A. 120 or equivalent. Painting in oils from the human figure.

**228. SECONDARY SCHOOL ART WORKSHOP.** (Summers only.)  
*Three 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 areas.

**230. WORKSHOP IN ART FOR ELEMENTARY TEACHERS.** (Summers only.) *Three 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.

**232. ADVANCED SCENE DESIGN.** *Three hours credit.*

Prerequisite, Sp. 113 or equivalent. 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.

**240. ART EDUCATION IN 7TH, 8TH, AND 9TH GRADES.** *Five hours credit.*

A study and discussion of the problems of teaching and teacher preparation of art at the junior high school level, with emphasis on objectives, philosophy, and methods in the areas of drawing, painting, design and graphic arts.

**241. CRAFT PROCESSES IN 7TH, 8TH, AND 9TH GRADES.** *Four hours credit.*

Creative experiences in the craft activities adapted to the interests and needs of the junior high school student.

**301. TECHNICAL PROCEDURES FOR THE ART TEACHER.** (Summers only.) *Four hours credit.*

This course deals with the problems in the teaching and supervision of art in the public schools.

**305. ADVANCED COLOR THEORY.** (Summers only.) *Four hours credit.*

Prerequisite, F.A. 105 or equivalent. An intensive study of creative color composition.

**308. SCULPTURE.** (Summers only.) *Four hours credit.*

The theory and techniques of sculpture, with a study of the processes. Creative work in a choice of plastic media.

**316. CRAFT PROCESSES AND DESIGN FOR SECONDARY SCHOOLS.** (Summers only.) *Four hours credit.*

A study of design and crafts adapted to secondary school levels.

**317. CERAMICS.** (Summers only.) *Four hours credit.*

Prerequisite, F.A. 17 or equivalent. Historical research in design and processes of ceramicware. Individual creative and technical competence stressed.

**324. CREATIVE ACTIVITIES IN THE ELEMENTARY SCHOOL.** (Summers only.) *Four hours credit.*

Research and creative experience in the various art activities of the elementary school art education program.

**327. PROBLEMS AND TECHNIQUES IN HANDCRAFTS FOR ELEMENTARY SCHOOLS.** (Summers only.) *Four hours credit.*

A workshop study of the recent trends in methods and techniques of craft work suited to the elementary school classroom.

**328. THE CURRICULUM IN ART EDUCATION.** (Summers only.) *Four hours credit.*

A review of the best literature on the content and organization of the curriculum in general education, and the professional literature in art education. Analysis and evaluation of courses of study, the building of curriculums and significant units for teaching art.

**HOME ECONOMICS MAJOR**

**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
H.E. 70	Clothes and Personality	2
H.E. 71	Textile Fundamentals	3
H.E. 72	Elementary Clothing Construction	3
H.E. 73	Intermediate Clothing Construction	4
H.E. 77	Family Meal Cookery and Service	4
H.E. 81	Art in Home Living	2
H.E. 98	Elementary Nutrition	3
H.E. 180	Family Relationships	3
H.E. 191a	Management in Family Living	3
H.E. 191b	Home Management Residence	2
H.E. 198	Meal Planning and Service	4
H.E. 203	Development and Guidance of the Young Child	3
H.E. 219	Infant and Child Care	4
H.E. 268	Family Housing	2
H.E. 275	Home Furnishings	3
H.E. 284	Demonstration Techniques	2
	Elective	1

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3. The 29 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 Division.

4. It is required that at least 12 hours of elective courses be chosen from outside the Division of the Arts to strengthen the qualifications for vocational teaching.

5. Electives to complete 180 quarter hours of academic credit required for graduation. Recommended electives: H.E. 165, 183, 199, 261, 295; F.A. 4 hours.

**Credential for Teaching Vocational Homemaking**

In order to qualify for a Vocational Homemaking Credential under the State Board for Vocational Education, the following credits are required also. If these courses are success-

fully completed, a minor is not required for the Bachelor of Arts Degree with teaching certificate.

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 78	Principles of Food Preparation	4	- - - -
H.E. 188	Costume Design	3	- - - -
H.E. 293	Adult Education in Homemaking	3	- - - -
Bus. 54	Consumer Economic Problems	3	- - - -
E.P.G. 285	Mental Hygiene and Emotional Adjustment	3	- - - -
Ed. 249	Principles of Vocational Education	3	- - - -
Chem. 40a	Principles of Chemistry I	5	- - - -
	Electives in the Science Division	5	- - - -
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**Home Economics Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 70	Clothes and Personality	2	- - - -
H.E. 72	Elementary Clothing Construction	3	- - - -
H.E. 94	Elementary Cookery and Food Service	4	- - - -
H.E. 98	Elementary Nutrition	3	- - - -
H.E. 180	Family Relationships	3	- - - -
H.E. 191a	Management in Family Living	3	- - - -
H.E. 275	Home Furnishings	3	- - - -
	Electives in Home Economics	6	- - - -
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Recommended electives for Home Economics minors who want to teach homemaking in the secondary schools:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 219	Infant and Child Care	4	- - - -
Ed. 147	Methods and Observation of Teaching Home Economics in the Secondary School	3	- - - -
H.E. (Selected)		5	- - - -

**HOME AND FAMILY LIVING MAJOR**  
**Bachelor of Arts Degree (Liberal Arts)**

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.
2. At least 48 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 Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 70	Clothes and Personality	2	- - - -
H.E. 71	Textile Fundamentals	3	- - - -
H.E. 72	Elementary Clothing Construction	3	- - - -
H.E. 94	Elementary Cookery and Food Service	4	- - - -
H.E. 98	Elementary Nutrition	3	- - - -
H.E. 191a	Management in Family Living	3	- - - -
H.E. (electives)		9	- - - -
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**DIETETICS MAJOR**

**Bachelor of Arts Degree (Liberal Arts)**

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of Physical Education activity courses.
2. At least 48 quarter hours in Dietetics.
3. One minor of 27 quarter hours preferably in the Division of the Sciences to include Bot. 122, General Bacteriology (5 hours); Chem. 40a, Principles of Chemistry I (5 hours); Chem. 40b, Principles of Chemistry II (5 hours); Chem. 40c, Introductory Organic Chemistry (5 hours); Chem. 247, Biochemistry (5 hours).
4. Electives to complete requirements for graduation.

**DIETETICS MAJOR**

**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 70	- - Clothes and Personality - - - -	-	2
H.E. 71	- - Textile Fundamentals - - - -	-	3
H.E. 72	- - Elementary Clothing Construction - - - -	-	3
H.E. 73	- - Intermediate Clothing Construction - - - -	-	4
H.E. 77	- - Family Meal Cookery and Service - - - -	-	4
H.E. 98	- - Elementary Nutrition - - - -	-	3
H.E. 175	- - Dietetics - - - -	-	3
H.E. 180	- - Family Relationships - - - -	-	3
H.E. 187	- - Institution Management - - - -	-	5
H.E. 203	- - Development and Guidance of the Young Child - - - -	-	3
H.E. 219	- - Infant and Child Care - - - -	-	4
H.E. 275	- - Home Furnishings - - - -	-	3
H.E. 282	- - Nutrition in Disease - - - -	-	3
H.E. 284	- - Demonstration Techniques - - - -	-	2
H.E. 285	- - Experimental Cookery - - - -	-	3

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3. One minor of 27 quarter hours preferably in the Division of Sciences to include Bot. 122, General Bacteriology (5 hours); Chem. 40a, Principles of Chemistry I (5 hours); Chem. 40b, Principles of Chemistry II (5 hours); Chem. 40c, Introductory Organic Chemistry (5 hours); Chem. 247, Biochemistry (5 hours).

4. 24 to 32 quarter hours of free 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 also:

Course Number	Course Title	Hours	Credit
H.E. 78	Principles of Food Preparation	- - - -	4
H.E. 198	Meal Planning and Service	- - - -	4
H.E. 199	Preservation of Food	- - - -	2
H.E. 286	Quantity Cookery	- - - -	2
Bus. 20	Principles of Accounting I	- - - -	4
Econ. 30	Introductory Economics	- - - -	5
Zool. 217	Human Physiology	- - - -	4

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**Description of Courses**

**70. CLOTHES AND PERSONALITY. Two hours credit.**

A study of the factors which influence one's personality: posture, grooming, the application of art principles to clothing selection for figure and facial types, appropriate accessories and care of clothing. Opportunities are given to practice acceptable behavior in social situations.

**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 is included, with emphasis on the newer finishes on old and new fabrics.

**72. ELEMENTARY 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.

**73. INTERMEDIATE CLOTHING CONSTRUCTION. Four hours credit. (Two hours lecture, four hours laboratory.)**

Prerequisite, H.Ec. 72 or equivalent. A continuation of H.Ec. 72, using more difficult fabrics and construction techniques.

**77. FAMILY MEAL COOKERY AND SERVICE. Four hours credit. (Two hours lecture, four hours laboratory.)**

This course open only to majors except by special permission. A study of the fundamental processes of cookery. Basic principles of nutrition and meal planning are used in the preparation and serving of family meals.

**78. PRINCIPLES OF FOOD PREPARATION. Four hours credit. (Two hours lecture, four hours laboratory.)**

Open only to majors except by special permission. Prerequisite, H.E. 77 or equivalent. 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.

**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.

**94. ELEMENTARY COOKERY AND FOOD SERVICE. Four hours credit. (Two hours lecture, four hours laboratory.)**

This is a non-technical course in food preparation planned for men or women students desiring more knowledge of the fundamental processes of cookery and food marketing. Simple meals and party refreshments will be planned, prepared and served.

- 98. ELEMENTARY 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.
- 165. HOUSEHOLD PHYSICS.** *Four hours credit. (Three hours lecture, two hours laboratory.)*  
A course designed to meet the needs of majors in Home Economics. The physical principles of heat, mechanics, electricity and light are emphasized.
- 175. DIETETICS.** *Three hours credit.*  
Prerequisite. H.E. 98. A review of the fundamentals of human nutrition is made. Emphasis given to recent developments in human nutrition. Diets for average American families of various income levels planned. The diet of the young child in relation to the diet of the family is studied.
- 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.
- 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.
- 187. INSTITUTION MANAGEMENT.** *Five hours credit. (Four hours lecture, two hours laboratory.)*  
The organization and management of various types of institutions. Specific emphasis is given to problems of personnel, the physical plant, and efficient work schedules. The food-service areas of each institution are selected for study.
- 188. COSTUME DESIGN.** *Three hours credit. (One hour lecture four hours laboratory.)*  
Prerequisites, H. E. 72, 73 or equivalent. Some basic problems are presented in draping and 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.
- 189. ADVANCED CLOTHING CONSTRUCTION.** *Two hours credit. (One hour lecture, two hours laboratory.)*  
Prerequisites, H.E. 72, 73, 188. Garments are constructed from designs created in H. E. 188, Costume Design. This provides the student with an opportunity to develop greater skill in solving construction and fitting problems.
- 191a. MANAGEMENT IN FAMILY LIVING.** *Three hours credit.*  
A study of management in relation to successful home living. Family goals, managerial responsibilities, principles and techniques used in managing time, energy and money are stressed. Methods used in the care of the house are studied.
- 191b. HOME MANAGEMENT RESIDENCE.** *Two hours credit.*  
Prerequisites, H.E. 77, 78, 191a or equivalent. Students live in the Margaret Roubush Home Management House on the campus for a period of six weeks. There they put into practice desirable standards of home living.
- 198. MEAL PLANNING AND SERVICE.** *Four hours credit. (Two hours lecture, four hours laboratory.)*  
Prerequisites, H.E. 77, 78 or equivalent. This course provides more practice in individual and group work in planning, preparing, and serving meals. Opportunities are planned to show how to solve some of the problems of the hostess in serving food on various occasions in the modern American home.

**199. PRESERVATION OF FOOD.** *Two hours credit. (One hour lecture, two hours laboratory.)*

Prerequisites, H.E. 77, 78 or equivalent. Discussions and laboratory practice in home methods of food preservation by the waterbath, pressure cooker, and quick freeze techniques. Observations of commercial methods of food preservation.

**203. DEVELOPMENT AND GUIDANCE OF THE YOUNG CHILD.** *Three hours credit. (Two hours lecture, two hours laboratory per week.)*

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.

**209. NEW TRENDS IN NUTRITION.** (Summers only.) *Four hours credit.*

A detailed study of the value of carbohydrates, fats, proteins, minerals and vitamins in human nutrition. A comprehensive study of nutrition 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.

**219. INFANT AND CHILD CARE.** *Four hours credit. (Three hours lecture, two hours laboratory per week.)*

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 infants and children.

**222. PROBLEMS IN HOME ECONOMICS.** (Summers only.) *Three hours credit.*

A study of current trends and problems in selected areas: Nutrition and family meals; management of family resources, child development; and housing the family. Consideration of present conditions and corresponding problems in managing the family resources.

**243. ART IN CONTEMPORARY LIVING.** (Summers only.) *Three hours credit.*

This class deals with the following problems: selection of clothing for the individual man or woman, selection and arrangement of furnishings suitable to the modest home, correct serving of refreshments and attractive, inexpensive table decorations.

**244. PERSONAL IMPROVEMENT FOR THE TEACHER.** (Summers only.) *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.

**261. PARTICIPATION IN PRE-SCHOOL.** *Three hours credit.*

Prerequisite, H.Ec. 203; permission of instructor. Experience with children in the pre-school situation supplemented by readings, films and discussions. Emphasis on child growth through children's interests and activities.

**264. WORKSHOP IN PRE-SCHOOL.** *Three hours credit.*

Prerequisite, H.Ec. 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.

- 265. THE FAMILY.** (Summers only.) *Four 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.
- 267. METHODS IN THE TEACHING OF HOME MAKING.** (Summers only.) *Four hours credit.*  
This course is planned for home economics seniors and graduate students who wish to take further work in methods in the summer quarter.
- 268. FAMILY HOUSING.** *Two hours credit.*  
A study of housing as it relates to family living. Students learn basic principles and acquire information needed for solving housing problems of typical family groups. Students consider the financing of housing, family needs, and procedures in buying, renting, and building. Plans are made for building and remodeling family housing units.
- 274. HOUSEHOLD EQUIPMENT.** *Three hours credit.*  
Through individual reports, projects, field trips, demonstrations, and classroom discussions, a body of knowledge and criteria are developed by which equipment and utensils may be evaluated. Standard products will be studied in the light of the present-day needs of the modern American home. Basic scientific principles are applied.
- 275. HOME FURNISHING.** (Summers only.) *Three hours credit.*  
A study of the application of art principles to the selection of furnishings for homes of various types. Emphasis is given to the importance of considering the needs and resources of the family for intelligent choice, arrangement and care of furnishings.
- 276. PROBLEMS IN CLOTHING CONSTRUCTION.** (Summers only.)  
*Four hours credit. (Two hours lecture, four hours laboratory.)*  
Prerequisites, H.E. 72, 73 or permission of instructor. This course is planned for graduate students with a background of knowledge of the fundamentals of clothing construction. Opportunity will be presented to develop greater skill in construction processes and fitting techniques.
- 277. NUTRITION AND THE SCHOOL LUNCH PROGRAM.** (Summers only.) *Four hours credit.*  
A study of the school lunch program, its organization and management, its effect on the food habits and nutritional state of the elementary and secondary school pupil, and its place as an integral part of the total school program. A review of the nutrition needs of the growing child will be made.
- 279. PRESERVATION OF FOOD.** (Summers only.) *Four hours credit. (Two hours lecture, two hours laboratory.)*  
Prerequisites, H.E. 77, 78 or equivalent. Open kettle, waterbath, pressure cooker, quick freeze methods of food preservation are discussed and home methods of these types of food preservation are practiced in the laboratory. The making of jellies, jams, pickles and relishes is discussed and products are made.
- 282. NUTRITION IN DISEASE.** *Three hours credit.*  
Prerequisite, H.E. 98. A study of the fundamental principles involved in the treatment of disease through diet. Emphasis is given to modification of normal diet.
- 284. DEMONSTRATION TECHNIQUES.** *Two hours credit.*  
Prerequisites, H.E. 72, 77 or equivalent. Practice in the techniques of demonstrating before audiences. All phases of the Home Economics field will be used to furnish types of demonstrations.

**285. EXPERIMENTAL COOKERY.** *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisites, H.E. 77, 78 or equivalent. An opportunity to determine the effects of temperature, time, and different manipulations on foods. Commercial products are tested and compared with home methods of preparation.

**286. QUANTITY COOKERY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, H.E. 77, 78, 98 or equivalent. Meal planning, techniques of food buying and application of cookery principles to large quantity food service. The facilities of student dining halls and the school lunch program are used as practice laboratories.

**288. CREATIVE PROBLEMS IN DRESS DESIGN.** (Summers only.) *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, H.E. 70, 72, 73 or equivalent. Basic problems in draping on dress forms and in the drafting of flat patterns. Opportunity is provided for creating designs for different figure types in a variety of textured fabrics. Some consideration is given also to the design of simple decorative details and appropriate accessories.

**290. APPLIED HOME FURNISHINGS.** (Summers only.) *Four hours credit. (Two hours lecture, four hours laboratory.)*

This course includes various projects which will give students experience in the application of art principles to interior decoration. Individual and/or class projects such as the construction of draperies, bedspreads and slip covers.

**291. MANAGING FAMILY RESOURCES.** (Summers only.) *Four hours credit.*

A study of the management of human and material resources in achieving family goals. Techniques used in managing the family's resources to achieve desired ends are stressed. Work simplification, efficient planning and management of family finances are studied in detail.

**293. ADULT EDUCATION IN HOMEMAKING.** *Three hours credit. (Two hours lecture, two hours laboratory.)*

A study of the philosophy of adult education, procedures used in promoting and organizing adult programs, and methods used in teaching adults. Includes observation and experience in working with adults.

**294. INSTRUCTION AIDS IN HOME ECONOMICS.** (Summers only.) *Four hours credit.*

Students develop and use criteria in evaluating teaching materials and aids. Selecting, organizing, and storing of aids is included. Visual aids and devices used in teaching various phases of homemaking are planned and prepared. Printed materials are evaluated.

**295. TAILORING.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, H.Ec. 72, 73, 188 or equivalent. Opportunity for developing skill is presented in the construction of lined suits and coats.

**298. ADVANCED FOOD PREPARATION.** (Summers only.) *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, H.E. 77, 78 or equivalent. A study dealing with the problems in food service which confront the Home Economics teacher. This course will cover the service of food in the home as well as catering for school banquets, receptions and other special school functions where food is served.

**301. SUPERVISION OF STUDENT TEACHING IN HOME ECONOMICS.** (Summers only.) *Four hours credit.*

Prerequisite, permission of instructor. The qualifications, objectives and responsibilities of the supervising teacher are analyzed. Supervision techniques and methods of evaluating the development of the student teacher are stressed.

**302. TEACHING PROBLEMS IN HOME MAKING.** (Summers only.) *Four hours credit.*

Modern methods and trends in homemaking education. Problems of the individual teacher are studied and assistance is given her in working out practical solutions. Common problems are considered by the entire group.

**303. CURRICULUM IN HOME MAKING.** (Summers only.) *Four hours credit.*

This course helps teachers improve their ability to plan functional programs in homemaking and to solve other curriculum problems. Implications of social and economic conditions, research findings, trends in education and current issues are determined. Modern methods of program planning are studied. Students have experience in curriculum planning.

**304. EVALUATION IN HOME MAKING EDUCATION.** (Summers only.) *Four hours credit.*

A study of principles and procedures in appraising student achievement of educational goals. Emphasis on evaluation as an integral part of the teaching and learning process. Experience provided in developing procedures and instruments for use in teaching situations.

**306. HISTORY OF COSTUME.** (Summers only.) *Four hours credit.*

A study of the development of costume through the ages and its influence on the designs of present day clothing. The development of costumes in the couturier houses of Europe and America is considered.

**307. CLOTHING ECONOMICS.** (Summers only.) *Four hours credit.*

A study of family and individual clothing problems: standardization, labeling, consumer protection, recent textile developments, consumer purchasing surveys, custom and wholesale production methods. The relation of fashion to manufacturing and consumption of clothing.

**371. ADVANCED TEXTILES.** (Summers only.) *Four hours credit.*

Prerequisite, H.E. 71 or equivalent. A study of recent textile developments. Problems of individual interest are considered. A study of Oriental, European, English and American textiles, the synthetic fibers and recent developments in textiles.

**385. RESEARCH IN FOODS.** (Summers only.) *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, H.E. 77, 78 or equivalent. A study of the recent findings in food research. Opportunity is given for individual investigation in various problems of food preparation. Valid techniques of experimentation are stressed.

**386. PRINCIPLES AND TECHNIQUES OF COOKERY.** (Summers only.) *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, two quarters of foods preparation. A study of the scientific principles which are basic to protein, fat and carbohydrate cookery. The principles involved in hydration, crystalization, leavening, emulsions and other cookery problems will be included. The relationships between techniques of food preparation and principles involved will be stressed.

**387. FOOD ECONOMICS.** (Summers only.) *Four hours credit.*  
 Prerequisite, undergraduate courses in basic foods. A study of family and world food problems: The influence of food on world conditions, work of the Food and Agriculture Organization of the United Nations (FAO), problems of food production, marketing, consumer practices and consumer protection in the United States, the cost of meeting nutrition needs of the American Family.

**396. DRESS DESIGN IN DRAPING.** (Summers only.) *Four hours credit. (Two hours lecture, four hours laboratory).*  
 Prerequisite, H.E. 188 or equivalent. Problems to develop original discrimination and techniques in costume design, developed with the means of draping fabrics. A problem is selected and done on the student's own initiative.

**398. FAMILY MEAL MANAGEMENT.** (Summers only.) *Four hours credit. (Two hours lecture, four hours laboratory.)*  
 This course is planned to give the graduate student further opportunity to develop her skill in the preparation and service of meals. Individual responsibility is stressed and homelike occasions are duplicated as nearly as possible in the laboratory situation.

**INDUSTRIAL ARTS MAJOR**

**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
I.A. 34 - -	Introduction to Industrial Arts - - - -	4
I.A. 264 - -	Industrial Arts Design - - - -	3
I.A. 150a - -	Bench Woodwork - - - -	3
I.A. 150b - -	Intermediate Woodwork - - - -	3
I.A. 150c - -	Machine Woodwork - - - -	3
I.A. 55a - -	Introduction to General Metal - - - -	3
I.A. 57a - -	Elements of Art Metal and Metal Spinning -	3
I.A. 155a - -	Elements of Machine Lathe Operation - -	2
I.A. 161 - -	Principles of Drafting - - - -	8
I.A. (Selected)* - -	- - - - - - - - - - - - - - - - - -	6
Electives - - - -	- - - - - - - - - - - - - - - - - -	10
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\*Required courses in the major. Select six hours from:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
I.A. 234 - -	History of Industrial Arts - - - -	4
I.A. 235 - -	Philosophy of Industrial Arts - - - -	3
I.A. 236 - -	Principles of General Shop Organization -	3
I.A. 238 - -	Current Theory and Practice in the Arts -	3
I.A. 240 - -	Course Organization in Industrial Arts - -	3
I.A. 241 - -	The Place of the Arts in General Education -	3

3. Two minors of 27 quarter hours, one of which must be outside the Division of the Arts.

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

**Industrial Arts Minor**

Course Number	Course Title	Hours	Credit
I.A. 150a	Bench Woodwork	3	3
I.A. 150b	Intermediate Woodwork	3	3
I.A. 150c	Machine Woodwork	3	3
I.A. 161	Principles of Drafting	8	8
I.A. (electives)		10	10
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Alternate Minor may consist of Woodwork—8 hours, Metalwork—8 hours, Drafting—8 hours and electives—3 hours. Consult instructors in each area of work about the selection of courses.

A second alternate minor to meet the requirements for teaching in a general shop may be elected. Select 27 hours from the following courses with the advisement of the department.

Course Number	Course Title	Hours	Credit
I.A. 141	Graphic Arts	2-10	2-10
I.A. 150a,b,c	Bench Woodwork	3-9	3-9
I.A. 55a	Introduction to General Metal	3	3
I.A. 155a	Elements of Machine Lathe Operation	2	2
I.A. 157a	Elements of Jewelry Work	2	2
I.A. 157b	Advanced Jewelry and Lapidary Work	3	3
I.A. 257	Advanced General Metalwork	3	3
I.A. 146c,d	Bookbinding	2-5	2-5
I.A. 147a,b	General Leathercraft	2-5	2-5
I.A. 148a,b	General Plastics	2-5	2-5
I.A. 161	Principles of Drafting	2-16	2-16
I.A. 163a,b	General Shop Electricity	2-5	2-5
F.A. 1	Drawing	3	3
F.A. 13	Lettering	2	2
F.A. 117	Pottery	2-3	2-3
F.A. 116	Craft Processes and Design	4	4
F.A. 100	Weaving	4	4

Ed. 140, Introduction to Student Teaching in the Secondary School, and Ed. 141, Methods of Teaching in the Secondary School (five hours credit), do not count toward the minor but are recommended as electives.

Course substitutions will be made for students who expect to become craft counselors or playground instructors.

**Description of Courses**

**34. INTRODUCTION TO INDUSTRIAL ARTS.** *Four hours credit.* Required of all freshman majors in Industrial Arts. The basis for the development of a modern philosophy of industrial arts. Orientation to problems of teaching and teacher preparation.

**54. WORKSHOP IN INDUSTRIAL ARTS FOR ELEMENTARY TEACHERS.** (Summers only.) *Four hours credit.* Development of basic skills through elementary work in wood, metals, and other materials easy to get. Adaptation of work to classroom or small shop. Creative work with limited equipment.

**55a. INTRODUCTION TO GENERAL METAL.** *Three hours credit.* First in sequence of metal courses. Basic shop procedures, objectives, and relationship to other types of work in metal. Emphasis on elementary bench metal, sheet metal, and forge practice.



**57a. ELEMENTS OF ART METAL AND METAL SPINNING.** *Three hours credit.*

Prerequisite, I.A. 55a. 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.

**59a. ELEMENTS OF GAS AND ELECTRIC WELDING.** *Two hours credit.*

Prerequisite, I.A. 55a. An introductory course in the field of gas and electric welding of mild steel and simple fabrication of projects.

**130. TEACHING THE INDUSTRIAL ARTS.** (Summers only.) *Three hours credit.*

Problems in planning industrial arts courses. Philosophy, objectives, evaluation, and school shop organization briefly considered. Offered in Pre-Session alternate years.

**137. PROBLEMS IN UPHOLSTERY.** *Maximum of four hours credit.*  
Techniques and processes in upholstery using various types for all grade levels. Unit a. *Two hours credit*, Beginning; Unit b. *Two hours credit*, Advanced.

**141. GRAPHIC ARTS.** *Maximum of ten hours credit.*

Experience with the fundamental operations used in a school graphic arts shop; information as to tools, machines, and materials; the place of printing in community life, and the relationship between printing and other subjects of the curriculum. Unit a. *Three hours credit*, Beginning; Unit b. *Two hours credit*, Intermediate; Unit c. *Three hours credit*, Advanced; Unit d. *Two hours credit*, Teaching Problems.

**146. BOOKBINDING.** *Maximum of ten hours credit.*

The development of basic and advanced skills in hand bookbinding. Adaptation of the work to the general shop and industrial arts program of the public schools. Two to three hours credit each unit. Unit a. *Three hours credit*, Beginning; Unit b. *Two hours credit*, Intermediate; Unit c. *Three hours credit*, Advanced; Unit d. *Two hours credit*, Teaching Problems.

**147. GENERAL LEATHERCRAFT.** *Maximum of five hours credit.*

Development of basic techniques in leatherwork. Tool designing and tool making for camps and school shops. Study of tanning and relation of work to other areas. Unit a. *Three hours credit*, Beginning; Unit b. *Two hours credit*, Advanced.

**148. GENERAL PLASTICS.** *Maximum of five hours credit.*

An opportunity to become proficient in working with the many kinds of plastics for either a unit or general shop. Unit a. *Two hours credit*, Beginning; Unit b. *Three hours credit*, Advanced.

**150a. BENCH WOODWORK.** *Three hours credit.*

Courses "a," "b," and "c" progress from elementary to more advanced work. Study of woods, materials and supplies parallel development of skills.

**150b. INTERMEDIATE WOODWORK.** *Three hours credit.*

A continuation of I.A. 150a, with emphasis on more advanced hand woodworking processes.

**150c. MACHINE WOODWORK.** *Three hours credit.*

Prerequisites, I.A. 150a,b or equivalent. Experience in the use of common machines found in the average woodworking shop.

**150d. ADVANCED FURNITURE AND CABINET MAKING.** (Summers only.) *Three hours credit.*

Prerequisites, I.A. 150a,b,e or equivalent. Students design and construct period and modern pieces of furniture. Study of production methods in industry. Advanced upholstery and woodfinishing techniques.

**150e. WOODFINISHING.** *Two hours credit.*

Prerequisite, I.A. 150a or equivalent. 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.

**151a. EQUIPMENT AND MAINTENANCE PROBLEMS IN WOOD.**

*Three hours credit.*

Prerequisites, I.A. 150a,b,c. Upkeep and repair of woodworking tools and machines. Selection and purchases of woodworking tools, machines and supplies for a school shop.

**153a. BEGINNING WOODTURNING.** *Two hours credit.*

Prerequisite, I.A. 150a or equivalent. Development of basic skills in woodturning.

**153b. ADVANCED WOODTURNING.** (Summers only.) *Two hours credit.*

Prerequisites, I.A. 150a, 153a or equivalent. The use of the lathe to supplement bench and machine woodwork.

**155a. ELEMENTS OF MACHINE LATHE OPERATION.** *Two hours credit.*

Prerequisite, I.A. 55a. An introductory unit concerned with the basic operations performed on a machine lathe including straight and taper turning, thread cutting, and other operations.

**157a. ELEMENTS OF JEWELRY WORK.** *Two hours credit.*

Prerequisites, I.A. 55a, 57a or equivalent. An introduction to the basic process of jewelry construction including silver soldering, sawing, filing, ring constructions, simple silversmithing and setting stones.

**157b. ADVANCED JEWELRY AND LAPIDARY WORK.** *Three hours credit.*

Prerequisite, I.A. 157a. This course is 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.

**161. PRINCIPLES OF DRAFTING.** *Maximum of sixteen hours credit.*

Practical problems in drafting and planning as listed in the following courses: Unit a. Geometric construction, shop sketching, orthographic projection, sectional views, dimensioning and working drawing. *Two hours credit*; Unit b. Auxiliary projection, pencil tracing, revolution, isometric, inking, oblique, and cabinet drawing. *Three hours credit*; Unit c. Perspective, dimetric, shading, freehand pictorial sketching, missing view drawing, symbols, and blueprinting. *Three hours credit*; Unit d. Intersections and pattern development. *Two hours credit*; Unit e. Beginning architectural drafting. *Three hours credit*; Unit f. Machine drawing and graphic methods. *Three hours credit.*

**163a. GENERAL SHOP ELECTRICITY I.** *Two hours credit.*

Elementary principles of electricity that are applicable to projects in the junior and senior high schools. An opportunity will be given to make such projects.

**163b. GENERAL SHOP ELECTRICITY II.** *Three hours credit.*

More advanced principles of electricity that are applicable to projects in the junior and senior high schools. Construction of such projects. Second course will include a unit on house wiring.

**215. ADVANCED MACHINE TOOL OPERATION.** *Three hours credit.*

Prerequisite, 155a. An advanced course in 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 methods of teaching and to organizing, maintaining and equipping the shop at the junior and senior high school level.

**219. ADVANCED GAS AND ELECTRIC WELDING.** *Three hours credit.*

Prerequisite, I.A. 59a. Advanced course 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 methods of teaching, course content, welding supplies and the equipment suitable for the teaching of welding at the junior and senior high school level.

**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 administrative and community pressures are studied.

**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. Methods of presenting the related information and consumer knowledge of each material area are considered.

**234. HISTORY OF INDUSTRIAL ARTS.** *Four hours credit.*

A study of the origin, movements, and leaders responsible for theories and philosophies of industrial arts. First half of course includes studies up to 1870; second half deals with progress from 1870 to the present.

**235. PHILOSOPHY OF INDUSTRIAL ARTS.** *Three hours credit.*

Prerequisite, I.A. 234 or equivalent. A study of the conflicts in the teaching of industrial arts. Relationship of philosophy to actual practice.

**236. PRINCIPLES OF GENERAL SHOP ORGANIZATION.** *Three hours credit.*

The purposes and philosophy underlying the organization of general shops.

**237. DEVELOPMENT OF INSTRUCTIONAL AIDS IN INDUSTRIAL ARTS.** *Three hours credit.*

Visual aids, instruction sheets, charts, graphs, and other instructional devices are planned and developed. The student will select, plan, and construct, where appropriate, various instructional aids.

**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.

**239. ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL EDUCATION.** (Summers only.) *Four hours credit.*

A study of the purposes and programs of industrial education in secondary schools, including industrial arts and vocational-industrial education. Special emphasis upon the program of vocational-industrial education as provided through the Smith-Hughes Act, the George-Dean Act, and other pieces of federal legislation.

**240. 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.

**241. THE PLACE OF THE ARTS IN GENERAL EDUCATION. *Three hours credit.***

Incorrect concepts of the different areas of the arts are studied. Philosophies, objectives and current methods of teaching the arts are presented.

**242. ADVANCED THEORY AND PRACTICE OF TYPOGRAPHIC DESIGN. *Maximum of nine hours credit.***

Prerequisite, I.A. 141 or equivalent. Treats printing as a great art and deals with the origin, development and application of the principles of design in the field of typography. Unit a. *Three hours credit*, Job Composition; Unit b. *Three hours credit*, Display; Unit c. *Three hours credit*, Color Problems.

**243. ADVANCED THEORY AND PRACTICE IN OFFSET LITHOGRAPHY. *Three hours credit.***

Prerequisites, I.A. 141 or equivalent. This course will include copy preparation, camera and darkroom work, stripping and opaquing, plate making and offset press operation.

**247. ADVANCED CONSTRUCTION PROBLEMS. *Three hours credit.***

Prerequisites, I.A. 150a,b,c or equivalent. A course for advanced wood-working students with emphasis on application of the steel square to construction problems.

**248a. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN BOOKBINDING I. (Summers only.) *Four hours credit.***

Methods of relating the bindery to the library and the classroom. Organization of binding as a general shop unit. Development of courses to meet individual needs.

**248b. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN BOOKBINDING II. (Summers only.) *Four hours credit.***

Methods of relating the bindery to the library and the classroom. Organization of binding as a general shop unit. Development of course to meet needs. Second course provides opportunity to do creative work in gold and leather on bindings.

**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 fabricating contemporary design.

**255. THE USE OF NEW MATERIALS. *Three hours credit.***

A study of the newer materials of industry and methods of adapting them for use on both junior and senior high school levels.

**256. ADVANCED ART METAL. *Three hours credit.***

Prerequisite, I.A. 57a. This will be an advanced course in art metal and metal spinning including work in extreme raising, repousse, chasing, use of sectional chucks and others.

**257. ADVANCED GENERAL METALWORK. *Three hours credit.***

Prerequisite, I.A. 55a. This shall serve as an advanced course in bench metalwork, machine lathe, welding, jewelry and lapidary work. This will include an elementary unit in foundry work in the casting of aluminum.

**258. ADVANCED LEATHERCRAFT. (Summers only.) *Four hours credit.***

Prerequisite, I.A. 255. Advanced techniques in leathercraft. Methods of organization and teaching problems. Development of course material suitable to a unit or general shop.

**259. ADVANCED PLASTICS.** (Summers only.) *Four hours credit.*  
Prerequisite, I.A. 255 or equivalent. Advanced work in the field of plastics. Fabrication of projects for a unit or general shop, together with methods of organizing such work. Development of a course suitable to a general shop.

**263. PROBLEMS IN TEACHING GENERAL SHOP ELECTRICITY.**  
*Three hours credit.*

Prerequisites, I.A. 613a,b or equivalent. An opportunity for teachers of industrial arts who have to include a "doing" course in electricity in their general shop program. Selection of content and the development of projects to meet the objectives of the work. Laboratory organization and equipment problems are also considered.

**264. INDUSTRIAL ARTS DESIGN.** *Three hours credit.*

Principles of design as they apply to the several areas of industrial arts.

**290. INDUSTRIAL ARTS IN AMERICAN EDUCATION.** (Summers only.) *Three hours credit.*

A summer Pre-Session course which considers several important phases in the development of the arts as a part of American education on both the elementary and secondary levels.

**301. SEMINAR IN INDUSTRIAL ARTS.** *Maximum of twelve hours credit.*

An opportunity for students doing independent research to report and receive criticism.

**302. A CRITIQUE OF MODERN INDUSTRIAL ARTS.** (Summers only.) *Three hours credit.*

A course in which several instructors participate. Men of divergent points of view present and defend ideas of common interest to today's industrial arts teacher.

**330. ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL ARTS.** (Summers only.) *Four hours credit.*

An advanced course for teachers and supervisors of industrial arts in both large and small school systems. Problems of the elementary and secondary levels considered.

**335. PHILOSOPHY OF INDUSTRIAL ARTS.** (Summers only.) *Four hours credit.*

Prerequisite, I.A. 234 or equivalent. A study of the many factors which influence the development of a sound philosophy. Method and subject matter, terminology, development of aims, and the place of the arts in the history of man.

**336. PRINCIPLES OF GENERAL SHOP ORGANIZATION.** (Summers only.) *Four hours credit.*

Philosophy of the program, objectives, methods of teaching and organization of general shops. Special problems of instruction and administration are also considered.

**343. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN THE GRAPHIC ARTS.** (Summers only.) *Four hours credit.*

The techniques and objectives of the graphic arts; their historical development and place in our cultural background; art in printing; shop planning, equipment and management; course content and organization.

**344. PROBLEMS OF DESIGN IN THE GRAPHIC ARTS.** (Summers only.) *Four hours credit.*

Course is centered around graphic arts problems found in individual projects, with emphasis upon methods of teaching students to recognize, appreciate and use the principles of design on the printed page.

- 351. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN WOODWORKING.** (Summers only.) *Four hours credit.*  
Critical study of current practices. A "refresher" course for teachers who have been away from the field. Includes techniques in both bench and machine work.
- 352. PROBLEMS IN WOODWORKING.** (Summers only.) *Four hours credit.*  
Prerequisite, I.A. 351 or equivalent. A study of the problems the specialized teacher of woodworking in secondary schools must meet.
- 359. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN METALWORK.** *Three hours credit.*  
Prerequisites, I.A. 55a, 57a or equivalent. This course shall include objectives, course content, shop organizations, evaluation and methods of teaching the various phases of metalwork.
- 360. PROBLEMS OF THE METAL SHOP.** *Three hours credit.*  
Prerequisite, I.A. 359 or equivalent. Advanced course in the organization of both unit and general metal shops and shop practice handled on the seminar basis, giving the graduate students an opportunity to work on problems of the field.
- 362. PROBLEMS IN DRAFTING AND PLANNING.** *Maximum of six hours credit.*  
Prerequisite, I.A. 161. Objectives, course content, and teaching procedures of all units in drafting. Courses are set up in terms of individual needs. Unit a. *Three hours credit*, Public School Drafting; Unit b. *Three hours credit*, College Level Drafting.
- 370. ELECTRONICS.** (Summers only.) *Four hours credit.*  
Problems in the teaching of electronics in industrial arts department of the public schools. Course organization, methods of presentation and laboratory equipment problems are considered.
- 390. CURRICULUM DEVELOPMENT IN INDUSTRIAL ARTS.** (Summers only.) *Four hours credit.*  
A series of courses dealing with four basic areas in industrial arts. Four hours credit, each unit.
- 391. EVALUATION IN INDUSTRIAL ARTS.** (Summers only.) *Four hours credit.*  
Problems in measuring industrial arts achievement. A study of the purposes of evaluation and the kind and types of instruments used. Interpretation of data leading to the improvement of instruction.
- 401. RESEARCH IN INDUSTRIAL ARTS.** (Summers only.) *Maximum of nine hours credit.*  
A seminar type course limited to Ed.D. candidates. Offered in summer pre-sessions to provide an opportunity for students to present and defend proposed studies. Members of class report and evaluate recent research in the field.

# Division of Education

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The Division of Education includes the fields of Business, Business Education, Curriculum, Educational Administration, Educational Psychology and Guidance, Elementary Education, Higher Education, Junior High School Education, Library Science, Secondary Education, Special Education and Outdoor Education. Degrees and majors and minors offered are:

## **BACHELOR OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* Business Education (Concentration in Office Occupations or Distributive Education) Elementary Education, Special Education, Speech Correction.

*Minors:* Business Education, Elementary Education, Library Science, Special Education, Speech Correction.

*Emphasis:* Outdoor Education.

## **BACHELOR OF ARTS DEGREE (Liberal Arts)**

*Major:* Business.

*Minor:* Business.

## **MASTER OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* Business Education, Educational Administration: Elementary, Educational Administration: Junior High School, Educational Administration: Secondary, Educational Psychology and Guidance, Elementary Education, Junior High School Education, Secondary Education: Emphasis—Instruction, Secondary Education: Emphasis—Curriculum and Supervision, Special Education: Teaching Mentally Retarded Children, Special Education: Teaching Physically Handicapped Children, Special Education: Teaching the Acoustically Handicapped, Special Education: Teaching the Visually Handicapped, Audio-Visual Education.

*Emphasis:* Outdoor Education.

## **SPECIALIST IN EDUCATION DEGREE**

*Area of Specialization:* Available in all fields within the Division.

## DOCTOR OF EDUCATION DEGREE (With Teaching Certificate)

*Areas of Concentration:* Business Education, Educational Administration, Educational Psychology and Guidance, Elementary Education, Secondary Education, Special Education.

*Supporting Areas:* Business Education, Educational Administration, Educational Psychology and Guidance, Elementary Education, Secondary Education, Special Education, Curriculum, Higher Education, History and Philosophy of Education.

See graduate section of this catalog for a listing of areas of concentration and supporting areas other than those offered by the Division of Education, applicable to the Doctor of Education degree.

## ELEMENTARY EDUCATION MAJOR

### Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

Course Number	Course Title	Hours	Credit
Ed. 210	Improvement of Instruction in Reading in the Elementary School	- - - -	3
Ed. 211	Improvement of Instruction in English in the Elementary School	- - - -	3
Ed. 212	Improvement of Instruction in Arithmetic in the Elementary School	- - - -	3
Ed. 213	Improvement of Instruction in Social Studies in the Elementary School	- - - -	3
Ed. 215	Teaching Handwriting and Spelling in the Elementary School	- - - -	2
Ed. 221	Literature in the Elementary School	- - - -	3
F.A. 124	Art in the Elementary School	- - - -	5
Geog. 18	World Geography for Elementary and Junior High School Teachers	- - - -	4
	<i>or</i>		
Geog. 48	United States	- - - -	4
H.P.E. 88	Physical Education for the Elementary School	- - - -	1
H.P.E. 88a,b,c	Physical Education Activities for the Elementary School	- - - -	3
H.P.E. 101	Health Education in the Elementary School	- - - -	4
Hist. 75	Unit Survey of United States History	- - - -	4
Mus. 149	Music Methods and Materials for Elementary Teachers	- - - -	3
	(Prerequisite—Music 48a)		
Sci.Ed. 270	Teaching Science in the Elementary School	- - - -	4
Sp. Electives	Selection may be made from Sp. 16, 117, 251, or Spec. Ed. 164, 268,-	- - - -	3-4
	For a total of	- - - -	48



3. Completion of two of the following special methods courses before attempting student teaching: Ed. 210, 211, 212 or 213. Preferably Ed. 210 and 212.

4. 52 to 59 quarter hours of electives to complete 180 quarter hours of academic credit required for graduation. Electives will be selected in consultation with the student's adviser from these fields: art, English, geography, history, home economics, mathematics, music, science, and sociology.

Elementary Education majors will find it valuable to be able to play simple piano accompaniments. Students may enroll for group piano instruction.

**Elementary Education Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Ed. 210	- - Improvement of Instruction in Reading in the Elementary School	- - - - 3
Ed. 211	- - Improvement of Instruction in English in the Elementary School	- - - - 3
Ed. 212	- - Improvement of Instruction in Arithmetic in the Elementary School	- - - - 3
Ed. 213	- - Improvemnet of Instruction in Social Studies in the Elementary School	- - - - 3
Ed. 215	- - Teaching Handwriting and Spelling in the Elementary School	- - - - 2
Sci.Ed. 270	- - Teaching Science in the Elementary School	- - - - 4
Electives	- - Selection may be made from F.A. 124; H.P.E. 88, 88a,b,c; Ed. 221; Mus. 48a,b, 149	- - - - - 9
		27

**Outdoor Education**

An emphasis on outdoor education affords students the opportunity to become better acquainted with the potential the out-of-doors has as a laboratory for teaching. Course offerings which have significance for this broad area are offered in every division of the college. All students regardless of their major should be encouraged to elect courses which are pertinent to this emphasis in education. Listed below are three specific courses which are the introductory courses in this area. Additional courses may be selected through a conference with the person in charge of outdoor education.

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Ed. 80	- - An Introduction to Outdoor Education	- - - - 3
Ed. 273	- - Workshop in Outdoor Education	- - - - 3
Ed. 380	- - Outdoor Education—Philosophy, Principles and Interpretations	- - - - - 4

**Description of Courses**

27. **BOY SCOUT LEADERSHIP.** *Two hours credit.*  
 Designed to give students a general knowledge of the aims and content of the Boy Scout program, with emphasis on the methods that can be used to teach the program to boys.

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

Not open to freshmen. An introductory course to orient students with the concepts of outdoor education. Emphasis will be on the use of the out-of-doors as a laboratory for teaching. Short field trips and one overnight excursion will be conducted. When feasible, instructors from other divisions will participate.

**85. COMMUNITY LIFE AND PROBLEMS.** *Three hours credit.*

Prerequisites, E.P.G. 20 and sophomore standing. Required for teaching credential. Designed to give prospective teachers an experience in study of typical kinds of community life. Each student will elect either to participate during the quarter in some community activity or to make a simple type of community survey.

**105. AMERICAN EDUCATION.** *Three hours credit.* (Also offered by correspondence.)

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85 or equivalents. Students must be third quarter sophomores or upperclassmen. A study is made of objectives of education, techniques of educational thinking, characteristics and trends in the American school system, the general program of education, levels of education, federal-state-local relations, problems of teacher education and welfare.

**139. INTRODUCTION TO STUDENT TEACHING IN THE ELEMENTARY SCHOOL.** *Five hours credit.*

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85, 105. To be taken concurrently with Ed. 214. Student engages in directed participation in a teaching situation two hours per day, five days per week, under the supervision of a master elementary teacher in the laboratory school and arranges for one additional conference hour.

**140. INTRODUCTION TO STUDENT TEACHING IN THE SECONDARY SCHOOL.** *Two hours credit.*

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85, 105, 216. To be taken concurrently with Ed. 141. 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.

**141. METHODS OF TEACHING IN THE SECONDARY SCHOOL.** (Industrial Arts, English, Foreign Languages, Speech, Drama, Science, Mathematics, Business Education, Social Studies, Distributive Education.) *Three hours credit.*

Prerequisite, Ed. 216. To be taken concurrently with Ed. 140, preceding student teaching. Methods of teaching in the junior-senior high school. Curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the special area to the total secondary program. Teaching techniques are a point of emphasis.

**142. OBSERVATION AND PARTICIPATION IN ELEMENTARY SCHOOL MUSIC.** *Three hours credit.*

Prerequisites, Ed. 105 and Music 50c. A more concentrated experience in school music on the elementary level. The student actively participates in the classes in which he has observed, and studies classroom teaching procedures, methods and values with an eye to his own future student teaching.

**143. OBSERVATION AND PARTICIPATION IN SECONDARY SCHOOL MUSIC.** *Two hours credit.*

Prerequisites, Ed. 105 and Music 50c. Advanced methods and instructional problems in junior and senior high school music teaching, observation and participation in designated music classes in College High School, class discussion of student problems occurring in observation and participation.

**144. METHODS AND OBSERVATION OF TEACHING PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Prerequisite, junior standing and all required divisional courses numbered under 100. 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.

**145. METHODS AND OBSERVATION OF TEACHING PHYSICAL EDUCATION IN THE SECONDARY SCHOOL.** *Two hours credit.*

Prerequisite, junior standing and all required divisional courses numbered under 100. 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.

**146. INTRODUCTION TO STUDENT TEACHING IN HOME ECONOMICS.** *Two hours credit.*

This course must be taken with or following Ed. 147. Students observe classes and participate directly in teaching individuals and groups of pupils in the laboratory school. Experiences in planning with pupils; supervising their activities and evaluating progress are included. Students become familiar with teaching aids and procedures.

**147. METHODS AND OBSERVATION OF TEACHING HOME ECONOMICS IN THE SECONDARY SCHOOL.** *Three hours credit.*

The course is planned for home economics majors and minors. It is a study of the philosophy of homemaking education, organization of the curriculum, methods and techniques of teaching homemaking, selection and use of teaching aids and evaluation procedure.

**148. METHODS AND OBSERVATION OF TEACHING ART IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Prerequisite, F.A. 125. A study of teaching techniques, curriculum organization, factors of individual growth and levels of development, evaluation of child art, and an acquaintance with essential art materials and teaching aids.

**149. METHODS AND OBSERVATION OF TEACHING ART IN THE SECONDARY SCHOOL.** *Two hours credit.*

Prerequisite, Ed. 105, F.A. 123. Classroom organization, the recognition of development and individual growth, techniques and materials, and teaching techniques are points of emphasis and observation.

**150. OBSERVATION AND PARTICIPATION IN ELEMENTARY SCHOOL SCIENCE.** *Two to four hours credit.*

Prerequisites, Ed. 105 and 139. 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.

**151. STUDENT TEACHING.** *Maximum of sixteen hours credit.*

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85, 105, 214 or 216, and methods and observation. Includes planning teaching under the direction of supervising teacher, evaluating teaching in conference with supervising teacher, improving teaching through repeated practice and re-evaluation and participation in school and school-community activities.

**152. INTERNSHIP IN ADVANCED STUDENT TEACHING.** *Maximum of eight hours credit.*

Prerequisite, Ed. 151. An invitational program for individuals showing professional promise following completion of regular student teach-

ing assignment. Experience under the direct supervision of a laboratory school supervisor.

**206. AUDIO-VISUAL MATERIALS IN EDUCATION.** *Four hours credit.*

Introduces students to most audio-visual materials and devices available for improving instruction; each type 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.

**207. AUDIO-VISUAL ADMINISTRATION WORKSHOP.** *Three hours credit.*

Prerequisite, Ed. 206. A workshop for administrators and teachers, on administration and use of audio-visual devices. Classroom layout, budgeting, purchasing, evaluation and distribution of materials are treated as well as personnel and training problems. Research methods and application of materials are also covered.

**208. LOCAL PRODUCTION OF AUDIO-VISUAL INSTRUCTIONAL MATERIALS.** *Three hours credit.*

Prerequisites, Ed 206 and upperclassman or graduate standing. Provides experience in the production of audio-visual 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.

**210. IMPROVEMENT OF INSTRUCTION IN READING IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Prerequisite, Ed. 139 or public school teaching experience. A detailed consideration of the content to be taught and the methods and materials to be used in the teaching of reading from the kindergarten through the sixth grade.

**211. IMPROVEMENT OF INSTRUCTION IN ENGLISH IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Prerequisite, Ed. 139 or public school teaching experience. 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.

**212. IMPROVEMENT OF INSTRUCTION IN ARITHMETIC IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Prerequisite, Ed. 139 or public school teaching experience. 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.

**213. IMPROVEMENT OF INSTRUCTION IN SOCIAL STUDIES IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Prerequisite, Ed. 139 or public school teaching experience. 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.

**214. THE ELEMENTARY SCHOOL.** *Three hours credit.* (Also offered by correspondence.)

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85, 105, and third-quarter sophomore or upperclassman standing. To be taken concurrently with

Ed. 139. An introductory course to elementary education including development and purposes, forms of organization, schedules, records and reports, evaluating and reporting pupil progress, classroom management, and problems confronting elementary school teachers.

**215. TEACHING HANDWRITING AND SPELLING IN THE ELEMENTARY SCHOOL.** *Two hours credit.* (Also offered by correspondence.)

Prerequisites, Ed. 139 or public school teaching experience. A comprehensive consideration of content, methods, instructional materials and evaluation in the fields of handwriting and spelling. Research data in each area are reviewed and applied.

**216. THE SECONDARY SCHOOL.** *Three hours credit.* (Also offered by correspondence.)

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85 and 105. An introductory course orienting the beginning teacher to general problems of secondary education including objectives, needs of youth, curriculum, student activities, guidance, teaching methods and evaluation.

**217. JUNIOR HIGH SCHOOL WORKSHOP.** (Summers only.) *Three hours credit.*

A practical problems course designed to deal with the organization, administration, and curriculum practices of the junior high school; based on the needs as determined by the participants in the workshop. Discussion topics will include guidance, homeroom practices, activities, time-allocation, subject matter areas, and functions of the junior high school.

**218. THE JUNIOR HIGH SCHOOL.** *Three hours credit.*

The junior high school will be analyzed in terms of historic development and purpose. Current problems of administration, instruction, and student activities will be treated. A synthesis of desired junior high school practice will be developed.

**219. CURRICULUM IN THE JUNIOR HIGH SCHOOL.** *Three hours credit.*

Traditional and recent curriculum organization in the junior high school will be surveyed and evaluated with reference to the needs of the young adolescent and the special requirements of the school. Opportunity for intensive concentration in a specific area of curriculum will be provided.

**220. THE TEACHING OF READING AND ENGLISH IN THE ELEMENTARY SCHOOL.** (Summers only.) *Maximum of nine hours credit.*

This course is concerned with problems in the teaching of reading and English in the elementary school. The problems presented from time to time will vary according to the lecturers who appear on the program.

**221. LITERATURE IN THE ELEMENTARY SCHOOL.** *Three 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.

**222. READING IN THE PRIMARY GRADES.** *Four hours credit.*

Prerequisite, Ed. 139 or public school teaching experience. 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.

- 223. READING READINESS.** *Two hours credit.*  
Prerequisite, Ed. 210 or 222. Presents theories, research, and practices regarding readiness for reading in the first grade and on through the elementary school, as well as readiness for reading in the subject matter fields.
- 224. REMEDIAL READING IN THE ELEMENTARY SCHOOL (THEORY).** *Three hours credit.*  
Prerequisite, Ed. 210 or equivalent and student teaching or equivalent. This course is designed to give the classroom teacher, administrator, or reading specialist insight concerning the problems of the educationally retarded reader in the elementary school. Causes of failures are investigated. Diagnostic and teaching techniques are presented.
- 225. SUPERVISED PRACTICE IN REMEDIAL READING.** *Maximum of ten hours credit.*  
Prerequisite, Ed. 151, 210 and 224, or equivalent and permission of instructor. This course involves tutoring an individual or a small group of educationally retarded readers for one hour five days a week. At two class meetings each week students learn to administer a diagnostic reading test and develop teaching materials. Observations are followed by individual and group conferences with the students.
- 226. ENGLISH IN THE KINDERGARTEN AND PRIMARY GRADES.** *Three hours credit.*  
Prerequisite, Ed. 139 or public school teaching experience. A course in oral English from kindergarten through grade three, and written English from second grade through grade three. Research in the field will be reviewed. Curriculum content, materials, and techniques will be studied.
- 227. KINDERGARTEN EDUCATION.** *Five 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.
- 228. CONFERENCE AND WORKSHOP IN KINDERGARTEN—PRIMARY EDUCATION.** (Summers only.) *Maximum of six hours credit.*  
This course presents the fundamental thinking in each of the major curriculum areas as to practice and research. Leading authorities in each field give the key lectures. Discussion groups, studies of specific fields of interest and experience techniques in workshops are used to make it a practical refresher course.
- 229. TECHNIQUES OF TEACHING IN SMALL SCHOOLS (ELEMENTARY).** (Summers only.) *Three hours credit.*  
This course offers opportunities to become familiar with and to evaluate new teaching techniques adapted to the instructional programs of small elementary schools.
- 230. TECHNIQUES OF TEACHING IN SMALL SCHOOLS (SECONDARY).** (Summers only.) *Four hours credit.*  
This course offers opportunities to become familiar with and to evaluate new teaching techniques adapted to the instructional programs of small secondary schools.
- 237. COMPARATIVE EDUCATION.** *Three hours credit.*  
The philosophy and practices of education in foreign countries, usually including education in Germany, France, Russia, Norway, Great Britain, China, Australia, Canada, Mexico and certain South American countries.

**240. PARENT EDUCATION.** *Three hours credit.*

This course deals with problems of starting and continuing programs of parent education in public schools. The selection of sponsoring organizations, organizing parent education groups, meeting the education interests and needs in child study, home education, and home-school cooperation are emphasized.

**241. ADMINISTRATION FOR TEACHERS.** *Three hours credit.*

A course designed for students preparing to be classroom teachers rather than administrators. An overview of such topics as public school organization, finance, personnel, supervision, scheduling, and activities will be made. The teacher's role in democratic administration will be studied.

**242. SCHOOL ADMINISTRATION WORKSHOP.** (Summers only.)

*Maximum of nine hours credit.*

Problems in the field of school administration proposed by members of the workshop will be studied intensively on a group basis. Salary schedules, improvement of teachers in service, tenure, operation and maintenance of the school plant, budgetary control are sample problems which lend themselves to intensive study.

**243. SCHOOL LAW FOR TEACHERS.** *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.

**244. SCHOOL AND COMMUNITY RELATIONS.** (Summers only.)

*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 and community relations program.

**245. FOUNDATIONS FOR CURRICULUM DEVELOPMENT.** *Three hours credit.*

An appraisal of theories and practices of curriculum making; presentation of a modern, functional philosophy of curriculum making; and survey of this functional theory to the major areas of living. This course also includes the principles of subject matter and content selection and placement influenced by psychology of learning, social changes, educational philosophy, and growth and development.

**246. ADVANCED CURRICULUM CONSTRUCTION.** *Three hours credit.*

This course discusses what to teach in the major areas of living including communication, health, economic life, home and family life, citizenship, leisure, religious-moral experience and personality development. Emphasis is placed on the application of the above to a typical educational program.

**247. EDUCATIONAL SOCIOLOGY AND COMMUNITY ORGANIZATION.** *Three hours credit.*

Surveys and appraises the implication of outside-the-school cultural agencies, and attempts to help administrators and teachers utilize the resources of the community in a broad educational program in and out of the school.

**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.

**273. WORKSHOP IN OUTDOOR EDUCATION.** (Summers only.)  
*Three hours credit.*

An introductory course of a fuctional nature designed to acquaint educators in any area with the concepts of outdoor education. The application of direct experiences in the out-of-doors to the usual school subjects will be stressed. Instructional staff will be drawn from the several divisions of the college and from appropriate outside agencies.

**295. PHILOSOPHY OF EDUCATION.** *Three hours credit.* (Also offered by correspondence.)

Prerequisites, Ed. 105 and 214 or 216. A study of the different patterns of thought concerning educational aims, values, democracy and education, method and subject matter, giving the student the tools with which to develop a philosophy of education.

**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.

**302. SEMINAR IN EVALUATING AND IMPROVING JUNIOR HIGH SCHOOL INSTRUCTIONAL PROGRAMS** *Three hours credit.*

Prerequisite, graduate status. A course designed to acquaint administrative personnel with an overview of the problems involved in organizing, administering, and supervising junior high school music, the arts, social studies, science, mathematics, English language, health and physical education, foreign language, and business education programs.

**305. SPECIAL PROBLEMS IN CURRICULUM IN THE ELEMENTARY AND SECONDARY SCHOOL.** (Summers only.) *Three hours credit.*

The purpose of this course is to give joint consideration to the applications of curriculum on both the elementary and secondary levels. The course will be taught jointly by two teachers, one a specialist in elementary education and the other a specialist in secondary education.

**308. PRODUCTION OF PHOTOGRAPHIC TEACHING MATERIALS.**  
*Three hours credit.*

Prerequisite, Ed. 208 or consent of instructor; Physics 268 or a basic course in photography is highly desired but not required. Provides experience in the more complex production techniques. The course will emphasize three major aspects of production: (1) scripting a production, (2) filmstrip and slide set techniques, and (3) motion picture production techniques. Actual production experience will be gained through required individual projects.

**310. SUPERVISION OF INSTRUCTION IN READING IN THE ELEMENTARY SCHOOL.** *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 the kindergarten through the sixth grade. The material in this course is presented on an advanced graduate level.

**311. SUPERVISION OF INSTRUCTION IN ENGLISH IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

A detailed consideration of the content to be taught and methods and materials to be used in the teaching of English in the elementary school. The material is presented on an advanced graduate level.

**312. SUPERVISION OF INSTRUCTION IN ARITHMETIC IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Selecting what to teach, the grade placement of content, methods and



materials of teaching, and means of evaluating achievement. The material in this course is presented on an advanced graduate level.

**313. SUPERVISION OF INSTRUCTION IN SOCIAL STUDIES IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

A comprehensive consideration on an advanced graduate level of the objectives; content; methods including unit procedures; materials including objects, models, exhibits, and museum items, as well as textbooks, collateral reading, maps, and globes; and means of evaluating social growth and development.

**314. THE ELEMENTARY SCHOOL CURRICULUM.** *Three hours credit.*

Surveys and appraises the various types of curriculum organization applicable to the elementary school. Also considers basic curriculum problems in selected subject matter areas.

**316. SECONDARY EDUCATION.** *Three hours credit.*

An advanced course in secondary education concerned with specific problems in the areas of: the evolution of secondary education; the committees and commissions; recent trends, advanced practices, and movements; administration and supervision of student activities; curriculum; guidance; marking; measurement; reporting; and evaluation.

**320. SEMINAR IN ELEMENTARY SCHOOL READING.** *Three hours credit.*

Prerequisites, Ed. 210, 310 or permission of instructor. This seminar course considers a few of the problems in the teaching and supervision of reading and varies somewhat in content from year to year according to the interests of students.

**321. SEMINAR IN ELEMENTARY SCHOOL ENGLISH.** *Three hours credit.*

Prerequisites, Ed. 211, 311 or permission of instructor. This seminar course considers a few of the problems in the teaching and supervision of English and varies somewhat in content from year to year according to the interests of students.

**322. SEMINAR IN ELEMENTARY SCHOOL ARITHMETIC.** *Three hours credit.*

Prerequisites, Ed. 212, 312 or permission of instructor. This seminar covers important problems in the teaching and supervision of arithmetic in the elementary school. Course content may vary from year to year according to the needs of the students enrolled.

**323. SEMINAR IN ELEMENTARY SCHOOL SOCIAL STUDIES.** *Three hours credit.*

Prerequisites, Ed. 213, 313 or permission of instructor. This seminar covers important problems in the teaching and supervision of social studies in the elementary school. Problems pertaining to content, unit procedures, problem solving activities, pupil-teacher planning, and evaluation are considered. Course content may vary from year to year according to the needs of the students enrolled.

**341. PHILOSOPHY AND TECHNIQUES OF PUBLIC RELATIONS.** *Three hours credit.*

This course is designed primarily for central office personnel to help them: (a) develop a philosophy of public relations, (b) learn how to establish a functional program involving citizens and educators, and (c) become acquainted with skills and techniques essential to school and community understanding.

**342. SCHOOL ADMINISTRATION—FEDERAL, STATE, LOCAL.** *Three hours credit.*

Prerequisite, experience or background in education. Introduces the student to administrative problems, and provides an overview of our

educational system at federal, state, and local levels. The purpose of the course is to relate the key issues at each level to the role of the superintendent.

**343. SCHOOL FINANCE.** *Three hours credit.*

Prerequisite, Ed. 342 or permission of instructor. This course deals with the financial implications of the educational program. Budgeting, management of funds, fiscal policies, and the business management function in the school are included in this course.

**344. SCHOOL PLANT PLANNING.** *Three hours credit.*

Prerequisite, Ed 342 or permission of instructor. Covers preliminary studies, or surveys, on population, population projections, and location of school sites. A thorough study of the approaches and procedures in relating the instructional program to proposed buildings—developing educational specifications—is a major task of this course. Financial aspects of planning will also be discussed.

**345. PRACTICE IN SCHOOL ADMINISTRATION.** *Maximum of six hours credit.*

Selected graduate students may study in a public school system under the joint supervision of the college and the superintendent of the school. Written reports of experiences are required.

**346. SCHOOL BUILDING PROBLEMS.** (Summers only.) *Four hours credit.*

Prerequisite, Ed. 344. Technical problems in building school plants, types of material and mechanical equipment, construction practices and supervision of construction are covered. Includes interpretation of blueprints and specifications.

**347. CHILD ACCOUNTING, SPECIALIZED AGENCIES.** (Summers only.) *Four hours credit.*

Prerequisite, graduate standing. This course will deal with principles and problems of child accounting and with agencies, other than educational, which affect the administration of public schools.

**348. SCHOOL LAW.** *Three hours credit.*

Prerequisites, twelve hours in education, teaching experience and graduate classification. This course stresses the principles of common law which underlie the relationship of the courts to the schools and focuses on legal problems in education. In addition, the course affords students the opportunity to study intensively the school laws of their respective states.

**349. PROBLEMS IN CURRICULUM DEVELOPMENT.** *Three hours credit.*

This course is designed to present changes in curriculum building, to demonstrate organization for curriculum development in in-service programs, to show the impact of administration, supervision and guidance on curriculum construction, and to present current criticisms of present-day curricula.

**350. PRINCIPLES AND PRACTICES IN TEACHER EDUCATION.** *Two hours credit.*

The course is divided into five parts: (1) administrative organization of a college; (2) Current philosophy in teacher education; (3) Curriculum for teacher education; (4) Methods; and (5) Evaluation of student work. Guest speakers are selected from the administrative officers of the college.

**351. SUPERVISION OF BEGINNING (STUDENT) TEACHERS.** *Three hours credit.*

Prerequisite, A.B. and/or teaching experience. Problems considered are (1) introduction to and basic philosophy of student teaching; (2)

varying state college and university practices and policies; (3) the role of the cooperating teacher, principal, and college supervisor in student teaching; and (4) selection, induction, ratings, evaluation and compensations.

**352. STUDENT SUPERVISION.** *Maximum of eight hours credit.*

A laboratory course to give practical experience, under close supervision, in directing the work of the student teachers. Open to those students who are preparing for supervisory positions and show promise from student teaching or public school experience of undertaking such positions.

**355. ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL.** *Three hours credit.*

A course designed to familiarize the student with elementary school organization, administrative relationships, routine duties of the elementary school principal, evaluation, testing programs, reports, records, admission, promotion, retention, and guidance. Emphasis is placed on improving the teaching-learning situation.

**356. SUPERVISION IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Attention is given to the need for supervision; instigating a supervisory program; supervisory techniques; and the understandings, skills, techniques, and attitudes necessary in supervising teachers.

**365. JUNIOR-SENIOR HIGH SCHOOL ORGANIZATION AND ADMINISTRATION.** *Three hours credit.*

Prerequisite, Ed. 216 or equivalent. This course covers the nature of secondary school administration; the duties and responsibilities of the principal; and deals specifically with a resource list of problems and practices of secondary school administrators.

**366. SUPERVISION IN THE JUNIOR-SENIOR HIGH SCHOOL.** *Three hours credit.*

Emphasis is on supervision, coordination, and promotion of all aspects of school regimen which make direct contributions to the improvement of instruction through curriculum, cooperative planning, guidance and extracurricular program. The induction of new teachers, promotion of in-service training of staff members, and democratic procedures and policy formation are emphasized.

**367. RECONSTRUCTING SECONDARY EDUCATION.** *Three hours credit.*

Prerequisite, Ed. 216. An educational experience designed to study current problems confronting teachers relative to curriculum and instruction. Emphasis will be given to actual problems taken from in-service situations. These problems will be the bases for cooperative committee study and development of recommendations for improved practices.

**369. EXPERIMENTATION IN THE SECONDARY SCHOOL.** *Three hours credit.*

Prerequisites, Ed. 216, 367, or equivalent. Secondary school organization, curriculum, and instructional practices in the light of current research.

**380. OUTDOOR EDUCATION—PHILOSOPHY, PRINCIPLES AND INTERPRETATIONS.** (Summers only.) *Four hours credit.*

Designed to acquaint teachers in any area with the scope, breadth and depth of the out-of-doors as a laboratory for the extension of education experiences. When feasible, instructors and specialists from various fields will be used. Short field trips will be conducted.

**391. HIGHER EDUCATION IN THE UNITED STATES.** *Three hours credit.*

An overview of the history, philosophies, curricula, organization and administration of American colleges and universities with emphasis on their present status and problems.

**393. THE JUNIOR AND COMMUNITY COLLEGE.** *Three hours credit.*

Prerequisite, Ed. 105. The history, functions, present status, and problems of the junior college and the community college.

**395. PHILOSOPHY OF EDUCATION.** *Three hours credit.*

Educational aims, values and criteria, democracy and education, different systems of educational philosophy, the nature of thinking, method and subject matter are considered.

**396. HISTORICAL FOUNDATIONS OF EDUCATION.** *Three hours credit.*

Prerequisites, Ed. 105 and 214 or 216. This course is designed to study important historical and philosophical backgrounds for the interpretation of present day educational issues.

**398. CURRENT EDUCATIONAL TRENDS AND ISSUES.** *Three hours credit.*

This course appraises the current studies in such areas as objectives, experimentation, evaluation, administration, levels of education, non-governmental controls, program of education, teacher education and welfare.

**420. SEMINAR IN RESEARCH.** *No credit.*

Designed for doctoral candidates who are in the process of planning their research. Individuals will present their tentative research proposals and receive criticism from the class and the staff.

**443. SEMINAR IN ADMINISTRATION.** *Maximum of twelve hours credit.*

Required of first quarter doctoral students in administration; open to other doctoral students by arrangement. This is a three-quarter sequence of work for doctoral students in general school administration. It will deal systematically with the following areas: (1) Small group communications; (2) Large group communications; (3) Leadership in the instructional program. The general approach will be one of bringing disciplines, other than education, to bear on educational problems.

**444. ADVANCED SEMINAR IN ADMINISTRATION.** *Maximum of twelve hours credit.*

Prerequisite, Ed. 443 and permission of instructor. This sequence of seminar work will deal with the means and approaches to evaluating the entire school program and with a case study approach to a variety of administrative problems and situations. Knowledge, skill, and technical ability which the student has developed in other course work or through experience will be used to study the administrative role in our public school systems.

**461. PHILOSOPHICAL FOUNDATIONS OF EDUCATION.** *Three hours credit.*

Prerequisite, admission to doctoral study. A study of the educational aims and values of various cultures which have given direction to peoples in different societies. An integration of classical philosophies with education philosophies culminating in a statement of practical educational aims and objectives.

**462. PSYCHOLOGICAL FOUNDATIONS OF EDUCATION.** *Three hours credit.*

Prerequisite, admission to doctoral study. The psychological foundations of education are concerned with basic concepts pertinent to understanding human behavior. Cognition, perception, maturation, motivation, learning, emotions, personal and social adjustment areas are emphasized.

**463. SOCIOLOGICAL FOUNDATIONS OF EDUCATION.** *Three hours credit.*

Prerequisite, admission to doctoral study. A study of education in relation to the sociological realities of American and world societies, contemporary and primitive.

**492. THE COLLEGE TEACHER.** *Three hours credit.*

Presents college teaching as a profession including selection and preparation of instructors and the status, services and rewards of the profession. Also concerned with the application of psychology to college teaching, problems in improving college instruction, and the research function of the college instructor.

**493. THE COLLEGE AND UNIVERSITY CURRICULUM.** *Three hours credit.*

Outlines the major curricular offerings of American colleges and universities including general education, liberal arts education, vocational and professional education including teacher preparation and the academic administration involved in building and improving a curriculum.

**494. COLLEGE ADMINISTRATION.** *Three hours credit.*

Describes the organization and administration of American higher education. Includes administrative problems concerned with faculty policy, finance, student personnel, publications, and instruction. Takes up government and administration at all levels from the departmental offices to the board of trustees.

# Business and Business Education

## BUSINESS EDUCATION MAJORS

### Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.
2. The required courses in either of the majors listed below.
3. One minor of 27 quarter hours outside the field of Business and Business Education.
4. 24 to 32 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

## BUSINESS EDUCATION MAJOR

### (With Concentration in Office Occupations)

Required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Bus. 1	- - Typewriting I - - - - -	- - -	- 2
Bus. 2	- - Typewriting II - - - - -	- - -	- 2
Bus. 3	- - Typewriting III - - - - -	- - -	- 2
Bus. 4	- - Advanced Typewriting and Office Practice -	- - -	- 4
Bus. 10*	- - Beginning Gregg Shorthand - - - - -	- - -	- 4
Bus. 11	- - Intermediate Gregg Shorthand - - - - -	- - -	- 4
Bus. 12	- - Shorthand Transcription - - - - -	- - -	- 3
Bus. 20	- - Principles of Accounting I - - - - -	- - -	- 4
Bus. 21	- - Principles of Accounting II - - - - -	- - -	- 4
Bus. 41	- - Introduction to Business - - - - -	- - -	- 3
Bus. 54	- - Consumer Economic Problems - - - - -	- - -	- 3
Bus. 131	- - Business Law I - - - - -	- - -	- 2
Bus. 252	- - Office Management - - - - -	- - -	- -
	<i>or</i>		
Bus. 256	- - Business Organization and Management -	- - -	- -
	<i>or</i>		
Bus. 261	- - Retail Management - - - - -	- - -	- 3
Bus.Ed. 272	- - The Business Curriculum - - - - -	- - -	- 3
Econ. 30	- - Introductory Economics - - - - -	- - -	- 5

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\*Students who have had one year of high school shorthand or the equivalent should see catalog descriptions for Bus. 17 and Bus. 18.

Recommended electives in Business: 60, 115, 132, 133.

Recommended electives in areas other than Business: Economics 102, 200, 202, 203, 210, 241, and 277; Geography 112; English 4b, 210; Speech 5.

Qualifying examinations may be taken for exemption from Bus. 1, 2, 3, 10, 11, and 20; but passing these examinations does not give credit toward a degree in Business or Business Education.

## BUSINESS EDUCATION MAJOR

### (With Concentration in Distributive Education)

Required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Econ. 30	- - Introductory Economics - - - - -	5
Bus. 41	- - Introduction to Business - - - - -	3
Bus. 54	- - Consumer Economic Problems - - - - -	3
Bus. 64	- - Marketing - - - - -	3
Bus. 71	- - Retailing - - - - -	3
Bus. 72	- - Salesmanship - - - - -	3
Bus. 74	- - Merchandise Information (Textiles) - - - - -	2
Bus. 76	- - Display - - - - -	4
Bus. 131	- - Business Law I - - - - -	2
Bus. 132	- - Business Law II - - - - -	2
Bus. 158	- - Psychology of Advertising - - - - -	3
Bus. 171	- - Principles of Retailing - - - - -	3
Bus. 250	- - Business Finance - - - - -	3
Bus. 261	- - Retail Management - - - - -	3
Bus.Ed. 262	- - Philosophy and Organization of Distributive Education - - - - -	3
Bus.Ed. 263	- - Coordination Techniques - - - - -	3
Bus.Ed. 272	- - The Business Curriculum - - - - -	3
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Recommended electives in Business: 1, 2, 3, 4, 20, 21, and 115.

Recommended electives in areas other than Business and Business Education: Economics 102, 200; Educational Psychology and Guidance 210, 212; and Speech 5.

Work experience requirements vary from state to state. Students should plan this part of their program with their adviser during their freshman year. Approved work experience of at least 1,200 hours is required. A notarized affidavit must be filed with the adviser.

For certification in most states, Education 249, Principles of Vocational Education is required.

Qualifying to teach typewriting and bookkeeping is highly recommended for distributive education majors because these are such common business subjects in high schools.

**Business Education Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Bus. 1	- - Typewriting I - - - - -	2
Bus. 2	- - Typewriting II - - - - -	2
Bus. 3	- - Typewriting III - - - - -	2
Bus. 4	- - Advanced Typewriting and Office Practice -	4
Bus. 10,11,12**	- - Beginning, Intermediate Gregg Short- hand and Transcription - - - - -	11
	or	
Bus. 20,21**	- - Principles of Accounting I and II - - - - -	8
Ed. 141*	- - Methods of Teaching Business Education in the Secondary School - - - - -	3
Bus. Electives	- - - - -	3-6
		27

\*B.Ed. 353, 354, 355, 356, 357, 358, (two to four hours credit) or B.Ed. 272, The Business Curriculum, (three hours credit) may be substituted for Ed. 141 with the permission of the minor adviser.

\*\*Eight quarter hours or the passing of a proficiency test is required in Colorado for certification to teach shorthand, typewriting or bookkeeping in high schools.

**BUSINESS MAJOR**

**Bachelor of Arts Degree (Liberal Arts)**

The following program is required:

1. Common Courses totaling 48 academic hours.
2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Bus. 20	- - Principles of Accounting I - - - - -	4
Bus. 21	- - Principles of Accounting II - - - - -	4
Bus. 22	- - Principles of Accounting III - - - - -	4
Bus. 41	- - Introduction to Business - - - - -	3
Bus. 54	- - Consumer Economic Problems - - - - -	3
Bus. 64	- - Marketing - - - - -	3
Bus. 115	- - Business Correspondence - - - - -	3
Bus. 131	- - Business Law I - - - - -	2
Bus. 132	- - Business Law II - - - - -	2
Bus. 133	- - Business Law III - - - - -	2
Bus. 252	- - Office Management - - - - -	3
Bus. 256	- - Business Organization and Management	
	<i>or</i>	
Bus. 261	- - Retail Management - - - - -	3
Econ. 30	- - Introductory Economics - - - - -	5
Econ. 102	- - Contemporary Economic Problems - - - - -	3
Bus. or Econ. Electives	- - - - -	4
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3. One minor of 27 hours outside the field of Business.
4. Sixty hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

**Business Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Bus. 20	- - Principles of Accounting I - - - - -	4
Bus. 21	- - Principles of Accounting II - - - - -	4
Bus. 115	- - Business Correspondence - - - - -	3
Bus. 131	- - Business Law I - - - - -	2
Bus. 252	- - Office Management - - - - -	
	<i>or</i>	
Bus. 256	- - Business Organization and Management -	
	<i>or</i>	
Bus. 261	- - Retail Management - - - - -	3
Econ. 30	- - Introductory Economics - - - - -	5
Electives in Business or Economics	- - - - -	6
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**Description of Courses**

**BUSINESS**

1. TYPEWRITING I. *Two hours credit.*

A beginning course in typewriting. Emphasis will be given to both personal and vocational use. Students with one year of high school typewriting or the equivalent who can pass a qualifying examination



may be exempted from this course. Students with one year of high school typewriting or the equivalent may not take this course for credit.

**2. TYPEWRITING II. *Two hours credit.***

Prerequisite, Bus. 1 or equivalent and ability to type minimum of 30 words a minute with 95% accuracy. 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 cannot take this course for credit.

**3. TYPEWRITING III. *Two hours credit.***

Prerequisite, Bus. 2 or equivalent and ability to type minimum of 40 words a minute with 97% accuracy. The third course in typewriting. Emphasis will be on speed and accuracy building and advanced production procedures.

**4. ADVANCED TYPEWRITING AND OFFICE PRACTICE. *Four hours credit.***

Prerequisite, Bus. 3 or the equivalent. A review of typewriting principles and their application to actual office work such as letters, forms, manuscripts, etc. Practice in the use of filing systems, duplicating and dictating machines of various kinds. Stencils and masters for duplication are cut and proofed. Office procedures are studied and put into practice.

**10. BEGINNING GREGG SHORTHAND. *Four hours credit.***

Prerequisite, Bus. 1, or equivalent. Course comprises complete theory of Gregg Shorthand Simplified. Students who have done one year of high school shorthand or the equivalent cannot take this course for credit. Students with one or more years of high school shorthand or the equivalent should take Bus. 17 or 18 in lieu of Bus. 10, 11, and 12.

**11. INTERMEDIATE GREGG SHORTHAND. *Four hours credit.***

Prerequisite, Bus. 10 or equivalent. Course comprises intensive review of Gregg shorthand theory and completion of *Gregg Dictation Simplified*. Students who have had one year of high school shorthand or the equivalent cannot take this course for credit.

**12. SHORTHAND TRANSCRIPTION. *Three hours credit.***

Prerequisites, Bus. 3 and Bus. 11 or equivalent. Emphasis is upon rapid, accurate transcription, speed dictation, punctuation, and other office skills.

**17. SHORTHAND REVIEW I. *Four hours credit.***

Prerequisite, at least one year of high school shorthand or the equivalent. A review of the theory of Gregg Shorthand Simplified with considerable emphasis on dictation and transcription.

**18. SHORTHAND REVIEW II. *Four hours credit.***

Prerequisite, Bus. 17 or at least two years of high school shorthand or the equivalent. This course is devoted primarily to dictation and transcription.

**20. PRINCIPLES OF ACCOUNTING I. *Four hours credit.* (Also offered by correspondence.)**

A beginning course in accounting. Students who have previously studied bookkeeping or accounting may be exempted from this course by passing a qualifying examination. 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.

- 21. PRINCIPLES OF ACCOUNTING II.** *Four hours credit.* (Also offered by correspondence.)  
Prerequisite, Bus. 20 or equivalent. The emphasis in this course is on negotiable instruments, accruals, adjusting current assets and fixed assets, the combined cash journal, the voucher system and accounting for taxes. A practice set is completed.
- 22. PRINCIPLES OF ACCOUNTING III.** *Four hours credit.* (Also offered by correspondence.)  
Prerequisite, Bus. 21 or equivalent. Special accounting problems of businesses organized as partnerships, corporations, or by departments are studied. Some emphasis is given to accounting for a manufacturing business. Financial statements are analyzed by using percentages and ratios. A practice set is completed.
- 41. INTRODUCTION TO BUSINESS.** *Three hours credit.* (Also offered by correspondence.)  
This is a general exploratory and orientation course in the areas of business and commerce. A background is provided for the study of subsequent courses in business.
- 54. CONSUMER ECONOMIC PROBLEMS.** *Three hours credit.* (Also offered by correspondence.)  
The problems of the consumer in management of his income, buying goods and services, and understanding the place of the consumer in our economy are emphasized in the course.
- 60. OFFICE PRACTICE: CALCULATING MACHINES.** *Two hours credit.*  
A beginning course in the operation and use of ten-key and full bank adding-listing machines, rotary and key driven calculators.
- 64. MARKETING.** *Three hours credit.* (Also offered by correspondence.)  
The purpose of this course is to give students an understanding of the place of marketing in our economic system. The field of retailing, which is a part of marketing, will be given but little emphasis because of its being covered in a separate course.
- 72. SALESMANSHIP.** *Three hours credit.* (Also offered by correspondence.)  
Principles and practices of retail selling. Primary emphasis upon store selling.
- 74. MERCHANDISE INFORMATION (TEXTILES).** *Two hours credit.*  
A study of fabrics and textile merchandise. Fibers, yarns, and finishing agents will be studied in relation to selection, use salability, and care of fabrics.
- 76. DISPLAY.** *Four hours credit.*  
A workshop designed for teachers of distributive education. This course introduces the student to techniques of display and lettering. Emphasis is placed on "salable" card copy and display. Actual displays are "dressed."
- 115. BUSINESS CORRESPONDENCE.** *Three hours credit.* (Also offered by correspondence.)  
Prerequisite, ability to type. Basic principles and practices in the preparation of business correspondence are studied and applied.
- 127. PAYROLL ACCOUNTING.** *Two hours credit.*  
Prerequisite, Bus. 20 or equivalent. A study is made of the laws influencing the payroll records businesses must keep. Payroll routine and reports are studied and practiced.

**131. BUSINESS LAW I.** *Two hours credit.* (Also offered by correspondence.)

This course introduces the student to law and its social and personal applications as especially applicable to business. It considers courts and procedure, the law, its origin and development. The main part of the course is devoted to a study of fundamental law of business contracts. The topics of agency and employment are also discussed.

**132. BUSINESS LAW II.** *Two hours credit.* (Also offered by correspondence.)

Prerequisite, Bus. 131, or equivalent. Further study of business law as it applies to everyday business situations, especially in regard to negotiable instruments, sales, bailments and transportation.

**133. BUSINESS LAW III.** *Two hours credit.* (Also offered by correspondence.)

Prerequisite, Bus. 131. Further study of law as it applies to everyday business situations especially in relation to: debtors and creditors, real estate, partnership, corporation, landlord and tenant, and personal property.

**134. BUSINESS LAW IV.** *Two hours credit.* (Also offered by correspondence.)

Prerequisite, Bus. 131, or equivalent. Further study of law as it applies to everyday business situations, especially in relation to: bankruptcy, trusts and estates, suretyship and guaranty, mortgages, insurance, conditional sales, and government regulation of business.

**158. PSYCHOLOGY OF ADVERTISING.** *Three hours credit.* (Also offered by correspondence.)

A study of psychological principles and how they affect advertising.

**171. PRINCIPLES OF RETAILING.** *Three hours credit.*

A survey course of retailing principles and practices. The business policies, structure, and operation factors of a variety of distributive businesses are studied.

**228. FEDERAL INCOME TAX FOR INDIVIDUALS.** *Three hours credit.*

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

**250. BUSINESS FINANCE.** *Three hours credit.*

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.

**251. COLORADO BUSINESS AND INDUSTRY.** (Summers only.)  
*Three hours credit.*

A traveling workshop making field trips to industrial, agricultural and commercial business establishments in and around the Greeley-Denver area.

**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.

**253. PERSONNEL MANAGEMENT.** *Four hours credit.*

A study of the principles and techniques of personnel management with attention given to their psychological foundations.

**256. BUSINESS ORGANIZATION AND MANAGEMENT.** *Three hours credit.* (Also offered by correspondence.)

The emphasis in this course is on the organization and operation of small businesses. Topics include legal forms of ownership, financing

a new business, location, building and layout, purchasing, personnel, internal organization, sales policies, insurance, and records.

**257. PRINCIPLES OF INSURANCE.** *Three hours credit.* (Also offered by correspondence.)

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.

**261. RETAIL MANAGEMENT.** *Three hours credit.*

Functions of the main division of retailing. Emphasis is on the responsibilities of the store manager and current operating practices.

**275. JOB ANALYSIS.** *Three 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.

**278. SALES MANAGEMENT.** (Summers only.) *Four hours credit.*

A practical intensive course to develop skill in selling and to furnish subject matter and cases for use in distributive education on both high school and adult levels.

**320. MANAGEMENT ACCOUNTING.** (Summers only.) *Four hours credit.*

Prerequisite, previous course work in accounting or permission of the instructor. The use of accounting for control and planning will be emphasized after a review unit on accounting principles. Case problems will be used.

**333. APPLIED BUSINESS LAW.** (Summers only.) *Four hours credit.*

A comprehensive review of business law for the business teacher with practical applications to everyday situations. This course is not designed to be preceded by the undergraduate sequence.

**358. ADVERTISING PROCEDURES.** (Summers only.) *Four hours credit.*

Prerequisite, Bus. 158 or equivalent. This course is designed to provide the student with general information about advertising mechanics. Stress will be placed on over-all advertising strategy and their analysis so that a student may better understand how advertising is used effectively in the marketing mix.

**376. MARKETING STRATEGY I.** (Summers only.) *Two hours credit.*

Prerequisite, Bus. 64 or equivalent. 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 are stressed. Readings and cases will be used.

**377. MARKETING STRATEGY II.** (Summers only.) *Two hours credit.*

Prerequisite, Bus. 64 or equivalent. This course is designed to familiarize the student with operations of marketing organizations. The understandings and administrations of marketing strategy with regard to price and channels of distribution are stressed. Readings and cases will be used.

**379. MARKETING RESEARCH.** (Summers only.) *Four hours credit.*

Prerequisite, Bus. 64 or equivalent. 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.

**BUSINESS EDUCATION**

**171. EVALUATION IN BUSINESS EDUCATION.** *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.

**255. CONSUMER EDUCATION IN THE SCHOOLS.** *Three hours credit.*

A study of the need for consumer education in the elementary and high school and in the college; the objectives of this area; methods of organizing a program in the school; the contribution of various subject-matter areas; and materials and methods of teaching consumer education.

**262. PHILOSOPHY AND ORGANIZATION OF DISTRIBUTIVE EDUCATION.** *Three hours credit.*

A survey of the field of cooperative distributive education will be introductory. The course will then stress the organization, administration, and supervision of such a program.

**263. COORDINATION TECHNIQUES.** *Three hours credit.*

Prerequisite, Bus. Ed. 262. Practical problems encountered by the coordinator in his daily work concerning the cooperative part-time program.

**266. DEVELOPMENT OF DISTRIBUTIVE EDUCATION INSTRUCTIONAL MATERIALS.** (Summers only.) *Four hours credit.*

Instructional materials will be collected from original sources and qualified and organized into distributive education course outlines.

**272. THE BUSINESS CURRICULUM.** *Three hours credit.*

Prerequisite, Ed. 151, Student Teaching. The business curriculum in the high school is the basic consideration in this course. This is the final course in business education for prospective teachers.

**277. ADULT PROGRAMS IN BUSINESS EDUCATION.** (Summers only.) *Four 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.

**280. WORKSHOP IN BUSINESS EDUCATION.** (Summers only.) *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.

**281. WORKSHOP IN DISTRIBUTIVE EDUCATION.** (Summers only.) *Maximum of nine hours credit.*

An intensive course designed primarily for distributive education coordinators.

**353. IMPROVEMENT OF INSTRUCTION IN BOOKKEEPING.** (Summers only.) *Two hours credit.*

Prerequisite, knowledge of bookkeeping. The instruction in this course is planned primarily for those who have had experience teaching bookkeeping. Objectives, content, good teaching practices, and evaluation as well as the specific teaching problems of the members of the class are emphasized.

**354. IMPROVEMENT OF INSTRUCTION IN OFFICE PRACTICE.** (Summers only.) *Four hours credit.*

Analysis of methods, materials, and equipment for office practice classes. Acquiring proficiency in operating various office machines is part of the course. New equipment and new office procedures are presented.

**355. IMPROVEMENT OF INSTRUCTION IN DISTRIBUTIVE EDUCATION.** (Summers only.) *Four hours credit.*

Important procedures and effective techniques used in teaching high school cooperative classes in the distributive occupations and in evening classes for employed sales and supervisory personnel.

**356. IMPROVEMENT OF INSTRUCTION IN SHORTHAND.** (Summers only.) *Two hours credit.*

Prerequisite, knowledge of a shorthand system. Primarily for experienced teachers who have had an undergraduate methods course in shorthand. Emphasis is upon improved methods of instruction in the teaching of shorthand.

**357. IMPROVEMENT OF INSTRUCTION IN TYPEWRITING.** (Summers only.) *Two hours credit.*

Prerequisite, ability to typewrite. Primarily for experienced teachers who have had an undergraduate methods course in typewriting. Emphasis is upon improved methods of instruction in the teaching of typewriting.

**358. IMPROVEMENT OF INSTRUCTION IN BASIC BUSINESS.** (Summers only.) *Two hours credit.*

This course emphasizes the teaching of general business with some emphasis on the teaching of business law, consumer education, and advanced general business. Individual and group work on objectives, content, teaching practices, and evaluation.

**370. ADMINISTRATION AND SUPERVISION OF BUSINESS EDUCATION.** *Three hours credit.*

This course deals with the problems of administrators and supervisors who are interested in business education as well as heads of departments of business education.

**371. TESTS AND MEASUREMENTS IN BUSINESS EDUCATION.** *Three hours credit.*

A survey of tests and measurements in business education, their uses and methods of construction, and presentation of necessary statistical tools for test interpretation especially applicable to business education. A study is made of prognostic tests, vocational aptitude tests, and published achievement tests.

**372. CURRICULUM CONSTRUCTION IN BUSINESS EDUCATION.** (Summers only.) *Four hours credit.*

High school curricula and courses of study in business subjects will be planned and developed in this course. The history, present status, philosophy, and trends of curriculum construction will be discussed.

**373. CURRENT PROBLEMS IN BUSINESS EDUCATION.** *Three hours credit.*

Current problems in business education are studied and discussed by individuals, committees and the class.

**374. COOPERATIVE PROGRAMS IN BUSINESS EDUCATION.** (Summers only.) *Four hours credit.*

The aim of the course is to define cooperative programs in business education, to describe the typical types, to explore basic philosophies, and to clarify the nature and scope of cooperative programs by portraying its development in schools.

**401. ANALYSIS OF RESEARCH IN BUSINESS EDUCATION.** (Summers only.) *Four hours credit.*

An analysis of the best studies that have been done in business education. A study will be made of research techniques as well as the findings of these research studies. Emphasis will be placed upon determining further needed research.

**402. ISSUES AND TRENDS IN BUSINESS EDUCATION.** (Summers only.) *Four hours credit.*

A seminar course designed to have individual and group analysis and discussion of the various issues in business education. Trends in the field will also be analyzed and clarified.

**403. POST HIGH SCHOOL BUSINESS EDUCATION.** (Summers only.) *Four hours credit.*

A course planned for those teaching or planning to teach business or business education in post high school institutions—public and private business schools, junior colleges, and colleges educating business teachers. Curriculum and instructional practices and problems are emphasized.

## **Educational Psychology and Guidance**

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Degree programs offered in Educational Psychology and Guidance are as follows: (1) a graduate major in Educational Psychology and Guidance leading to the Master of Arts degree; (2) an emphasis in School Psychology, School Psychometry and School Counseling leading to the Specialist in Education degree; (3) an area of concentration in Educational Psychology and Guidance leading to the Doctor of Education degree.

For each of these degrees, basic proficiency in the following six areas is required: (1) Guidance and Counseling; (2) General Psychology; (3) Growth and Development; (4) Educational Psychology and Learning; (5) Measurement, Evaluation, and Research; and (6) Personal, Emotional, and Social Adjustment. In addition, courses, individual studies, practicum, and internships designed to meet specific degree or certification requirements must be met.

*All areas of concentration must be planned with the student's adviser in Educational Psychology and Guidance. Copies of programs required for each degree may be obtained from the adviser or from the Educational Psychology and Guidance office.*

### **Description of Courses**

#### **GUIDANCE AND COUNSELING**

**101. GUIDANCE IN THE CLASSROOM.** *Three hours credit.* (Also offered by correspondence.)

A general introduction to guidance; a study of the guidance activities normally carried on by the classroom teacher and a development of appreciation for their value in the educative process.

**201. GUIDANCE IN THE ELEMENTARY SCHOOL.** *Three hours credit.*

Prerequisite, senior or graduate standing. 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.

**207. GUIDANCE INSTITUTE.** (Summers only.) *Maximum of twelve hours credit.*

A course designed to meet the needs of teachers and counselors wishing to upgrade their proficiencies in guidance activities.

**210. PRINCIPLES AND PRACTICES OF GUIDANCE.** *Four hours credit.*

Introductory course for professional guidance workers. A study of individual and society needs for guidance and the development of a guidance point of view. Includes purposes and scope of guidance services, concepts, principles, personnel, and basic elements of such services.

**211. TECHNIQUES IN GROUP GUIDANCE.** *Three hours credit.*  
Prerequisite, E.P.G. 101 or 210. A study of information needed and methods used by home room or guidance teachers who help students in groups, with educational planning, vocational choice and inter-personal relations.

**212. OCCUPATIONAL INFORMATION AND ANALYSIS IN VOCATIONAL GUIDANCE.** *Three hours credit.*

Experience in using, reviewing, and evaluating occupational information. Study of sources and types of material, occupational filing plans, and practical techniques.

**214. GUIDANCE WORKSHOP.** (Summers only.) *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 determine to a certain extent the course content.

**305. PERSONNEL WORK IN COLLEGES AND UNIVERSITIES.** *Three hours credit.*

Study of the principles and functions of student personnel work in higher education including matters of admission, records, health, housing, activities, student organizations and government, student union, financial aid, scholastic standards, individual counseling, student discipline, placement, and administration of personnel work.

**306. STUDENT HOUSING.** (Summers only.) *Three hours credit.*  
One of a series of quarterly seminars in college personnel work. The philosophy, organization, and practice of these services will be studied as training for student personnel work in colleges.

**307. ADMISSIONS AND RECORDS.** (Summers only.) *Three hours credit.*

One of a series of quarterly seminars in college personnel work. The philosophy, organization, and practice of these services will be studied as training for student personnel work in colleges.

**308. HEALTH AND COUNSELING SERVICE.** (Summers only.) *Three hours credit.*

One of a series of quarterly seminars in college personnel work. The philosophy, organization, and practice of these services will be studied as training for personnel work in colleges.

**309. STUDENT ACTIVITIES.** (Summers only.) *Three hours credit.*  
One of a series of quarterly seminars in college personnel work. The philosophy, organization, and practice of these services will be studied as training for student personnel work in colleges.

**310. JOB PLACEMENT.** (Summers only.) *Three hours credit.*  
One of a series of quarterly seminars in college personnel work. The philosophy, organization, and practice of these services will be studied as training for student personnel work in colleges.

**311. ORGANIZATION AND ADMINISTRATION OF GUIDANCE SERVICES.** *Three hours credit.*

The organization and administration of guidance services in the public school system, with emphasis being placed on types of organizations, use of records, in-service training of workers, evaluation, and roles of various staff members.



**312. ANALYSIS OF THE INDIVIDUAL.** *Three hours credit.*  
Prerequisites, E.P.G. 270 and 271. A course designed to develop understandings and skills in collecting and interpreting data concerning the individual, and the use of such data in case studies and follow-up procedures.

**315. COUNSELING TECHNIQUES.** *Three hours credit.*  
Prerequisites, Advanced standing in E.P.G. and permission of instructor. A study of the place of counseling in the guidance program and a critical analysis of the theoretical approaches in the counseling interview. Opportunity is provided to practice in the application of the various approaches.

**316. CLINICAL METHODS IN PSYCHOLOGY.** *Four hours credit.*  
Prerequisites, E.P.G. 285, 312, 380, 382, 388. A course designed to integrate background knowledge of human development and characteristics, both normal and abnormal, with clinical techniques for appraisal of such development and characteristics. Directed particularly to advanced graduate students preparing to be school psychologists or school counselors.

**410. SUPERVISED PRACTICE IN GUIDANCE SERVICES.** *Three hours credit.*

Prerequisite, permission of instructor. Qualified graduate students majoring or minoring in educational psychology and guidance engage in guidance activities under the supervision of one or more members of the staff. A typewritten report analyzing the experience must be submitted to the supervisors for approval and then filed in the Graduate Office.

**415. SUPERVISED PRACTICE IN COUNSELING.** *Three hours credit.*

Prerequisites, E.P.G. 315 and permission of instructor. Qualified graduate students majoring or minoring in educational psychology and guidance engage in counseling interviews and activities under the supervision of one or more members of the staff. A typewritten report analyzing the experience must be submitted to the supervisor for approval and then filed in the Graduate Office.

## GENERAL PSYCHOLOGY

**20. GENERAL PSYCHOLOGY AND PERSONAL ADJUSTMENT.**  
*Five hours credit.* (Also offered by correspondence.)

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.

**220. GENERAL PSYCHOLOGY AND THE PRINCIPLES OF BEHAVIOR.** *Five 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.

**321. TRENDS IN EDUCATIONAL PSYCHOLOGY AND GUIDANCE.**  
*Four hours credit.*

Prerequisites, advanced standing in E.P.G. and permission of instructor. A course designed to focus on current trends and research in the areas of human growth and development, learning, mental hygiene, guidance and counseling. Special emphases are placed on methods of identifying significant trends and recognition of broad implications of trends.

## GROWTH AND DEVELOPMENT

### 30. PSYCHOLOGY OF CHILDHOOD AND YOUTH. *Three hours credit.* (Also offered by correspondence.)

Prerequisite, E.P.G. 20 or equivalent. A course designed to assist prospective teachers to build competence in understanding and guiding the physical, mental, social and emotional development of children and youth; emphasizes total psychological development from school age to maturity.

### 230. PSYCHOLOGY OF CHILDHOOD AND ADOLESCENCE. *Three hours credit.*

Prerequisite, E.P.G. 20 or equivalent. 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. Recommended as substitute for E.P.G. 30.

### 331. CHILD PSYCHOLOGY. *Three hours credit.*

Prerequisite, teaching experience or equivalent. A study of the growth, adjustment and capacities, of children from conception through the elementary school years. Emphasis is placed on the theories of development and on application in guiding the development of normal children.

### 332. PSYCHOLOGY OF ADOLESCENCE. *Three hours credit.*

Prerequisite, teaching experience or equivalent. This course deals with the change from the period of childhood into adulthood and the resultant physical, mental, social, and emotional growth with its implications for guiding the adolescent toward a wholesome realization of his potentialities.

### 334. PSYCHOLOGY OF INDIVIDUAL DIFFERENCES. *Three hours credit.*

The nature and extent of differences among individuals and differences between such groups as men and women, age, class, race and nationality; factors related to these differences; and the application of the facts of human variability to educational, vocational, social and personnel work.

## EDUCATIONAL PSYCHOLOGY AND LEARNING

### 40. EDUCATIONAL PSYCHOLOGY. *Three hours credit.* (Also offered by correspondence.)

Prerequisites, E.P.G. 20, 30, or equivalent. A course designed to assist prospective teachers to build competence in directing pupil learning based upon psychological principles of learning, motivation, readiness, practice, transfer, individual differences, and evaluation.

### 240. PSYCHOLOGY OF LEARNING. *Three hours credit.*

Prerequisites, E.P.G. 20, 30, or equivalent. 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.

### 340. THEORIES OF LEARNING. *Four hours credit.*

Prerequisites, E.P.G. 30 and 40, or equivalent. The several theories of learning are examined critically for the purpose of developing a working control of the learning process by the student.

**MEASUREMENT, EVALUATION AND RESEARCH****270. PRINCIPLES AND PRACTICES IN TESTING AND MEASUREMENT.** *Four hours credit.*

A basic course in the construction, administration and interpretation of tests for use in guidance and the classroom. Special emphases are placed on the teacher-made and standardized tests of scholastic achievement. Attention is given to statistical interpretations of validity and reliability, and to standardization of tests.

**271. MEASUREMENT OF APTITUDES.** *Four hours credit.*

A critical review of standardized aptitude tests. Experiences in administration, use, and interpretation of educational and vocational tests of aptitude, interest, and personality.

**§275a. DESCRIPTIVE STATISTICS.** (Credit may be obtained in Mathematics Education or Educational Psychology and Guidance.) *Five hours credit. (Four hours lecture, two hours laboratory.)*

An introduction to the meaning and practical use of frequency distributions, graphical methods, percentiles, measures of average, variability, normal distribution, and correlation. Applications are made in the fields of education and psychology.

**§275b. STATISTICAL INFERENCE.** (Credit may be obtained in Mathematics Education or Educational Psychology and Guidance.) *Five hours credit.*

Prerequisite, Math. Ed. 275b or equivalent. Sampling, tests of hypotheses, estimation of parameters, and correlational methods. Emphasis on methods in educational research.

**373. INDIVIDUAL TESTS OF INTELLIGENCE.** *Three hours credit.*  
Prerequisite, permission of instructor. The history and description of the Revised Stanford-Binet Intelligence Scale, the Wechsler-Adult Intelligence Scale and the Wechsler Intelligence Scale for Children; their use in schools, and the interpretation of results.**374. SUPERVISED PRACTICE IN THE USE OF INDIVIDUAL TESTS OF INTELLIGENCE.** *Four hours credit.*

Prerequisites, E.P.G. 373 and permission of instructor. This course provides supervised practice in administering one or more of the following individual tests of intelligence: the Revised Stanford-Binet Intelligence Scale, the Wechsler-Adult Intelligence Scale and the Wechsler Intelligence Scale for Children.

**§375. DESIGN AND ANALYSIS OF EXPERIMENTS IN EDUCATION.** (Credit may be obtained in Mathematics Education or Educational Psychology and Guidance.) *Five hours credit.*

Prerequisite, Math. Ed. 275b or equivalent. Deals with the design and statistical analysis of experiments in the fields of education and psychology. Analysis of variance and covariance form a prominent part of the course.

**PERSONAL, EMOTIONAL AND SOCIAL ADJUSTMENT****281. PERSONALITY OF YOUNG CHILDREN.** (Summers only.) *Three hours credit.*

Prerequisite, a course in psychology. The development of personality from birth through the elementary school years including techniques for developing fine traits, and methods of diagnosis and treatment of problems of personality development which arise in the home and school.

**285. MENTAL HYGIENE AND EMOTIONAL ADJUSTMENT.** *Three hours credit.*

Prerequisite, one course in psychology. Psychological principles, theories, and practices are examined and applied to individual, school, family, and community mental health problems.

**293. SOCIODRAMA.** (Summers only.) *Two hours credit.*  
How to use sociodrama. The topics studied are: producing a sociodrama, purposes of the sociodrama, types and uses of the sociodrama.

**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.

**380. PERSONALITY DEVELOPMENT.** *Three hours credit.*  
The course is designed to build an understanding of the psychological factors and principles underlying personality development and adjustment.

**382. INTRODUCTION TO PROJECTIVE TECHNIQUES.** *Three hours credit.*

Prerequisites, E.P.G. 380, 388, 340, 373 and permission of instructor. Develops theories and principles underlying projective techniques and their diagnostic and therapeutic value. Special attention is given to the Rorschach, thematic appreciation tests, and other projective techniques as used in working with children, adolescents, and college students.

**383. PROJECTIVE TECHNIQUES.** *Three hours credit.*  
Prerequisites, E.P.G. 382, 374 and permission of instructor. This course is concerned with the administration, scoring, and application and interpretation of Rorschach, T.A.T. or other projective instruments used in working with children, adolescents and college students.

**384. GROUP DYNAMICS IN HUMAN RELATIONS.** *Three hours credit.*

Prerequisites, E.P.G. 285 or equivalent and permission of instructor. A course designed to give an understanding of the principles of group dynamics as applied to group situations including the classroom.

**388. ABNORMAL PSYCHOLOGY.** *Three hours credit.*  
Prerequisites, E.P.G. 285, 340, 380 or equivalent, permission of instructor. The course is designed to give an understanding of abnormal behavior, its causes, symptoms, characteristics, classifications, and prevention. These concepts form a necessary background for courses in projective techniques and training as school psychologists.

## Library Science

### LIBRARY SCIENCE MINOR

The following program offers 27 quarter hours of credit to meet the North Central Association and the Northwestern Association requirements for a school librarian and teacher-librarian in a high school having a student enrollment of 499 or fewer.

The following courses are required:

Course Number	Course Title	Hours	Credit
Ed. 206	- - Audio-Visual Materials in Education	- -	4
L.S. 280	- - Organization and Administration of a School Library	- - - -	4
L.S. 281	- - Classification and Cataloging	- - - -	4
L.S. 282	- - Reference Materials for School Libraries	- - - -	4
L.S. 283	- - Book Selection for School Libraries	- - - -	4
L.S. 284	- - The Librarian and Reading Guidance for Youth	- - - -	4
Electives	- - - -	- - - -	3

The remaining hours may be selected from following courses:

Ed.	221	- -	Literature in the Elementary School	- -	4
L.S.	285	- -	Junior High School Library Workshop	- -	3

## Description of Courses

### LIBRARY SCIENCE

**280. ORGANIZATION AND ADMINISTRATION OF A SCHOOL LIBRARY.** (Summers only.) *Four 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.

**281. CLASSIFICATION AND CATALOGING.** (Summers only.) *Four 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 library. It will include all necessary processes from the time books are acquired until they are ready for circulation. Attention is also given to the library care of pamphlets and audio-visual materials.

**282. REFERENCE MATERIALS FOR SCHOOL LIBRARIES.** (Summers only.) *Four hours credit.*

A discussion of suitable reference materials for elementary and secondary school libraries. Covers selection principles and use of reference materials.

**283. BOOK SELECTION FOR SCHOOL LIBRARIES.** (Summers only.) *Four 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.

**284. THE LIBRARIAN AND READING GUIDANCE FOR YOUTH.** (Summers only.) *Four 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 material at his level and to meet his needs.

**285. JUNIOR HIGH SCHOOL LIBRARY WORKSHOP.** (Summers only.) *Three hours credit.*

Prerequisite, L.S. 280 or equivalent. Study of various problems involved in the administration of the junior high school library. Stresses the selection of appropriate materials and the problems involved in dealing with students of that age level. Study of recent approaches to teacher-student-library relationships.

## Special Education

Degree programs in Special Education are offered as follows: (1) a major or minor at the undergraduate level; (2) a major at the master's level; (3) a graduate area of concentration leading to the Doctor of Education degree.

The program affords undergraduate students the opportunity to qualify for a Colorado Special Education Certificate with emphasis on teaching mentally retarded children. Junior and senior students may take course work in the areas of teaching the hard of hearing, the deaf, the partially sighted, the blind and the physically handicapped. This course work may be used for certification in the special areas of teaching acoustically handicapped or visually handicapped children when all requirements for certification are met at the graduate level.

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, physical handicapped, hard of hearing, and deaf children. An enlarged Special Education facility is under construction at Colorado State College and will enroll all types of exceptional children.

### SPECIAL EDUCATION MAJOR

#### Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Spec. Ed. 164	Introduction to Speech Correction	- - -	3
Spec. Ed. 200	The Education (Psychology) of Exceptional Children	- - - - -	3
Spec. Ed. 210	Education of the Mentally Retarded Child	- - - - -	4
Spec. Ed. 211	Education of Severely Mentally Retarded Children	- - - - -	3
Spec. Ed. 212	Curriculum Development and Methodology for Mentally Retarded	- - -	4
Spec. Ed. 230	Care and Pathology of the Physically Handicapped	- - - - -	3
Spec. Ed. 266	Clinical Practice in Speech Correction	- - -	1
F.A. 127	Art Crafts in the Elementary School	- - -	3
E.P.G. 230	Psychology of Childhood and Adolescence	- - -	3
E.P.G. 270	Principles and Practices in Testing and Measurement	- - - - -	4

H.P.E.	101	- -	Health Education in the Elementary School	- - - - -	4
Sp.	16	- -	Voice and Diction	- - - - -	4
Mus.	149	- -	Music Methods and Materials for Elementary Teachers	- - - - -	3
Electives	- - - - -	- - - - -	- - - - -	- - - - -	6
					48

3. One minor of 27 hours outside the field of Special Education. A minor in elementary education is highly recommended.

4. 24 to 32 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

**SPEECH CORRECTION MAJOR**  
**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Sp. 16	Voice and Diction	4
Spec. Ed. 164	Introduction to Speech Correction	3
Spec. Ed. 200	The Education (Psychology) of Exceptional Children	3
Spec. Ed. 254	Audiology	3
Spec. Ed. 255	Practicum in Audiology	3
Spec. Ed. 257	Speech Reading	3
Spec. Ed. 265	Speech Pathology	3
Spec. Ed. 266	Clinical Practice in Speech Correction	8
Sp. 370	The Psychology of Speech	4
Sp. 375	Phonetics	4
E.P.G. 230	Psychology of Childhood and Adolescence	3
E.P.G. 270	Principles and Practices in Testing and Measurement	4
E.P.G. 285	Mental Hygiene and Emotional Adjustment	3
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3. One minor of 27 hours outside the field of Special Education. A minor in elementary is highly recommended.

4. 24 to 32 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

**SPECIAL EDUCATION MINOR**

Required courses in the minor:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Spec. Ed. 164	Introduction to Speech Correction	3
Spec. Ed. 200	Education (Psychology) of Exceptional Children	3
Spec. Ed. 210	Education of the Mentally Retarded Child	4

Spec. Ed.	211	- -	Education of Severely Mentally Retarded Children - - - - -	3
Spec. Ed.	212	- -	Curriculum Development and Methodology for Mentally Retarded - - - - -	4
Spec. Ed.	266	- -	Clinical Practice in Speech Correction - -	1
E.P.G.	230	- -	Psychology of Childhood and Adolescence -	3
E.P.G.	270	- -	Principles and Practices in Testing and Measurement - - - - -	4
Electives	- - - -	- - - -	- - - - -	2
				27

**SPEECH CORRECTION MINOR**

Required courses in the minor:

Sp.	16	- -	Voice and Diction - - - - -	4
Spec. Ed.	164	- -	Introduction to Speech Correction - - -	3
Spec. Ed.	200	- -	Education (Psychology) of Exceptional Children - - - - -	3
Spec. Ed.	254	- -	Audiology - - - - -	3
Spec. Ed.	255	- -	Practicum in Audiology - - - - -	3
Spec. Ed.	265	- -	Speech Pathology - - - - -	3
Spec. Ed.	266	- -	Clinical Practice in Speech Correction - -	3
E.P.G.	230	- -	Psychology of Childhood and Adolescence -	3
Electives	- - - -	- - - -	- - - - -	2
				27

**Description of Courses**

**GENERAL AND ADMINISTRATION**

**200. THE EDUCATION (PSYCHOLOGY) OF EXCEPTIONAL CHILDREN.** *Three hours credit.*

Prerequisite, one course in psychology. A study of brilliant, retarded, physically handicapped, and emotionally maladjusted children, with emphasis on methods of adjusting instruction to the needs of these children.

**201. WORKSHOP IN SPECIAL EDUCATION.** (Summers only.) *Four hours credit.*

A workshop designed for teachers and administrators. The following topics will be discussed: the philosophy and needs for Special Education, working relationships with the State Department and local community groups, certification of teachers, problems of financing and services available within the local school district, screening of pupils and requirements of medical reports.

**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 handicap to parents and how the parents and family can accept the children in the home is also developed.

**301. ADMINISTRATION AND SUPERVISION OF SPECIAL EDUCATION.** *Four hours credit.*

Problems of organization, administration and supervision of special education programs; finance and attendance, physical facilities, budgeting, needed equipment, community agencies and curriculum development.

**302. MEASUREMENT FOR HANDICAPPED CHILDREN.** *Three hours credit.*

This course is designed to develop an understanding of and ability to interpret the results of psychological and educational tests. Emphasis



on diagnosis and problems encountered on testing children who are visually, acoustically, orthopedically, mentally handicapped, or speech defective.

**401. RESEARCH SEMINAR IN SPECIAL EDUCATION.** *Three hours credit.*

Prerequisite, permission of instructor. An analysis of studies and research pertaining to the education of exceptional children. Procedures for conducting and reporting research. A survey of critical problems and trends in Special Education.

**402. PROBLEM SEMINAR IN SPECIAL EDUCATION.** *Three hours credit.*

A course designed for leaders and resource personnel in Special Education. Emphasis will be placed on how to develop good leadership, the identification of major problem areas, the possible solutions of these problems, and evaluation of these solutions.

**403. TRENDS IN SPECIAL EDUCATION.** *Three hours credit.*

A course designed for the study of historical development of educational programs for exceptional children. A critical analysis of issues and trends in special education.

## **MENTALLY RETARDED**

**210. EDUCATION OF THE MENTALLY RETARDED CHILD.** *Four hours credit.*

Prerequisite, Sp. Ed. 200. A study of the social, emotional, physical and mental characteristics of the mentally retarded child; methods of diagnosis and classification. The organization of special class programs and special teaching procedures.

**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.

**212. CURRICULUM DEVELOPMENT AND METHODOLOGY FOR MENTALLY RETARDED.** *Four hours credit.*

Prerequisite, Sp. Ed. 200. 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 readings, lectures, observation, experimentation and meetings.

**311. WORKSHOP FOR THE VOCATIONAL REHABILITATION OF MENTALLY RETARDED YOUTH.** *Three hours credit.*

Prerequisite, Sp. Ed. 200. Emphasis will be on the development of a series of units which will parallel on-the-job training in the vocational rehabilitation of mentally retarded youth. Discussion of techniques in the following areas will also be emphasized: (1) evaluating vocational fitness, (2) job placement, (3) on-the-job supervision, and (4) follow-up services.

**312. ADVANCED CURRICULUM DEVELOPMENT.** *Four hours credit.*

Prerequisite, Spec. Ed. 212. This course will develop the application of the principles of preparation, development, and effective use of integrated units. Evaluation and reporting in terms of achievement of the curriculum objectives will also be emphasized.

**314. PRACTICUM WITH THE MENTALLY RETARDED.** *Maximum of six hours credit.*

Prerequisites, Sp. Ed. 200 and 212 and permission of major adviser. Individual observation and supervised practice in the education of the mentally handicapped. It is recommended that this course be taken over two consecutive quarters.

**PHYSICALLY HANDICAPPED**

**230. CARE AND PATHOLOGY OF THE PHYSICALLY HANDICAPPED.** *Three hours credit.*

Prerequisite, Sp. Ed. 200. A course designed for teachers of physically handicapped children. Problems will be discussed in the following areas: vision, hearing, speech, orthopedics, epileptics and miscellaneous. Some time will be given to counseling of parents and organizing of parent groups.

**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.

**331. ADVANCED PROBLEMS IN TEACHING THE CEREBRAL PALSIED.** *Three hours credit.*

Consideration of problems of child guidance, working with parents of cerebral palsied children and specific techniques helpful in education and training of cerebral palsied children. Emphasis upon teamwork approach to solving medical, educational, and therapeutic problems.

**334. PRACTICUM WITH PHYSICALLY HANDICAPPED.** *Maximum of eight hours credit.*

Prerequisites, Sp. Ed. 200, 230, and permission of major adviser. Individual observation and supervised practice in the education of the physically handicapped. It is recommended that this course be taken over two consecutive quarters.

**VISUALLY HANDICAPPED**

**240. STRUCTURE AND FUNCTION OF THE EYE.** *Three hours credit.*

Causes, symptoms, treatment, and educational implications of visual defects and blindness; current research; eye health and vision testing; clinic and surgery observation.

**241. SURVEY OF EDUCATION OF VISUALLY HANDICAPPED CHILDREN.** *Three hours credit.*

Survey of problems concerned with administration and organization of facilities to meet the needs of the visually handicapped child; parent counseling; educational and vocational guidance. Observation of existing programs required.

**242. PRINCIPLES AND METHODS—PARTIALLY SEEING.** *Three hours credit.*

Principles of preparation, selection, effective use of instructional materials in area of partially seeing child, problems of adaptation of school environment.

**243. PRINCIPLES AND METHODS—BLIND (INTRODUCTION TO BRAILLE).** *Three hours credit.*

General teaching methods as applied to needs of blind children. Introduction to Braille reading and writing; preparation of materials and use of curriculum aids suitable for this area.

**343. ADVANCED BRAILLE.** *Three hours credit.*

Development of skill in reading and writing Braille; methods and techniques of teaching grade two Braille, mathematical and Braille music codes.

**344. PRACTICUM WITH THE BLIND.** *Maximum of six hours credit.*

Registration by permission of major adviser only. Individual observation and supervised practice in the education of the blind and the partially sighted. It is recommended that this course be taken over two consecutive quarters.

**ACOUSTICALLY HANDICAPPED****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 of deafness. 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.

**251. SPEECH DEVELOPMENT FOR ACOUSTICALLY HANDICAPPED CHILDREN.** *Six hours credit.*

Development of language comprehension through speechreading 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.

**252. LANGUAGE DEVELOPMENT FOR ACOUSTICALLY HANDICAPPED CHILDREN.** *Six hours credit.*

Presentation of various methods commonly used in speech development of acoustically handicapped children. Factors associated with the development of intelligible speech. Integration of speech with other language arts. Importance of preschool programs and parent education.

**253. METHODS OF TEACHING DEAF PUPILS AT INTERMEDIATE AND ADVANCED LEVELS.** *Maximum of six hours credit.*

Prerequisite, Spec. Ed. 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.

**254. AUDIOLOGY.** *Three hours credit.*

Theory and practice in administering group and individual hearing tests with emphasis on public school program. Introduction to mechanics of hearing and causes of hearing impairment. Implications of hearing loss for referral, wearing of hearing aids, educational placement.

**255. PRACTICUM IN AUDIOLOGY.** *Three hours credit.*

Principles of and experience in the administration of hearing tests and their evaluation.

**256. EDUCATION OF HARD OF HEARING CHILD.** *Three hours credit.*

Sociologic, psychologic and economic implications of hearing loss. Survey of public school program of hearing conservation. Methods and practice of hearing therapy including lip-reading, auditory training, and speech improvement. Presentation of typical lesson plans at

various levels and collection of source materials. Mechanics and use of hearing aids and other amplifying devices.

**257. SPEECH READING.** *Three hours credit.*

Prerequisite, Sp. Ed. 164 or 256, 265. 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.

**350. ADVANCED PROBLEMS IN TEACHING DEAF CHILDREN.** *Three hours credit.*

Prerequisite, Spec. Ed. 251, 252, 256 or consent of instructor, Preparation of units of work in content subect areas. Expansion of vocabulary and language comprehension and usage. Curriculum planning. An opportunity will be given experienced teachers to work on specific problems.

**351. SEMINAR IN AUDIOLOGICAL PROBLEMS.** *Three hours credit.*

This course will analyze problems involving the fitting of hearing aids and adjustment of the individuals to them. It will also involve problems concerning necessary auditory training. Experience will be provided on an individual basis.

**354. PRACTICUM WITH THE DEAF AND HARD OF HEARING.** *Maximum of fifteen hours credit.*

Individual observation and supervised practice in the education of the deaf and hard-of-hearing. It is recommended that this course be taken over two consecutive quarters. Registration by permission of major adviser only.

## **SPEECH CORRECTION**

**164. INTRODUCTION TO SPEECH CORRECTION.** *Three hours credit.*

Prerequisites, Sp. 16; Spec. Ed. 266 must be taken concurrently. 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.

**265. SPEECH PATHOLOGY.** *Three hours credit.*

Prerequisite, Spec. Ed. 164; must enroll in Spec. Ed. 266. A consideration of disorders of articulation, phonation, rhythm, and symbolization with emphasis on methods and materials of re-education.

**266. CLINICAL PRACTICE IN SPEECH CORRECTION.** *Maximum of eight hours credit.*

This course supplements the methods of speech diagnosis and treatment with observation and supervised teaching in the college speech clinic. A minimum of 200 clock hours in the laboratory is one of the requirements necessary to qualify for state certification as a speech correctionist.

**268. SPEECH CORRECTION IN THE CLASSROOM.** (Summers only.) *Four hours credit.*

This course is designed to aid the classroom teacher in evaluating speech difficulties on the elementary and secondary levels and offers techniques that may be used in the correction of minor speech problems.

**360. SPEECH PATHOLOGY — CEREBRAL PALSY.** (Summers only.) *Three hours credit.*

A study in cerebral palsy.

- 361. SPEECH PATHOLOGY—CLEFT PALATE.** (Summers only.)  
*Three hours credit.*  
A study in cleft palate.
- 362. SPEECH PATHOLOGY—APHASIA.** (Summers only.) *Three hours credit.*  
A study in aphasia.
- 363. SPEECH PATHOLOGY — STUTTERING.** (Summers only.)  
*Three hours credit.*  
A study in stuttering.
- 364. SPEECH PATHOLOGY — VOICE DISORDERS.** (Summers only.) *Three hours credit.*  
A study in voice disorders.
- 365. SPEECH PATHOLOGY — ARTICULATION DISORDERS.**  
(Summers only.) *Three hours credit.*  
A study in articulation disorders.

### **GIFTED**

- 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.

# Division of Health And Physical Education

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The Division of Health and Physical Education includes programs for both men and women. Degrees and majors and minors offered are:

## **BACHELOR OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* Physical Education for Women, Physical Education for Men.

*Minors:* Physical Education (Secondary), Physical Education (Elementary) Health Education, Dance Education.

All majors and minors in this division will earn academic credit in H.P.E. 61, Personal and Community Health.

## **MASTER OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* Physical Education, Supervision of Physical Education, Health Education.

## **SPECIALIST IN EDUCATION DEGREE**

*Area of Specialization:* To be selected.

## **DOCTOR OF EDUCATION DEGREE (With Teaching Certificate)**

*Area of Concentration:* Health and Physical Education.

*Supporting Area:* Health and Physical Education.

## **PHYSICAL EDUCATION MAJOR FOR WOMEN**

### **Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, except the physical education activity courses. H.P.E. 80, 81, and 83 will be substituted for the six hours of physical education activity courses required in the common program. Education 144, 145 will be substituted for Education 140, 141 of the common program for all physical education majors.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.P.E. 62	First Aid	- - - -	2
H.P.E. 82	Techniques of Hockey and Soccer	- - - -	2
H.P.E. 84	Techniques of Tennis and Softball	- - - -	2
H.P.E. 85	Techniques of Tumbling	- - - -	2
H.P.E. 90	Techniques in Folk Dance	- - - -	2
H.P.E. 92	American Square and Social Dance	- - - -	2
H.P.E. 93	Techniques in Contemporary Dance	- - - -	2
H.P.E. 94	Problems in Dance Composition	- - - -	2

H.P.E.*	101	- -	Health Education in the Elementary School	
			<i>or</i>	
H.P.E.*	102	- -	Health Education in the Secondary School	- 4
H.P.E.	120	- -	Human Anatomy and Physiology I	- - - 3
H.P.E.	121	- -	Human Anatomy and Physiology II	- - - 3
H.P.E.	122	- -	Kinesiology	- - - - 4
H.P.E.	125	- -	Teaching of Fall Sports for Women	- - - 2
H.P.E.	126	- -	Teaching of Winter Sports for Women	- - - 2
H.P.E.	127	- -	Teaching of Spring Sports for Women	- - - 2
H.P.E.	226	- -	Tests and Measurements in Physical Education	- - - - 3
H.P.E.	232	- -	Problems of Individual Gymnastics	- - - 3
H.P.E.	235	- -	Educational Interpretations of Health, Physical Education, and Recreation	- - - - 3
H.P.E.	272	- -	Recreation Leadership	- - - - 3
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\*Students planning to teach in the elementary school will take H.P.E. 101; those planning to teach in the secondary school will take H.P.E. 102.

3. One minor of 27 quarter hours outside the Division of Health and Physical Education.
4. 24 to 32 quarter hours of free electives to complete the 180 quarter hours of academic credit for graduation.
5. Electives may be used at the students' option and under advisement to complete teaching competencies in health education and driver education.

**PHYSICAL EDUCATION MAJOR FOR MEN**  
**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, except the physical education activity courses. H.P.E. 70 and 71 will be substituted for four of the six hours of physical education activity courses required in the common program. The remaining two hours of the common requirement in this area will be selected with the assistance of the student's adviser.

Education 144, 145 will be substituted for Education 140, 141 of the common program for all physical education majors. In addition men majoring in this field will complete an additional methods course, either Education 140, 141 or Education 141 in a minor outside of the major division.

2. The following required courses in the major:

<i>Course Number</i>			<i>Course Title</i>		<i>Hours Credit</i>
H.P.E.	62	- -	First Aid	- - - - -	2
H.P.E.	73	- -	Theory and Practice of Basketball	- - -	2
H.P.E.	74a	- -	Theory and Practice of Swimming	- - -	1
H.P.E.	74b	- -	Theory and Practice of Wrestling	- - -	1
H.P.E.	75a	- -	Theory and Practice of Track	- - -	1
H.P.E.	75b	- -	Theory and Practice of Baseball	- - -	1
H.P.E.	76	- -	Theory and Practice of Football	- - -	2
H.P.E.	90	- -	Techniques in Folk Dance	- - -	2
H.P.E.	92	- -	American Square and Social Dance	- - -	2
H.P.E.*	101	- -	Health Education in the Elementary School		
			<i>or</i>		
H.P.E.*	102	- -	Health Education in the Secondary School	- 4	
H.P.E.	120	- -	Human Anatomy and Physiology I	- - - 3	

H.P.E.	121	- -	Human Anatomy and Physiology II	- - -	3
H.P.E.	122	- -	Kinesiology	- - -	4
H.P.E.	161	- -	Coaching of Football	- - -	2
H.P.E.	162	- -	Coaching of Basketball	- - -	2
H.P.E.	163	- -	Coaching of Track and Field	- - -	2
H.P.E.	164	- -	Coaching of Baseball	- - -	2
H.P.E.	226	- -	Tests and Measurements in Physical Education	- - -	3
H.P.E.	235	- -	Educational Interpretations of Health, Physical Education and Recreation	- - -	3
H.P.E.	270	- -	Organization and Administration of Physical Education and Athletics	- - -	3
H.P.E.	272	- -	Recreation Leadership	- - -	3

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\*Students planning to teach in the elementary school will take H.P.E. 101; those planning to teach in the secondary school will take H.P.E. 102.

3. One minor of 27 quarter hours outside the Division of Health and Physical Education.

4. 24 to 32 quarter hours of free electives to complete the 180 quarter hours of academic credit for graduation.

5. 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 (Elementary Level)**

Course Number	Course Title	Hours	Credit
H.P.E. 62	First Aid	- - -	2
H.P.E. 85	Techniques of Tumbling	- - -	2
H.P.E. 90	Techniques in Folk Dance	- - -	2
H.P.E. 101	Health Education in the Elementary School	- - -	4
H.P.E. 272	Recreation Leadership	- - -	3
Ed. 144	Methods and Observation of Teaching Physical Education in the Elementary School	- - -	3
Electives to be planned with minor adviser			- - - 11

For a total of 27

**Physical Education Minor for Women (Secondary Level)**

Course Number	Course Title	Hours	Credit
H.P.E. 5	Fundamentals of Body Movement	- - -	1
H.P.E. 62	First Aid	- - -	2
H.P.E. 80	Techniques of Individual Sports	- - -	2
H.P.E. 81	Techniques of Volleyball and Basketball	- - -	2
H.P.E. 82	Techniques of Hockey and Soccer	- - -	2
H.P.E. 84	Techniques of Tennis and Softball	- - -	
or			
H.P.E. 85	Techniques of Tumbling	- - -	
or			
H.P.E. 126	Teaching Winter Sports for Women	- - -	2
H.P.E. 90	Techniques in Folk Dance	- - -	2
H.P.E. 92	American Square and Social Dance	- - -	2
H.P.E. 102	Health Education in the Secondary School	- - -	4
H.P.E. 272	Recreation Leadership	- - -	3
Ed. 145	Methods and Observation of Teaching Physical Education in the Secondary School (Women)	- - -	2
Electives to be planned with minor adviser			- - - 3

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**Physical Education Minor for Men (Elementary Level)**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.P.E. 62	First Aid	- - - - -	2
H.P.E. 70	Theory and Practice of Gymnastics and Matwork	- - - - -	2
H.P.E. 90	Techniques in Folk Dance	- - - - -	2
H.P.E. 101	Health Education in the Elementary School	- - - - -	4
H.P.E. 272	Recreation Leadership	- - - - -	3
Ed. 144	Methods and Observation of Teaching Physical Education in the Elementary School	- - - - -	3
Electives to be planned with minor adviser			11
			For a total of 27

**Physical Education Minor for Men (Secondary Level)**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.P.E. 62	First Aid	- - - - -	2
H.P.E. 73	Theory and Practice of Basketball	- - - - -	2
H.P.E. 75a	Theory and Practice of Track	- - - - -	1
H.P.E. 75b	Theory and Practice of Baseball	- - - - -	1
H.P.E. 76	Theory and Practice of Football	- - - - -	2
H.P.E. 102	Health Education in the Secondary School	- - - - -	4
H.P.E. 161	Coaching of Football	- - - - -	2
H.P.E. 162	Coaching of Basketball	- - - - -	2
H.P.E. 270	Organization and Administration of Physical Education and Athletics	- - - - -	3
H.P.E. 272	Recreation Leadership	- - - - -	3
Ed. 145	Methods and Observation of Teaching Physical Education in the Secondary School (Men)	- - - - -	2
Electives to be planned with minor adviser			3
			27

**Health Education Minor (Men and Women)**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.P.E. 62	First Aid	- - - - -	2
H.E. 98	Elementary Nutrition	- - - - -	3
or			
H.E. 209	New Trends in Nutrition	- - - - -	4
H.P.E. 99	Introduction to Community Health	- - - - -	4
H.P.E. 101	Health Education in the Elementary School	- - - - -	4
or			
H.P.E. 102	Health Education in the Secondary School	- - - - -	4
H.P.E. 271	Safety Education	- - - - -	3
E.P.G. 285	Mental Hygiene and Emotional Adjustment	- - - - -	3
Electives to complete 27 quarter hours from the following: H.P.E. 205, 213, 274; Biology 252; Botany 122; Zoology 216			7 or 8
			For a total of 27

**Dance Education Minor (Men and Women)**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.P.E. 90	Techniques in Folk Dance	- - - - -	2
H.P.E. 92	American Square and Social Dance	- - - - -	2
H.P.E. 93	Techniques in Contemporary Dance	- - - - -	2
H.P.E. 94	Problems in Dance Composition	- - - - -	2
H.P.E. 256	Workshop in Contemporary Dance	- - - - -	4
H.P.E. 257	Dance History and Philosophy	- - - - -	4
H.P.E. 258	Dance Methods and Materials	- - - - -	4
F.A. 65	Beginning Scene Design	- - - - -	3

Electives to complete 27 quarter hours selected from the following: 4

Sp.	112	- -	Stagecraft
Sp.	213	- -	Advanced Staging Techniques
Sp.	220	- -	Stage Costuming
Mus.	276	- -	Survey of American Music
Mus.	295	- -	The Art of Music Listening
H.E.	72	- -	Elementary Clothing Construction

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**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 divisional 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. Combinations for padlocks may be obtained in Gunter Hall, Room 109.

Women may purchase regulation gymnasium suits from the College Bookstore. These suits are required.

Medical excuses for exemption from all or part of the physical education activity requirement of the common program are issued only by the Department of Student Health services.

**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 divisional 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, locks, 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 common program are issued only by the Department of Student Health Services.

**Description of Courses****PHYSICAL EDUCATION ACTIVITY COURSES**

These courses are numbered from 1 to 61 inclusive with courses numbered from 1 to 60 meeting the Physical Education activity requirement of the Common Course program. H.P.E. 61—Personal and Community Health is an academic requirement of the Common Course program. Special advisement and detailed mechanics of the Activity Program are described in the preceding section of this catalog.

These courses are numbered from 1 to 61 inclusive with courses numbered from 1 to 60 meeting the Physical Education activity requirement of the Common Course program. H.P.E. 61, Personal and Community Health, is an academic requirement of the Common Course program. Special advisement and detailed mechanics of the Activity Program are described in the preceding section of this catalog.

1. FIELD SPORTS. *One hour credit.*
2. WINTER SPORTS. *One hour credit.*
3. INDIVIDUAL SPORTS. *One hour credit.*
5. FUNDAMENTALS OF BODY MOVEMENT. *One hour credit.*
6. BEGINNING TUMBLING. *One hour credit.*
7. ADVANCED TUMBLING. *One hour credit.*  
Prerequisite, H.P.E. 6.
8. GYMNASTICS. *One hour credit.*
9. PHYSICAL FITNESS AND CONDITIONING. *One hour credit.*
11. SOFTBALL. *One hour credit.*
12. TENNIS. *One hour credit.*
14. WRESTLING. *One hour credit.*
15. VOLLEYBALL. *One hour credit.*
16. BEGINNING GOLF. *One hour credit.*
18. BASKETBALL. *One hour credit.*
20. BEGINNING BOWLING. *One hour credit.*
22. FENCING. *One hour credit.*
23. INTERMEDIATE FENCING. *One hour credit.*
25. BEGINNING SWIMMING. *One hour credit.*
26. INTERMEDIATE SWIMMING. *One hour credit.*  
Prerequisite, H.P.E. 25.
27. ADVANCED SWIMMING. *One hour credit.*  
Prerequisite, H.P.E. 26.
28. ADVANCED AQUATIC ACTIVITIES. *One hour credit.*
29. SWIMMING. *One hour credit.*  
All levels.
30. BEGINNING CONTEMPORARY DANCE. *One hour credit.*
31. INTERMEDIATE CONTEMPORARY DANCE. *One hour credit.*  
Prerequisite, H.P.E. 30, or permission of instructor.
32. ADVANCED CONTEMPORARY DANCE. *One hour credit.*  
Prerequisite, H.P.E. 30 or 31.

- 33. BEGINNING SOCIAL DANCE. *One hour credit.*
- 34. FOLK DANCE. *One hour credit.*
- 35. AMERICAN SQUARE AND COUPLE DANCE. *One hour credit.*
- 36. TAP DANCE. *One hour credit.*
- 40. FRESHMAN FOOTBALL. *One hour credit.*
- 41. VARSITY FOOTBALL. *One hour credit.*
- 42. FRESHMAN BASKETBALL. *One hour credit.*
- 43. VARSITY BASKETBALL. *One hour credit.*
- 44. FRESHMAN WRESTLING. *One hour credit.*
- 45. VARSITY WRESTLING. *One hour credit.*
- 47. VARSITY GYMNASTICS. *One hour credit.*
- 49. VARSITY SWIMMING. *One hour credit.*
- 50. FRESHMAN BASEBALL. *One hour credit.*
- 51. VARSITY BASEBALL. *One hour credit.*
- 53. VARSITY TRACK. *One hour credit.*
- 55. VARSITY TENNIS. *One hour credit.*
- 61. PERSONAL AND COMMUNITY HEALTH. *Five 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**

- 62. FIRST AID. *Two hours credit.*
- 63. ADVANCED FIRST AID. *One hour credit.*  
Prerequisite, H.P.E. 62.
- 64. INSTRUCTOR'S COURSE IN FIRST AID. *One hour credit.*  
Prerequisite, H.P.E. 62, 63.
- 65. SENIOR LIFE SAVING. *One hour credit.*
- 66. WATER SAFETY INSTRUCTOR'S COURSE. *One hour credit.*  
Prerequisite, H.P.E. 65.

**Driver Education:** The Colorado State Department of Education requires a total of 18 quarter hours of preparation in this field: Nine hours are in H.P.E. 62 First Aid, H.P.E. 271 Safety Education, H.P.E. 274 Methods and Materials in Driver Education. The remaining 9 hours may be selected from a maximum of 3 hours each in Audio-Visual Education, Physics or Physical Science, Psychology, Auto-Mechanics, Advanced Driver Education or Driver Education Seminar.

### **PROFESSIONAL COURSES FOR DIVISIONAL 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 division.

- 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.
- 71. THEORY AND PRACTICE OF MINOR SPORTS (Men).** *Two hours credit.*  
Fundamental skill techniques in minor sports.
- 73. THEORY AND PRACTICE OF BASKETBALL (Men).** *Two hours credit.*  
Fundamental skill techniques in basketball.
- 74a. THEORY AND PRACTICE OF SWIMMING (Men).** *One hour credit.*  
Prerequisite, ability to swim. Fundamental skill techniques in swimming. (H.P.E. 74a and 74b should be taken concurrently.)
- 74b. THEORY AND PRACTICE OF WRESTLING (MEN).** *One hour credit.*  
Fundamental skill techniques of teaching wrestling. (H.P.E. 74a and 74b should be taken concurrently.)
- 75a. THEORY AND PRACTICE OF TRACK (Men).** *One hour credit.*  
Fundamental skill techniques in track coaching, covering the correct form in starting, running, field events and jumping. (H.P.E. 75a, 75b, and 76 should be taken concurrently.)
- 75b. THEORY AND PRACTICE OF BASEBALL (Men).** *One hour credit.*  
Fundamental skill techniques in baseball. (H.P.E. 75a, 75b, and 76 should be taken concurrently.)
- 76. THEORY AND PRACTICE OF FOOTBALL (Men).** *Two hours credit.*  
Fundamental skill techniques in football. (H.P.E. 75a, 75b, and 76 should be taken concurrently.)
- 77. ORIENTATION IN PHYSICAL EDUCATION.** *Two hours credit.*  
Designed to orient freshman majors with the breadth, scope, and nature of the professional program in physical education.
- 80. TECHNIQUES OF INDIVIDUAL SPORTS (Women).** *Two hours credit.*  
Fundamental skills, strategies and rules of individual sports.
- 81. TECHNIQUES OF VOLLEYBALL AND BASKETBALL (Women).** *Two hours credit.*  
Fundamental skills, team play, and rules.
- 82. TECHNIQUES OF HOCKEY AND SOCCER (Women).** *Two hours credit.*  
Fundamental skills, team play, and rules.
- 83. TECHNIQUES OF SWIMMING (Women).** *Two hours credit.*  
Prerequisites, intermediate swimmer's test, or H.P.E. 26. The teaching of swimming, including the techniques of diving and advanced and synchronized swimming.
- 84. TECHNIQUES OF TENNIS AND SOFTBALL (Women).** *Two hours credit.*  
Fundamental skills, team play, and rules.
- 85. TECHNIQUES OF TUMBLING (Women).** *Two hours credit.*  
Fundamental skills and techniques in tumbling and stunts. Practical experience in organizing tumbling games, contests, meets and demonstrations.

**88. PHYSICAL EDUCATION FOR THE ELEMENTARY SCHOOL.**  
*One hour credit.*

Prerequisite, sophomore standing. A foundation course required during initial enrollment in 88a,b,c series, preferably with 88a. Designed for, required of, and restricted to majors and minors in elementary education and physical education minors (elementary level). Content deals with basic principles recognized in planning physical education programs for elementary school children.

**88a. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL.** *One hour credit.*

Prerequisite, H.P.E. 88. Designed for, required of and restricted to majors and minors in elementary education and physical education minors (elementary level). Emphasis given to the physical education program for elementary school children during the fall months.

**88b. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL.** *One hour credit.*

Prerequisite, H.P.E. 88. Designed for, required of and restricted to majors and minors in elementary education and physical education minors (elementary level). Emphasis given to the physical education program for elementary school children during the winter months.

**88c. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL.** *One hour credit.*

Prerequisite, H.P.E. 88. Designed for, required of and restricted to majors and minors in elementary education and physical education minors (elementary level). Emphasis given to the physical education program for elementary school children during the spring months.

**90. TECHNIQUES IN FOLK DANCE.** *Two hours credit.*

A presentation of the materials, methods, and techniques necessary for teaching folk dances.

**92. AMERICAN SQUARE AND SOCIAL DANCE.** *Two hours credit.*  
Fundamental skills, methods, and materials necessary in the teaching of square and social dance. Practical experience in organizing and conducting square dances.

**93. TECHNIQUES IN CONTEMPORARY DANCE.** *Two hours credit.*  
The analysis and techniques of movement in relation to the aspects of time, space, and force.

**94. PROBLEMS IN DANCE COMPOSITION.** *Two hours credit.*

Problems in dance composition includes rhythmic analysis and accompaniment for dance. Laboratory experience in various approaches to dance composition comprise the fundamental approach for the course.

**99. INTRODUCTION TO COMMUNITY HEALTH.** *Four hours credit.*

Prerequisite, H.P.E. 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.

**101. HEALTH EDUCATION IN THE ELEMENTARY SCHOOL.**  
*Four hours credit.*

Prerequisite, H.P.E. 61. A course designed to give the prospective elementary teacher a foundation in school health education, including methods and materials for health instruction, the promotion of healthful school living, and an understanding of the health service program.

**102. HEALTH EDUCATION IN THE SECONDARY SCHOOL.** *Four hours credit.*

Prerequisite, H.P.E. 61. Designed to give the prospective secondary teacher a foundation in school health education, including methods

and materials for health instruction, the promotion of healthful school living, and an understanding of the health service program.

**120. HUMAN ANATOMY AND PHYSIOLOGY I.** *Three hours credit.*  
A study of the structure and function of the digestive, excretory, endocrine and integumentary systems of man. Special emphasis is placed on the distinctive features of physical activity as they are related to growth and development.

**121. HUMAN ANATOMY AND PHYSIOLOGY II.** *Three hours credit.*

Prerequisite, H.P.E. 120. A study of the structure and function of the respiratory, circulatory, nervous, skeletal, and muscular systems of man. Special emphasis is placed on the distinctive features of physical activity as they are related to growth and development.

**122. KINESIOLOGY.** *Four hours credit.*

Prerequisites, H.P.E. 120, 121. Systematic analysis of human motion through the application of anatomical, physiological, and mechanical principles, with emphasis on body dynamics and sports skills.

**125. TEACHING FALL SPORTS FOR WOMEN.** *Two hours credit.*  
Prerequisite, H.P.E. 82. A consideration of the basic techniques of fall sports, emphasizing teaching procedures.

**126. TEACHING WINTER SPORTS FOR WOMEN.** *Two hours credit.*

Prerequisite, H.P.E. 81. A consideration of the basic techniques of winter sports, emphasizing teaching procedures.

**127. TEACHING SPRING SPORTS FOR WOMEN.** *Two hours credit.*

Prerequisite, H.P.E. 84. A consideration of the basic techniques of spring sports, emphasizing teaching procedures.

**130. OFFICIATING FALL SPORTS FOR GIRLS.** *One hour credit.*

Prerequisite, junior standing or permission of instructor. A course designed to give a background and understanding of the rules and techniques of officiating various sports found in the women's program. Official's ratings will be given in volleyball, basketball, softball and others.

**131. OFFICIATING WINTER SPORTS FOR GIRLS.** *One hour credit.*

Prerequisite, junior standing or permission of instructor. A course designed to give a background and understanding of the rules and techniques of officiating various sports found in the women's program. Official's ratings will be given in volleyball, basketball, softball and others.

**132. OFFICIATING SPRING SPORTS FOR GIRLS.** *One hour credit.*

Prerequisite, junior standing or permission of instructor. A course designed to give a background and understanding of the rules and techniques of officiating various sports found in the women's program. Official's ratings will be given in volleyball, basketball, softball and others.

**161. COACHING OF FOOTBALL.** *Two hours credit.*

Prerequisite, H.P.E. 40, or 41 or 76. The technique and strategy of coaching football, with emphasis upon type of formations, defense, play series, rules, and football coaching in general.

**162. COACHING OF BASKETBALL.** *Two hours credit.*

Prerequisite, H.P.E. 42, or 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.

**163. COACHING OF TRACK AND FIELD.** *Two hours credit.*

Prerequisite, H.P.E. 75a, or 53. A study of the techniques of coaching

the various events in track and field, the rules, and the methods of conducting track meets.

**164. COACHING OF BASEBALL.** *Two hours credit.*

Prerequisite, H.P.E. 50, or 51 or 75b. Techniques and procedures in developing individual and team play. Defensive baseball: pitching, catching, infielding, outfielding, strategy. Offensive baseball: batting, base-running, strategy.

**188. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL.** (Summers only.) *Four hours credit.*

Designed to furnish the elementary teacher with materials and laboratory experiences in physical education activities for the elementary school program or activity period.

**203. HEALTH EDUCATION WORKSHOP.** (Summers only.) *Three hours credit.*

Prerequisite, permission of the instructor. The workshop will be concerned with the practical problems of the school health programs: health instruction, medical and nursing services, nutrition, lunch programs, safety, mental hygiene, and environmental sanitation.

**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.

**213. HEALTH COUNSELING AND APPRAISAL.** *Two hours credit.*

Prerequisite, H.P.E. 101 or 102. Designed to give the prospective teacher an insight into the purpose of health appraisals on 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.

**226. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION.** *Three hours credit.*

Prerequisite, senior standing or permission of instructor. 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.

**232. PROBLEMS OF INDIVIDUAL GYMNASTICS.** *Three hours credit.*

Prerequisites, H.P.E. 120, 121 and 122. The science of muscular action in relation to fundamental movement and to postural defects and their treatment.

**235. EDUCATIONAL INTERPRETATIONS OF HEALTH, PHYSICAL EDUCATION, AND RECREATION.** *Three hours credit.*

Prerequisite, H.P.E. 120, 121; senior or graduate standing. 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.

**245. ADVANCED TECHNIQUES IN TEACHING GYMNASTIC ACTIVITIES TO GIRLS** (Summers only.) *Four hours credit.*

Prerequisite, teaching experience. Designed to assist the high school or college teacher with special problems in teaching and officiating gymnastic activities.

**246. ADVANCED TECHNIQUES IN TEACHING INDIVIDUAL SPORTS TO GIRLS.** (Summers only.) *Four hours credit.*

Prerequisite, teaching experience. Designed to assist the high school



or college teacher with special problems in teaching and officiating individual sports.

**247. ADVANCED TECHNIQUES IN TEACHING TEAM SPORTS TO GIRLS.** (Summers only.) *Four hours credit.*

Prerequisite, teaching experience. Designed to assist the high school or college teacher with special problems in teaching and officiating team sports.

**255. CONTEMPORARY DANCE TECHNIQUES.** *Four hours credit.*  
Prerequisite, H.P.E. 94 and permission of instructor. Basic work and movement analysis, including laboratory work in composition.

**256. WORKSHOP IN CONTEMPORARY DANCE.** *Four hours credit.*  
Prerequisite, permission of instructor. Problems connected with the staging of dance performances.

**257. DANCE HISTORY AND PHILOSOPHY.** (Summers only.)  
*Four hours credit.*

Prerequisites, H.P.E. 93, 94 and permission of instructor. Designed to study the history and development of dance as it is culturally determined and the philosophy influencing dance in education.

**258. DANCE METHODS AND MATERIALS.** *Four hours credit.*  
Prerequisites, H.P.E. 90, 92, 93, 94, and permission of instructor. Designed to assist the dance education student in acquiring skill in the presentation of dance experiences for all age groups.

**260. SCIENTIFIC PRINCIPLES OF COACHING.** *Four hours credit.*  
Prerequisite, senior or graduate standing. 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.

**261. MECHANICAL PRINCIPLES OF TEACHING ACTIVITIES IN PHYSICAL EDUCATION.** (Summers only.) *Four hours credit.*  
For physical educators, including both men and women, and designed to assist them in teaching the activities and rhythms of the school physical education program.

**264. SPORTS OFFICIATING FOR MEN.** (Summers only.) *Four hours credit.*

Designed for coaches, administrators, and officials. Considers general principles and philosophy of officiating as well as a study of the mechanics of officiating the sports for men in the school program.

**265. ADVANCED TECHNIQUES IN TEACHING FOOTBALL TO MEN.** (Summers only.) *Two hours credit.*

Prerequisite, teaching or coaching experience. Designed to assist the in-service teacher of major sports for men with special problems in the field of football, including organization, strategy, personnel.

**266. ADVANCED TECHNIQUES IN TEACHING BASKETBALL TO MEN.** (Summers only.) *Two hours credit.*

Prerequisite, teaching or coaching experience. Designed to assist the in-service teacher of major sports for men with special problems in the field of basketball, including organization, strategy, personnel.

**268. THE ADMINISTRATION OF THE SCHOOL RECREATION PROGRAM.** (Summers only.) *Four hours credit.*

Designed to cover all aspects of the school recreation program including before school, noon hour, after school, evening and weekend activities. The course emphasizes the administrative and supervisory problems involved in a total school program.

**269. ORGANIZATION AND ADMINISTRATION OF A PHYSICAL EDUCATION PROGRAM FOR GIRLS. (Summers only.)** *Four hours credit.*

The organizational and administrative aspects of the girls physical education program.

**270. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION AND ATHLETICS.** *Three hours credit.*

The organizational and administrative problems of physical education and athletics on the high school level: aims and objectives, management of athletics, the physical plant, intramurals, and administrative policies.

**271. SAFETY EDUCATION.** *Three hours credit.*

Comprehensive course for teachers and administrators in public schools.

**272. RECREATION LEADERSHIP.** *Three hours credit.*

Prerequisite, senior or graduate standing. Reading, reports and projects covering the philosophy, methods, and materials for the recreation leader.

**274. METHODS AND MATERIALS IN DRIVER EDUCATION.** *Four hours credit.*

Prerequisite, driver's license. 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.

**280. CARE OF ATHLETIC INJURIES.** *Three hours credit.*

Prerequisites, H.P.E. 62, 120, 121, 122. Intensive course in care and treatment of athletic injuries with time devoted to each specific injury. The etiology, pathology, signs and symptoms, treatment, and adapted activities will be given for the major injuries.

**304. SCHOOL HEALTH ADMINISTRATION.** *Four hours credit.*

Designed to acquaint administrators, supervisors, and health educators with the planning and organizational aspects of the total school health program. Special attention is given to administrative and supervisory problems in health and safety instruction, health services and guidance, and healthful school living.

**305. PUBLIC HEALTH EDUCATION.** *Four hours credit.*

This course is designed to develop understanding and appreciation of the media and techniques used in health education of the public. Program planning and evaluation of procedures influencing public opinion and attitudes toward health and safety are considered.

**312 EVALUATION IN HEALTH AND PHYSICAL EDUCATION.** *Four hours credit.*

Prerequisite, H.P.E. 226. Designed to give the graduate student a sound background in the tools, techniques, and methods of evaluation. Special emphasis is given to the construction of both written and activity tests as well as the use of other evaluative tools.

**325. PHYSIOLOGY OF EXERCISE.** *Four hours credit.*

Prerequisites, H.P.E. 120, 121. Effect of muscular activities on the various systems and organs of the body.

**336. THE SCIENCE OF BODY MECHANICS. (Summers only.)** *Four hours credit.*

A course designed to analyze movement of various activities and the recognition of and exercises for remedial defects. Emphasis will be placed on problems of individual students in relationship to home or school situations.

**340. CURRICULUM IN HEALTH AND PHYSICAL EDUCATION.**

*Four hours credit.*

The principles underlying curriculum construction, the various elements making up a curriculum, and experience in building a curriculum in either the field of health or physical education.

**344. SUPERVISION OF PHYSICAL EDUCATION. *Four hours credit.***

Concepts, principles, organization, and techniques of supervision for use by superintendents, supervisors, and teachers in the construction or supervision of a physical education program.

**377. ORGANIZATION AND 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.

**401. ANALYSIS OF RESEARCH AND LITERATURE IN HEALTH AND PHYSICAL EDUCATION. (Summers only.) *Four hours credit.***

Appraisal of research and significant literature in health and physical education for the purpose of orienting the student to possible areas of research and developing understanding and appreciation of writings in the field.

**402. CHANGING PERSPECTIVES IN PHYSICAL EDUCATION. (Summers only.) *Four hours credit.***

The purpose of this course is to study the changing concepts of physical education throughout its history: to identify and analyze the forces which have influenced the program; and to determine the role which physical education should play in America today.

**403. RESEARCH SEMINAR IN HEALTH AND PHYSICAL EDUCATION. (Summers only.) *Four hours credit.***

Prerequisites, 300 and H.P.E. 401, or equivalent. Designed to serve the needs of doctoral candidates planning to conduct research in health education, physical education, or allied areas. Presents techniques and procedures in research and aids in the development of the required research outline for the doctoral degree.

**404. FOUNDATIONS FOR THE CURRICULUM IN HEALTH AND PHYSICAL EDUCATION. (Summers only.) *Four hours credit.***

A critical study and evaluation of the curriculum in health and physical education in light of basic principles and the current forces affecting education.

**405. HUMAN GROWTH AND DEVELOPMENT. (Summers only.) *Four hours credit.***

A study of the organic, structural, and social aspects of human growth and development as they affect teaching and learning in physical and health education and recreation.

**406. ADMINISTRATIVE INTERRELATIONSHIPS IN HEALTH, PHYSICAL EDUCATION AND RECREATION. (Summers only.) *Four hours credit.***

The purpose of this course is to develop a better understanding of and skill in the administrative process as applied to the numerous interrelationships involved in the operation of programs of health, physical education and recreation.

# Division of the Humanities

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The Division of the Humanities includes the fields of English, Foreign Languages, Speech, and Drama. Degrees and majors and minors offered are:

## **BACHELOR OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* English, English and Speech (Junior High School Level), Foreign Languages, Speech, Drama.

*Minors:* English, Language and Speech (Junior High School Level), Foreign Language, Speech, Drama.

## **BACHELOR OF ARTS DEGREE (Liberal Arts)**

*Majors:* English, Foreign Languages, Speech, Drama.

*Minors:* English, Foreign Language, Speech, Drama.

## **MASTER OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* English, a combined program in Speech and Drama.

## **SPECIALIST IN EDUCATION DEGREE**

*Area of Specialization:* To be selected.

## **DOCTOR OF EDUCATION DEGREE (With Teaching Certificate)**

*Area of Concentration:* English Education.

*Supporting Area:* English Education.

## **ENGLISH MAJOR**

### **Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Eng. 4b	- - Elementary English Composition	- - -	4
Eng. 50	- - Shakespeare	- - -	3
Four of the following courses:			12-13
Eng. 49	- - English Poetry from Chaucer to Milton	-	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.110a,borc	- - Creative Writing	- - -	2

Eng.	209	- -	Advanced Grammar and Syntax	- - - -	2
Eng.	210	- -	Advanced Expository Writing	- - - -	3
Eng.	211	- -	The English Language	- - - -	4
Eng.	226	- -	Literature and Materials in the Secondary School	- - - -	4
Eng.	257	- -	History of Ideas in English Literature	- - - -	3
			Electives	- - - -	3

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3. At least one minor of 27 quarter hours.

4. 24 to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

**English Minor**

<i>Course Number</i>		<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Eng. 4b or 210	- -	Elementary English Composition, Advanced Expository Writing	- -	3 or 4
Eng. 58a	- -	Survey of English Literature (700-1800)	- -	4
Eng. 58b	- -	Survey of English Literature (1800-the present)	- - - -	4
Eng. 58c	- -	Survey of American Literature	- - - -	4
Eng. 226	- -	Literature and Materials in the Secondary School	- - - -	4
Electives in English	- - - -		- - - -	7 or 8

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**ENGLISH MAJOR**

**Bachelor of Arts Degree (Liberal Arts)**

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.

2. Course requirements listed for the English Major for the Bachelor of Arts Degree (with teaching certificate) with the exception that substitutions may be made with the consent of the adviser.

3. One minor of 27 quarter hours.

4. Electives to complete requirements for graduation.

**English Minor**

<i>Course Number</i>		<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Eng. 4b	- -	Elementary English Composition	- - - -	3
		<i>or</i>		
Eng. 210	- -	Advanced Expository Writing	- - - -	4
Eng. 58a	- -	Survey of English Literature (700-1800)	- -	4
Eng. 58b	- -	Survey of English Literature (1800-the present)	- - - -	4
Eng. 58c	- -	Survey of American Literature	- - - -	4
Eng. 211	- -	The English Language	- - - -	4
Electives in English	- - - -		- - - -	7 or 8

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**ENGLISH AND SPEECH MAJOR (Junior High School Level)**

**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

Course Number	Course Title	Hours	Credit
Eng. 10	Freshman Literature	4	4
Eng. 49	English Poetry from Chaucer to Milton	3	3
Eng. 50	Shakespeare	3	3
Eng. 51	The Restoration and Eighteenth Century	3	3
Eng. 52	The Romantic Movement	3	3
Eng. 53	Victorian Prose and Poetry	3	3
Eng. 54	Contemporary English and American Literature	4	4
Eng. 60	American Literature to the Civil War	4	4
Eng. 61	American Literature Since the Civil War	4	4
Eng. 110a,b,c	Creative Writing	2	2
Eng. 227	Literature and Materials in the Junior High School	5	5
Eng. 228	The Teaching of Reading in the Junior High School	5	5
Sp. 124	Teaching Speech in Junior High School	4	4
	Elective	1	1
			48

4. 24 to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

3. At least one minor of 27 quarter hours.

### LANGUAGE AND SPEECH MINOR (Junior High School Level)

Course Number	Course Title	Hours	Credit
Eng. 4b	Elementary English Composition	4	4
Eng. 203	New Approaches to the Teaching of Grammar	3	3
Eng. 209	Advanced Grammar and Syntax	2	2
Eng. 210	Advanced Expository Writing	3	3
Eng. 211	The English Language	4	4
Sp. 123	Basic Speech and Oral Reading	5	5
Sp. 130	Drama in the Junior High School	5	5
	Elective	1	1
			27

### Description of Courses

#### HUMANITIES

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.

2. THE MIDDLE AGES AND THE RENAISSANCE. *Three hours credit.*

Following the same type of outline as for Humanities 1, Humanities 2 is a study of the cultural background, the arts and the philosophy of the Middle Ages and Renaissance.

3. THE EIGHTEENTH TO THE TWENTIETH CENTURIES. *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.

**1a. 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.

**2a. 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.

**3a. 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 theatre 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 has been studied previously.

**240. ADVANCED COURSE IN THE HUMANITIES.** *Four hours credit.*

Prerequisites, Hum. 1, 2, 3, or equivalent. The study of a specific great literary work in its setting of history, philosophic concepts, and contemporary arts. Offered only when requested by five or more students.

**330. GRADUATE READINGS COURSE IN THE HUMANITIES.** *Three hours credit.*

This course is designed to acquaint graduate students with some of the major concepts, terms, and creative figures in the fields of literature, art, painting, and music. This course not applicable to a graduate degree in Humanities.

## ENGLISH

**4a. ELEMENTARY ENGLISH COMPOSITION** *Five hours credit.*

A course in elementary expository writing, with instruction in functional grammar, paragraph organization, and development of coherent essays.

**4b. ELEMENTARY ENGLISH COMPOSITION.** *Four hours credit.*  
Continuation of Eng. 4a with special emphasis on matters of style.

**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.

**49. ENGLISH POETRY FROM CHAUCER TO MILTON.** *Three hours credit.*

Prerequisite, Eng. 10. A study of the poetry of England from the end of the Middle Ages through the Renaissance, including such authors as Chaucer, The Pearl Poet, Spenser, Sidney, Marlowe, Jonson, Shakespeare, Donne, Herbert, Herrick, and Milton.

**50. SHAKESPEARE.** *Three hours credit.*

Prerequisite, Eng. 10. A basic Shakespeare course for the English major with a special stress on plays that are usually taught in the public schools.

**51. THE RESTORATION AND EIGHTEENTH CENTURY.** *Three hours credit.*

Prerequisite, Eng. 10. A study of major writers of the period with attention to their influence on subsequent ideas and literary forms.

**52. THE ROMANTIC MOVEMENT.** *Three hours credit.*

Prerequisite, Eng. 10. 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.

**53. VICTORIAN PROSE AND POETRY.** *Three hours credit.*

Prerequisite, Eng. 10. 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.

**54. CONTEMPORARY ENGLISH AND AMERICAN LITERATURE.** *Four hours credit.*

Prerequisite, Eng. 10. 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.

**58a. SURVEY OF ENGLISH LITERATURE (700-1800).** *Four hours credit.* (Also offered by correspondence.)

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

**58b. SURVEY OF ENGLISH LITERATURE (1800-the present).** *Four hours credit.* (Also offered by correspondence.)

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

**58c. SURVEY OF AMERICAN LITERATURE.** *Four hours credit.* (Also offered by correspondence.)

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

**60. AMERICAN LITERATURE TO THE CIVIL WAR.** *Four hours credit.*

Prerequisite, Eng. 10. 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.

**61. AMERICAN LITERATURE SINCE THE CIVIL WAR.** *Four hours credit.*

Prerequisite, Eng. 10. 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, Sandberg, Faulkner, and Eliot.

**101. NEWSWRITING.** *Three hours credit.*

Principles of gathering and writing of news and feature stories, writing of editorials, editing and preparation of copy with emphasis upon educational news.

**110a,b,c. CREATIVE WRITING.** *Two hours credit.*

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



- 150. SHAKESPEARE—INTERMEDIATE COURSE.** *Four hours credit.*  
Prerequisite, Eng. 50. An intensive study of selected comedies, histories, and tragedies of Shakespeare, with special emphasis on critical reading of the texts, dramaturgy, and recent critical studies.
- 200. WORKSHOP IN THE TEACHING OF ENGLISH.** (Summers only.) *Maximum of nine hours credit.*  
A series of workshops in special problems in the teaching of English, conducted by authorities in the field.
- 201. JOURNALISM—THE SCHOOL NEWSPAPER AND ANNUAL.** *Three hours credit.*  
Instruction in all phases of preparation and publication of school newspapers and annuals.
- 203. NEW APPROACHES TO THE TEACHING OF GRAMMAR.** *Three hours credit.*  
A study of recent research in the grammar of the English language and an application of the results of the research to the study and teaching of English grammar.
- 204. DEVELOPMENTAL READING IN GRADES 7, 8, 9.** (Summers only.) *Four hours credit.*  
A study of what should constitute a junior high school reading program—content, materials, and methods of instruction.
- 209. ADVANCED GRAMMAR AND SYNTAX.** *Two hours credit.*  
A course in grammatical and syntactical relationships within the English sentence, with emphasis on the logic and conventions of the patterns in acceptable English usage. This course is designed also to indicate to the prospective teacher of English the relative importance that should be given to teaching certain elements of grammar and syntax within the secondary school curriculum and to assist the teacher in explaining to students how to construct their writing according to a logical pattern of syntax and grammar.
- 210. ADVANCED EXPOSITORY WRITING.** *Three hours credit.*  
Prerequisites, Eng. 4a and 4b, or equivalent. 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.
- 211. THE ENGLISH LANGUAGE.** *Four hours credit.*  
The course presents a history of the development of the English language, the historical basis of usage and grammar, the sources of the English vocabulary, and the problem of communication.
- 226. LITERATURE AND MATERIALS IN THE SECONDARY SCHOOL.** *Four hours credit.*  
Materials for teaching English in secondary schools. Principles for the selection of literature for high school pupils, and critical study of selected readings.
- 227. LITERATURE AND MATERIALS IN THE JUNIOR HIGH SCHOOL.** *Five 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.
- 228. THE TEACHING OF READING IN THE JUNIOR HIGH SCHOOL.** *Five hours credit.*  
Methods and materials to be used in the teaching of reading, both developmental and remedial, in grades 7, 8, and 9.
- 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.

**232. TECHNIQUES OF THE NOVEL.** *Five hours credit.*

A study of seven or eight important English and American novels from Fielding to Faulkner to show different techniques which have been used to reveal the novelists' artistic insight.

**235. CONTEMPORARY AMERICAN DRAMA.** *Three hours credit.*

A comprehensive view of the best dramatic literature of the modern American theatre; lectures, discussions, and readings from a selected list of contemporary dramas.

**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.

**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.

**255c. ELIZABETHAN DRAMA EXCLUSIVE OF SHAKESPEARE.**  
(Summers only.) *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.

**257. HISTORY OF IDEAS IN ENGLISH LITERATURE.** *Three hours credit.*

A synthesis of the literary periods in English literature through a study of ideas.

**258a. READINGS IN ENGLISH LITERATURE FROM 700-1800.**  
(Summers only.) *Four hours credit.*

A survey of English literature from Beowulf to the Romantic Movement.

**258b. READINGS IN ENGLISH LITERATURE FROM 1800 TO THE PRESENT.** (Summers only.) *Four hours credit.*

A survey of English literature from the Romantic Movement to the present time.

**258c. READINGS IN AMERICAN LITERATURE TO 1865.** (Summers only.) *Four hours credit.*

A survey of the beginnings of American literature until the time of the Civil War.

**258d. READINGS IN AMERICAN LITERATURE SINCE 1865.** (Summers only.) *Four hours credit.*

A survey of modern American literature.

**289a. LITERATURE OF THE OLD TESTAMENT.** *Three hours credit.* (Also offered by correspondence.)

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.

**289b. LITERATURE OF THE NEW TESTAMENT.** *Three hours credit.* (Also offered by correspondence.)

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.

**302. THE AMERICAN CRITICS.** *Three hours credit.*

A seminar for graduate students in theory and practice of criticism of literature in America. The major critics and the recognizable "schools" are analyzed.

**303. RECENT ENGLISH AND AMERICAN POETS.** *Three hours credit.*

Prerequisite, Eng. 239. A history of recent poetry in English from the Imagists to the present.

**304. THE GREEK DRAMA.** (Summers only.) *Four hours credit.*

A study of the dramas of Aeschylus, Sophocles, Euripides and Aristophanes to note the development of dramatic technique and the developing ideas from the beginnings of classicism, through the golden age, to decadence.

**311. THE ENGLISH ROMANTIC MOVEMENT.** *Four hours credit.*

The origin, purpose and nature of the Romantic Movement. A study of the poetry and criticism of Wordsworth, Coleridge, Shelley, Keats and Byron; the prose of Lamb, Hazlitt and DeQuincey.

**312. OLD ENGLISH.** (Summers only.) *Four hours credit.*

Anglo-Saxon grammar and vocabulary. Reading of important documents from the period—Alfred's Translations, Charters and Historical Documents, Anglo-Saxon poetry, etc. Emphasis on background for contemporary grammar.

**313. CHAUCER AND MIDDLE ENGLISH.** *Five hours credit.*

Writings of Geoffrey Chaucer (especially *The Canterbury Tales* and *Troilus and Criseyde*) in Middle English: selected writings to illustrate both the literary qualities and linguistic aspects of Middle English.

**314. SHAKESPEARE SEMINAR.** *Four hours credit.*

Detailed study of three of the great plays, introduction to Shakespearean scholarship, and a review of Shakespearean criticism. Offered only when five or more students request the course.

**315. MILTON SEMINAR.** *Four hours credit.*

A study of Milton's major prose and poetry. Offered only when five or more students request the course.

**316. SEMINAR IN TENNYSON AND BROWNING.** *Four hours credit.*

A review of the shorter poems of both men and a special stress on some of the longer works (*Maud*, *Idylls of the King*, *The Ring and the Book*) and an introduction to the critical writings about Tennyson and Browning. Offered only when five or more students request the course.

**317a. SEMINAR IN MAJOR AMERICAN WRITERS I.** *Four hours credit.*

A study of selected American writers with special emphasis on their relation to the currents of American thought. Reports by each member of the class will be determined by the interest of the student.

**317b. SEMINAR IN MAJOR AMERICAN WRITERS II.** *Four hours credit.*

A study of selected later American writers with special emphasis on their relation to the currents of American thought. Reports by each member of the class will be determined by the interest of the student.

**318. SEMINAR IN RESTORATION AND EIGHTEENTH CENTURY DRAMA.** (Summers only.) *Four hours credit.*

A study of the types of plays written between 1660 and 1800, with particular attention to heroic tragedy, comedy of manners, and sentimental drama, as represented by such writers as Dryden, Wycherley, Etherege, Otway, Congreve, Steele, Addison, Goldsmith, and Sheridan. Offered only when five or more students request the course.

**319. LITERATURE OF THE EIGHTEENTH CENTURY.** (Summers only.) *Four hours credit.*

A study of the leading writers of the eighteenth century, with emphasis being placed on the works of Pope, Swift, Boswell, and Johnson as major figures of the century. Major ideas emanating from the century will also be stressed.

**320. SEMINAR IN VICTORIAN LITERATURE.** *Five hours credit.*  
Prerequisite, English major. A graduate course, for intensive individual research into the problems of the Victorian Era that bear upon major British writers: the relations between the literature and developments in politics, philosophy, religion, art, science, publication and the like that give distinctive meaning to the term "Victorian."

**323. MODERN ENGLISH PHILOLOGY AND USAGE.** *Four hours credit.*

Prerequisite, Eng. 211 or equivalent. An examination of the bases of current English usage, designed to acquaint the student with such matters as sound-changes, theories of correctness in grammar and pronunciation, and current discoveries or tendencies in linguistic science.

**325. SEMINAR IN WORLD LITERATURE.** (Summers only.) *Four hours credit.*

The study in translation of one great work of non-English or American literature or of a small group of such masterpieces which are closely related either in form or idea. The selections vary with the needs of the students and the interest of the instructor.

**326. RECONSTRUCTING THE ENGLISH CURRICULUM.** (Summers only.) *Four hours credit.*

A study of the place of English in the curriculum of the secondary school, with a consideration of appropriate materials and their placement.

**ENGLISH EDUCATION****301. THE TEACHING OF GRAMMAR (NEW AND TRADITIONAL).** (Summers only.) *Four hours credit.*

Prerequisite, Eng. 209 or equivalent. The origins, underlying assumptions, and processes of both the traditional grammar and the formal, linguistic grammar. The method of teaching grammatical concepts.

**302. THE TEACHING OF COMPOSITION.** (Summers only.) *Four hours credit.*

Methods of improving the composition of high school students. The organization of paragraph and theme. The improvement of sentence structure.

**350. SEMINAR IN LITERATURE FOR ADOLESCENTS.** (Summers only.) *Four hours credit.*

A concentrated study of and first-hand acquaintance with books written for adolescents, with emphasis upon junior novels and junior biographies. Consideration of reading guidance based upon student interests and needs. Development of criteria for evaluating literature for adolescents.

**FOREIGN LANGUAGES MAJOR****Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

A. FOR BEGINNING STUDENTS IN LANGUAGES

1. Three years of one language (French, Spanish, or German) 36
2. One year of second language - - - - - 12-15

B. FOR STUDENTS WITH LANGUAGE IN HIGH SCHOOL

1. If a student has had adequate basic courses, he may start his college work with the intermediate course, planning his program in the major and minor language with his adviser for a total of 48 hours.

**Please note**—except as provided above in B, no college credit will be given for language courses taken in high school.

3. One minor of 27 quarter hours.

4. 24 to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

### FOREIGN LANGUAGE MINOR

The following program is required: (1) Two years of one language plus methods in the teaching of foreign languages at either elementary or secondary level, as follows: Ed. 140, 141, or F. Lang. 231, or F. Lang. 232.

### FOREIGN LANGUAGES MAJOR

#### Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.
2. Course requirements listed for the Foreign Language Major for the Bachelor of Arts Degree (with teaching certificate).
3. One minor of 27 quarter hours.
4. Electives to complete requirements for graduation.

### FOREIGN LANGUAGE MINOR

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

### Description of Courses

#### FRENCH

1. ELEMENTARY FRENCH I. *Five hours credit.*

Summer Session: Must enroll for French 2 and 3. Completion of three quarters necessary to earn credit. 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.

**2. ELEMENTARY FRENCH II.** *Five hours credit.*

Summer Session: Must enroll for French 1 and 3. Completion of three quarters necessary to earn credit. 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.

**3. ELEMENTARY FRENCH III.** *Five hours credit.*

Summer Session: Must enroll for French 1 and 2. Completion of three quarters necessary to earn credit. 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.

**5. INTERMEDIATE FRENCH COMPOSITION.** *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.

**6. INTERMEDIATE FRENCH CONVERSATION.** *Four hours credit.*

Prerequisites: two years 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 French 5.)

**7. INTERMEDIATE FRENCH FICTION.** *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 French 5 or 6.)

**105. SURVEY OF FRENCH LITERATURE I.** *Three hours credit.*

Prerequisite, two years of college French or the equivalent. A study of French literature from the eleventh century to the first World War. Reading of an anthology, with lectures and discussion in French. French 105 deals with medieval and Renaissance literature.

**106. SURVEY OF FRENCH LITERATURE II.** *Three hours credit.*

Prerequisite, two years of college French or the equivalent. A study of French literature from the eleventh century to the first World War. Reading of an anthology, with lectures and discussion in French. French 106 deals with the literature of the seventeenth and eighteenth centuries.

**107. SURVEY OF FRENCH LITERATURE III.** *Three hours credit.*

Prerequisite, two years of college French or the equivalent. A study of French literature from the eleventh century to the first World War. Reading of an anthology, with lectures and discussion in French. French 107 deals with nineteenth and early twentieth century literature.

**225. EIGHTEENTH CENTURY FRENCH LITERATURE.** *Three hours credit.*

Prerequisite, two years of college French or the equivalent. French literature and thought in the eighteenth century and their influence on Europe and the United States. Readings and lectures in French.

**226. FRENCH ROMANTICISM.** *Three hours credit.*

Prerequisite, two years of college French or the equivalent. The Romantic Movement in France in relation to the movement elsewhere in Europe. Readings, lectures and discussion in French.

**227. TWENTIETH CENTURY FRENCH LITERATURE.** *Three hours credit.*

Prerequisite, two years of college French or the equivalent. A study of French literature since the first World War, with emphasis on the contemporary period. Lectures, individual readings and reports.

**GERMAN****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 a sufficient understanding of grammar and sentence structure to enable the student to read without mental translation. Stress is laid on the phonological and grammatical relation of German to English.

**2. ELEMENTARY GERMAN II.** *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 a sufficient understanding of grammar and sentence structure to enable the student to read without mental translation. Stress is laid on the phonological and grammatical relation of German to English.

**3. ELEMENTARY GERMAN III.** *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 a sufficient understanding of grammar and sentence structure to enable the student to read without mental translation. Stress is laid on the phonological and grammatical relation of German to English.

**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.

**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 German 5.)

**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.

**105. SURVEY OF GERMAN LITERATURE.** *Three hours credit.*

Prerequisites, two years of college German or equivalent. 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.

**106. SURVEY OF GERMAN LITERATURE.** *Three hours credit.*

Prerequisites, two years of college German or equivalent. 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.

**107. SURVEY OF GERMAN LITERATURE.** *Three hours credit.*  
Prerequisites, 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.

## ITALIAN

**1. ELEMENTARY ITALIAN I.** *Five hours credit.*

Completion of three quarters necessary to earn credit. 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.

**2. ELEMENTARY ITALIAN II.** *Five hours credit.*

Completion of three quarters necessary to earn credit. 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.

**3. ELEMENTARY ITALIAN III.** *Five hours credit.*

Completion of three quarters necessary to earn credit. 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.

**5. INTERMEDIATE ITALIAN.** *Four hours credit.*

Prerequisites: two years of high school Italian or one year of college Italian. A grammar review followed by the reading of modern Italian prose.

**6. INTERMEDIATE ITALIAN.** *Four hours credit.*

Prerequisite, Italian 5. A continuation of Italian 5 with more advanced reading and composition and conversation.

**7. INTERMEDIATE ITALIAN.** *Four hours credit.*

Prerequisite, Italian 6. The study of Italian authors. Oral and written reports in Italian. A continuation of work in composition.

## LATIN

**1. ELEMENTARY LATIN I.** *Five hours credit.*

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 in vocabulary, word derivations and comparative grammar.

**2. ELEMENTARY LATIN II.** *Five hours credit.*

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 in vocabulary, word derivations and comparative grammar.



**3. ELEMENTARY LATIN III.** *Five hours credit.*

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 in vocabulary, word derivations and comparative grammar.

**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.)

**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.)

**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, exercises in composition, and an introduction to the system of Latin versification.

**RUSSIAN****1. ELEMENTARY RUSSIAN I.** *Five hours credit.*

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.

**2. ELEMENTARY RUSSIAN II.** *Five hours credit.*

Prerequisite, Russian I or equivalent. An introduction to spoken and written Russian with a view toward giving the student a sound knowledge of the structure of the language and a high-frequency vocabulary of approximately 1,100 words. Audio-visual aids will be used as needed.

**3. ELEMENTARY RUSSIAN III.** *Five hours credit.*

Prerequisite, Russian 1 and 2 or equivalent. An introduction to spoken and written Russian with a view toward giving the student a sound knowledge of the structure of the language and a high-frequency vocabulary of approximately 1,100 words. Audio-visual aids will be used as needed.

**5. INTERMEDIATE RUSSIAN.** *Four hours credit.*

Prerequisites, Russian 1, 2, 3 or equivalent. Review of Russian grammar, imitative composition and the reading of intermediate Russian texts.

**6. INTERMEDIATE RUSSIAN COMPOSITION AND CONVERSATION.** *Four hours credit.*

Prerequisite, Russian 5 or equivalent. A continuation of Russian 5 but emphasizing more intensive reading, oral reports, advanced composition and more extensive conversation.

**7. INTERMEDIATE RUSSIAN COMPOSITION AND CONVERSATION.** *Four hours credit.*

Prerequisite, Russian 6 or equivalent. A continuation of Russian 6. A study of three Russian authors in their shorter works (Turgenev, Lermontov, Pushkin). Oral reports, advanced composition, and translation.

**SPANISH****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.

**2. ELEMENTARY SPANISH II.** *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.

**3. ELEMENTARY SPANISH III.** *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.

**5. INTERMEDIATE SPANISH.** *Four hours credit.*

Prerequisite, two years of high school or one year of college foreign language. 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.

**6. INTERMEDIATE SPANISH.** *Four hours credit.*

Prerequisites, two years or more high school or 1¼ year college foreign language. A continuation of Spanish 5 but emphasizing more intensive reading, oral reports, advanced composition and extensive conversation based on Spanish and Spanish-American culture.

**7. INTERMEDIATE SPANISH.** *Four hours credit.*

Prerequisites, two years or more high school or 1½ years college foreign language. A continuation of Spanish 6. Based on Spanish-American cultural materials, sources, films, audio-visual materials and a higher level of all-around comprehension and fluent functional use of the language and culture.

**105. SURVEY OF SPANISH LITERATURE AND CIVILIZATION.**  
*Three hours credit.*

Prerequisite, two years of college Spanish or the equivalent. An introduction and orientation to Spanish literature and the high points of Spain's civilization and culture. This is not a translation course. The use of the Spanish language is most important.

**106. SURVEY OF SPANISH-AMERICAN LITERATURE.** *Three hours credit.*

Prerequisite, two years of college Spanish or the equivalent. The beginning of Spanish-American literature; its development and influence into the colonial period. The leading authors and their role in national life.

**107. SURVEY OF LATIN-AMERICAN LITERATURE.** *Three hours credit.*

Prerequisite, two years of college Spanish or the equivalent. A con-

tinuation of Spanish-American literature; its influence and its role in the national life of colonial Spanish America. The movements for independence reflected by leading South American writers. Modern literature and its influence.

**175. SPANISH READING.** *Three hours credit.*

Prerequisite, at least two years of college Spanish or more foreign languages. 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.

**205. THE HIGHLIGHTS OF SPANISH CIVILIZATION AND CULTURE.** (Summers only.) *Four hours credit.*

Prerequisite, two years or more of foreign languages. A study of some outstanding contributions and contributors to the organization and creation of Spanish culture and civilization from the time of Seneca. Emphasis is placed on the great philosophers, artists and other leaders who have made salient contributions to Spanish culture.

**209. SPANISH-AMERICAN LITERATURE.** (Summers only.) *Four hours credit.*

Prerequisite, two years or more of foreign languages. This course is designed to serve advanced students and teachers of Spanish. It consists of an anthology of Latin-American literature in Spanish, and a brief reference outline of the history of literature in English. Readings, discussions, and reports are in Spanish.

**216a. ADVANCED SPANISH READING IN LITERATURE I.** *Three hours credit.*

Prerequisites, two years or more foreign language. This is a study of early Spanish literature from the beginning to 1700 including the Golden Age.

**216b. ADVANCED SPANISH READING IN LITERATURE II.** *Three hours credit.*

Prerequisite, two years or more foreign language. This is a study of Spanish literature from 1700 to the present. A brief analysis of Spanish literature and important literary productions. Special readings of various types of literature, oral and written reports for discussion.

## FOREIGN LANGUAGES

**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.

**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.

**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.

**SPEECH OR DRAMA MAJOR**

**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in a major:

**DRAMA MAJOR**

<i>Course Number</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. 113	- -	Stagecraft	- - - -	3
Sp. 114	- -	Introduction to the Theater	- - - -	3
Sp. 115	- -	Beginning Characterization	- - - -	3
Sp. 116	- -	Beginning Play Direction	- - - -	4
Sp. 200	- -	Techniques of Play Direction	- - - -	3
Eng. 50	- -	Shakespeare	- - - -	3
		<i>or</i>		
Eng. 150	- -	Shakespeare—Intermediate Course	- - - -	4
Eng. 235	- -	Contemporary American Drama	- - - -	3
F.A. 65	- -	Beginning Scene Design	- - - -	3
Spec. Ed. 164	- -	Introduction to Speech Correction	- - - -	3
		Electives in Drama	- - - -	8 or 9
				48

**SPEECH MAJOR**

<i>Course Number</i>		<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Sp. 5	- -	Fundamentals of Speech	- - - -	2
Sp. 16	- -	Voice and Diction	- - - -	4
Sp. 62	- -	Public Speaking	- - - -	4
Sp. 63	- -	First Course in Drama	- - - -	4
Sp. 114	- -	Introduction to the Theater	- - - -	3
Sp. 117	- -	Oral Interpretation	- - - -	3
Sp. 118	- -	Argumentation and Debate	- - - -	3
Sp. 218	- -	Discussion Techniques	- - - -	4
Sp. 280	- -	American Public Address	- - - -	4
Spec. Ed. 164	- -	Introduction to Speech Correction	- - - -	3
Spec. Ed. 266	- -	Clinical Practice in Speech Correction	- - - -	1
		Electives	- - - -	13
				48

3. At least one minor of 27 quarter hours.

4. 24 to 32 quarter hours of electives to complete 180 quarter hours of academic credit required for graduation.

Students majoring or minoring in Speech or Drama are expected to participate in the activities related to those areas: theater production, forensics, and clinical practice.

**Drama Minor**

<i>Course Number</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.	113	- -	Stagecraft	- - - - -	3
Sp.	115	- -	Beginning Characterization	- - - - -	3
Sp.	116	- -	Beginning Play Direction	- - - - -	4
F.A.	65	- -	Beginning Scene Design	- - - - -	3
			Electives in Drama	- - - - -	3
					27

**Speech Minor**

Course Number		Course Title	Hours	Credit	
Sp.	5	- - Fundamentals of Speech	- - - - -	2	
<i>or</i>					
Sp.	62	- - Public Speaking	- - - - -	4	
Sp.	16	- - Voice and Diction	- - - - -	4	
Sp.	118	- - Argumentation and Debate	- - - - -	3	
Ed.	141	- - Teaching Speech in the Secondary Schools	- - - - -	3	
Spec. Ed.	164	- - Introduction to Speech Correction	- - - - -	3	
Spec. Ed.	266	- - Clinical Practice in Speech Correction	- - - - -	1	
Sp.	218	- - Discussion Techniques	- - - - -	4	
		Electives	- - - - -	5 or 7	
					27

**SPEECH OR DRAMA MAJOR**

**Bachelor of Arts Degree (Liberal Arts)**

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.
2. Course requirements listed for the Speech or Drama Major for the Bachelor of Arts Degree (with teaching certificate) with the exception that substitutions may be made with the consent of the adviser.
3. One minor of 27 quarter hours.
4. Electives to complete requirements for graduation.

**Speech or Drama Minor**

The liberal arts minor is the same as that listed with the teaching certificate; substitutes may be made with the consent of the adviser.

**Description of Courses**

**SPEECH AND DRAMA**

**5. FUNDAMENTALS OF SPEECH.** *Two hours credit.*

This is a basic course in speech designed to aid the student in acquiring ease, poise, and effectiveness in speech.

**13. INTRODUCTION TO STAGECRAFT.** *Three hours credit.*

The student is introduced to the basic problems of theatrical staging. 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.

**16. VOICE AND DICTION.** *Four hours credit.*

A study of the development and use of the speaking voice with particular attention to individual needs.

**18. INTERCOLLEGIATE FORENSICS.** *Two hours credit.*  
Prerequisite, permission of instructor. Primarily for those students participating in campus and intercollegiate programs in speech.

**45. 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.

**62. PUBLIC SPEAKING.** *Four hours credit.*  
Emphasis is placed on the preparation, organization, and presentation of the various types of speeches.

**63. FIRST COURSE IN DRAMA.** *Four hours credit.*  
An introduction to the basic principles of acting and dramatic production.

**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.

**112. CHILDREN'S THEATER.** *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.

**113. STAGECRAFT.** *Three hours credit. (Two hours lecture, two hours laboratory.)*  
Prerequisite, F.A. 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.

**114. INTRODUCTION TO THE THEATER.** *Four hours credit.*  
An introductory course to the theater which gives a comprehensive outline of the living stage, its players and craftsmen and its place in society from primitive drama to contemporary American and European theaters.

**115. BEGINNING CHARACTERIZATION.** *Three hours credit.*  
Prerequisite, Sp. 63. A lecture and laboratory course in characterization in which the student participates in college theater productions.

**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 theater productions.

**117. ORAL INTERPRETATION.** *Three hours credit.*  
The student is given an opportunity to read aloud in all the forms of literature and is aided in gaining skill in an artistic presentation.

**118. ARGUMENTATION AND DEBATE.** *Three hours credit.*  
A basic course designed to give the speaker experience and skill in debate.

**120. TEACHING DRAMA IN THE SECONDARY SCHOOL AND JUNIOR HIGH SCHOOL.** *Three hours credit.*  
Prerequisite, completion of courses listed for the minor. A study of the problems, projects and organization of materials suitable for use by high school students and those in junior high school.

**123. BASIC SPEECH AND ORAL READING.** *Five hours credit.*  
A course for prospective junior high school teachers. It is designed to develop basic speech skills and to provide meaningful learning experiences in speaking and oral reading.

**124. TEACHING SPEECH IN JUNIOR HIGH SCHOOL.** *Four hours credit.*

Must also register for Spec. Ed. 266. 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.

**130. DRAMA IN THE JUNIOR HIGH SCHOOL.** *Five hours credit.*

A course in the selection of materials for use in junior high school, and an examination of production methods, staging procedures, and the use of creative dramatics with junior high school students of drama.

**200. TECHNIQUES OF PLAY DIRECTION.** *Three hours credit.*

Prerequisites, Sp. 63, Sp. 115, Sp. 116. An advanced course in the direction of three-act and one-act plays for public presentation.

**208. INTRODUCTION TO RADIO AND TELEVISION PRODUCTION.** *Four hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisites, Eng. 4b, Sp. 16, Sp. 63, Sp. 116 or permission of instructor. This course includes a brief history of oral mass media, a survey in laymen's terms of the technical phenomena involved, a comparison of radio and television to other mass media, and a study of radio and television programs and production techniques.

**213. ADVANCED STAGING TECHNIQUES.** (Summers only.) *Four hours credit.*

Prerequisites, F.A. 65, Sp. 113, F.A. 232. Permission of the instructor. 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 theater.

**214. SUMMER THEATER WORKSHOP.** (Summers only.) *Four hours credit.*

Prerequisite, student must be a member of the summer theater company. Practical experience in acting and other aspects of theater work in the six productions done by the summer theater. Discussion, lecture, and laboratory procedures used.

**214a. SUMMER THEATER WORKSHOP I.** (Summers only.) *Three hours credit.*

Prerequisite, summer theater membership and/or permission of instructor. Workshop in techniques of acting, directing and technical work as observed in the daily rehearsal periods of the Little Theater of the Rockies. Student must spend 6-8 hours per day in rehearsals, either as player or technical assistant.

**214b. SUMMER THEATER WORKSHOP II.** (Summers only.) *Three hours credit.*

Prerequisite, summer theater membership and/or permission of instructor. Workshop in techniques of acting, directing and technical work as observed in the daily rehearsal periods of the Little Theater of the Rockies. Student must spend 6-8 hours per day in rehearsals, either as player or technical assistant.

**214c. SUMMER THEATER WORKSHOP III.** (Summers only.) *Three hours credit.*

Prerequisite, summer theater membership, and/or permission of instructor. Workshop in techniques of acting, directing and technical work as observed in the daily rehearsal periods of the Little Theater of the Rockies. Student must spend 6-8 hours per day in rehearsals, either as player or technical assistant.

**217. ADVANCED ORAL INTERPRETATION.** *Three hours credit.*  
Prerequisite, Sp. 117. Permission of instructor. The development of greater artistic skill in reading various forms of literature.

**218. DISCUSSION TECHNIQUES.** *Four hours credit.*  
Principles and practice in organizing, conducting, and participating in all forms of public discussion including round-tables, symposiums, debates, and forums.

**220. STAGE COSTUMING.** (Summers only.) *Four hours credit.*  
Prerequisites, F.A. 65, Sp. 113 and 116 or the equivalent. A study of the styles of costume used in the theater from primitive times to the present. Practical experience is gained through actual work in costume construction required by the Little Theater of the Rockies productions.

**228. TELEVISION IN EDUCATION.** *Four hours credit.*  
Prerequisites, E.P.G. 40, Speech 208 and permission of instructor. This course includes a brief study of the background of television in education, a survey of learning theory as it applies to television, a study of the research results available on televised education, and a study of the special problems of the teacher and television.

**248. WORKSHOP IN SPEECH EDUCATION.** (Summers only.) *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, evaluation, etc.

**250. SPEECH EDUCATION.** (Summers only.) *Four hours credit.*  
A seminar study of speech education: history, practices, and trends.

**250a. LABORATORY IN INSTRUCTIONAL MATERIALS IN TEACHING SPEECH.** (Summers only.) *Three hours credit.*  
A laboratory course in which students will study the availability and the use of motion picture films, filmstrips, records, and recording equipment in teaching speech and will develop and construct instructional aids such as motion pictures, slides, models, charts, etc.

**251. SPEECH FOR THE CLASSROOM TEACHER.** (Summers only.) *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 majors.

**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.

**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.

**280. AMERICAN PUBLIC ADDRESS.** *Four hours credit.*

A historical and critical study of representative American speakers and speeches.

**294. CRITICAL THINKING.** *Three hours credit.*

A study of evidence involved in the communication of knowledge and ideas.



**315. DIRECTING HIGH SCHOOL PLAYS.** *Three hours credit.*

The reading and discussion of plays suitable for production at the high school level. The projects in the course are designed to give the student practical experience in the direction of the players.

**316. SEMINAR IN THEATER PRODUCTION.** (Summers only.) *Four hours credit.*

Prerequisites, Sp. 200, 315. An analysis of the practical problems in theater production, acting techniques, and the technical phases of setting and lighting the stage.

**330. HISTORY OF THE THEATER.** *Three hours credit.*

Prerequisite, Sp. 114. A study of theaters, actors, and acting from primitive times to the present. The periods are illustrated with readings from representative plays. Emphasis is placed on the theater as a social and cultural institution.

**333. ADVANCED CHILDREN'S THEATER PRODUCTION.** *Four hours credit.*

Prerequisite, Sp. 112. An advanced course in the practical problems of production in a theater for children. Emphasis is placed on the educational possibilities of this type of theater and practical experience is gained through work with community groups and with junior high school students.

**350. SPEECH CRITICISM.** *Four hours credit.*

A study of public speaking in principle and practice, including the derivation and application of standards for judging effectiveness in speaking.

**360. GENERAL SEMANTICS.** (Summers only.) *Four hours credit.*

Prerequisite, Sp. 260 or equivalent. An analysis of language habits which lead to conflict, confusion, and prejudice, and the development of methods leading to greater accuracy and sanity in the use of language.

**370. 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.

**375. PHONETICS.** (Summers only.) *Four hours credit.*

The science of speech sounds with special application to the use of phonetics in speech instruction in elementary and secondary schools.

# Division of Music

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The Division of Music offers a complete program in the professional education of the teacher-musician with special emphasis upon the preparation of teachers of music for the public schools. The program includes all significant areas of music study such as music theory, sight reading and ear training, history and literature of music, public school music methods, and all areas of individual and ensemble music performance. Degrees and majors and minors offered are:

## **BACHELOR OF ARTS DEGREE (With Teaching Certificate)**

*Major:* Music Education.

*Minors:* Voice and Choral Music, Band and Band Instruments, Stringed Instruments and Orchestra, and Elementary Music Education.

## **BACHELOR OF ARTS AND BACHELOR OF MUSIC DEGREES (With Teaching Certificate)**

*Majors* Music Education (a five-year program)

## **MASTER OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* Music Education, Supervision of Music.

*Minors:* Voice and Choral Music, Band and Band Instruments, Stringed Instruments and Orchestra, and Elementary Music Education.

## **SPECIALIST IN EDUCATION DEGREE**

*Area of Specialization:* To be selected.

## **DOCTOR OF EDUCATION DEGREE (With Teaching Certificate)**

*Area of Concentration:* Music Education.

*Supporting Area:* Music Education.

## **MUSIC EDUCATION MAJOR**

### **Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Mus. 2a	- - Sight Singing and Notation	- - -	2
Mus. 2b	- - Sight Singing and Elementary Theory	- - -	2
Mus. 2c	- - Sight Singing and Harmonic Analysis	- - -	2
Mus. 10a,b,c	- - Beginning Class Piano I, II, III	- - -	-
	<i>or</i>		
Mus. 20a,b,c	- - Intermediate Class Piano I, II, III	- - -	3

Mus.	11a,b,c	- -	Beginning String Instruction I, II, III	- -	3
Mus.	50a,b,c	- -	Introduction to Music Education	- - -	6
Mus.	51a,b,c	- -	Advanced Sight Singing and Choral Literature	- - - - -	3
Mus.	52a,b,c	- -	Harmony	- - - - -	9
Mus.	58a	- -	Music Literature and Styles	- - - - -	1
Mus.	152	- -	Counterpoint	- - - - -	3
Mus.	153	- -	Form and Analysis	- - - - -	3
Mus.	154	- -	Instrumentation	- - - - -	3
Mus.	158a,b,c	- -	History of Music	- - - - -	6
Mus.	165	- -	Teaching Instrumental Music	- - - - -	2

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3. One minor of 27 quarter hours outside the Division of Music.

4. Electives to complete requirements for graduation.

Highly recommended elective courses leading to instrumental teaching emphasis:

Course Number	Course Title	Hours	Credit
Mus. 144	Mixed Concert Choir	- - -	3
Mus. 161a,b,c	Laboratory Orchestra I, II, III	- - -	3
Mus. 162a,b,c	Instrumental Techniques and Conducting I, II, III	- - -	3
Mus. 190	Clarinet Class	- - -	1
Mus. 191	Trumpet Class	- - -	1
Mus. 192	Brass Class	- - -	1
Mus. 193	String Class	- - -	1
Mus. 194	Percussion Class	- - -	1
Mus. 195	Double Reed Class	- - -	1
Mus. 196	Voice Class	- - -	1
Mus. 197	Flute and Saxophone Class	- - -	1
Mus. 220	Instrument Repair and Care	- - -	2
Mus. 241	Marching Band Techniques	- - -	2

Highly recommended elective courses leading to vocal teaching emphasis:

Course Number	Course Title	Hours	Credit
Mus. 58a,b,c	Music Literature and Styles	- - -	3
Mus. 161a,b,c	Laboratory Orchestra I, II, III	- - -	3
Mus. 166a,b,c	Choral Techniques and Conducting I, II, III	- - -	3
Mus. 190	Clarinet Class	- - -	1
Mus. 191	Trumpet Class	- - -	1
Mus. 194	Percussion Class	- - -	1
Mus. 211	Improvement of Instruction in Music Reading	- - -	3
Mus. 214	Choral Literature	- - -	3
Mus. 216	Music Methods and Materials for Class Voice Instruction	- - -	3
Mus. 277	Church Music	- - -	3
Mus. 278	Repertoire for Singers	- - -	3

### Music Proficiencies and Activity Requirements

*Major Performance*—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 under the tutorship of a private teacher.

*Piano*—The student must demonstrate the ability to play, at sight, a piano accompaniment suitable for community or classroom singing. The final piano test must be taken not later than registration day of the spring term of the student's junior year.

*Music Activity*—Continuous participation in one or more of the major music organizations of the college—band, orchestra, or chorus.

*Recital Attendance*—All music majors are required to attend student and faculty recitals.

The amount of credit earned in music activity and music performance courses to be applied toward degree requirements will be determined for each student individually upon recommendation of the student's adviser and the Chairman of the Division of Music.

### **Admission to Advanced Professional Program**

The advanced professional program in public school music begins with the junior year. At the close of the sophomore year the student (1) makes formal application for admission to the program, (2) requests an appraisal of his freshman and sophomore record, (3) appears before Music Division faculty juries in which he demonstrates his achievement in music performance, sight reading, theory, and his general personal and professional fitness to teach, (4) must pass a functional piano examination, and (5) pass a compulsive written examination in both aural and written theory, basic introductory concepts in public school music, and music literature and styles.

*Graduate Students*—In addition to satisfying the requirements for the Master of Arts degree as stated in the graduate section of this catalog, the music major will be expected to complete the following core courses:

Course Number	Course Title	Hours	Credit
Mus. 250	Seminar in Music Education	- - - -	3-4
Mus. 270a,b or c	Advanced Harmony and Form Analysis	- - - -	3-4
Mus. 370	Aural Theory	- - - -	3-4

## **MUSIC EDUCATION MAJOR**

### **Bachelor of Arts (With Teaching Certificate) and**

#### **Bachelor of Music Degrees—Five-Year Combined Course**

Admission to candidacy for the combined Bachelor of Arts and Bachelor of Music degrees is based upon the recommendation of a Music Division 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:

**Music and Music Education Courses**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Bachelor of Arts Degree (with teaching certificate)	- - - -	- - - -	186
(Includes 6 quarter hours of physical education activity courses)			
Additional applied music	- - - -	- - - -	27
Music elective courses*	- - - -	- - - -	18

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\*Select from the following:

Mus.	214	- -	Choral Literature	- - - -	- - - -	3-4
Mus.	215	- -	Instrumental Literature	- - - -	- - - -	3-4
Mus.	250	- -	Seminar in Music Education	- - - -	- - - -	3-4
Mus.	262	- -	Symphonic Literature	- - - -	- - - -	3
Mus.	276	- -	Survey of American Music	- - - -	- - - -	3
Mus.	277	- -	Church Music	- - - -	- - - -	3
Mus.	278	- -	Repertoire for Singers	- - - -	- - - -	3
Mus.	295	- -	The Art of Music Listening	- - - -	- - - -	3-4

*Music Proficiencies*—Complete the proficiency requirements outlined for the Bachelor of Arts degree. In addition, the student will supplement this proficiency requirement by:

*Major Performance*—Complete 27 additional quarter hours of work in his major instrument. The student will register for three quarter hours of work in his major instrument each term through the third, fourth and fifth years of study.

*Recital*—Each candidate for the combined degrees will present a compete graduation recital.

**Music Education Minors**

**Voice and Choral Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>		
Mus.	2a,b,c	- -	Sight Singing and Ear Training	- - - -	6
Mus.	30	- -	Individual Instruction in Voice	- - - -	3
Ed.	150e	- -	Observation and Participation in		
			Secondary School Music	- - - -	2
Mus.	166a,b,c	- -	Choral Techniques and Conducting I, II, III		3
Mus.	216	- -	Methods and Materials for Class Voice		
			Instruction	- - - -	3
Mus.	278	- -	Repertoire for Singers	- - - -	3
			Choral Activity	- - - -	4
			Electives	- - - -	3

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**Band and Band Instruments Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>		
Mus.	2a,b,c	- -	Sight Singing and Ear Training	- - - -	6
Mus.	35	- -	Individual Instruction in Woodwind		
			Instruments	- - - -	
			or		
Mus.	36	- -	Individual Instruction in Brass Instruments		6
Mus.	162a,b,c	- -	Instrumental Techniques and		
			Conducting I, II, III	- - - -	3
Mus.	165	- -	Teaching Instrumental Music	- - - -	2
Mus.	190	- -	Clarinet Class	- - - -	1
Mus.	191	- -	Trumpet Class	- - - -	1
Mus.	192	- -	Brass Class	- - - -	1
Mus.	194	- -	Percussion Class	- - - -	1

Mus.	195	- -	Double Reed Class	- - - - -	1
Mus.	197	- -	Flute and Saxophone Class	- - - - -	1
			Electives	- - - - -	4
					27

**Stringed Instruments and Orchestra Minor**

Course Number	Course Title	Hours	Credit		
Mus. 2a,b,c	Sight Singing and Ear Training	- - - - -	6		
Mus. 11a,b,c	Beginning String Instruction I, II, III	- - - - -	3		
Mus. 32	Individual Instruction in Stringed Instruments	- - - - -	6		
Mus. 143	College Orchestra	- - - - -	4		
Mus. 161a,b,c	Laboratory Orchestra I, II, III	- - - - -	3		
Mus. 162a,b,c	Instrumental Techniques and Conducting I, II, III	- - - - -	3		
	Electives	- - - - -	3		
					27

**Music Minors for Elementary Education Majors****PLAN A**

Course Number	Course Title	Hours	Credit		
Mus. 10a,b,c	Beginning Class Piano I, II, III	- - - - -			
	<i>or</i>				
Mus. 20a,b,c	Intermediate Class Piano I, II, III	- - - - -			
	<i>or</i>				
Mus. 31	Individual Instruction in Piano	- - - - -	4		
Mus. 48a,b	Music Fundamentals for Elementary Teachers	- - - - -	4		
Mus. 149	Music Methods and Materials for Elementary Teachers	- - - - -	3		
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		
	Music Activity—Band, Orchestra or Chorus	- - - - -	4		
	Electives	- - - - -	3		
					27

**PLAN B**

Course Number	Course Title	Hours	Credit		
Mus. 2a,b,c	Sight Singing and Ear Training	- - - - -	6		
Mus. 10a,b,c	Beginning Class Piano I, II, III	- - - - -			
	<i>or</i>				
Mus. 20a,b,c	Intermediate Class Piano I, II, III	- - - - -			
	<i>or</i>				
Mus. 31	Individual Instruction in Piano	- - - - -	3		
Mus. 50a,b,c	Introduction to Music Education	- - - - -	6		
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		
	Electives	- - - - -	3		
					27

**Description of Courses**

2a. SIGHT-SINGING AND NOTATION. *Two 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.

**2b. SIGHT-SINGING AND ELEMENTARY THEORY.** *Two hours credit.*

Prerequisite, Music 2a. 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.

**2c. SIGHT-SINGING AND HARMONIC ANALYSIS.** *Two hours credit.*

Prerequisites, Music 2a and 2b. Continuation of sight-reading, ear training and dictation; chords of seventh and ninth, cadences, analysis, and ear training of standard harmonic materials.

**10a. 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, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

**10b. 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.

**10c. 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.

**11a. BEGINNING STRING INSTRUCTION I.** *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.

**11b. 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 problem of string playing and their solution.

**11c. 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.

**20a. 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, technique, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

**20b. 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 styles necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

**20c. 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.

**21. INSTRUMENTAL ENSEMBLES. *Maximum of three hours credit.***

Instrumental ensembles include woodwind quartet, string quartet, string trio, and brass ensemble. Groups organized are based upon the talents and interests of the students.

**22. VOCAL ENSEMBLES. *Maximum of three hours credit.***

Vocal ensembles include men's glee club, women's glee club, trios, and quartets. Groups organized are based upon the talents and interests of the students.

**30. INDIVIDUAL INSTRUCTION IN VOICE. *Maximum of four hours credit.*****31. INDIVIDUAL INSTRUCTION IN PIANO. *One hour credit per quarter.*****32. INDIVIDUAL INSTRUCTION IN STRINGED INSTRUMENTS (VIOLIN, VIOLA, CELLO, BASS). *Maximum of four hours credit.*****33. INDIVIDUAL INSTRUCTION IN ORGAN. *Maximum of four credit.*****34. INDIVIDUAL INSTRUCTION IN PERCUSSION INSTRUMENTS. *Maximum of four hours credit.*****35. INDIVIDUAL INSTRUCTION IN WOODWIND INSTRUMENTS. *Maximum of four hours credit.***

Flute, clarinet, oboe, English horn, bassoon.

**36. INDIVIDUAL INSTRUCTION IN BRASS INSTRUMENTS. *One hour credit per quarter.***

Trumpet, French horn, trombone, baritone, tuba.

**48a. MUSIC FUNDAMENTALS FOR ELEMENTARY TEACHERS. *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.

**48b. MUSIC FUNDAMENTALS FOR ELEMENTARY TEACHERS. *Two hours credit.***

Prerequisite, Music 48a. This course is a continuation of Music 48a. Advanced music reading, dictation, and theory will be studied; the use of the keyboard for chord study and accompanying; the playing of simple melody instruments suitable for elementary grades; and the study of the background of the world's great music for elementary schools.

**50a. INTRODUCTION TO MUSIC EDUCATION. *Two hours credit.***  
Prerequisite, Music 2c. 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.**50b. INTRODUCTION TO MUSIC EDUCATION. *Two hours credit.***  
Prerequisite, Music 50a. A continuation of 50a. Methods and materials for the teaching of singing, music reading and related skills, music listening, and rhythm in the public school music program.



**50c. INTRODUCTION TO MUSIC EDUCATION.** *Two hours credit.*  
Prerequisite, Music 50b. A continuation of 50b. 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.

**51a. ADVANCED SIGHT-SINGING AND CHORAL LITERATURE.**  
*One hour credit.*

Prerequisites, Music 2a, 2b, 2c or equivalent. 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.

**51b. ADVANCED SIGHT-SINGING AND CHORAL LITERATURE.**  
*One hour credit.*

Prerequisite, Music 51a. 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.

**51c. ADVANCED SIGHT-SINGING AND CHORAL LITERATURE.**  
*One hour credit.*

Prerequisite, Music 51b. 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.

**52a. HARMONY.** *Three hours credit.*

Prerequisite, Music 2c. A review of scales, intervals, triads and their inversions. Correlated studies in ear training, dictation, sight-singing and composition. Normal chord progressions.

**52b. HARMONY.** *Three hours credit.*

Prerequisite, Music 52a. A structural harmony unit consisting of seventh chords, inversions, ninth chords and modulations. Correlated studies of ear training, dictation, sight-singing and composition.

**52c. HARMONY.** *Three hours credit.*

Prerequisite, Music 52b. A structural unit of chromatic harmony, altered chords, embellishing chords, modulations and original compositions.

**58a. MUSIC LITERATURE AND STYLES I.** *One hour 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.

**58b. MUSIC LITERATURE AND STYLES II.** *One hour 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.

**58c. MUSIC LITERATURE AND STYLES III.** *One hour 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.

**100. 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.

**140. VARSITY BAND.** *Maximum of two hours credit.*

Open to all students, regardless of major, who have had high school band experience. To provide music for athletic events and college functions. To read material suitable for use by high school bands.

**141. MARCHING BAND.** *One hour credit per quarter.*

Prerequisite, high school band experience. A study and practice of the fundamentals of drill and presentation of marching maneuvers and pageants at athletic events. Satisfies physical education requirement for Fall quarter.

**142. SYMPHONY ORCHESTRA.** *Maximum of four hours credit.*

The standard orchestral literature is performed. The materials used in high school organizations are thoroughly discussed with special emphasis devoted to contest and festival programs.

**143. CONCERT BAND.** *Maximum of three hours credit.*

Open to all students who demonstrate sufficient performing ability. To study, rehearse, and present advanced forms of concert literature.

**144. MIXED CONCERT CHOIR.** *Maximum of four hours credit.*

Prerequisites, previous musical experience and a suitable voice. The concert choir is made up of selected voices. The choir is open to all students in the college. Its purpose is to sing the best in choral literature, both a cappella and accompanied, oratorio, masses and operatic literature.

**145. MEN'S CONCERT CHOIR.** *Maximum of three hours credit.*

Open to all men who wish to participate in the singing of men's glee club music.

**146. WOMEN'S CONCERT CHOIR.** *Maximum of three hours credit.*

Open to all women who wish to participate in the singing of women's glee club music.

**147. CHORAL-AIRES.** *Maximum of three hours credit.*

Open to all students, regardless of major field. Members are chosen for ability to fit into highly selective vocal group. A study and practical application of complete range of choral literature, programming and staging techniques for the vocal ensemble. Presentation of public performances throughout the school year. Acceptance by audition only.

**148. MADRIGAL SINGERS.** *Maximum of three hours credit.*

A small performance group, composed of singers, selected because of suitability of voice and musicianship, to sing music of the madrigal period and type.

**149. MUSIC METHODS AND MATERIALS FOR ELEMENTARY TEACHERS.** *Three hours credit.*

Prerequisite, Music 48a. 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 of all aspects of the music program will be studied.

**151. PRINCIPLES OF PIANO TEACHING.** *Three hours credit.*

Prerequisite, early advanced piano skill. A laboratory course in piano teaching which includes piano readiness, teaching procedure, observation and participation in individual and group piano lessons, diagnosis of specific problems, individual differences, recital planning and preparation, and establishment of criteria for the selection of teaching materials.

**152. COUNTERPOINT.** *Three hours credit.*

Prerequisite, Music 52c. 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.

**153. FORM AND ANALYSIS.** *Three hours credit.*

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.

**154. INSTRUMENTATION.** *Three hours credit.*

Prerequisites, Music 152, 153. 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.

**158a. HISTORY OF MUSIC.** *Two hours credit.*

Prerequisites, Music 2a,b,c. The historical changes in music from earliest times to the end of the sixteenth century with emphasis on the changes in style.

**158b. HISTORY OF MUSIC.** *Two hours credit.*

Prerequisite, Music 158a. 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.

**158c. HISTORY OF MUSIC.** *Two hours credit.*

Prerequisite, Music 158b. A study of the musical changes caused by the romantic, post-romantic and impressionistic periods from 1800 to 1920.

**161a. LABORATORY ORCHESTRA I.** *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.

**161b. LABORATORY ORCHESTRA II.** *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.

**161c. LABORATORY ORCHESTRA III.** *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.

**162a. INSTRUMENTAL TECHNIQUES AND CONDUCTING I.**  
*One hour credit.*

Prerequisites, Music 2a,b,c; 51a,b,c; 52a,b,c. 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 preparation of the musical score. Extensive experience in interpretation of materials using the laboratory band and orchestra.

**162b. INSTRUMENTAL TECHNIQUES AND CONDUCTING II.**  
*One hour credit.*

Prerequisites, Music 2a,b,c; 51a,b,c; 52a,b,c. The techniques and practice of instrumental conducting. The development of hand 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.

**162c. INSTRUMENTAL TECHNIQUES AND CONDUCTING III.** *One hour credit.*

Prerequisites, Music 2a,b,c; 51a,b,c; 52a,b,c. 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.

**165. TEACHING INSTRUMENTAL MUSIC.** *Two 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.

**166a. CHORAL TECHNIQUES AND CONDUCTING I.** *One hour credit.*

This course provides the student with supervised experience in choral conducting. Problems and techniques considered and applied are rehearsal procedures, voice production, diction, tone color, dynamics, intonation, the organization of the high school choral group, the literature for the chorus.

**166b. CHORAL TECHNIQUES AND CONDUCTING II.** *One hour credit.*

This course provides the student with supervised experience in choral conducting. Problems and techniques considered and applied are rehearsal procedures, voice production, diction, tone color, dynamics, intonation, the organization of the high school choral group, and literature for the chorus.

**166c. CHORAL TECHNIQUES AND CONDUCTING III.** *One hour credit.*

This course provides the student with supervised experience in choral conducting. Problems and techniques considered and applied are rehearsal procedures, voice production, diction, tone color, dynamics, intonation, the organization of the high school choral group, and literature for the chorus.

**190. CLARINET CLASS.** *Maximum of three hours 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.

**191. TRUMPET CLASS.** *Maximum of three hours credit.*

A concentrated course in trumpet to develop a teaching knowledge of the instrument and to develop enough playing skill to demonstrate good tone, technique, and breath control.

**192. BRASS CLASS.** *Maximum of four hours credit.*

To develop a teaching knowledge of brass instruments. To acquire sufficient skill for purposes of demonstration.

**193. STRING CLASS.** *Maximum of three hours 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.

**194. PERCUSSION CLASS.** *Maximum of four hours 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.

**195. DOUBLE REED CLASS.** *Maximum of four hours 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.

**196. VOICE CLASS.** *Maximum of four hours credit.*

For beginning voice students, particularly elementary majors and majors in instrumental music. Course includes fundamentals of singing, interpretation and solo repertoire.

**197. FLUTE AND SAXOPHONE CLASS.** *Maximum of three hours credit.*

Prerequisite, Music 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.

**201. STAGE AND OPERA TECHNIQUES.** (Summers only.) *Four 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.

**202. OPERA WORKSHOP.** *Maximum of eight 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.

**210. MUSIC LITERATURE FOR ELEMENTARY GRADES.** *Three hours credit.*

Prerequisite, Music 48a and 149. 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.

**211. IMPROVEMENT OF INSTRUCTION IN MUSIC READING.** *Three hours credit.*

Prerequisites, Music 50a,b,c; Ed. 140, or Music 48a, 149. 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.

**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.

**214. CHORAL LITERATURE.** *Three hours credit.*

A study of choral literature for high school and community groups. The mixed chorus, girls' glee club, boys' glee club, the small vocal ensemble, and literature for church choirs. All examples will be read by the class.

- 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.
- 216. METHODS AND MATERIALS FOR CLASS VOICE INSTRUCTION.** *Three 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.
- 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.
- 218a. MUSIC FOR CLASSROOM TEACHERS AND SUPERVISORS I.** (Summers only.) *Three hours credit.*  
A series of three music workshop courses offered in succeeding Pre-Sessions. Some units of study are designed for the elementary classroom teacher; others for the music specialist. Included in the units of study are piano for the classroom teachers, the elementary school choir, teaching music reading, the marching band, percussion techniques, etc.
- 218b. MUSIC FOR CLASSROOM TEACHERS AND SUPERVISORS II.** (Summers only.) *Three hours credit.*  
A series of three music workshop courses offered in succeeding Pre-Sessions. Some units of study are designed for the elementary classroom teachers; others for the music specialist. Included in the units of study are piano for classroom teachers, the elementary school choir, teaching music reading, the marching band, percussion techniques, etc.
- 218c. MUSIC FOR CLASSROOM TEACHERS AND SUPERVISORS III.** (Summers only.) *Three hours credit.*  
A series of three music workshop courses offered in succeeding Pre-Sessions. Some units of study are designed for the elementary classroom teacher; others for the music specialist. Included in the units of study are piano for classroom teachers, the elementary school choir, teaching music reading, the marching band, percussion techniques, etc.
- 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.
- 223a. PRACTICUM IN BAND CONDUCTING AND PERFORMANCE.** (Summers only.) *Four hours credit.*  
Prerequisites, a satisfactory audition for the concert band; previous conducting experience. 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.
- 223b. PRACTICUM IN CHORAL CONDUCTING AND PERFORMANCE.** (Summers only.) *Four hours credit.*  
Prerequisite, one year of successful choral teaching experience. 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.

**223c. PRACTICUM IN ORCHESTRAL CONDUCTING AND PERFORMANCE.** (Summers only.) *Four hours credit.*

Prerequisite, a satisfactory audition for the concert orchestra and previous conducting experience. A workshop course in advanced orchestral conducting and performance. Provides opportunity for supervised conducting, analysis or orchestral material, problems of organization, a study of the literature of orchestral conducting and practice.

**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.

**250. SEMINAR IN MUSIC EDUCATION.** *Three hours credit.*

Prerequisites, Music 50a,b,c; Ed. 143, 144, 151. 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 students' problems.

**251. TEACHING SECONDARY SCHOOL MUSIC** (Summers only.) *Three or four hours credit.*

Prerequisites, Music 50a,b,c; Ed. 143, 151. A class in junior and senior methods and materials for advanced students and experienced teachers.

**256. PSYCHOLOGY OF MUSIC.** *Three hours credit.*

The subjects included in this course are measurements of musical talent, tests and measurements in music, the psychology of musical listening and musical performance.

**257. PHYSICS OF MUSIC INSTRUMENTS.** *Three hours credit.*

The objectives of this course are to develop an understanding of the physical principles of sound and a study of the acoustical problems in music performance.

**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.

**270a. ADVANCED HARMONY AND FORM ANALYSIS I.** *Three hours credit.*

Prerequisites, Music 52a,b,c. Harmonization of melodies and review of figured bass deriving from a detailed study of Bach Chorales. Analysis and composition of small forms leading to a survey of homophonic forms. Altered chords, modulation, non-chordalism, and extension devices as exemplified in music of the classic and romantic periods.

**270b. ADVANCED HARMONY AND FORM ANALYSIS II.** *Three hours credit.*

Prerequisite, Music 270a or its equivalent. A continuation of 270a with analysis and composition of the large forms. Further study of chromaticism with its resultant expansion of tonal resources as exemplified in nineteenth century music.

**270c. ADVANCED HARMONY AND FORM ANALYSIS III.** *Three hours credit.*

Prerequisites, Music 270a, 270b, or equivalent or by permission of instructor. Individual and group projects in composition, in conjunction with analysis of harmonic, stylistic, and formal aspects of large works. Techniques of contemporary idiom; study of changing forms in twentieth century music.

**274. TEACHING MUSIC APPRECIATION.** *Three hours credit.*  
Prerequisites, Music 50c, Music 149, Ed. 142, 143. 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.

**276. SURVEY OF AMERICAN MUSIC.** (Summers only.) *Four 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. For everyone, not musicians alone.

**277. 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.

**278. REPERTOIRE FOR SINGERS.** *Three hours credit.*

This course is designed to familiarize vocal students with the main sources of vocal repertoire from the leading schools such as the Italian, German, French, English and American. Special emphasis is given to material that will be suitable for high school teaching. Songs will be analyzed and presented in the class by the students and recordings.

**279b. ADMINISTRATION AND SUPERVISION OF THE MUSIC PROGRAM.** *Three hours credit.*

A course designed to acquaint the school administration with the problems of the administration and supervision of the music program. The content includes the place of music in the school program, music equipment, schedule, budget, instructional problems, and public relations in music.

**295. THE ART OF MUSIC LISTENING.** *Three hours credit.*

A course designed to provide the layman with essential information about music, and to contribute to those understandings that will make him a more intelligent listener. Content of the course includes music in its relation to significant historical epochs, the relation of the arts, and the developing of a familiarity with many examples of standard music literature.

**305. SUPERVISING ELEMENTARY TEACHERS OF MUSIC** (Summers only.) *Four hours credit.*

Procedures for supervising the music program in the elementary grades, cooperative curriculum building, planning courses of study and units of work, the induction of the beginning teacher, human relations, and in-service education of the classroom music teacher.

**306. TEACHER EDUCATION IN MUSIC.** (Summers only.) *Four hours credit.*

The teacher education program in music including both the pre-service and in-service education of the elementary classroom teacher, the teachers college music curriculum, the administration of college music, the junior college, and the music program in general education.

**310. PROBLEMS OF INSTRUMENTAL SUPERVISION.** (Summers only.) *Four hours credit.*

A discussion and study of the problems of instrumental supervision based upon an analysis of the professional problems found to exist in the field of teaching instrumental music.



**311. IMPROVEMENT OF INSTRUCTION IN INSTRUMENTAL MUSIC.** (Summers only.) *Four hours credit.*

A study of the instrumental approach in the development of pitch, rhythm, melody and sight reading. Special emphasis will be given to the development of instrumental performance and musicianship.

**317a. INSTRUMENTAL TECHNIQUES AND MATERIALS (VIOLIN AND VIOLA).** (Summers only.) *Four hours credit.*

Prerequisite, Music 193 or equivalent. A discussion and presentation of the methods used in both class violin and viola teaching and private lessons and a study of the materials used in class teaching. Continued proficiency in actual performance by the student.

**317b. INSTRUMENTAL TECHNIQUES AND MATERIALS (CELLO AND BASS).** *Four hours credit.*

Prerequisite, Music 193. This course provides an opportunity for the graduate student to study the techniques of cello and string bass, to gain additional proficiency in playing, to study materials suitable for all levels of instruction, and to become familiar with the solo and small ensemble literature for these instruments.

**317c. INSTRUMENTAL TECHNIQUES AND MATERIALS (WOODWINDS).** (Summers only.) *Four hours credit.*

Prerequisites, Music 190, 195 or 197. This course provides an opportunity for the graduate student to study the techniques peculiar to instruments of the woodwind family; to gain additional proficiency in playing; to study teaching materials suitable for both individual and group instruction; and to become familiar with the standard solo and small ensemble literature for these instruments.

**317d. INSTRUMENTAL TECHNIQUES AND MATERIALS (BRASS).** (Summers only.) *Four hours credit.*

Prerequisites, Music 191 or 192. An advanced course in the techniques, theories and problems of teaching and playing brass instruments.

**323. COMPARATIVE VOICE METHODS AND MATERIALS.** (Summers only.) *Four hours credit.*

A survey of the development of singing through the centuries, classifying the known theories and teaching concepts. Correlation of available sources of bibliographic information provides a core of organized information and orientation for research in this and related fields. Each student takes one private lesson per week.

**324. COMPARATIVE STRING METHODS AND MATERIALS.** (Summers only.) *Four hours credit.*

Prerequisite, Music 32. A comparison of the materials used in string teaching. The various methods for student requirements as they apply to individual cases.

**325. COMPARATIVE PIANO METHODS AND MATERIALS.** (Summers only.) *Four hours credit.*

A review of past and present piano methods, combined with the fundamentals of piano teaching and playing. Demonstrations of methods and techniques. Private lessons are required.

**350. PRACTICAL ARRANGING.** *Three hours credit.*

Prerequisite, Music 154. A project course in arranging for school instrumental and vocal groups. Projects include arranging for small ensembles in both standard and unusual combinations, transcription of parts to suit individual performers; the composing and arranging of instrumental and vocal descants for the enrichment of song literature.

**351. ADVANCED CONDUCTING.** *Three hours credit.*

Prerequisites, Music 162a,b,c or 166a,b,c. A laboratory course in advanced problems of instrumental and choral conducting. Supervised conducting experience is provided.

**360. HISTORICAL ANALYSIS OF MUSIC STRUCTURE.** *Three hours credit.*

Prerequisites, Music 158a,b,c. A detailed study of the structure of music from the period of plain song to the works of Palestrina. A thorough study of the cadential, harmonic, melodic and rhythmic changes which take place in this period.

**361. AESTHETICS AND CRITICISM.** *Three hours credit.*

A study of the standard literature of aesthetics. A consideration of art in its relation to experience with specific reference to the function of music in an educational program.

**362. SURVEY OF CONTEMPORARY MUSIC.** *Three hours credit.*

Prerequisite, knowledge of traditional harmony. This course will consider contemporary music from the standpoint of new content, new media and new techniques of composition. Historically, the survey will begin with the breakdown of the tonal system in the late nineteenth century and continue with detailed analyses of works of composers of the twentieth century.

**370. AURAL THEORY.** (Summers only.) *Four hours credit.*

A study of an aural approach to the problems of pitch and rhythm in music, with special emphasis on its application to music reading problems encountered in elementary and secondary schools.

**401. RESEARCH SEMINAR IN MUSIC EDUCATION.** (Summers only.) *Four hours credit.*

Analysis of studies in music education; writing and research techniques for dissertations and field studies; a survey of critical problems in music education; the preparation of the research outline.

**402. FOUNDATIONS OF MUSIC EDUCATION.** (Summers only.) *Four hours credit.*

A critical analysis of instructional procedures in teaching aural, rhythmic, and theoretical concepts in music. A study of philosophical, psychological, and sociological backgrounds of education as related to the arts. Symposium of advanced graduate students and music education faculty in addition to the regularly scheduled class meetings.

**420. CRITERIA FOR MUSIC ANALYSIS AND COMPARISON.** (Summers only.) *Four hours credit.*

Music 420 is designed as an introductory course to acquaint the candidate with the subtleties of analytical and comparative music problems.

**421. PRACTICUM IN ARRANGING AND PERFORMANCE.** (Summers only.) *Four hours credit.*

Prerequisite, Music 420. This course will deal with transcribing, editing, and performing of valuable music from unusable original forms to useful available material for pedagogic, historic and concert occasions. Stylistic practices will be given major consideration. Music of the Baroque and Pre-Baroque Eras will be the chief source of material.

# Division of the Sciences

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The Division of the Sciences includes the fields of General Science, Biology, Botany, Chemistry, Earth Science, Mathematics, Physics, Science Education, and Zoology. Degrees and majors and minors offered are:

## **BACHELOR OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* Biological Science, Chemistry, Physical Science, Mathematics, Mathematics (Junior High School Level), and Science.

*Minors:* Chemistry, Earth Science, Elementary Science, Biological Science, Mathematics, and Physics.

## **BACHELOR OF ARTS DEGREE (Liberal Arts)**

*Majors:* Biological Science, Chemistry, Physical Science, Mathematics, Medical Technology.

*Minors:* Biological Science, Chemistry, Earth Science, Elementary Science, Mathematics, Medical Technology Minor in Chemistry, and Physics.

## **MASTER OF ARTS DEGREE (With Teaching Certificate)**

*Majors:* Mathematics, Biological Science, Physical Science, Science Education.

## **SPECIALIST IN EDUCATION DEGREE**

*Area of Specialization:* To be selected.

## **DOCTOR OF EDUCATION DEGREE (With Teaching Certificate)**

*Area of Concentration:* Science Education.

*Supporting Areas:* Mathematics Education, Science.

## **SCIENCE MAJOR (With Concentration in Biological Science) Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Biol. 151	Cellular Biology	5
Bot. 22	General Botany	5
Bot. 23	General Botany	5
Chem. 40a	Principles of Chemistry I (5 hours)	
Chem. 40b	Principles of Chemistry II (5 hours)	

Chem.	40c	- -	Introductory Organic Chemistry (5 hours)	
			<i>or</i>	
Phys.	61	- -	General Physics—Mechanics and Heat (5 hours)	- - - - -
Phys.	62	- -	General Physics—Electricity (5 hours)	-
Phys.	63	- -	General Physics—Sound, Light and Atomic Physics (5 hours)	- - - - - 15
Zool.	11	- -	General Zoology—Invertebrate	- - - - - 5
Zool.	12	- -	General Zoology—Vertebrate	- - - - - 5
Biol. (electives to be selected with approval of student's adviser)				- 8
				— 48

3. One minor of 27 quarter hours. It is recommended that this minor be in Mathematics.

4. 24 to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

It is recommended that a Biological Science major plan his elective program with his major adviser in relation to the kind of position for which he wishes to qualify. At least one area in the major should include sufficient hours to qualify the student for teaching in any accredited school.

**Biological Science Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Biol. 151	- - Cellular Biology	- - - - -	5
Bot. 22	- - General Botany	- - - - -	5
Bot. 23	- - General Botany	- - - - -	5
Zool. 1	- - General Zoology—Invertebrate	- - - - -	5
Zool. 12	- - General Zoology—Vertebrate	- - - - -	5
Biology Electives			- - - - - 2
			— 27

Electives must be selected from: Biology 257, Conservation of Natural Resources; Biology 258, Field Biology; Biology 251, Evolution; Biology 252, Genetics and Eugenics; Botany 122, General Bacteriology; Zoology 216, Physiology of Narcotics and Stimulants; Zoology 217, Human Physiology.

**Earth Science Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Earth Sci. 130	- - General Meteorology	- - - - -	3
Earth Sci. 131	- - Descriptive Astronomy	- - - - -	3
Earth Sci. 231	- - Physical Geology	- - - - -	4
Earth Sci. 232	- - Historical Geology	- - - - -	4
Earth Sci. 233	- - Mineralogy	- - - - -	4
Electives to be selected from the following: E. Sci. 234, 235;			
Biology 257; Science 209			- - - - - 9
			— 27

**Elementary Science Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Sci. 109	- - Science for Elementary Teachers	- - -	3
Sci. 203	- - Natural Science for Childhood Education	-	4
Sci. 205	- - Physical Science Concepts for Elementary Teachers	- - - - -	4

Sci.	206	- -	Earth Science Concepts for Elementary Teachers - - - - -	4
Sci. Ed.	271	- -	Improvement of Science Instruction in the Elementary School - - - - -	4
Biol.	151	- -	Cellular Biology - - - - -	3
Science Electives		- - - - -		3
				27

Electives must be selected from: Biology 251, Evolution; Biology 257, Conservation of Natural Resources; Biology 258, Field Biology; Earth Science 130, General Meteorology; Earth Science 131, Descriptive Astronomy; Science 20, General Anthropology; Science 208, Elementary Science Workshop; Zoology 114, Ornithology.

**Science Minor for Home Economic Majors**

This minor consists of three or four quarters of chemistry and bacteriology (Botany 122) and electives with approval of adviser to complete 27 hours.

**SCIENCE MAJOR (With Concentration in Physical Science)  
Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Chem. 40a	- - Principles of Chemistry I - - - - -	5	
Chem. 40b	- - Principles of Chemistry II - - - - -	5	
Chem. 40c	- - Introductory Organic Chemistry - - - - -	5	
Phys. 61	- - General Physics—Mechanics and Heat - - - - -	5	
Phys. 62	- - General Physics—Electricity - - - - -	5	
Phys. 63	- - General Physics—Sound, Light, and Atomic Physics - - - - -	5	
Biol. 151	- - Cellular Biology - - - - -	5	
Bot. 22	- - General Botany (5 hours) - - - - -		
Bot. 23	- - General Botany (5 hours) - - - - -		
	<i>or</i>		
Zool. 11	- - General Zoology—Invertebrate (5 hours) - - - - -		
Zool. 12	- - General Zoology—Vertebrate (5 hours) - - - - -	10	
Phys. Sci. (electives to be selected with approval of student's adviser)	- - - - -	3	
		48	

3. One minor of 27 quarter hours. It is recommended that this minor be in Mathematics.

4. 24 to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

It is recommended that Physical Science major plan his elective program in relation to the kind of position for which he wishes to qualify. At least one area in the major should include sufficient hours to qualify the student for teaching in any accredited school.

**CHEMISTRY MAJOR****Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Chem. 142	Organic Chemistry	- - - - -	5
Chem. 144	Qualitative Analysis	- - - - -	5
Chem. 145	Quantitative Analysis	- - - - -	5
Chem. 243	Advanced Organic Chemistry	- - - - -	5
Chem. 246	Advanced Quantitative Analysis	- - - - -	5
Phys. 61	General Physics—Mechanics and Heat	- - - - -	5
Phys. 62	General Physics—Electricity	- - - - -	5
Phys. 63	General Physics—Sound, Light, and Atomic Physics	- - - - -	5
Chemistry (electives to be selected with approval of student's adviser)	- - - - -	- - - - -	8
			48

3. One minor of 27 quarter hours. It is recommended that this minor be in Mathematics.

4. 24 to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

**SCIENCE MAJOR (Junior High School Level)****Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Bot. 22	General Botany	- - - - -	5
Bot. 23	General Botany	- - - - -	5
Chem. 40a	Principles of Chemistry I	- - - - -	5
Chem. 40b	Principles of Chemistry II	- - - - -	5
Phys. 61	General Physics—Mechanics and Heat	- - - - -	5
Phys. 62	General Physics—Electricity	- - - - -	5
Zool. 11	General Zoology—Invertebrates	- - - - -	5
Zool. 12	General Zoology—Vertebrate	- - - - -	5
Earth Sci. 236	General Geology (If an Earth Science Minor is elected, select an additional four hours elective in place of Earth Sci. 236)	- - - - -	4
	Electives*	- - - - -	4
			48

\*Select a minimum of 4 hours from the following courses: Biol. 151; Bot. 122; or Chem. 40c.

3. One minor of 27 quarter hours.

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

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

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Phys. 63	General Physics—Sound, Light, and Atomic Physics	- - - - -	5
Earth Sci. 231	Physical Geology	- - - - -	4
Earth Sci. 232	Historical Geology	- - - - -	4
Earth Sci. 130	General Meteorology	- - - - -	3
Earth Sci. 131	Descriptive Astronomy	- - - - -	3
Biol. 251	Evolution	- - - - -	3
Biol. 257	Conservation of Natural Resources	- - - - -	4
Zool. 217	Human Physiology	- - - - -	4
Biol. 252	Genetics and Eugenics	- - - - -	5

**Chemistry Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Chem. 40a	Principles of Chemistry I	- - - - -	5
Chem. 40b	Principles of Chemistry II	- - - - -	5
Chem. 40c	Introductory Organic Chemistry	- - - - -	5
Chemistry (electives to be selected with approval of student's adviser)			12
			<hr/> 27

**Physics Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Phys. 61	General Physics—Mechanics and Heat	- - - - -	5
Phys. 62	General Physics—Electricity	- - - - -	5
Phys. 63	General Physics—Sound, Light, and Atomic Physics	- - - - -	5
Physics (electives to be selected with approval of student's adviser)			12
			<hr/> 27

**CHEMISTRY MAJOR**

**Bachelor of Arts Degree (Liberal Arts)**

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.
2. Course requirements listed for the Chemistry Major for the Bachelor of Arts Degree (with teaching certificate).
3. A mathematics minor of 27 quarter hours (through calculus).
4. Electives to complete requirements for graduation. It is recommended that a full year of physical chemistry be included together with organic qualitative analysis and a year of biological science or geology.

**SCIENCE MAJOR (With Concentration in Biological Science)**

**Bachelor of Arts Degree (Liberal Arts)**

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.

2. Course requirements listed for the Science Major with concentration in Biological Science for the Bachelor of Arts Degree (with teaching certificate).
3. One minor of 27 quarter hours preferably in mathematics.
4. Electives to complete requirements for graduation.

### **SCIENCE MAJOR (With Concentration in Physical Science) Bachelor of Arts Degree (Liberal Arts)**

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.
2. Course requirements listed for the Science Major with concentration in Physical Science for the Bachelor of Arts Degree (with teaching certificate).
3. One minor of 27 quarter hours preferably in Mathematics.
4. Electives to complete requirements for graduation.

### **Description of Courses**

#### **GENERAL SCIENCE**

##### **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.

##### **4. BIOLOGICAL SCIENCE.** *Three hours credit.*

Juniors or seniors are urged to take a substitute for this course. The study of important general concepts of the nature of life. Prepared especially to help students in understanding the nature of the human body and its reactions to its changing environment.

##### **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, and its materials and landscapes, and finally the weather.

##### **§20. GENERAL ANTHROPOLOGY.** (Credit may be obtained in Social Studies or Science.) *Five hours credit.*

The nature and scope of anthropology, organic man, the problems of race, the nature of culture, the gathering and production of food, economic organization, social organization, political organization, religion, language, education and the formation of personality, problems of culture change, acculturation and applied anthropology. Emphasis upon cultural anthropology.

##### **109. SCIENCE FOR ELEMENTARY TEACHERS.** *Three hours credit.*

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.

##### **203. NATURAL SCIENCE FOR CHILDHOOD EDUCATION.** (Summers only.) *Four hours credit.*

A content course that emphasizes basic understanding of animal and plant life to help teachers instruct children in the elementary school.



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 degree in science.

**205. PHYSICAL SCIENCE CONCEPTS FOR ELEMENTARY TEACHERS.** (Summers only.) *Four hours credit.*

This course is not applicable to a graduate degree in science. The fundamental concepts of physical science are presented to provide a background for teaching of physical science in the elementary school.

**206. EARTH SCIENCE CONCEPTS FOR ELEMENTARY TEACHERS.** *Four hours credit.*

This course not applicable to a graduate degree in science. The fundamental concepts in earth science, selected from astronomy, geology, and meteorology are presented to provide a background for the teaching of earth science in the elementary school.

**207. AEROSPACE EDUCATION WORKSHOP.** (Summers only.) *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.

**208. ELEMENTARY SCIENCE WORKSHOP.** (Summers only.) *Four hours credit.*

Provision is made for public school groups and individual teachers to organize science activities for their schools. Opportunity is provided for the solution of individual problems through the guidance of the instructors. Visual aids, laboratory materials, demonstrations, experiments, discussions, museums, children's literature, field trips and professional literature are other resources.

**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.

**§220. WORLD ETHNOLOGY.** (Credit may be obtained in Social Studies or Science.) *Three hours credit.*

Analysis of cultures different from our own in Asia, Africa, the Americas, Polynesia, Micronesia and adjacent areas, cultural and linguistic areas of the world.

**330. GRADUATE READINGS COURSE IN SCIENCE.** *Four hours credit.*

The required reading in several areas of science will consist of books written for the adult lay reader. Designated books will be required and a recommended supplementary reading list will be supplied. Each book will be the basis for class discussion and comment. This course not applicable to a graduate degree in science.

## **SCIENCE EDUCATION**

**270. TEACHING SCIENCE IN THE ELEMENTARY SCHOOL.** *Four hours credit.*

The purpose of this course is to develop a knowledge of objectives, methods, and materials which the teacher will need for providing learning activities for his pupils, and for teaching a functional elementary science program. Laboratory activities are included.

**271. IMPROVEMENT OF SCIENCE INSTRUCTION IN THE ELEMENTARY SCHOOL THROUGH CURRICULUM DEVELOPMENT.** *Three hours credit.*

Elementary science programs organized by science educators are evaluated in terms of basic criteria. From the above analysis and a review of research, curricula are planned to satisfy certain requirements. This includes a statement of the students' philosophy, objectives, types of learning activities and generalizations which coordinate elementary science with secondary.

**272. IMPROVEMENT OF SCIENCE INSTRUCTION IN THE SECONDARY SCHOOL THROUGH CURRICULUM DEVELOPMENT.** *Three hours credit.*

Secondary science programs organized by science educators are evaluated in terms of basic criteria. From the above analysis and review of research, K-12 Curricula with emphasis on the secondary program are planned to satisfy certain requirements. This includes a statement of the students' philosophy, objectives, types of learning activities and generalizations which coordinate secondary science with elementary.

**274a. PROBLEMS IN TEACHING PHYSICS.** (Summers only.) *Four hours credit.*

Prerequisite, permission of instructor. A study of current trends in the teaching of high school physics and the various problems which confront the beginning teacher.

**274b. PROBLEMS IN TEACHING BIOLOGY.** (Summers only.) *Four hours credit.*

Prerequisite, permission of the teacher. The course deals with the organization of biological units, teaching procedures, and evaluation of learning. Preparation of teaching materials and organizations of lessons are included. Evaluation of present practices will be accomplished in terms of criteria that foster general education in a secondary school program.

**274c. PROBLEMS IN TEACHING CHEMISTRY.** (Summers only.) *Four hours credit.*

Prerequisite, permission of instructor. This course is designed to deal with special problems in the teaching of chemistry. This includes elementary concepts, laboratory and stockroom problems, and demonstrations.

**275. ELEMENTARY OR SECONDARY SCIENCE LESSON DEMONSTRATIONS.** *Four hours credit.*

A course in which elementary or secondary science concepts are demonstrated and explained. The students then teach these lessons to their own classes and return an evaluation of them. This is an in-service course; the school system is asked to supply the necessary apparatus and materials used by the teacher.

**276. INSTRUCTIONAL PROBLEMS IN TEACHING SCIENCE.** *Three hours credit.*

The study of instructional problems in teaching science in the elementary and secondary schools. The instructional problems may include problems relating to the pupils' ability in mathematics, reading and problem solving ability, to problems in laboratory, evaluation, demonstration, vocabulary, and provision for the better students.

**273. SEMINAR IN SCIENCE EDUCATION.** *Three hours credit.*

Elementary and secondary school science teachers who wish to improve their professional work may elect this course. The problems studied in the course are those that concern the professional science educator.

**375. DEVELOPMENT OF SCIENTIFIC INQUIRY OF CHILDREN IN SCIENCE.** (Summers only.) *Four hours credit.*

The course emphasizes a need for the knowledge of the research in the field of scientific inquiry, the psychological elements involved in problem solving, the procedures incident to the organization of classroom techniques which will develop the critical thinking and the scientific abilities of the student. Procedures for evaluation are considered fundamental.

**376. HISTORY OF SCIENCE.** *Three hours credit.*

The fundamental purpose of the course is to show the evolution of scientific thought and how it has contributed to contemporary methods of research. Emphasis will be devoted to the origin of the underlying principles, theories, laws of science, and the techniques used by various scientists in formulating their conclusions.

**477. EVALUATION AND TESTING IN SCIENCE.** (Summers only.) *Four hours credit.*

Prerequisite, Math. 275a, Science Minor. This course involves the construction, administration and analysis of various kinds of tests used by classroom science teachers. The application of statistical techniques to classroom testing and some work in planning and developing of testing programs in science will be studied.

**BIOLOGY****151. CELLULAR BIOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

The course teaches the modern explanations for biophysical and biochemical processes in cells of the body. Major problems involve the study of structures and functions of parts of a cell, molecular changes basic to cellular metabolism, biochemistry of heredity and immunity, and the biological basis for behavior.

**200d. CONSERVATION.** *Three hours credit. (NSF In-Service Institute) 1960-61.*

Prerequisite, 10 hours biological science. A study of the use, abuse, and potential of the natural resources of the United States. Principles of the conservation of soil, water, forests, grasslands, and wildlife, their past, present, and possible future conditions. Two full day field trips required. Government agency specialists are consultants.

**205a. BIOLOGICAL BASIS OF HUMAN BEHAVIOR — MORPHOLOGY.** *Three hours credit. (NSF In-Service Institute) 1960-61.*

A study of morphological structure of cells that affect behavior together with related biochemical and biophysical bases for individuality constitutes the course. The study of tissues is the nucleus about which laboratory and lecture work is organized.

**205b. BIOLOGICAL BASIS OF HUMAN BEHAVIOR—PHYSIOLOGY.** *Three hours credit. (NSF In-Service Institute) 1960-61.*

A course designed to interpret human behavior on a physiological basis. The physiology of cells, tissue, organs, and systems are considered in that order. The nervous system and the endocrine system are given special consideration in this course.

**205c. BIOLOGICAL BASIS OF HUMAN BEHAVIOR—HEREDITY.** *Three hours credit. (NSF In-Service Institute) 1960-61.*

This course explains the hereditary basis of human behavior. It deals with the Mendelian laws and other phenomena of the genetics of plants, animals, and man and includes present heredity trends in the human race.

**251. EVOLUTION.** *Three hours credit.*

Lamarck's Theory of use and disuse to the modern-day synthesis concepts of evolution are considered. The cause and effect relationships of the origin of variation; the evidences for evolution, and the origin and distribution of species are some other phases of evolution studied.

**252. GENETICS AND EUGENICS.** *Three hours credit. (Two hour lecture, two hours laboratory.)*

Prerequisite, Science 4 or equivalent. A study of the fundamental laws of heredity and their application to plants and animals, with emphasis on the heredity of man and the present trends of the human race.

**257. 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, forests and forest products. Range management, wildlife, and mineral resources are also covered. The emphasis throughout is on their relation to man.

**258. FIELD BIOLOGY.** (Summers only.) *Three hours credit.*

A natural history course for elementary and secondary school teachers. The course deals with the identification of common plants, animals and rocks, the relationship of the plants and animals to their environment. Frequent field trips, including one to the higher mountains, are required.

**259. RADIATION BIOLOGY.** *Three hours credit.*

An introductory course which deals with the basic physical, chemical, and biological principles upon which the study of biological effects of radiation are based. Lecture and demonstration.

**BOTANY****22. GENERAL BOTANY.** *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.

**23. GENERAL BOTANY.** *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.

**121. MORPHOLOGY OF THE ALGAE AND BRYOPHYTES.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Botany 22 or permission of instructor. Morphology of the algae and bryophytes. Structure, development, and relationships of the algae and of the bryophytes.

**122. GENERAL BACTERIOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Sci. 4. The course emphasizes the control measures used for microorganisms and the basic information pertaining to morphology and growth characteristics. The content is organized about important personal and community health problems.

**220. ECONOMIC BOTANY.** (Summers only.) *Two hours credit.*

A study of plants that affect the welfare of man with special emphasis upon non-agricultural plants.

**221a. MORPHOLOGY OF THE VASCULAR PLANTS I. PSILOPSIDA THROUGH FILICINEAE.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Botany 22 or permission of instructor. Structure, development, and relationships of the primitive vascular plants.

**221b. MORPHOLOGY OF THE VASCULAR PLANTS II. SPERMATOPHYTES.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Botany 22 or permission of instructor. Structure, development, and relationships of the Gymnosperms and Angiosperms.

**225. INTRODUCTION TO LOCAL FLORA.** (Summers only.) *Two hours credit.*

The principles governing plant community relationships and the distribution of plant communities. Classroom discussion supplemented with field work.

**226. PLANT HISTOLOGY AND BOTANICAL TECHNIQUES.** *Four hours credit.*

Prerequisites, Bot. 22, 23 or equivalent. Study of plant tissues and methods of killing, imbedding, sectioning, staining and making botanical material into permanent microscopic mounts.

**227a. IDENTIFICATION OF SEED PLANTS OF THE LOCAL FLORA.** *Five hours credit. (Two hours lecture, six hours laboratory.)*

Prerequisite, Botany 22 or equivalent. An introductory course concerned with recognition and identification of plants at the species and family levels. Use of keys, manuals, and collecting techniques.

**227b. SYSTEMATIC BOTANY.** *Three hours credit.*

Prerequisite, Botany 221 or permission of instructor. A study of the history and principles of plant classification through the ages. Also, a study of the present Code of Nomenclature, as well as the functions of genetics, evolution, morphogenesis, and ecology in modern taxonomy.

**228. PLANT DISEASES.** *Four hours credit.*

Prerequisites, Bot. 22 and 23, or equivalent. A study of the fungi, their structures, life cycles, habitats and nutrition, with emphasis upon those which cause diseases in higher plants.

**320. PLANT GROWTH AND DEVELOPMENT.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, Bot. 22 and 23. A study of the growth cycle of plants in the laboratory and field including the effects of external and internal factors. Curvatures and movements of plants will be considered, as well as the practical problems connected with herbicides and other chemical treatments.

**321. PLANT PHYSIOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Bot. 22 or equivalent, and Chem. 142 or equivalent. A course dealing with the fundamental principles of absorption of water and minerals, transpiration, photosynthesis, translocation, respiration and growth of plants, including biochemical mechanisms.

**323. PLANT GEOGRAPHY.** *Three hours credit.*

Prerequisite, Botany 221 or permission of instructor. A study of the floras of the past and present, and of the factors that have affected their distribution.

**327. RESEARCH METHODS IN SYSTEMATIC BOTANY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Botany 227b or permission of instructor. Application of the principles of classification and the rules of nomenclature to local

populations of taxa at the generic or specific levels. Techniques in evaluation of diagnostic characters including the use of the hybrid index, the polygonal graph, and other basic statistical devices, as well as transplant work. Field and laboratory work.

**328. PLANT ECOLOGY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, Bot. 22 and 23. A study of plant communities and the interrelationships of the organisms therein as they are affected by the physical factors of the environment.

**330. BOTANICAL SEMINAR.** *One hour credit.*

Assigned reports on current botanical topics.

## CHEMISTRY

**40a. PRINCIPLES OF CHEMISTRY I.** *Five hours credit. (Four hours lecture, two 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, and home economics students.

**40b. PRINCIPLES OF CHEMISTRY II.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Chem. 40a. 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. 40a and is necessary to provide a reasonably complete understanding of the basic concepts of chemistry.

**40c. INTRODUCTORY ORGANIC CHEMISTRY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, Chem. 40a, 40b. 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.

**142. ORGANIC CHEMISTRY.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisites, Chem. 40a, 40b, 40c. The chemistry of the carbon compounds of the aliphatic and aromatic series is discussed. Application to the fields of nutrition and industry is stressed.

**144. QUALITATIVE ANALYSIS.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, Chem. 40b, Math. 21 or equivalent. 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.

**145. QUANTITATIVE ANALYSIS.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Chem. 144. This course provides a discussion of quantitative procedures as well as continued emphasis on analytical theory. The methods of volumetric and gravimetric analysis are applied to common substances in the laboratory.

**148. FOOD ANALYSIS.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Chem. 40c. This course deals with some of the techniques of qualitative and quantitative analysis of foods for certain inorganic and organic constituents.

**242. ORGANIC CHEMISTRY.** (Summers only.) *Four hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, Chem. 40a. 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.

**243. ADVANCED ORGANIC CHEMISTRY.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Chem. 142. This course is a continuation of Chem. 142. These homologous series of aliphatic and aromatic compounds not treated in Chem. 142 are discussed in the light of modern theories.

**244. LABORATORY IN ORGANIC CHEMISTRY.** *Maximum of two hours credit. (Two or four hours laboratory.)*

Prerequisite, Chem. 142. Organic preparations and qualitative organic analysis constitute the laboratory work.

**245. QUANTITATIVE ANALYSIS.** (Summers only.) *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, Math. 20a, Chemistry 40b. 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 work illustrating these three types of analysis. Students having credit in any quantitative analysis course must obtain permission of instructor before enrolling in this course.

**246. ADVANCED QUANTITATIVE ANALYSIS.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Chem. 145. Special attention is given to the analysis of complex mixtures, and the use of certain analytical instruments.

**247. BIOCHEMISTRY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Chem. 40c. An introduction to the chemistry of foods, nutrition, and body processes is given.

**248. SEMINAR IN CHEMISTRY.** *One hour credit.*

Prerequisite, permission of instructor. This course gives the graduate student an opportunity to report on some topic of interest treated in recent literature, as well as profit by the reports of others.

**249. ADVANCED INORGANIC CHEMISTRY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, Chem. 145. This course is designed to bridge the gap between analytical chemistry and physical chemistry. The course will include units on atomic structure, radio-chemistry and instrumental analysis. Laboratory work will be instrumental analysis.

**291. STRUCTURE OF MATTER.** (Summers only.) *Four hours credit. (NFS Summer Institute.)*

Prerequisites, Chemistry 40a, 40b, 40c or equivalent. This course on modern concepts of the structure of matter begins with the structure of atoms emphasizing the electron orbitals. The ways in which atoms combine by formation of electrovalent, covalent, and metallic bonds together with the effect of bond types on the physical and chemical characteristics of matter is presented.

**292. FUNDAMENTALS OF ORGANIC CHEMISTRY.** (Summers only.) *Fours hours credit. (NSF Summer Institute.)*

Prerequisites, Chem. 40a, 40b, 40c or equivalent. 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 their modern theoretical aspects are studied.

**293. INTRODUCTORY QUANTITATIVE ANALYSIS.** (Summers only.) *Fours hours credit. (NSF Summer Institute.)*

Prerequisites, Math. 20a, Chem. 40b. Lecture and laboratory work will treat the general topics of elementary gravimetric analysis, acid-base titrimetric analysis and complexometric titrimetric analysis.

**341. PHYSICAL CHEMISTRY I.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisites, Chem. 142, 145; Math. 30b; Phys. 63. 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.

**342. PHYSICAL CHEMISTRY II.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Chem. 341. This course is a continuation of Chem. 341. The following topics are considered: solutions, homogeneous and heterogeneous chemical equilibria, and chemical kinetics.

**343. PHYSICAL CHEMISTRY III.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Chem. 342. This course is a continuation of Chem. 342. Electrochemistry, ionic equilibria, and colloids are considered.

**344. INSTRUMENTAL METHODS OF ANALYSIS.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, Chem. 246, and Chem. 341. 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, refractometer, infrared spectrophotometer and polarograph.

**345. ORGANIC QUALITATIVE ANALYSIS.** *Three hours credit.*

Prerequisites, Chem 243, 244 or equivalent. This course is an advanced laboratory course in organic chemistry. The identification of organic compounds constitutes the laboratory work. No classwork is required, but a paper on some phase of organic chemistry is required.

## EARTH SCIENCE

**130. GENERAL METEOROLOGY.** *Three hours credit.*

A study of the weather factors of temperature, pressure, and humidity as they influence the atmosphere. The formation of air masses and fronts, their movement, and associated clouds and storms. Some practice in interpreting weather maps.

**131. DESCRIPTIVE ASTRONOMY.** *Three hours credit. (Also offered by correspondence.)*

A study of the solar system and the place of our sun in the family of stars. The student learns to recognize and locate the more important stars. Extensive knowledge of science, mathematics and constellations not required.

**200a. METEOROLGY.** *Three hours credit. (NSF In-Service Institute) 1959-60.*

Course will involve the study of weather elements such as temperature, pressure, and humidity. Special emphasis will be given to the use of instruments in weather observations which are the bases of forecasting.

**200b. ASTRONOMY.** *Three hours credit. (NSF In-Service Institute) 1959-60.*

This in-service course will place special emphasis on the understanding of the universe in which we live and its inner-relationships. A thorough study of the solar system will be made. The earth-moon system will be studied with some emphasis placed on the space travel problem. Galactic systems, nebulae, and types of stars will also be presented. At least one field trip to an observatory in the local area will be made.



**200c. GEOLOGY.** *Three hours credit. (NSF In-Service Institute) 1959-60.*

Course will begin with a study of common minerals and rocks; then will follow the processes of weathering and erosion which wear down the earth's surface, and the counter processes of vulcanism and diastrophism which build up the earth.

**200e. AVIATION.** *Three hours credit. (NSF In-Service Institute) 1960-61.*

A study of the history of flight, laws, and principles of flight in atmosphere and space. Topics are maps and charts, aerodynamics, weather, navigation and concepts of nearby space environments. Two Saturday field trips required. Personnel of commercial and government installations are resource persons.

**230. COMMON MINERALS AND ROCKS.** (Summers only.) *Three hours credit.*

This is a laboratory course intended to give some practice in recognition of common minerals and rocks. On a field trip near the end of the course each student will collect a set of specimens for his own classroom. Not open to students who have had E.Sci. 231 or 236. Cannot be substituted for any required science. Not applicable to an advanced degree in science.

**231. PHYSICAL GEOLOGY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, not open to students who have had E. Sci. 236. This introductory course in the geology sequence involves recognition of minerals and rocks and their origin, a study of weathering and the processes of erosion and the counter-processes of vulcanism and diastrophism. Two Saturday field trips required.

**232. HISTORICAL GEOLOGY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, E. Sci. 231 or equivalent. This course surveys the changes which the earth has undergone through action of the various geologic processes and seeks thereby to develop some appreciation of geologic time. The methods of reading earth history from rocks and fossils is stressed. Field trips required.

**233. MINERALOGY.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, E. Sci. 231, and permission of instructor. This course is an introductory study of common minerals with emphasis on identification megascopically and by simple tests. Includes introductory crystallography, chemical composition, physical properties, origin and occurrence of about 100 minerals.

**234. GEOMORPHOLOGY.** *Four hours credit.*

Prerequisite, E. Sci. 232 or equivalent. The course consists of a detailed study of landforms and their evolution—the geologic interpretation of landscapes with special reference to the United States. Interpretation of topographic maps and aerial photographs is stressed. The local field is used to show many of these landforms.

**235. ROCKY MOUNTAIN GEOLOGY.** *Three hours credit.*

Prerequisite, E. Sci. 234. This course seeks to apply the knowledge gained in the geologic sequence previously studied to understanding the extensive current literature in geology, especially that which deals with the Rocky Mountain area. A general overview of the development of the science of geology will introduce the course.

**236. GENERAL GEOLOGY.** *Four hours credit.*

A study of the materials making up the earth's crust, the counter-processes at work degrading and aggrading the crust, and a brief study of the origin and geologic history of the earth. Arranged especially for teachers who will take no additional work in geology. Two Saturday field trips required.

**PHYSICS**

**61. GENERAL PHYSICS—MECHANICS AND HEAT.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisites, Math. 21. The first quarter of the general course in physics treats of the laws, principles, and generalizations of mechanics and heat.

**62. GENERAL PHYSICS—ELECTRICITY.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Phys. 61. The second quarter of the general course in physics, involves the study of the principles, and generalizations in electricity.

**63. GENERAL PHYSICS — SOUND, LIGHT, AND ATOMIC PHYSICS.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Phys. 164, Math. 30b. The third quarter of the general course in physics, involves the study of the laws, principles, and generalizations concerning sound, light, and atomic physics.

**161. MECHANICS I.** *Four hours credit.*

Prerequisites, Phys. 63 and Math. 30c. 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.

**162. ELECTRICITY AND MAGNETISM I.** *Four hours credit.*

Prerequisites, Phys. 63 and Math. 30c. First course of a sequence of two courses. An advanced study in electric fields, electric potential, direct and alternating currents, magnetic fields and induced electromotive force.

**164. ELECTRICAL MEASUREMENTS.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisites, Phys. 63, Math. 30a taken concurrently. A study of Kirchhoff's Laws and their application, components of a-c circuits, and the solution of a-c circuits by use of the vector method and complex number method.

**167. ELEMENTARY PHOTOGRAPHY.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

An elementary course designed to meet the needs of the amateur photographer and also to furnish an adequate background for more advanced work on the principles of photography.

**261. MECHANICS II.** *Four hours credit.*

Prerequisite, Physics 161. 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, and generalized coordinates including LaGrange's and Hamilton's equations.

**262. ELECTRICITY AND MAGNETISM II.** *Four hours credit.*

Prerequisite, Physics 162. 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.

**263. LIGHT AND OPTICS.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Physics 63, Math. 30b. 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, physical optics, wave theory of light, interference, diffraction and the electromagnetic nature of light.

**264. ELECTRONICS.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Physics 63. A continuation of Physics 164. Topics to be covered include simple diodes, triodes, power supplies, simple amplifiers, simple detectors, types of amplifiers, R. F. Circuitry as applied to radio and television.

**266. BIOPHYSICS.** *Four hours credit.*

Prerequisites, Chem. 40c; Phys. 63; Bot. 22, 23; Zool. 11, 12. Biophysics is a course designed to relate the principles of mechanics, heat, electricity, radio, light, sound, and atomic physics to both plant and animal life. Stress is placed upon the recent developments in physics as applied to living things.

**268. PHOTOGRAPHY FOR TEACHERS.** (Summers only.) *Three hours credit.*

A course in practical photography for teachers, designed to give teachers a working knowledge of photography and its possible uses both as a teaching device and as possible projects in classwork. The course consists of a study of cameras, developing and printing, enlarging and the taking of pictures.

**367. ATOMIC PHYSICS.** *Four hours credit.*

Prerequisites, Phys. 61, 62, 63; Chem. 40b; Math. 30a,b,c. 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.

**368. NUCLEAR PHYSICS.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Physics 367. A study of the nucleus of the atom including nuclear processes, decay schemes, sub-atomic particles and high energy reactions.

**369. WAVE MECHANICS.** *Four hours credit.*

Prerequisites, Phys. 261, Phys. 368, Math. 231. This course is an introduction to quantum mechanics and the quantum theory. Some of the topics to be covered include: Planck's radiation theory, the Bohr postulates, the correspondence principle, de Broglie waves, the Schrodinger wave equation, and the uncertainty principle.

## ZOOLOGY

**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 insects are used to illustrate the concepts developed in the classroom.

**12. GENERAL ZOOLOGY — VERTEBRATE.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Zool. 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.

**114. ORNITHOLOGY.** *Three hours credit.*

Classroom, museum, and field studies on the habits, habitats, life histories, migration activities, and economic importance of birds. Students will have an opportunity to learn to identify birds in the field.

**210. CYTOLOGY.** *Three hours credit.*

Study of cells with special reference to morphology, cytochemistry and physiology. This study will include the cytoplasmic organelles and the nucleus.

**211. COMPARATIVE ANATOMY OF THE VERTEBRATES.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, Zool. 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.

**212. MAMMALIAN ANATOMY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, five quarter hours of vertebrate zoology or a course in anatomy, physiology, or kinesiology. 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.

**213. AQUATIC BIOLOGY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

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.

**214. FAUNISTICS.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, Zool. 12. An advanced taxonomy and ecological survey of the local fauna of Colorado with special emphasis on aquatic invertebrates, amphibians, reptiles, fishes, 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.

**215. VERTEBRATE EMBRYOLOGY.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, Zool. 12. A study of the embryology of the chick and the pig compared to the embryology of the human. Designed to provide an understanding of the early development of the human embryo.

**216. PHYSIOLOGY OF NARCOTICS AND STIMULANTS.** *Three hours credit.*

A course designed to give the student a knowledge of the effect of narcotics and stimulants on the human body and to review current methods of treatment in drug addiction. Some time will be given to sources of material for public school instruction on the subject of narcotics and stimulants.

**217. HUMAN PHYSIOLOGY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, Zool. 12. A course in the functions of the human body designed to help the student understand normal functions of the human body and give him the knowledge with which to establish good health practices.

**218. ANIMAL HISTOLOGY AND MICROSCOPIC TECHNIQUES.** *Four hours credit. (Eight hours laboratory.)*

Prerequisite, Zool. 12. The skills of killing, staining, and preparing animal tissues for study are combined with the study of the types of tissues in the animal body.

**219. ANIMAL ECOLOGY.** *Four hours credit.*

Prerequisite, one quarter of zoology or equivalent. The principles governing animal relationships with their environment. Distribution, food supply, migratory movements, and territorial requirements will be emphasized. Field work required.

**310. ENTOMOLOGY.** *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisites, Zool. 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.

**315. VERTEBRATE ORGANOGENY.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, Zool. 215. This course is a continuation of Zoology 215. A study of the origin and development of the organs of the body of vertebrate animals with special reference to the development of the body of man.

**319. ANIMAL PARASITOLOGY.** *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, Zool. 12 or equivalent. A study of typical parasites found in man and his domesticated animals. In the laboratory methods of clearing, staining and mounting are practiced.

**MATHEMATICS MAJOR**

**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

Course Number	Course Title	Hours Credit
Math. 22	- - Analytic Geometry I	5
Math. 30a	- - Calculus I	5
Math. 30b	- - Calculus II	5
Math. 30c	- - Calculus III	5
Math. 201	- - Theory of Sets	3
Math. 220a	- - Modern Algebra I	5
Math. 230a	- - Analysis I	5
Math. 240a	- - College Geometry	5
Math. 250	- - Probability Theory	3
Math. 251a	- - Mathematical Statistics	5
Math. (electives on advice of department any courses No. 100 or above)	- - - - -	2
		27

3. One minor of 27 quarter hours. It is recommended that this minor be in either Biological or Physical Science.

4. 24 to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

**MATHEMATICS MAJOR (Junior High School Level)**

**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

Course Number	Course Title	Hours Credit
Math. 20a	- - Algebra I	5
Math. 20b	- - Algebra II	5

Math.	21	- -	Plane Trigonometry	- - - - -	5
Math.	22	- -	Analytic Geometry I	- - - - -	5
Math.	30a	- -	Calculus I	- - - - -	5
Math.	30b	- -	Calculus II	- - - - -	5
Math.	30c	- -	Calculus III	- - - - -	5
Arith.	90a	- -	Arithmetic for Elementary Teachers I	- - - - -	3
Arith.	90b	- -	Arithmetic for Elementary Teachers II	- - - - -	3
Any one of the following: Math. 201, 202, 203					- - - - - 3
Math. (electives on advice of department)					- - - - - 4
					48

3. One minor of 27 quarter hours. It is recommended that this minor be in either Biological or Physical Science.

4. 24 to 32 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

### Mathematics Minor

Course Number	Course Title	Hours Credit
Math. 22	- - Analytic Geometry I	- - - - - 5
Math. 30a	- - Calculus I	- - - - - 5
Math. 30b	- - Calculus II	- - - - - 5
Math. (electives selected with approval of adviser)		- - - - - 12
		27

## MATHEMATICS MAJOR

### Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.

2. Course requirements listed for the Mathematics Major for the Bachelor of Arts Degree (with teaching certificate).

3. One minor of 27 quarter hours preferably in either Biological or Physical Science.

4. Electives to complete requirements for graduation.

### Description of Courses

1. **BASIC MATHEMATICS FOR TEACHERS I.** *Three hours credit.* Designed to give the student with a limited background in mathematics a course which will be of personal and practical use to him. The real number system, computation, and measurement are covered. This course cannot be applied on a major or minor in mathematics.

2. **BASIC MATHEMATICS FOR TEACHERS II.** *Three hours credit.* Prerequisite, Math. I. Designed to give the student with a limited background in algebra a course which will be of personal and practical use to him. Content includes operations with literal numbers and signed numbers, linear and quadratic equations, special products and factors, and radicals and square root. This course cannot be applied on a major or minor in mathematics.

3. **BASIC MATHEMATICS FOR TEACHERS III.** *Three hours credit.* Prerequisite, Math. 2. Designed to give the student with a limited background in geometry a course which will be of personal and practical use to him. Content includes lines, angles, polygons, circles, areas, perimeters, and solids. This course cannot be applied on a major or minor in mathematics.

**20a. COLLEGE ALGEBRA I.** *Five hours credit.* (Also offered by correspondence.)

Prerequisite, two years of high school mathematics or consent of instructor. The development and extension of concepts and skills beyond those studied in secondary school, and the practice of clear and independent thinking, with emphasis upon the understandings which lie back of algebraic processes.

**20b. COLLEGE ALGEBRA II.** *Five hours credit.*

Prerequisite, Math. 20a or equivalent. A course designed to extend basic college algebra to include topics not normally covered in the first-year course.

**21. PLANE TRIGONOMETRY.** *Five hours credit.* (Also offered by correspondence.)

Prerequisite, Math. 20b or equivalent. A course which develops the trigonometric functions and their application, both theoretical and practical, in the solution of the triangle. Special emphasis is put upon the logarithms and their use in computation in the solution of the triangle and other problems.

**22. ANALYTIC GEOMETRY I.** *Five hours credit.* (Also offered by correspondence.)

Prerequisite, Math. 21 or equivalent. Explains and amplifies algebraic methods in the solving of geometric problems, thus acquainting the students with a powerful method of amplifying algebra and geometry. Especially valuable as a margin of information for teachers of both algebra and geometry.

**30a. CALCULUS I.** *Five hours credit.*

Prerequisite, Math. 22 or equivalent. This course presents the fundamental concepts of the differential calculus with the various applications of the derivative in solving problems in the scientific field. Successive differentiation and differentials are covered.

**30b. CALCULUS II.** *Five hours credit.*

Prerequisite, Math. 30a or equivalent. This course introduces the process of integration and the definite integral with its application to problems in science. Differentiation and integration of transcendental functions are also developed.

**30c. CALCULUS III.** *Five hours credit.*

Prerequisite, Math. 30b or equivalent. A continuation of those topics of differentiation and integration which are not adequately treated in Math. 30a and Math 30b. The subject matter deals with differentiation of polar coordinates, radius and circle of curvature, indeterminate forms, series and expansion of functions.

**122. ANALYTIC GEOMETRY II.** *Three hours credit.*

Prerequisite, Math. 22 or equivalent. A continuation of Math. 22, emphasizing such topics as transformation of coordinates, tangents, polar coordinates, parametric, general equation of second degree in two variables, equations, and cartesian coordinates in space.

**201. THEORY OF SETS.** *Three hours credit.*

Prerequisite, Math. 30b or equivalent. An introduction to the theory of sets and their relation to other branches of mathematics. The topics include: finite and infinite sets, ordered sets, points sets, continuous sets and functions.

**202. BASIC MATHEMATICAL LOGIC.** *Three hours credit.*

Prerequisite, Math. 30b. 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 discussed.

**203. STRUCTURE OF NUMBERS.** *Three hours credit.*

Prerequisite, Math. 30b. 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 notion of isomorphism is stressed.

**205. MATHEMATICS OF FINANCE.** *Three hours credit.*

Prerequisite, Math. 20a; consent of instructor. 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.

**220a. MODERN ALGEBRA I.** *Five hours credit.*

Prerequisite, Math. 201 or equivalent. A study of modern abstract algebra including integral domains, fields, polynomials, rings, groups, isomorphisms, automorphisms, homomorphisms.

**220b. MODERN ALGEBRA II.** *Five hours credit.*

Prerequisite, Math. 220a. A continuation of Math. 220a with emphasis on linear algebra including vectors and vector spaces, matrix algebra, linear groups, algebra of classes.

**230a. ANALYSIS I.** *Five hours credit.*

Prerequisite, Math. 30c, 201 or equivalent. 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.

**230b. ANALYSIS II.** *Five hours credit.*

Prerequisite, Math. 230a or equivalent. 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.

**230c. ANALYSIS III.** *Three hours credit.*

Prerequisite, Math. 230b or equivalent. 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.

**231. DIFFERENTIAL EQUATIONS.** *Five hours credit.*

Prerequisite, Math. 30c or equivalent. A study of the theory and solution of differential equations. Ordinary and partial equations are treated along with numerous applications.

**240a. COLLEGE GEOMETRY.** *Five hours credit.*

Prerequisite, high school plane geometry or consent of instructor. 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.

**240b. MODERN GEOMETRY.** *Five hours credit.*

Prerequisite, Math. 240a or equivalent. A continuation of Math. 240a, this course is designed to introduce the student to modern developments in the field of geometry. Areas covered include similar figures, homothetic figures, auxiliary figures of the triangle, nine point circle, harmonic range, Simson line, Isogonal lines, symmedians, and inversion.



**250. PROBABILITY THEORY.** *Three hours credit.*

Prerequisite, Math. 30c, Math. 201, or consent of instructor. Probability as a set function on a collection of events in a sample description space. Random variables as real-valued functions. Probability distributions of random variables; the discrete and continuous types. Moments of a distribution; mean and variance. Distributions in more than one dimension; covariance and correlation independence and conditional probability.

**251a. MATHEMATICAL STATISTICS I.** *Five hours credit.*

Prerequisite, Math. 250 or equivalent. Empirical distribution and concepts of random sample. Mathematical models and the normal family. Other sampling distributions including the  $t$ ,  $\chi^2$ , and  $F$ . Significance tests. Tests of hypotheses about a single parameter and two-parameter tests. Non-parameter tests. Estimation including maximum likelihood and confidence interval techniques.

**251b. MATHEMATICAL STATISTICS II.** *Five hours credit.*

Prerequisite, Math 251a. A continuation of Math. 251a. Regression theory and correlation analysis with special emphasis on the linear hypothesis. Least squares methods and normal equations, Estimates and distribution theory when normality is assumed. Analysis of variance including treatment of fixed effects and random effects models with one- and two-way classifications. Brief treatment of enumeration data and introduction to decision theory.

**291. THEORY OF NUMBERS.** *Five hours credit.*

Prerequisite, Math. 30a or consent of instructor. 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****170. MATHEMATICAL INSTRUMENTS AND SURVEYING.** *Four hours credit.*

Prerequisite, Math. 21 or equivalent. 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.

**270a,b,c. MATHEMATICS TEACHERS' WORKSHOP.** (Summers only.) *Three hours credit.*

Provision is made for students to work on individual problems related to the teaching of mathematics. A student may take no more than 6 quarter hours for credit.

**271. INSTRUCTIONAL MATERIALS IN SECONDARY SCHOOL MATHEMATICS.** *Three hours credit.*

Prerequisite, Math. 22 or consent of instructor. 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.

**274. HISTORY OF MATHEMATICS.** *Five hours credit.* (Also offered by correspondence.)

Prerequisite, Math. 22 or consent of instructor. A general view of the development and contributions of mathematics. A more detailed view of the development of arithmetic, algebra, geometry, and evolution of symbolism.

**§275a. DESCRIPTIVE STATISTICS.** (Credit may be obtained in Mathematics or Educational Psychology and Guidance.) *Five hours credit.* (Four hours lecture, two hours laboratory.)

An introduction to the meaning and practical use of frequency distributions, graphical methods, percentiles, measures of average, variability, normal distribution, and correlation. Applications are made in the fields of education and psychology. One hour of credit for two hours of laboratory work in machine computation.

**§275b. STATISTICAL INFERENCE.** (Credit may be obtained in Mathematics or Educational Psychology and Guidance.) *Five hours credit.*

Prerequisite, Math. Ed. 275a or equivalent. Sampling, tests of hypotheses, estimation of parameters, and correlational methods. Emphasis on methods in educational research.

**372. CURRICULUM IN SECONDARY SCHOOL MATHEMATICS.** *Four hours credit.*

Prerequisite, 24 quarter hours in college mathematics. A study of modern developments in curriculum offerings in secondary school mathematics, with special emphasis on mathematics best suited to the needs of non-college-bound students.

**373. PROBLEMS IN THE TEACHING OF SECONDARY MATHEMATICS.** *Four hours credit.*

Prerequisite, 24 quarter hours in college mathematics. Special emphasis in this course is placed on such problems of teaching high school mathematics as: individual differences in ability, interests and needs, college preparatory courses and their organization for teaching.

**374. SEMINAR IN TEACHING SECONDARY MATHEMATICS.** *Four hours credit.*

Prerequisite, experience in teaching mathematics or consent of instructor. Graduate students in this course will use their own backgrounds of experience, along with reading and discussion in class, to bring before the group special problems, together with proposed solutions.

**§375. DESIGN AND ANALYSIS OF EXPERIMENTS IN EDUCATION.** (Credit may be obtained in Mathematics or Educational Psychology and Guidance.) *Five hours credit.*

Prerequisite, Math. Ed. 275b or equivalent. Deals with the design and statistical analysis of experiments in the fields of education and psychology. Analysis of variance and co-variance form a prominent part of the course.

## ARITHMETIC

**90a. ARITHMETIC FOR ELEMENTARY TEACHERS I.** *Three hours credit.*

The first course of a two-quarter sequence in content arithmetic for elementary teachers to be taken prior to Ed. 212. This course will emphasize the history of numbers and numerals, fundamental concepts of sets, fundamental operations and their meaning, and the base of the number system.

**90b. ARITHMETIC FOR ELEMENTARY TEACHERS II.** *Three hours credit.*

Prerequisite, Arith. 90a or equivalent. The second course of a two-quarter sequence in content arithmetic for elementary teachers to be taken prior to Ed. 212. This course will emphasize the necessity of extensions in the number system to fractions, negative numbers and real numbers. The last part of the course will stress the importance of approximation in the use of numbers.

**290. FOUNDATIONS OF ARITHMETIC.** (Summers only.) *Four 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, measurement and approximate computation.

**MEDICAL TECHNOLOGY MAJOR**  
**Bachelor of Arts Degree (Liberal Arts)**

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 6 quarter hours of physical education activity courses. A minimum of 141 quarter hours will be earned on the campus of Colorado State College during the first three years and 45 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 following is the required program:

1. Common Courses totaling 48 academic quarter hours including 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Med. Tech. 250	-- Urinalysis and Clinical Microscopy	--	-- 4
Med. Tech. 251	-- Basal Metabolism and Electrocardiography	--	-- 1
Med. Tech. 252	-- Hematology	--	-- 8
Med. Tech. 253	-- Pretransfusion Tests and Blood Bank Procedures	--	-- 3
Med. Tech. 254	-- Clinical Chemistry	--	-- 12
Med. Tech. 255	-- Serology	--	-- 4
Med. Tech. 256	-- Medical Microbiology	--	-- 12
Med. Tech. 257	-- Histologic Technique	--	-- 3
	Electives	--	-- 1
			48

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

4. 44 quarter hours are required by the American Society of Clinical Pathologists and the staff of the Weld County General Hospital in the following courses: Chemistry 247, Botany 122, English 4b, Physics 62, 63, Mathematics 20a, 21, Zoology 11, Biology 151.

5. 24 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

**Medical Technology Minor in Chemistry**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Chem. 40a	-- Principles of Chemistry I	--	-- 5
Chem. 40b	-- Principles of Chemistry II	--	-- 5
Chem. 40c	-- Introductory Organic Chemistry	--	-- 5
Chem. 142	-- Organic Chemistry	--	-- 5
Chem. 145	-- Quantitative Analysis	--	-- 5
	Electives	--	-- 2
			27

## Medical Technology

These courses are open only to majors in Medical Technology.

### 250. URINALYSIS AND CLINICAL MICROSCOPY. *Four hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. 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.

### 251. BASAL METABOLISM AND ELECTROCARDIOGRAPHY. *One hour credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. This course covers the principles and techniques of determining the basal metabolic rate and the theory and technique of electrocardiography.

### 252. HEMATOLOGY. *Eight hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. 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 prothrombine time, direct eosinophile count, fragility of erythrocytes, sedimentation rate of erythrocytes and bone marrow smears preparation and study.

### 253. PRETRANSFUSION TESTS AND BLOOD BANK PROCEDURES. *Three hours credit.*

Prerequisites, senior and A.S.C.P. approval of transcript. This course covers selection and pretesting of donors, copper sulfate method of determining minimum hemoglobin, bleeding of donors, basic theory of blood factors, ABO grouping tests, Rh factor and Rh<sub>0</sub>, (D) typing, cross-matching tests, subgroups A, irregular agglutinins, cold agglutinins, transfusion reactions, emergency transfusions, Rh antibody tests, and Coombs' test.

### 254. CLINICAL CHEMISTRY. *Twelve hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. 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, non-protein nitrogen, urea nitrogen, creatinine, creatine, uric acid, albumin, globulin, acid-base balance, carbon dioxide capacity, chloride, phosphorus, phosphatases, calcium, sodium, potassium, liver function.

### 255. SEROLOGY. *Four hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. 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.

### 256. MEDICAL MICROBIOLOGY. *Twelve hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. 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.

### 257. HISTOLOGIC TECHNIQUE. *Three hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. 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.

# Division of the Social Studies

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The Division of the Social Studies includes: (1) General Social Studies, (2) Social Science, (3) History and (4) Social Studies Education. Degrees and majors and minors are:

## **BACHELOR OF ARTS DEGREE (With Teaching Certificate)**

- Majors:* Social Science, History, Social Studies (Junior High School Level.)  
*Minors:* Social Science, World History, U. S. History.

## **BACHELOR OF ARTS DEGREE (Liberal Arts)**

- Majors:* Social Science, History.  
*Minors:* Social Science, World History, U. S. History.

## **MASTER OF ARTS DEGREE (With Teaching Certificate)**

- Majors:* Social Science, History, Social Studies Education.

## **SPECIALIST IN EDUCATION DEGREE**

- Area of Specialization:* To be selected.

## **DOCTOR OF EDUCATION DEGREE (With Teaching Certificate)**

- Area of Concentration:* Social Studies.  
*Supporting Area:* Social Studies.

## **SOCIAL SCIENCE MAJOR**

### **Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
Geog. 10	- - World Geography - - - - -	- - - - -	5
Anth. 20	- - General Anthropology - - - - -	- - - - -	5
Econ. 30	- - Introductory Economics - - - - -	- - - - -	5
Pol. Sci. 40	- - National Government of the U. S. - - - - -	- - - - -	5
Soc. 50	- - Principles of Sociology - - - - -	- - - - -	5
Other social sciences	- - Advanced electives in Anthropology, Economics, Geography, International Relations, Political Science and/or Sociology. These electives must be selected from one to three of these areas - - - - -	- - - - -	20
S.S. 200	- - Social Philosophy - - - - -	- - - - -	3
			48

(For teaching the Social Studies the Colorado State Department of Education and the North Central Association require college work in History. Consequently, the Division requires the following courses

outside the Social Science field: History 70, 71, 72 and History 30, 31, 32 or equivalents. To teach a separate subject like Anthropology, Economics, Geography, International Relations, Political Science or Sociology, 12 hours in that subject are required.)

3. One minor of 27 quarter hours outside the Division of the Social Studies.

4. 24 to 31 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

**HISTORY MAJOR**

**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Hist. 30,31,32	World History I, II, III	12
Hist. 70,71,72	United States History I, II, III	9
S.H. History	Advanced electives in history	24
S.S. 200	Social Philosophy	3
		<hr/> 48

(For teaching the Social Studies the Colorado State Department of Education and the North Central Association recommend additional college work in Social Science. The Division requires 21 hours outside of History in Social Science. To teach a special subject 12 quarter hours are a minimum.)

3. One minor of 27 quarter hours outside the Division of the Social Studies.

4. 24 to 31 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

**SOCIAL STUDIES MAJOR (Junior High School Level)**

**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. Common Courses totaling 73 to 81 academic quarter hours, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
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	2
Geog. 250	Geography of Colorado	2
Pol. Sci. 40	National Government of the U. S.	5
Geog. 18	World Geography for Elementary and Junior High School Teachers	4
Geog. 48	United States Electives (Select 10 hours from the following: Pol. Sci. 171, 275; Econ. 30; Soc. 50; Anth. 20)	4
		<hr/> 48

3. One minor of 27 quarter hours outside of the division.

4. It is recommended that each student elect a minimum of 11 additional hours of subject matter courses and a minimum of 10 additional hours of professional courses selected from the recommended list.

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

**Recommended Subject Matter**

A minimum of 11 additional hours which *may* be selected from this list. Other courses with advisement.

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Hist. 255	- - Contemporary World History	- - - - 5
Hist. 246	- - Geographic Influences in U. S. History	- 2-4
Bio. 257	- - Conservation of Natural Resources	- - - 4
E. Sci. 236	- - General Geology	- - - - - 4

**Professional Courses**

A minimum of 10 additional hours which *may* be selected from this list. Other courses with advisement.

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Eng. 204	- - Developmental Reading in Grades 7, 8, 9	- 4
Ed. 206	- - Audio-Visual Materials in Education	- - 4
E.P.G. 210	- - Principles and Philosophy of Guidance	- 3
E.P.G. 212	- - Occupational Information and Analysis in Vocational Guidance	- - - - 3
Ed. 247	- - Educational Sociology and Community Organization	- - - - - 3

**Social Science Minor**

Twenty-seven quarter hours in the areas of Anthropology, Economics, Geography, Political Science and Sociology. The student will select *one to three* of these areas. In each instance the student is required to take the introductory course in the area or areas selected. These introductory courses are:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Geog. 10	- - World Geography	- - - - - 5
Anth. 20	- - General Anthropology	- - - - - 5
Econ. 30	- - Introductory Economics	- - - - - 5
Pol. Sci. 40	- - National Government of the U. S.	- - - - 5
Soc. 50	- - Principles of Sociology	- - - - - 5

(To teach the Social Studies the North Central Association requires college work in U. S. History. History 70, 71, 72 is recommended. To teach a special subject 12 quarter hours is the minimum.)

**World History Minor**

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Hist. 30, 31, 32	- - World History I, II, III	- - - - - 12
Advanced electives in World History	- - - - -	- - - - 15

27

(To teach the Social Studies the North Central Association requires U. S. History and recommends courses in Social Science. The Division recommends History 70, 71, 72 and selected courses from Government, International Relations, Economics, Sociology, Geography and Anthropology. To teach a special subject 12 quarter hours is the minimum.)

**United States History Minor**

Course Number	Course Title	Hours	Credit
Hist. 70,71,72	United States History I, II, III	- - - - -	9
	Advanced electives in United States History	- - - - -	18
			27

(To teach the Social Studies the North Central Association recommends courses in Social Science. The Division recommends courses selected from Government, International Relations, Economics, Sociology, Geography, Anthropology and History 30, 31, 32. To teach a special subject 12 quarter hours is the minimum.)

**Recommended Electives for Elementary School Teachers**

Course Number	Course Title	Hours	Credit
Anth. 20	General Anthropology	- - - - -	5
Anth. 221	Indians of the Americas	- - - - -	3
Econ. 30	Introductory Economics	- - - - -	5
Econ. 102	Contemporary Economic Problems	- - - - -	3
Geog. 18	World Geography for Elementary and Junior High School Teachers	- - - - -	4
Geog. 250	Geography of Colorado	- - - - -	2
Hist. 246	Geographic Influences in U. S. History	- - - - -	2
Hist. 250	History of Colorado	- - - - -	2
Hist. 251	Colonial America (1607-1763)	- - - - -	3
Hist. 252	History of the West	- - - - -	5
Pol. Sci. 40	National Government of the U. S.	- - - - -	5
Pol. Sci. 171	State and Local Government	- - - - -	4
Soc. 50	Principles of Sociology	- - - - -	5
Soc. 204	Marriage and the Family	- - - - -	3
Soc. 206	Crime and Delinquency	- - - - -	3

**MAJOR AND MINOR REQUIREMENTS****Bachelor of Arts Degree (Liberal Arts)****SOCIAL STUDIES MAJORS**

There are two liberal arts majors: *Social Science* and *History*. The course requirements within the division are the same as those listed for the majors with teaching certificates, plus the Common Courses required for liberal arts degree.

**SOCIAL STUDIES MINORS**

Liberal Arts Minors may be in social science, world history or U. S. history.

**Description of Courses****GENERAL SOCIAL STUDIES****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.



**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.

**83. CONTEMPORARY WORLD CULTURES.** *Three hours credit.*  
The geographic framework of contemporary world cultures; some world cultures, the interdependent and inter-related nature of world cultures, and the problem of the maintenance of world peace; the search for freedom and security in the contemporary world situation.

**200. SOCIAL PHILOSOPHY.** *Three hours credit.*  
The meaning of the experiences of mankind; a study of progress toward more adequate conceptions of relationships among men and peoples.

**330. GRADUATE READINGS COURSE IN THE SOCIAL STUDIES.**  
*Four hours credit.*

This course is designed to give doctoral candidates who are deficient in the social studies an opportunity to acquire a basic amount of knowledge and understanding of our cultural heritage and of the political, social, and economic problems that confront America and the rest of the world. Possible solutions of contemporary problems are examined. This course not applicable to a graduate degree in social studies.

**422. SEMINAR IN SOCIAL STUDIES RESEARCH.** (Summers only.)  
*Four hours credit.*

Prerequisite, at least 1 quarter of work on the doctoral level. A seminar, using scholarly research techniques, designed to probe in depth a specific topic which casts light upon one or more of the important generalizations in the area of the social studies. The topic for each quarter will be decided upon by consultation between the instructor and students.

## THE SOCIAL SCIENCES

### Anthropology

**§20. GENERAL ANTHROPOLOGY.** (Credit may be obtained in Social Studies or Science.) *Five hours credit.*

The nature and scope of anthropology, organic man, the problems of race, the nature of culture, the gathering and production of food, economic organization, social organization, political organization, religion, language, education and the formation of personality, problems of culture change, acculturation and applied anthropology. Emphasis upon cultural anthropology.

**§220. WORLD ETHNOLOGY.** (Credit may be obtained in Social Studies or Science.) *Three hours credit.*

Analysis of cultures different from our own in Asia, Africa, the Americas, Polynesia, Micronesia and adjacent areas, cultural and linguistic areas of the world.

**221. INDIANS OF THE AMERICAS.** *Three hours credit.*  
Nonliterate cultures of the Americas. Emphasis on the Indian cultures of North America.

**224. INDIANS OF THE SOUTHWEST.** (Summers only.) *Three hours credit.*

One half of the time will be spent on background materials relative to Pueblo and Apache cultures, and the eventual abandonment of Mesa Verde area. The remaining portion of the course will be spent in the field at Mesa Verde and other appropriate sites. Those wishing to enroll should contact the division.

**225. CULTURE OF AFRICA; SOUTH OF THE SAHARA.** *Five hours credit.*

This course is designed to acquaint the student with the Cultural background of the modern African states. The emphasis to be placed on the tribal backgrounds of Modern Africa and the acculturation that is taking place between European economic, political and social systems and the equivalent African systems. The African Nativistic movements such as the Mau Mau and the secret societies and the growing number of peoples who are de-tribalized.

**223. SPANISH-AMERICAN CULTURE.** *Three hours credit.*

A survey of the cultures in the new world in the pre-hispanic era. The Spanish culture as it was brought to the Americas and a study of the resulting amalgamation that produced the Spanish-American cultures of today.

### **Geography**

**10. WORLD GEOGRAPHY.** *Five hours credit.*

Tools of world geography. World survey of the inter-relationships of man and his culture to the climates, animal life, minerals, soils and surface features of the earth.

**18. WORLD GEOGRAPHY FOR ELEMENTARY AND JUNIOR HIGH SCHOOL TEACHERS.** *Four hours credit.*

Prerequisite, elementary education students only. A broad survey of the world importance, geographical characteristics and major problems of the great world regions, including a more intensive study of their most significant countries and groups of countries. (When this course is taken no credit may be given for Geog. 10.)

**48. UNITED STATES.** *Four hours credit.* (Also offered by correspondence.)

A study of regions and their interdependence. Land use, social and economic problems emphasized.

**112. ECONOMIC GEOGRAPHY.** *Three hours credit.*

Geographic and economic conditions affecting the products, industries, commerce and resources of the world. Special emphasis on the United States.

**203. WORLD RESOURCES AND INDUSTRIES.** *Five 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.

**226. AFRICA.** *Five hours credit.*

Relationships between the physical and cultural patterns. Land use, resource development, social and political problems.

**237. MIDDLE AMERICA.** *Three hours credit.*

Emphasis will be placed upon the heterogeneity of physical conditions, people, historical development, natural resources and economic activities. Particular attention will be given to the problems and prospects of the Middle American countries in their efforts toward improved economic conditions and political stability.

**238. SOUTH AMERICA.** *Three hours credit.*

The purpose of this course is to analyze 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.

**243. EUROPE.** *Three hours credit.*

Physical and cultural patterns. The nations of Europe, their regions, cultures, social and economic organizations with resulting conflicts.

**244. ASIA.** *Five hours credit.*

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

**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; agriculture, mining, manufacturing, water supply, transportation and commerce and industry; population problems, state government and current problems in the growth and development of Colorado.

**260. POLITICAL GEOGRAPHY.** *Five 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.

**365. THE SOVIET UNION.** *Three 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.

**370. URBAN GEOGRAPHY.** *Four hours credit.*

It is the purpose of this course to study 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 presentation of data.

**Economics****30. INTRODUCTORY ECONOMICS.** *Five hours credit.* (Also offered by correspondence.)

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.

**102. CONTEMPORARY ECONOMIC PROBLEMS.** *Three hours credit.*

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.

**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.

**202. MONEY AND BANKING.** *Three hours credit.*

A study of the origins and present roles of our monetary system, commercial banking and Federal Reserve System.

**203. PERSONAL INVESTMENTS.** *Three hours credit.*

What everyone should know about stocks and bonds. How to analyze financial news and financial reports with simulated purchase and sale of common stock.

- 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.
- 210. HISTORY OF ECONOMIC SYSTEMS: SOCIALISM, COMMUNISM, CAPITALISM, FASCISM.** *Four hours credit.*  
A survey of social economic reform movements, including Utopian schemes, mercantilism, monopolistic capitalism, socialism, communism, fascism and modified capitalism.
- 241. PUBLIC FINANCE.** *Four hours credit.*  
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.
- 277. GOVERNMENT AND BUSINESS.** *Three hours credit.*  
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.
- 302. INTERMEDIATE ECONOMICS.** *Five hours credit.*  
The purpose of this course is to provide a summary exposition of contemporary economic theory for those students intending to undertake other graduate courses in economics. Emphasis is upon value and distribution theory. It is assumed that students will have had an introductory course in economics.
- 378. INTERNATIONAL ECONOMICS.** *Three hours credit.*  
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.

### **Political Science (And International Relations)**

- 40. NATIONAL GOVERNMENT OF THE UNITED STATES.** *Five hours credit.* (Also offered by correspondence.)  
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.
- 171. STATE AND LOCAL GOVERNMENT.** *Four hours credit.* (Also offered by correspondence.)  
Prerequisite, Pol. Sci. 40. The organization of state, county, and municipal governments.
- 172. PROBLEMS IN UNITED STATES GOVERNMENT.** *Three hours credit.* (Also offered by correspondence.)  
Prerequisite, Pol. Sci. 40. 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.
- 218. RUSSIAN-AMERICAN RELATIONS.** (Summers only.) *Three hours credit.*  
An analysis of the contemporary political and economic relations between the United States and the Soviet Union; of zones of tension and conflict, areas of agreement and possible solutions to the controversies which currently make for strained relations between these world powers.
- 274. INTERNATIONAL ORGANIZATION.** *Three hours credit.*  
The bases of international relations, progress toward international laws and legislation and modern attempts to establish formal machinery for handling international problems.

**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.

**276. INTERNATIONAL RELATIONS.** *Three hours credit.*

A study of the power relationships existing in a world of sovereign nation states at mid-century.

**279. POLITICAL PARTIES.** *Three hours credit.*

Prerequisite, Pol. Sci. 40. 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.

**376. GOVERNMENT OF GREAT BRITAIN.** *Three hours credit.*

A study of British political theory, the legislative, executive and administrative branches of government and the political problems of Great Britain at mid-century.

**377. THE CONSTITUTION AND ITS INTERPRETATION.** *Four hours credit.*

Prerequisite, Pol. Sci. 40. The major sections and clauses of the Constitution as developed, and interpreted by the courts and by leading writers in the field of constitutional law.

**378. GOVERNMENT OF THE UNION OF SOVIET SOCIALIST REPUBLICS.** *Two hours credit.*

A study of Russian political theory; an examination of the legislative, executive and judicial branches of government.

**Sociology****50. PRINCIPLES OF SOCIOLOGY.** *Five hours credit.* (Also offered by correspondence.)

A study of social organization, culture, socialization, social stratification, associations, collective behavior, population and ecology with detailed applications to the functioning of society in the United States today.

**203. WORLD'S GREAT RELIGIONS.** *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.

**204. MARRIAGE AND THE FAMILY.** *Three hours credit.* (Also offered by correspondence.)

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.

**206. CRIME AND DELINQUENCY.** *Three hours credit.*

A study of the problem of crime and delinquency, causes, treatment and prevention.

**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.

**292. PROBLEMS OF INTERGROUP RELATIONS.** *Two 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.

**293. RURAL-URBAN SOCIOLOGY.** *Two hours credit.*

Prerequisite, Sociology 50. Ecological, social psychological, institutional and organizational aspects of rural and urban areas are investigated as they affect human interaction. The rural-urban continuum is used as the framework.

**294. WORLD POPULATION PROBLEMS.** *Two hours credit.*

Prerequisite, Sociology 50. 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.

**302. AMERICAN SOCIETY TODAY.** *Three hours credit.*

An advanced study of the main cultural and social structures of American society, the social relations, beliefs and values which characterize the people of the United States.

**310. COMPARATIVE SOCIAL INSTITUTIONS.** (Summers only.)

*Four hours credit.*

The course will discuss social transition from the stateless society of the pre-historic period to the contemporary nation-states. It will illustrate the change from small isolated units of social interchange to the interdependent and interrelated world-centered units of today. The course will conclude with an analysis of the recent trends toward universalism and the one-world concept.

**311. SOCIOLOGICAL THEORY.** *Three hours credit.*

Prerequisite, Sociology 50. The development of Sociological Theory from Comte to the present is analyzed with special emphasis on various European and American "schools." The principal aim is to acquaint the student, systematically, with the concepts of sociological theory in order to orient him to various frames of reference for viewing human interaction.

**HISTORY****World History****30. WORLD HISTORY I.** *Four hours credit.* (Also offered by correspondence.)

World history—early times to 1200. Major civilizations. For teachers in elementary and secondary schools.

**31. WORLD HISTORY II.** *Four hours credit.* (Also offered by correspondence.)

World History—1200-1815. Major civilizations. For teachers in elementary and secondary schools.

**32. WORLD HISTORY III.** *Four hours credit.* (Also offered by correspondence.)

World history—1815 to the present. Major civilizations. For teachers in elementary and secondary schools.

**221. THE GREAT WORLD ISSUES.** (Summers only.) *Three hours credit.*

This course contemplates a thorough inquiry into one or more of the great world issues of the day, approaching the problem of problems from the historical, economic, geographic, cultural, political, and diplomatic viewpoints.

**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.

- 255. CONTEMPORARY WORLD HISTORY.** *Five hours credit.*  
And 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.
- 260. ANCIENT HISTORY.** *Five hours credit.*  
The life and institutions of the Ancient Near East, Greece, and Rome: culture development, living conditions, and recent archaeological discoveries.
- 261. THE MIDDLE AGES.** *Five hours credit.*  
An advanced coverage of history from the end of ancient times to the beginnings of modern Europe.
- 263. RENAISSANCE AND REFORMATION.** *Five hours credit.*  
Prerequisites, History 30, 31, 32. A study of political, social, economic, religious and cultural developments from 1300 to 1600.
- 264. THE OLD REGIME. 1600-1789.** *Five hours credit.*  
Prerequisites, History 30, 31, 32. A study of the political, social, economic, intellectual, and cultural developments from the end of the Renaissance and Reformation period to the French Revolution.
- 266. EUROPE, 1815-1870.** *Five hours credit.*  
Prerequisites, History 30, 31, 32. 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.
- 267. EUROPE, 1870-1914.** *Five hours credit.*  
Prerequisites, History 30, 31, 32. A study of the political, social, economic, intellectual, and diplomatic developments from the Franco-Prussian War to the beginning of World War I.
- 269. THE FAR EAST.** *Five hours credit.*  
The economic, social, educational, philosophical, and political life of the major nations and regions of the Far East.
- 270. HISTORY OF RUSSIA.** *Five hours credit.*  
Social, political, and economic history of Russia, with emphasis on the nineteenth and twentieth centuries. Considerable attention will be given to the various factors which contributed to or influenced the revolutions of 1905 and 1917. Considerable time will also be devoted to the post-revolution policies of Russia.
- 271. 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 but it will contain a brief survey of the background of English History to the Tudor Dynasty.
- 330. HISTORY OF NATIONALISM.** *Five hours credit.*  
Prerequisites, History 30, 31, 32. Deals mainly with the rise of nationalism in the 18th century, its spread over Europe in the 19th century, and its world-wide expansion in the 20th century. Examines the interaction of nationalism, industrialism, revolution and democracy. Compares different manifestations of nationalism in Russia, Japan, and other non-Western nations as well as European nations.
- 332. INTERRELATIONSHIP OF WESTERN AND EASTERN CIVILIZATIONS.** (Summers only.) *Four hours credit.*  
Traces the historical origins of the division between Western Democracies and communistic Russia; the impact of Western civilization upon India, China, Japan, and Southeastern Asia; and the more recent counterimpact of the non-Western civilizations. Explores the possibility of reconciling the conflicting ideologies through a more inclusive cultural ideal.

**333. REVOLUTIONS IN MODERN TIMES.** *Four hours credit.*

The four great revolutions of the western world, namely, the English, American, French, and Russian Revolutions are compared in a search for causes and possible patterns of revolution. Post-World War II revolutions are analyzed to find economic, social, and intellectual causes of the revolutionary period of today.

**365. FRENCH REVOLUTION AND NAPOLEON.** *Five hours credit.*

Prerequisites, History 30, 31, 32. A study of the causes of the revolution, its classical pattern, the rise of nationalism, and the significance of Napoleon in France and abroad.

**United States History****70. UNITED STATES HISTORY I.** *Three hours credit.* (Also offered by correspondence.)

For history majors and minors only. 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.

**71. UNITED STATES HISTORY II.** *Three hours credit.* (Also offered by correspondence.)

For history majors and U. S. history minors only. 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.

**72. UNITED STATES HISTORY III.** *Three hours credit.* (Also offered by correspondence.)

For history majors and U. S. history minors only. United States history, 1921 to the present. The new freedom, the First World War, prosperity and depression, the New Deal, the long armistice, the Second World War, post-war problems and adjustment.

**75. UNIT SURVEY OF UNITED STATES HISTORY.** *Four hours credit.* (Also offered by correspondence.)

For elementary majors and minors only. Detailed consideration of specific units in American history with emphasis upon the content and materials for use in elementary schools.

**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.

**246. GEOGRAPHIC INFLUENCES IN UNITED STATES HISTORY.** *Two hours credit.*

Relationships of the geography of the times to the discovery, exploration, settlement, and development of the United States.

**250. HISTORY OF COLORADO.** *Two 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.

**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.

**252. HISTORY OF THE WEST.** *Four hours credit.*

Western movement beginning with 1607. The colonial west, organization of Northwest territory, Indian wars, Cumberland road, coming



of steamboat, canal era, frontier monetary problems, relation of Mormons to westward movement, pre-emption and homestead acts, forty-niners and fifty-niners, transcontinental railroads, range cattle industry.

**265. CONTEMPORARY UNITED STATES HISTORY.** *Three hours credit.*

Brief summary of the great trends in the United States in the period following 1865. World War I, League of Nations, normalcy and reaction, the great depression, new deal, World War II, United Nations, Korean "Police Action," contemporary problems.

**272. CONTEMPORARY AMERICAN FOREIGN POLICY.** (Summers only.) *Three hours credit.*

The course examines American foreign policy by visiting Washington, D. C., and the United Nations at 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 Social Science.

**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.

**356. TOPICS IN AMERICAN HISTORY.** (Summers only.) *Three hours credit.*

Stated in general terms, the objective of the course is to allow the student who has become familiar with the chronological sequence of events in American history to examine in depth the most significant topics, issues, and trends in the evolution of the American society. The precession, by its very nature, lends itself to this selective, topical approach.

**363. AMERICAN REVOLUTION.** *Three hours credit.*

Colonial background, the imperial rivalries for control of the North American Continent, the conflict between the Colonies and Great Britain, Declaration of Independence, Treaty of Paris 1733, Articles of Confederation, United States Constitution.

**364. CIVIL WAR AND RECONSTRUCTION.** *Three hours credit.*

Slavery in America, the crises of the 1850's and the election of 1860, secession, conflict between the states, the Emancipation Proclamation, the reconstruction of the defeated South.

**366. THE ERA OF JACKSONIAN DEMOCRACY, 1815-1850.** *Five hours credit.*

An intensive survey of the social, economic, and political developments of the "Middle Period" of American History. Major themes are the advent of industrialism, democracy, Manifest Destiny, and the genesis of a bitter sectional controversy.

**367. INTELLECTUAL HISTORY OF THE UNITED STATES.** *Five hours credit.*

A study of the intellectual aspects of characteristic institutions and the changing modes of thought in American life from the Colonial period to the present day. The relationship of intellectual life to social and economic conditions is stressed.

## **SOCIAL STUDIES EDUCATION**

### **210. ECONOMIC EDUCATION WORKSHOP. (Summers only.) *Three hours credit.***

A program designed to improve the teaching of economic concepts and the facts of life about our American economy. Attention will be centered on an understanding of our economic system, how these understandings can be introduced into the classroom situation, and materials useful for instructional purposes.

### **231. INSTRUCTIONAL MATERIALS FOR THE SOCIAL STUDIES IN THE JUNIOR HIGH SCHOOL. (Summers only.) *Three hours credit.***

Study of instructional materials for junior high school social studies. Attention will be given to collateral, supplementary, and source materials, historical fiction, audio-visual aids, graphic materials, community resources, current news media, music, creative activities, and techniques of evaluating student learning through the use of such instructional materials.

### **245c. ELEMENTARY AND SECONDARY SCHOOL SOCIAL STUDIES CURRICULUM WORKSHOP. (Summers only.) *Three hours credit.***

A workshop designed for elementary and secondary school teachers of the social studies who desire a knowledge of social studies curriculum research, theory and practice. Specialists drawn from both elementary education and secondary education will conduct the sessions.

### **305. IMPROVEMENT OF INSTRUCTION IN SOCIAL STUDIES IN THE SECONDARY SCHOOL. *Four hours credit.***

Consideration of recent trends in the organization and teaching of Social Studies courses in the secondary school. Teachers will be given opportunity to evaluate new courses of study, new materials and new equipment developed in an attempt to improve teaching procedures.

### **402. PHILOSOPHY AND CONTENT OF THE SOCIAL STUDIES. (Summers only.) *Four hours credit.***

The course will acquaint the student with the historical evolution of the social studies curriculum and its contemporary status and interpretation. It will investigate the subject matter fields of the social studies and will give a brief interpretation of their content, both historical and contemporary.

### **403. SEMINAR IN PROBLEMS OF TEACHING. (Summers only.) *Four hours credit.***

Doctoral candidates will utilize understandings in the areas of (1) social analysis, (2) objectives, (3) curricular content, (4) the learning process, (5) the teaching process, and (6) evaluation, in resolving problems anticipated in the light of doctoral and post-doctoral plans.

# State Institutions of Higher Learning

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