

BULLETIN

1963-64 General Catalog

Colorado State College
Greeley, Colorado



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BULLETIN

Colorado State College
1963-64

GENERAL CATALOG

Greeley, Colorado

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1963

JANUARY							FEBRUARY							MARCH							APRIL									
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1964

JANUARY							FEBRUARY							MARCH							APRIL											
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27	28	29	30				25	26	27	28	29	30	31	29	30						27	28	29	30	31							

College Calendar

• Fall Quarter—1963

September 16	- - -	Laboratory School Opens
September 18	- - -	New Students Report
September 23	- - -	Registration for all Students
September 24	- - -	Classes Begin
October 12	- - - -	Homecoming
October 24-25	- - -	CEA Convention (no classes)
November 20-22	- -	Thanksgiving Vacation (Begins Noon, Nov. 20)
December 6	- - - -	Graduation Exercises—4:15 p.m.
December 9-10	- - -	Final Examinations
December 20	- - - -	Laboratory School Closes

• Winter Quarter—1964

January 2-3	- - - -	Registration for all Students
January 6	- - - -	Classes Begin
January 31-Feb. 1	- -	Mid-Year Education Conference
March 13	- - - -	Graduation Exercises—4:15 p.m.
March 16-17	- - - -	Final Examinations

• Spring Quarter—1964

March 23	- - - -	Registration for all Students
March 24	- - - -	Classes Begin
May 29	- - - -	Insignia Day
May 30	- - - -	Senior Ceremonial
May 30	- - - -	Memorial Day
May 31	- - - -	Graduation Exercises—2 p.m.
June 4-5	- - - -	Final Examinations

• Summer Quarter—1964*

June 15-16	- - - -	Registration for all Students
June 17	- - - -	Classes Begin
June 17	- - - -	Laboratory School Opens
July 27-August 1	- -	Fine Arts Festival
August 20	- - - -	Graduation Exercises—7 p.m.
August 20-21	- - - -	Final Examinations

*Because of registration occurring on the first two days of the quarter, two Saturday classes will be scheduled to make up for those two days. Monday classes meet July 11 and Tuesday classes meet August 1.

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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.

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

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

REX^{K.} SCHWEERS, Jr., A.M., Supervisor and Instructor in Secondary School Mathematics.

*Cobby Alt Miller
inb. Temp. Sect.
in Education*

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

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

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

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

EUGENE SHAW CARTER, A.B., A.M., Appointed, 1936; Emeritus since 1962.

Professor Emeritus of Industrial Arts

JEAN CAVE, B.S., A.M., Appointed 1921. Emeritus since 1961.

Professor Emeritus of Physical Education

JOHN ELBERT CHADWICK, A.B., A.M., Ph.D. Appointed 1924; Emeritus since 1962.

Professor Emeritus of Music

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

Associate Professor Emeritus of Elementary Education

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

Professor Emeritus of Business Education

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

Professor Emeritus of History and Political Science

RICHARD G. ELLINGER, A.B., A.M. Appointed 1927; Emeritus since 1962.

Professor Emeritus of Art

ROSE WILMA FARRAR, A.B., A.M. Appointed 1938; Emeritus since 1962.

Professor Emeritus of Business Education

CATHERINE CRATES GIBERT, A.B., A.M. Appointed, 1922; Emeritus since 1959.

Professor Emeritus of Foreign Languages

HENRY TRUSTMAN GINSBURG, B.Mus., A.B., A.M., D.Mus. Appointed, 1931; Emeritus since 1958.

Professor Emeritus of Music

LYMAN BEECHER GRAYBEAL, B.S., A.M., Ed.D. Appointed, 1950; Emeritus since 1960.

Professor Emeritus of Education

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

EDNA MARY HOYDAR, B.M., M.M. Appointed 1957; Emeritus since 1962.

Professor Emeritus of Public School Music

HELEN BARBARA HUNT, B.S., M.S. Appointed, 1949; Emeritus since 1959.

Associate Professor Emeritus of Home Economics

FRANK COVERT JEAN, A.B., A.M., Ph.D., Sc.D. Appointed, 1921; Emeritus since 1945.

Professor Emeritus of Biology

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

Associate Professor Emeritus of Business Education

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

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

Professor Emeritus of Education

EDITH MARIE SELBERG, A.B., A.M. Appointed 1926; Emeritus since 1962.

Professor Emeritus of Biology

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

Professor Emeritus of Education

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

General Information

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 completely 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 doctorate 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.

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

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

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

Government—The college is under the 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 approximately 32,000. Greeley is 52 miles north of Denver and 52 miles south of Cheyenne, Wyoming. Estes Park is 51 miles west. The front range of the Rocky Mountains is 30 miles west of the campus. The elevation of Greeley is 4,648 feet, and the climate is invigorating and conducive to study.

Laboratory Schools—The college maintains a Laboratory School which includes Ernest Horn Elementary School with kindergarten, 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. For information, the director of Special Education should be consulted.

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

Campus—The City campus, in a beautiful residential area of Greeley, has three parts—the Main campus, East campus and West campus. Most of the academic buildings, the Student Union, and the women's residence halls are on the Main campus. The East campus, two blocks from the Main campus, is the site of men's residence halls, baseball and football facilities of Jackson Field, and a portion of college housing for married students. Land for the new 148-acre West campus was acquired in 1956 and a \$2,025,000 Laboratory School was completed on this site in 1961. Construction on a residence hall, designed to house 500 students, will be completed by Fall Quarter 1963. Ground will soon be broken for a new science building and student union. The physical plant of the City campus includes 55 buildings, exclusive of the college-owned fraternity and sorority houses. The Mountain campus, acquired in 1956, includes 80 acres of land nearly adjacent to Estes Park amid some of the most spectacular scenery in the Rockies. The Mountain campus is used as a base for field trips into the mountains by college classes.

Library Facilities—The college library in Carter Hall has 178,000 volumes, 750 microfilms and 950 periodicals, plus many government documents, pamphlets, and reference materials. Carter Hall is a modern building with many comfortable, well-lighted study areas. The book stacks are open to all students and other patrons.

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 films, 200 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.

Bureau of Research Services—Consulting services are provided to the college, individual faculty members, doctoral students and public schools. Services to individuals and organizations include aid in preparing statistical designs, proposals for grants, and manuscripts for publication. College and public school organizations are assisted in planning test programs, large-scale research projects, and program evaluation. A research journal is also published in cooperation with Alpha Mu chapter of Phi Delta Kappa and Office of Publications.

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 professional 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 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. Please consult Expenses section for specific fee schedule.

Student Personnel Services

All out-of-class activities and services for students are administered by the Department of Student Personnel under the direction of the Dean of Students. These include pre-college counseling, application for admission, veterans counseling, matriculation and guidance examinations, registration for courses, record keeping, application for admission to the advanced teacher education program, application for graduation, certification, transcription of records, student health services, testing, counseling of a personal nature as well as academic guidance, remedial programs, living accommodations, recreational and social events, student employment, and student loans and scholarships.

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

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

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

Students are 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 the student health fund.

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.

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.

Photographs—A college photographer will take pictures of all new students on registration day. These pictures are for official files and for the student's identification card.

Housing

Student Residence Halls—Room and board accommodations are available in college residence halls for undergraduate or graduate students on a contract basis for the full school year consisting of the fall, winter and spring quarters. No student is permitted to break this contract unless he or she is leaving the campus. Residence in these halls provides social, educational, and cultural advantages to the student. Each hall is under the supervision of a director chosen for his or her experience and interest in the personal and social growth of college 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 Stu-

dent 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 a student living in a residence hall should withdraw from the college in any quarter, he forfeits his room deposit of \$25, is charged for the room rent for the balance of the quarter, and is allowed a refund only on the dining hall charges on a pro-rated basis.

If all provisions of the contract have been complied with and no damage charges have been assessed, the \$25 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.

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.

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.

Loan Funds

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

able 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 more than \$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, Panhellenic, 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.

United Student Aid Fund Loan Program — Colorado State College is collaborating with the United Student Aid Fund Loan Program whereby qualified students may obtain loans at cost from their local banks in most states. These loans are available to sophomores, juniors, seniors, and graduate students. Application forms are available at the Office of the Director of Student Aid.

Scholarships and Awards

Several scholarships and awards have been established for students of the college. To keep scholarships in force, the recipient must maintain a minimum cumulative grade average as follows: freshmen, 3.5; and sophomores, 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.

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. Recipients must be residents of the State of Colorado.

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.

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

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

The 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.

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 Colorado 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 Colorado high school senior is advised to inquire of the principal or superintendent of his school concerning the eligibility standards for such scholarships.

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.

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

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

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

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

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

Student Activities

All campus organizations must apply each year through the Student Council to the Department of Student Personnel for charter approval. When organizations are recognized by the Student Council, 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.

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

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

Students registered for 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 Quarter, but comparable activities are provided to students under the direction of the Director of Summer Quarter and the Director of Student Activities.

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

Athletics—The athletic activities of the college are governed by a Board of Athletic Control on which both students and faculty are represented. Intercollegiate and intramural athletic programs are scheduled in football, basketball, baseball, field and track, wrestling, swimming, gymnastics, 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.

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

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

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

Clubs and Honorary Fraternities—Each division of the college sponsors honorary fraternities and clubs of various types which are of special 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 eight national social sororities and six national social fraternities.

Sororities

Alpha Delta Pi
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 Xi

No student is eligible for pledging until he or she has been enrolled at Colorado State College for one quarter.

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

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

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.

Expenses

Quarterly Tuition and Fees

Tuition and Student Service Fees are assessed and collectable during registration on the number of quarter credit hour units for which the student enrolls. Charges are applicable to all enrollments whether arranged for partial or for full study programs. Assessments differ depending on the quarter for which the student registers, academic year or summer, and on the residence status carried, in-state or out-of-state.

On-Campus Instruction

FALL, WINTER OR SPRING QUARTERS

Colorado Resident

		<i>Per Credit Hour of Enrollment</i>
Tuition	\$3.00	
Student Services Fee	2.00	
	2.00	\$5.00

Non-Colorado (out-of-state) Resident

Tuition	6.50	
Student Services Fee	2.00	
	2.00	8.50

SUMMER QUARTER

Colorado Resident

Tuition	4.50	
Student Services Fee	2.00	
	2.00	6.50

Non-Colorado (out-of-state) Resident

Tuition	8.50	
Student Services Fee	2.00	
	2.00	10.50

*Off-Campus Instruction**

Group Instruction		8.00
Correspondence Study		8.00

Doctoral Research Course Credit

Tuition only in lieu of regular tuition and Student Services Fees.....		8.00
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*Residence status is not determined for or applied to off-campus programs.

Tuition and Student Services Fee charges are computed by multiplying the number of course credit hours for which registered by the applicable charge quoted above. A typical registration for a complete program each quarter will occur for 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 Tuition and Student Services Fee charges will entitle the student to instruction and a number of campus services.

On campus in the academic year, a student 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 the use of Student Union facilities.

On campus or on student teaching assignment in the academic year, a student enrolled for six or more credit hours is entitled to all regular college services accorded to full-time students. In addition to those listed in the paragraph above, the services include the issuance of a validated identification card, contractual medical and hospitalization services provided under the terms of a Student Health Certificate, admission to college athletic events, Little Theatre plays, the community concert series and musical productions. The college annual, "Cache La Poudre", will be issued also each spring quarter to those students in residence who have been enrolled for six or more credit hours in each of the three quarters of the academic year.

During the Summer quarter, college fee charges do not provide for contractual medical and hospitalization services but are used to expand a varied program of campus activities.

Recipients of scholarships or tuition waivers receive as a credit against all charges only the value of that portion of the credit hour charge which is represented by tuition. Special rulings apply for allowances made to holders of Student Teaching Reciprocity Waiver Certificates and are announced on the S.T.R.W. set of regulations for the year. Certain tuition scholarships and waivers are issued to apply in the fall, winter and spring quarters only; others, principally the Joint Honor Scholarships and the Colorado State College Awards, are now validated as well for use during the summer quarter. Only that portion of the credit hour charge represented by tuition is waived.

Holders of Student Teaching Reciprocity Waivers which are issued for fractional loads, are granted waivers for tuition plus student services fees for the credit hours value only of the S.T.R.W. presented.

Residence status is determined by college officials solely for the purpose of assessing tuition. All rulings are made in strict accord with the provisions of a 1961 state statute (C.R.S. 1953 as amended, 124-19-1) which applies uniformly to all registrants in the state institutions of higher education in Colorado. Administrative procedures which fix status before or at registration have received the approval of the Trustees of the State Colleges in Colorado and the Association of State Institutions of Higher Education in Colorado. If the resident status conferred on a student is for special circumstances, questioned, an appeal from it may be made on a specified form and the case will be reviewed by a college committee two weeks following a registration. The ruling of the committee is final. A declaration by the student of intent to be or to become a resident of Colorado has no bearing on the determination of a residence status fixed for tuition payment purposes.

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

ACADEMIC YEAR—FALL, WINTER AND SPRING
QUARTERS COMBINED

	<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).....	100.00	100.00
Board and Room (average).....	750.00	750.00
*Personal Expenses	225.00	225.00
Total Expenses Academic Year.....	\$1,315.00	\$1,483.00

SUMMER QUARTER, EXCLUSIVELY

	<i>In-State</i>	<i>Out- of-State</i>
Tuition and Fees, (full quarter of 10 weeks and 15 credit hours).....	\$ 97.50	\$ 157.50
Books and Supplies (estimated).....	35.00	35.00
Board and Room (2 to a room average).....	250.00	250.00
*Personal Expenses	90.00	90.00
Total, Full Quarter.....	\$ 472.50	\$ 532.50

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

Incidental Extra Fees Applicable Under Specified Conditions

Late Registration: Assessed for an enrollment completed on the first day following the scheduled registration day.....	\$ 5.00
Assessed for each added day, during which late registration is permitted	2.00
Special Examination: Assessed when permission is granted to take an examination at a time not that for which scheduled.....	2.00
Late Application for Graduation.....	2.00
Permit to Register: Assessed when student fails to complete the pre-registration sequence	1.00
Change of Program: Assessed for each separate change of program permitted	1.00
Extension of Credit: Assessed if and when a deferred payment program is concluded to be effective within a quarter	
Tuition and Student Services Fee Charges.....	1.00
Tuition, Fees and Board and Room Charges.....	2.50
Assessed charges are due and payable at registration in each quarter. Deferments are arranged only for sufficient cause and only for payments by installments within the quarter. No registration is permitted without a down payment of at least one-third of total charges. No deferment is issued for a limited course program or for a campus residence of one month or less.	
Proficiency Examination	2.00
Official Transcript of College Records, per copy.....	1.00

Student Identification Card Replacement.....	1.00
Certified Statement of Issuance of Teaching Certificate: Applies to credentials granted prior to 1960.....	1.00
Reading Improvement Laboratory	
Registration, per quarter.....	10.00
General Education Development Tests.....	5.00
(May be used to qualify for a High School Equivalency Certificate from the Colorado State Department of Education)	
Special tests by the Counseling Service.....	5.00
Special Billing: Assessed when an itemized invoice of an account is requested by the student or a supporting agency.....	1.00
Office of Appointments Charges: (The Placement Year begins October 1 and ends September 30)	
Initial Enrollment before December 1.....	10.00
Initial Enrollment after December 1.....	15.00
Re-enrollment before February 1.....	\$10.00
Re-enrollment after February 1.....	15.00
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 mailed when applicant has not re-enrolled, per copy.....	1.00
Telephone calls, telegrams, postage for air mail or special delivery billed at actual cost.	

Fees Added for Graduate Study

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

First quarter	\$25.00
Second quarter	25.00
Third quarter	50.00
Fourth quarter	75.00
Fifth quarter	75.00
Sixth quarter	50.00

Doctoral Research Abstract Publication (assessed at time study is formally accepted and approved)..... 30.00

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 for research credit (usually during the quarter in which the study is formally accepted and approved) will pay \$8.00 tuition per quarter hour of research credit recorded in lieu of the tuition and Student Services Fee.

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

Binding and mailing Master's Thesis, Practicum or Doctoral Research Study (4 copies required).....	\$12.00
Comprehensive Examination Retesting Fee.....	5.00
Writing Laboratory for Graduate Students (required of a student assigned to the laboratory following tests).....	10.00
Advanced Test in Education and Psychology and Area Tests in Social Science, Natural Science, and Humanities (for doctoral and specialist 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 quarters	
Violin, piano, organ, strings, each.....	\$ 3.00
Other instruments, each.....	2.50
Practice room per quarter (includes piano rental).....	5.00
Orchestra or band instrument rental per quarter.....	5.00
Organ rental per quarter.....	10.00

Policy on Refunds

To be eligible for a refund of any kind under the following regulations the student must present a copy of a formal, approved withdrawal notice to the Business Office. Consult the Records Office and the Housing Office for information on the procedure required.

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

On partial programs of five hours or less, no refunds following the first week of classes; otherwise as provided hereunder

On any course of two weeks or less in the summer quarter, no refunds following attendance at the first meeting of the class

Within the first week following the scheduled registration day, all tuition and fees less a deduction of \$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; thereafter no refunds are made.

Room and board or apartment rental payments are refunded under the provisions of the Residence Halls Lease. Consult the Housing Office at withdrawal for information on the computations applied to partial deposit refunds and allowable credits on board and room payments.

Residence Halls Charges

Rates applied in the Fall Quarter of 1963 and the Winter, Spring and Summer Quarters of 1964.

	<i>Minimum</i>	<i>Maximum</i>
	<i>Per Week</i>	
Board and Room per person		
Partial Session in the Summer Quarter, one or more weeks for either Men's or Women's Residences		
Occupancy, two persons to a room.....	\$ 25.00	\$ 25.00
Occupancy, single person per room.....	30.00	30.00

	<i>Minimum</i>	<i>Maximum</i>
	<i>Quarterly</i>	
Men's Residence Halls.....	\$250.00	\$250.00
Women's Residence Halls		
Occupancy, two persons per room.....	235.00	250.00
Occupancy, single person per room (available in summer quarter only)....	285.00	285.00
Board Service Only		
14 meals per week, limited to students not occupying residence halls space, men or women's halls.....	145.00	145.00
Rooms Only		
College-Owned Fraternity or Sorority Houses (restricted to organization mem- bers, fall, winter and spring quarters) single persons	\$ 60.00	\$ 65.00
Married couples, rates for 2 persons (summer quarters only).....	140.00	140.00
Families (reserved for full summer quarter only)	200.00	200.00
Apartments, Jackson Village		<i>Monthly</i>
(rentals restricted to student families)..	40.00	52.00

For the Residence Halls and Fraternity and Sorority Residences, the student is expected to provide towels and personal linens. The college furnishes and launders college-owned sheets, pillow cases, pads and blankets. For apartments, minimum furniture is provided.

Usually no differentiation in pricing is made among school quarters, most rates being uniform for academic year quarters and the summer quarters.

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. No student is permitted to break this contract unless he or she is leaving campus or getting married. If a student withdraws before the end of the quarter, he is charged full room rent and is charged board for the days he was in residence and forfeits the \$25 deposit.

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

Academic Information

Undergraduate Program—The Bachelor of Arts degree (B.A.) may be earned in either the teacher preparation or liberal arts programs. The teacher preparation program prepares for teacher certification at the elementary, junior high or secondary levels in Colorado and other states. The Liberal arts program does not fulfill teacher certification requirements.

Undergraduate Course Load—The normal undergraduate course load for a quarter is 15 hours of academic credit. This does not include the physical education activity courses required in the freshman and sophomore years. Upon the approval of the Dean of Students, a maximum of 18 academic credit hours plus the required physical education activity may be taken by students who have a college scholastic average of "B" or better. Extra hours for other students who have good records, but below "B," will be considered individually. All requests for permission to carry more than the normal undergraduate course load must have the approval of the Dean of Students. Graduation requirements and the academic standing of the student will be considered by the Dean of Students in making the decision.

Graduate Program—1. Master of Arts (A.M.) degree. This degree is offered in seven divisions of the college.

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.

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.

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 at or after the close of the sophomore year, may be suspended.

A minimum cumulative grade point 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.

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 five points; "B" a value of four points; "C" a value of three points; "D" a value of two points; and "F" a value of one point. If all the student's marks were "C's" they would have a numerical value of three. 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.

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

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

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

Majors and Minors—At the time of the first registration, a student must declare his major and minor fields of study and be assigned by the major division to a faculty advisor 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. 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 also listed in each division.

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

Credit Offered—Courses offered during Fall, Winter, Spring and Summer quarters will carry the credit designated in the catalog.

Course Numbers—The course numbers are divided into 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.

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, and explanation of the content of the course, and other information needed for planning a program.

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

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

Attendance at the first day of every class is of utmost importance to the student, the faculty, and the staff; hence all students are expected to register at the designated time and attend the first meeting of each class. 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 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. (See Expenses section for late registration fee rate.)

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.

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

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

Undergraduate Program

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

- a. *General Education Program*—Humanities, Communications, Sciences, Social Science, General Psychology, Personal Living.
- b. *Advanced Teacher Education Program*—Educational Psychology, Basic Concepts of Education, Methods and Observation, Student Teaching, Philosophy of Education. (Teacher Preparation only.)
- 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.

Bachelor of Arts Degree (Teacher Preparation) — The Bachelor of Arts degree in preparation for teacher certification may be conferred in one of the following fields:

Fine Arts
 Home Economics
 Dietetics
 Industrial Arts
 Business Education (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 (Biological Science or Physical Science)
 Chemistry
 Mathematics
 Mathematics (Junior High Level)
 History
 Social Science
 Social Studies (Junior High Level)

Bachelor of Arts Degree (Teacher Preparation) 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. General education Courses listed for the Bachelor of Arts degree in teacher preparation.
- 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 (Teacher Preparation) 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. General education courses listed for the Bachelor of Arts degree in teacher preparation.
- b. Major Courses listed in the Division of Education for the Elementary Education Major.

- c. A minor of 27 quarter hours or 15 quarter hours in each of two areas of concentration, one of which must be in the Division of Humanities, Social Studies or Science. The chairmen of the division offering the minor or area of concentration will determine the courses required.
- 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 (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	Biological Science
Dietetics	Chemistry
Home and Family Living	Earth Science
Business	Physical Science
English	Mathematics
Speech	Medical Technology
Drama	History
Foreign Languages	Social Science

The degree may not be taken in the fields of Music, Health, Physical Education and Recreation, Industrial Arts, and Education. However, certain courses in these fields may be elected with the approval of the advisor 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 EPG 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. General education program 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 six 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.

Admission Policy

Admission and Retention — Admission and retention policies at Colorado State College are based on the premise that academic ability and achievement, health and physical fitness, personal and social qualities, and speech skills are important factors in the preparation of teachers 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 three 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 three 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.

Admissions Procedures

New Freshman Students

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.

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 consult the Graduate Division section of this Catalog for details concerning graduate programs.)*

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 colleges 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.

Advanced Placement

Colorado State College offers advanced placement for graduating high school seniors who have participated in special college-level courses in the high school and who have satisfactorily passed the appropriate Advanced Placement Examinations conducted by the College Entrance Examination Board.

General Education

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

Freshman Year

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
COM 1	— First Course in Communications: Writing	3
COM 2	— Second Course in Communications: Writing ..	3
COM 3	— Third Course in Communications: Speech	3
EPG 20	— General Psychology and Personal Adjustment	3
HPER 61	— Personal Living and Community Health	3
SCI 3	— Physical Science	3
SCI 4	— Biological Science	3
SCI 5	— Earth Science	3

Sophomore Year

HUM	1	—	Introduction - The Greek and Roman Periods	3
HUM	2	—	The Middle Ages and the Renaissance	3
HUM	3	—	The Eighteenth to the Twentieth Centuries	3
SS	81	—	The Individual and His Social Relations	3
SS	82	—	American Life and Institutions	3
SS	83	—	Contemporary World Cultures	3
				42
HPER		—	Physical Education Activity courses	6
				48

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

Advanced Teacher Education

The courses listed below are required of and open only to students who have been formally admitted to the Advanced Teacher Education Program.

Junior Year

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
ED	101	— Basic Concepts of Education	5
EPG	140	— Educational Psychology	5

Senior Year

ED	251	— Student Teaching	16	
ED	295	— Philosophy of Education	3	
				29

These courses meet North Central Association requirements of 27 quarter hours of professional preparation. In addition, to these courses, required of all students enrolled in the teacher preparation program, methods and observation courses required of all majors and minor are listed with other requirements in each division and are also professional preparation courses.

Admission — Immediately prior to the Junior year, written application must be made to the Committee on Admission to Advanced Teacher Education for permission to pursue the advanced Teacher Education Program. Transfer students will receive an application form at the time they apply for admission to the college.

Appeal by Students Who Have Been Denied Admission — Any student who has been denied admission to the Advanced Professional Education Program at Colorado State College may request a hearing for a review of his case. Such hearing shall be set up within 10 days after the filing of his request, except with mutual consent of the student and the committee members. The committee to conduct the hearing shall consist of the President of the College (or his representative), the Dean of the College, the Dean of Students, the chairman of the division or the

head of the department in which the student is majoring, and the Dean of Men or the Dean of Women. The hearing will be conducted in the office of the Dean of the College, and the results of the meeting shall be transmitted in writing to the student within 24 hours.

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.

The minimum requirement for graduation with a teaching certificate is 16 quarter hours of student teaching.

Any student electing more than 16 hours of student teaching must have the approval of the Director of Student Teaching. The maximum number of hours of student teaching is 20.

A student who submits to the director of student teaching 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.

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.

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: EPG 20, 140 and ED 201 (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.

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.

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.

Off-Campus Instruction

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. General education 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.

Graduation Requirements

Procedure—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 Academic credit work. Total credits required for graduation

are 180 academic quarter hours plus six quarter hours of physical education activity courses, numbered 1 to 60, to be earned in six quarters.

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.

Requirements for graduation are checked in accordance with the requirements in *one* college catalog. A student is not permitted to combine programs from different catalogs. Normally, students meet requirements of the catalog issued them during their first quarter on campus. However, a student may elect to accept the requirements of a later catalog, but he must meet all requirements of that catalog.

Application for Graduation — Upon completing 135 quarter hours of academic credit 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 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.

Graduate Division

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.

Accreditation—Colorado State College has been awarded complete accreditation by the North Central Association of Colleges and Secondary Schools and by the National Council for Accreditation of Teacher Education in its academic program, bachelor through doctor degrees. The college is also 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.

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*. Student 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 aforementioned 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 (See Expense section for lab fee). 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.

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 by 4 inches, 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 request the division chairman to 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.

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.

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. An "Inc." must be removed within the first four weeks of the succeeding quarter or it automatically becomes a grade of "IF".

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 — Candidates for the Master of Arts degree must maintain a minimum grade point average of 3.66 (B—) each quarter. Candidates for the Specialist in Education or Doctor of Education degree must maintain a minimum grade point average of 4.00 (B) each quarter.

Late Enrollment and Changes in Programs — An assessment of a late registration fee is made by the Accounting Office to all students who complete registration later than the stated catalog date.

No student will be permitted to enroll or make changes in programs after the first week following the regular registration period.

Changes in programs will be permitted until four o'clock on the Friday following registration.

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.

Teacher Certification—All students must have completed an approved program in common and professional courses and courses in the teaching area for which certification is desired. To be recommended for certification students must observe the following:

1. Satisfactorily complete a minimum of two quarters as a full-time student on the Colorado State College campus prior to a student teaching assignment. (A minimum of 12 quarter hours per quarter is considered a full-time load.)
2. Present complete and official transcripts to the college for evaluation. The student first presents this transcript to the certification officer or to the Dean of the Graduate Division for evaluation. The Registrar's Office or the Graduate Office will evaluate the transcripts for the common and professional courses *only*.
3. The student must present his transcript (the file copy in the Graduate Office may be borrowed) to his Major Division or Department which the student has chosen as his teaching field. The Chairman of the Division will evaluate the transcript to determine deficiencies in the teaching area.
4. Upon completion of evaluations the student should confer with the Graduate Division Office for instructions and procedures in regard to admission to the Graduate Division.
5. A student must possess health, personal characteristics, and professional attitudes essential for successful teaching. Evaluations of these qualities are processed by the Health Service Office, the Graduate Office and the student's major division.

Limitations on Enrollment—1. The first 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.

Residence and Time Requirement—The minimum residence requirement for the Masters and Specialist degrees in the college must equal 30 weeks, one academic year or three summer quarters. To convert credit hours in a partial academic program, please use the following table to determine residence credit.

Minimum residence for the doctorate is three consecutive quarters comparable to one academic year. Candidates should, therefore, plan to carry a minimum of 10 quarter hours credit during each of the three consecutive quarters in residence to earn full residence credit.

Formula: 45 quarter hours = 30 weeks residence

30 weeks residence = .66 weeks residence per quarter hour credit.

Quarter Hours		Weeks Residence	
1	=	.666	= .66
2	=	1.398	= 1.4
3	=	2.064	= 2.1
4	=	2.730	= 2.7
5	=	3.396	= 3.4
6	=	4.062	= 4.1
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.

Master of Arts Degree

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 - (Elementary¹, Junior High¹, or Secondary¹); Educational Psychology and Guidance; Elementary Education; Junior High School Education; Secondary Education - (Curriculum and Supervision or Instruction²); Special Education - (Audiology, Speech Correction, Teaching the Acoustically Handicapped, Teaching Mentally Retarded Children, Teaching Physically Handicapped Children or Teaching the Visually Handicapped); Vocational Rehabilitation Counseling;

DIVISION OF HEALTH, PHYSICAL EDUCATION, AND RECREATION—Physical Education, Health Education, Supervision of Physical Education¹, Recreation, Dance Education;

DIVISION OF THE HUMANITIES — English, Speech and Drama;

DIVISION OF MUSIC — Music Education, Supervision of Music¹;

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

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

¹These majors require two years of actual teaching experience as a prerequisite.

²Combined 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 formula on page 57 to convert credit into weeks 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-half of this credit must be in courses open only to graduate students (courses numbered 300 and above).

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 17 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 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 17 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 17 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 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

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).
- o. Outdoor Education

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 present 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 (30 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 formula on page 13.

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. Enroll for the course, "Introduction to Doctoral Research" (400), or its equivalent unless a comparable course on the graduate level has been completed and accepted by the adviser.

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 in residence and must have been approved by the supervising committee.

At least 17 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 will be charged.

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 17 days before the date of graduation. The advisor 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. Make formal application for graduation not later than 30 days prior to the quarter in which he expects to graduate. A late fee will be charged for failure to apply on time.

Please consult expenses section of this bulletin for specific amount of various fees.

Doctor of Education Degree

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, Physical Education, and Recreation
- Industrial Arts Education
- Mathematics Education
- Music Education
- Science Education
- Secondary Education
- Social Science
- Special Education
- Vocational Rehabilitation Counseling

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, Physical Education, and Recreation
- Higher Education
- History and Philosophy of Education
- Industrial Arts Education
- Mathematics Education
- Mathematics
- Music Education
- Outdoor Education
- Secondary Education
- Science
- Social Studies
- Special Education
- Statistics and Measurement

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).

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, Physical Education, and Recreation, Industrial Arts Education, Mathematics 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 an English usage examination and a personality inventory.

Limitations on Enrollment for the Doctorate—1. All candidates must realize that the Graduate Council is directed to continuously provide realistic evaluation of student progress, and to discourage any student from continuing whenever it seems advisable.

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 in residence the students in the doctoral program must enroll for the course, "Introduction to Doctoral Research" (400), or in a substitute course recommended by the major adviser.

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.

Fifty percent 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, English Education, Health, Physical Education and Recreation, Industrial Arts Education, Mathematics 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.

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 50 per cent of his academic program 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.

All candidates for the Doctor of Education degree are required to spend 50 weeks including three consecutive quarters in residence and in full time study.

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) must have been completed *on the campus of an accredited institution offering the doctor's degree*; (3) must have been completed 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 doctorate to earn a maximum of 15 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 have him assigned 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 can justify the need for a change of adviser to a committee appointed by the chairman of the division in which the student is majoring.

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

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

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 50 percent must be in courses numbered 300 or above.
3. Demonstrate that he has a 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. File in the Graduate Division at least seventeen days before graduation one or two fully approved research studies. A research fee is charged in addition to the regular tuition and fee charges.
5. Pass satisfactorily the following examinations in addition to the usual course examinations:
 - (a) Comprehensive written and oral examinations covering course work pursued. These examinations will take place normally after the student has successfully completed, with better than a 4.00 (B) grade average, 50 per cent of full-time course work required. 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 students 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 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.
6. Pay for the publication of each research study. The research study is microfilmed and a 600 word abstract of the study is published in Dissertation Abstracts. 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 600 words.

7. Pay 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.

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

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

Interdivisional Courses

All divisions use these numbers with the prefix ID.

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.

202. SEMINAR IN COMMUNITY SERVICE. *Three hours credit.*

(One hour lecture, four hours laboratory.)

A seminar providing functional theoretical and laboratory experience in community service. Students choose, depending upon individual goals, to participate at the instructional level in a community athletic, recreation, music or other skills program, to conduct a sociological survey, or to plan and execute some facet of a recreational program.

222. INDIVIDUAL STUDIES. *Four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 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.

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. *Three 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 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the Dean of the Graduate Division.

399. THESIS. *Eight hours credit.*

400. INTRODUCTION TO DOCTORAL RESEARCH. *Three 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.

Division of Air Science

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.

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 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 the 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 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 basis.

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 the 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 (AS) 11, 13, 15, 16, 21, 23, 25, 26, 28, 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

Course Number	Course Title	Hours	Credit
AS 11	Leadership Training I		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

AS 13	Leadership Training II		0
and one of the above common courses.			

Spring Quarter

AS 15	Leadership Training III		0
AS 16	Foundations of Aero-Space Power		1

The sophomore enrolls in the following courses:

Fall Quarter

AS 21	Leadership Training IV		0
AS 26	Fundamentals of Aerospace Weapons Systems I		1

Winter Quarter

AS 23	Leadership Training V		0
AS 28	Fundamentals of Aerospace Weapons Systems II		1

Spring Quarter

AS	25	— Leadership Training VI	0
and one of the following common courses:			
SS	81	— The Individual and His Social Relations.....	3
SS	82	— American Life and Institutions	3
SS	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 36½ hours of flight 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
AS 101	— Leadership Training VII	0	
AS 103	— Leadership Training VIII	0	
AS 105	— Leadership Training IX	0	
AS 106	— Air Force Officer Development I	3	
AS 108	— Air Force Officer Development II	3	
AS 110	— Air Force Officer Development III	3	
AS 201	— Leadership Training X	0	
AS 203	— Leadership Training XI	0	
AS 205	— Leadership Training XII	0	
AS 210	— The Air Force Officer	1	
AS 213*	— Flight Instruction.....	3	
GEG 260	— Political Geography	5	
PS 276	— International Relations	3	

*If the student is not a pilot trainee, the Professor of Air Science may accept any other course offered by any division as fulfilling the requirements of AS 213, provided the accepted course would contribute to the professional education of a potential Air Force Officer.

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. Ninety 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 five cents per mile to and from camp site.

5. Academic credit minimum of three 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

11, 13, 15. LEADERSHIP TRAINING I, II, III. *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.

16. FOUNDATIONS OF AEROSPACE POWER. *One hour credit.*

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.

21, 23, 25. LEADERSHIP TRAINING IV, V, VI. *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.

26. FUNDAMENTALS OF AEROSPACE WEAPONS SYSTEMS I. *One hour credit.*

Prerequisites, AS 11, 13, 15, and 16. An outline of professional opportunities in the U.S. Air Force. Also included are the background of the military policy of the United States and the current national organization for defense. Aerospace missiles and aircraft, their propulsion systems, and the types of warheads used with aerospace weapons systems are also introduced.

28. FUNDAMENTALS OF AEROSPACE WEAPONS SYSTEMS II. *One hour credit.*

Prerequisites, AS 11, 13, 15, and 16. An introduction to the principles, mechanics, and implications of chemical, biological, and nuclear weapons, and warfare; and the defensive, strategic, and tactical organizations and operations of the USAF, including modern targeting and electronic warfare. Also introduces problems, mechanics, and military implications of future space operations, and contemporary aerospace military thought.

101, 103, 105. LEADERSHIP TRAINING VII, VIII, IX. *No credit.*

Prerequisites, AS 11, 13, 15, 16, 21, 23, 25, 26, and 28. 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.

106. AIR FORCE OFFICER DEVELOPMENT I. *Three hours credit.*

Prerequisites, AS 11, 13, 15, 16, 21, 23, 25, 26, and 28. Staff organization and functions and the skills required for effective staff work, with emphasis on communication and problem solving. The course includes both principles and practice.

108. AIR FORCE OFFICER DEVELOPMENT II. *Three hours credit.*

Prerequisites AS 11, 13, 15, 16, 21, 23, 25, 26, and 28. Continuation of the study of staff work with emphasis on military correspondence and report writing and group problem solving. The course includes an introduction to military justice.

110. AIR FORCE OFFICER DEVELOPMENT III. *Three hours credit.*
Prerequisites, AS 11, 13, 15, 16, 21, 23, 25, 26, and 28. Basic psychological and sociological principles of leadership and their application to leadership practice and problems.

201, 203, 205. LEADERSHIP TRAINING X, XI, XII. *No credit.*
Prerequisites, AS 101, 103, 105, 106, 108, and 110. 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.

210. THE AIR FORCE OFFICER. *One hour credit.*
Prerequisites, AS 101, 103, 105, 106, 108, and 110. Material to help the cadet make a rapid, effective adjustment to active duty as an officer of the United States Air Force.

213. FLIGHT INSTRUCTION. *Three hours credit.*
Prerequisites, AS 101, 103, 105, 106, 108, 110. An introduction presenting the weather and navigational aspects of airmanship, such as fronts, air masses, hazards to aircraft operation, navigational charts, dead reckoning navigation and globes and maps in the air-age world; 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"; and thirty-six and one-half hours of dual and solo flying in 65 to 150 horsepower aircraft.

Division of the Arts

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 (Teacher Preparation)

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 (Teacher Preparation)

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 (Teacher Preparation)

Area of Concentration: Industrial Arts Education.

Supporting Area: Industrial Arts Education.

FINE ARTS MAJOR

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling, 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 148, three hours credit and ED 149, two hours credit.
3. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
FA 1	— Drawing	3
FA 11	— Introduction to Design	5
FA 13	— Lettering	2
FA 17	— Introduction to Pottery	3
FA 50	— Figure Construction	3
FA 51	— Introduction to Color	3
FA 52	— Composition	3
FA 101	— Philosophy of Art Education	2
FA 103	— Introduction to Watercolor Painting	2
FA 116	— Craft Processes and Design	5
FA 120	— Introduction to Oil Painting	3
FA 123	— Art Education for the Secondary School.....	3
FA 125	— Instructional Techniques in Art Education.....	3
FA 221	— Art History I	3
FA 222	— Art History II	5

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4. One minor of 27 quarter hours outside of the Division of the Arts.

5. Electives to complete requirements for graduation.

FINE ARTS MAJOR (Junior High School Level)

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, Plus ED 148, three hours credit and ED 149, two hours credit.
3. The following required courses in the major.

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
FA 1	— Drawing	3
FA 11	— Introduction to Design	5
FA 13	— Lettering	2
FA 17	— Introduction to Pottery	3
FA 51	— Introduction to Color	3
FA 52	— Composition	3
FA 54	— Drawing and Painting Techniques.....	3
FA 101	— Philosophy of Art Education.....	2
FA 103	— Introduction to Watercolor Painting.....	2
FA 104	— Commercial Design and Poster.....	2
FA 120	— Introduction to Oil Painting.....	3
FA 125	— Instructional Techniques in Art Education.....	3
FA 223	— Survey of Art.....	5
FA 240	— Art Education in 7th, 8th, and 9th grades.....	5
FA 241	— Craft Processes in 7th, 8th, and 9th grades.....	4
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4. One minor of 27 quarters hours outside the Division of the Arts.
5. Electives to complete requirements for graduation.

FINE ARTS MINOR

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
FA 1	— Drawing	3
FA 11	— Introduction to Design.....	5
FA 13	— Lettering	2
FA 17	— Introduction to Pottery.....	3
FA 51	— Introduction to Color.....	3
FA 54	— Drawing and Painting Techniques.....	3
FA 116	— Craft Processes and Design.....	5
FA 125	— Instructional Techniques in Art Education.....	3
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FINE ARTS MINOR FOR ELEMENTARY EDUCATION MAJORS

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
FA 3	— Drawing for Elementary School Teachers.....	3
FA 11	— Introduction to Design.....	5
FA 12	— Lettering for Elementary School Teachers.....	2
FA 17	— Introduction to Pottery.....	3
FA 51	— Introduction to Color.....	3
FA 54	— Drawing and Painting Techniques.....	3
FA 127	— Crafts in the Elementary School.....	3
FA 223	— Survey of Art.....	5
		27

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

Course Number	Course Title	Hours	Credit
FA 1	Drawing	3	
FA 11	Introduction to Design.....	5	
FA 13	Lettering	2	
FA 17	Introduction to Pottery.....	3	
FA 54	Drawing and Painting Techniques.....	3	
FA 104	Commercial Design and Poster.....	2	
FA 240	Art Education in 7th, 8th, and 9th grades.....	5	
FA 241	Craft Processes in 7th, 8th, and 9th grades.....	4	

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FINE ARTS MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six 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 (Liberal Arts)

Courses required for a minor under this program are: FA 1, 11, 17, 51, 54, 116, and 223.

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 THE ELEMENTARY SCHOOL. *Three hours credit.*

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

11. INTRODUCTION TO DESIGN. *Five 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 THE ELEMENTARY SCHOOL. *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.

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

Creative experience in the design and construction of pottery. Various methods are studied: glazing, casting, firing.

50. FIGURE CONSTRUCTION. *Three hours credit.*

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

51. INTRODUCTION TO COLOR. *Three hours credit.*

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

52. COMPOSITION. *Three hours credit.*

Prerequisite, FA 1. The technical problems of pictorial composition involving the organization of all the visual elements. The course is recommended to precede the courses in painting.

54. DRAWING AND PAINTING TECHNIQUES. *Three hours credit.*

Prerequisite, FA 1 or 3. Techniques in advanced drawing and certain areas of painting for the junior high school.

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. *Three hours credit.*

A study of the basic fundamentals of threading and weaving on two and four harness looms; emphasis on plain and pattern weaving.

101. PHILOSOPHY OF ART EDUCATION. *Two hours credit.*

The philosophy of art education in American schools and art as an integral part of the education of the citizens of a democracy.

103. INTRODUCTION TO WATERCOLOR PAINTING. *Two hours credit.*

Prerequisite, FA 1. A beginning course in watercolor painting.

104. COMMERCIAL DESIGN AND POSTER. *Two hours credit.*

A study of the commercial arts and their place in the art program in the high school. Emphasis will be directed toward the development of techniques in advertising layout, package design, poster design and illustration. Commercial processes of reproduction and printing will also be introduced.

105. COLOR THEORY. *Three hours credit.*

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

108. CLAY MODELING. *Two hours credit.*

The theory and techniques of modeling and casting.

116. CRAFT PROCESSES AND DESIGN. *Five hours credit.*

Prerequisite, FA 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. *Three hours credit.*

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

123. ART EDUCATION FOR THE SECONDARY SCHOOL. *Three 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. ELEMENTARY ART. *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. *Three hours credit.*

Orientation to problems of teaching and teacher preparation in art for the elementary school. This course is to give the prospective teacher

the objectives, philosophy, psychology and methods necessary for the teaching of art at various grade levels.

127. CRAFTS FOR 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 bookbinding, puppets, and cardboard and paper construction.

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

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

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

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

202. ADVANCED COMPOSITION. *Three hours credit.*

Prerequisite, FA 1 and 52. Advanced problems in pictorial and graphic composition.

203. WATERCOLOR PAINTING. *Five hours credit.*

Prerequisite, FA 1, 52, and 103. This course seeks to develop individual expression in creative painting and technical mastery of the medium.

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

Prerequisite, FA 50 and 52. An advanced study of the human figure in composition. Creative work in a variety of media.

208. SCULPTURE. *Three hours credit.*

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

209. PRINT MAKING. *Three hours credit.*

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

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

Prerequisite, FA 11. A study of the techniques of organization of the design variables. Opportunity for individual growth in solving design problems in areas of student's choice.

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

Prerequisite, FA 11. An experimental approach to the problem of contemporary jewelry and metal work. 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. *Three 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, blackout, paper stencil, pro-film, tuche, and the photography stencil method.

220. OIL PAINTING. *Five hours credit.*

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

221. ART HISTORY I. *Three hours credit.*

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

222. ART HISTORY II. *Five hours credit.*

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

223. SURVEY OF ART. *Five hours credit.*

The important arts of the world studied toward understanding and appreciating the forms produced by man from the dawn of pre-history

through all important eras of art development. Emphasis is placed on contemporary trends in the arts which dictate the appearance of the world around us today.

225. FIGURE PAINTING. *Four hours credit.*

Prerequisite, FA 120. Painting in oils from the human figure.

228. SECONDARY SCHOOL ART WORKSHOP. *Two hours credit.*

A survey and demonstration of new ideas in art techniques and materials essential to a secondary school art program. Student participation in selected areas.

230. WORKSHOP IN ART FOR ELEMENTARY TEACHERS. *Two hours credit.*

This course is designed to give the graduate student a philosophy of art education; an understanding of and an opportunity to participate in the essential art activities for the elementary school; to develop his interest and enthusiasm for the teaching of art. Emphasis is given to the creative approach and the integration of the art activities with the entire school program.

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

Prerequisite, SP 113. A study of the techniques and problems of scenic design. The esthetic as well as the practical problems of the designer are presented. Settings, properties, costuming, and lighting are practiced within the theatre laboratory.

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. SUPERVISION OF ART. *Three hours credit.*

An exploration of the expanding role of art education in the total school program and a critical study of the role of the art supervisor and supervisory techniques.

302. TRENDS IN ART EDUCATION. *Two hours credit.*

An appraisal of the various points of view in art education and a comprehensive study of the current literature dealing with methods, media and techniques.

303. ADVANCED WATERCOLOR PAINTING. *Two hours credit.*

Prerequisite, FA 203. A study of recent developments in watercolor painting with emphasis on new techniques and mixed media.

304. SEMINAR IN ART EDUCATION. *Two hours credit.*

This seminar will be directed toward problems of teaching and supervision of art education in the high school. The scope of the course will remain flexible to enable the student to pursue the areas of his greatest need.

305. ADVANCED COLOR THEORY. *Four hours credit.*

Prerequisite, FA 105. An intensive study of creative color composition.

315. CRAFT TRENDS IN THE SECONDARY SCHOOL. *Two hours credit.*

Research and creative expression in the new trends in craft processes for the secondary level. Emphasis on new construction materials and textile techniques.

316. CRAFTS FOR THE SECONDARY SCHOOLS. *Three hours credit.*

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

- 317. CERAMICS.** *Three hours credit.*
Prerequisite, FA 17. Historical research in design and processes of ceramicware. Individual creative and technical competence stressed.
- 319. SERIGRAPHY.** *Two hours credit.*
A study and production of the techniques of making original art prints through the silk screen processes.
- 320. ADVANCED OIL PAINTING.** *Two hours credit.*
An examination of the latest technical trends and philosophies in oil painting and exploratory and experimental projects in these fields.
- 324. CREATIVE ACTIVITIES IN THE ELEMENTARY SCHOOL.**
Three hours credit.
Research and creative experience in the various art activities of the elementary school art education program.
- 327. CRAFT ACTIVITIES FOR THE ELEMENTARY SCHOOL.**
Three 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.** *Three 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.
- 335. ADVANCED LIFE DRAWING.** *Two hours credit.*
Many types of drawing techniques and a variety of materials are used to further the student's basic skills and the development of visualization by drawing from the human figure.

HOME ECONOMICS MAJOR

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 146, two hours credit and ED 147, three hours credit.
3. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
HE 70	— Clothes and Personality	2
HE 71	— Textile Fundamentals	3
HE 72	— Elementary Clothing Construction	3
HE 73	— Intermediate Clothing Construction	4
HE 77	— Family Meal Cookery and Service	4
HE 81	— Art in Home Living	2
HE 98	— Elementary Nutrition	3
HE 180	— Family Relationships	3
HE 191	— Management in Family Living	3
HE 192	— Home Management Residence	3
HE 203	— Development and Guidance of the Young Child	3
HE 219	— Infant and Child Care	4
HE 268	— Family Housing	2
HE 275	— Home Furnishings	3
HE 284	— Demonstration Techniques	2
HE 298	— Meal Planning and Service.....	4

4. 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.

5. 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.

6. Electives to complete 180 quarter hours of academic credit required for graduation. Recommended electives: HE 183, 199, 261, 274, 295 and FA four 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 successfully 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>
HE	78	— Principles of Food Preparation.....	4	
HE	188	— Costume Design.....	3	
HE	293	— Adult Education in Homemaking.....	3	
BUS	54	— Consumer Economic Problems.....	3	
EPG	285	— Mental Hygiene and Emotional Adjustment..	3	
ED	249	— Principles of Vocational Education.....	3	
CHM	40	— Principles of Chemistry I.....	5	
		Electives in the Science Division.....	3	
				—
				27

Home Economics Minor

<i>Course Number</i>		<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
HE	70	— Clothes and Personality.....	2	
HE	72	— Elementary Clothing Construction.....	3	
HE	94	— Elementary Cookery and Food Service.....	4	
HE	98	— Elementary Nutrition.....	3	
HE	180	— Family Relationships.....	3	
HE	191	— Management in Family Living.....	3	
HE	275	— Home Furnishings.....	3	
		Electives in Home Economics.....	6	
				—
				27

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>
HE	219	— Infant and Child Care.....	4	
ED	147	— Methods and Observation of Teaching Home Economics in the Secondary School.....	3	
		Electives in Home Economics.....	5	

Preschool Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
HE 81	— Art in Home Living.....	2
HE 98	— Elementary Nutrition	3
HE 203	— Development and Guidance of the Young Child	3
HE 219	— Infant and Child Care.....	4
HE 261	— Participation in Preschool.....	3
HE 264	— Workshop in Preschool.....	3
SED 264	— Speech Correction in the Classroom.....	3
	Electives	6
		27

Recommended Electives for Preschool Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
ED 227	— Kindergarten Education	3
ED 240	— Parent Education	3
HE 180	— Family Relationships	3
ID 202	— Field Experience in Community Service.....	3
SP 16	— Voice and Diction	4

HOME AND FAMILY LIVING MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six 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 Credit</i>
HE 70	— Clothes and Personality.....	2
HE 71	— Textile Fundamentals.....	3
HE 72	— Elementary Clothing Construction.....	3
HE 94	— Elementary Cookery and Food Service.....	4
HE 98	— Elementary Nutrition.....	3
HE 191	— Management in Family Living.....	3
	Electives in Home Economics.....	9
		27

DIETETICS MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six 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 (five hours); CHM 40, Principles of Chemistry I (five hours); CHM 41, Principles of Chemistry II (five hours); CHM 42, Introductory Organic Chemistry (five hours); CHM 247, Biochemistry (five hours).
4. Electives to complete requirements for graduation.

DIETETICS MAJOR**Bachelor of Arts Degree (Teacher Preparation)**

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Professional Education Program, 29 hours, plus ED 146, two hours credit and ED 147, three hours credit.
3. The following required courses in the major:

Course Number	Course Title	Hours Credit
HE 70	— Clothes and Personality.....	2
HE 71	— Textile Fundamentals.....	3
HE 72	— Elementary Clothing Construction.....	3
HE 73	— Intermediate Clothing Construction.....	4
HE 77	— Family Meal Cookery and Service.....	4
HE 98	— Elementary Nutrition.....	3
HE 180	— Family Relationships.....	3
HE 203	— Development and Guidance of the Young Child.....	3
HE 219	— Infant and Child Care.....	4
HE 250	— Dietetics	3
HE 275	— Home Furnishings.....	3
HE 282	— Nutrition in Disease.....	3
HE 284	— Demonstration Techniques.....	2
HE 285	— Experimental Cookery.....	3
HE 287	— Institution Management.....	5
		48

4. One minor of 27 quarter hours preferably in the Division of Sciences to include BOT 122, General Bacteriology (five hours); CHM 40, Principles of Chemistry I (five hours); CHM 41, Principles of Chemistry II (five hours); CHM 42, Introductory Organic Chemistry (five hours); CHM 247, Biochemistry (five hours).

5. Twenty-four 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
HE 78	— Principles of Food Preparation.....	4
HE 199	— Preservation of Food.....	2
HE 274	— Equipment Selection and Maintenance.....	4
HE 286	— Quantity Cookery.....	4
HE 298	— Meal Planning and Service.....	4
BUS 20	— Principles of Accounting I.....	4
ZOO 217	— Human Physiology	5

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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 are included, with emphasis on the newer finishes for 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, HE 72. A continuation of HE 72, using more difficult fabrics and construction techniques.

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

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.)*

Prerequisite, HE 77. Emphasis is given to principles of cooking involved in more difficult food preparation. Laboratory work is planned to show the relationship between scientific principles and cookery processes. Food products are evaluated.

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. A study of the use of food nutrients in the body.

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.

188. COSTUME DESIGN. *Three hours credit. (One hour lecture, four hours laboratory.)*

Prerequisite, HE 72, 73. 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.

191. 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.

192. HOME MANAGEMENT RESIDENCE. *Three hours credit.*
Prerequisite, HE 77, 78, 191. Students live in the Margaret Roudebush Home Management House where they put into practice desirable standards of home living.

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

Prerequisite, HE 77, 78. Discussions and laboratory practice in home methods of food preservation by the waterbath, pressure cooker, and quick freeze techniques. Jellies, jams, and relishes are prepared. 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. *Three 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. *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. *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. *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.

250. DIETETICS. *Three hours credit.*

Prerequisite, HE 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.

261. PARTICIPATION IN PRE-SCHOOL. *Three hours credit. (One hour lecture, six hours laboratory per week.)*

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

264. WORKSHOP IN PRE-SCHOOL. *Three hours credit. (One hour lecture, six hours laboratory per week.)*

Prerequisite, HE 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. *Three hours credit.*

A study of the family in present day America. Considers functions of the family and forces affecting it; variations in family values and practices; roles, adjustments, relations and problems of adult and child members. Designed for teachers of adolescents and adults.

267. ADVANCED METHODS IN THE TEACHING OF HOME MAKING. *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. EQUIPMENT SELECTION AND MAINTENANCE. *Four 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. Basic scientific principles of heat, mechanics, electricity, and light are studied.

275. HOME FURNISHING. *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.

277. NUTRITION AND THE SCHOOL LUNCH PROGRAM. *Three 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 I. *Two hours credit. (One hour lecture, two hours laboratory.)*

Deep freeze, jellies, jams, relishes. The principles of making jellies, jams, pickles and relishes are studied. Products are made. Problems of deep freezing foods are discussed. The purchase and care of the home freezer are included.

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

Open kettle, water bath, pressure cooker, quick freeze methods of food preservation are discussed and home methods of these types of food preservation are practiced in the laboratory.

282. NUTRITION IN DISEASE. *Three hours credit.*

Prerequisite, HE 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.*

Prerequisite, HE 72, 77. Practice in the techniques of demonstrating before audiences. All phases of the Home Economics field will be used to furnish types of demonstrations.

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

Prerequisite, HE 77, 78. 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.)*

Prerequisite, HE 77, 78, 98. 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.

287. 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 various types of institutions are selected for study.

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

Prerequisite, HE 70, 72, 73. 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. *Three hours credit. (One hour 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 slipcovers.

291. MANAGING FAMILY RESOURCES. *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.*

A study of the philosophy of adult education, procedures used in promoting and organizing adult programs, and methods used in teaching adults.

294. INSTRUCTION AIDS IN HOME ECONOMICS. *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.)*

Prerequisite, HE 72, 73, 188. Opportunity for developing skill is presented in the construction of lined suits and coats.

298. MEAL PLANNING AND SERVICE. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, HE 77, 78. This course provides further practice in more difficult food preparation. It emphasizes individual and group planning, preparing, and serving meals. Opportunities are given to solve some of the problems of the hostess in serving food on various occasions in the modern American home.

301. SUPERVISION OF STUDENT TEACHING IN HOME ECONOMICS. *Maximum of four hours credit.*

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 HOMEMAKING. *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 HOMEMAKING. *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 HOMEMAKING EDUCATION. *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. *Three 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. *Three 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. *Four hours credit.*

Prerequisite, HE 71. 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.

376. PROBLEMS IN CLOTHING CONSTRUCTION. *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisite, HE 72, 73. 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, fitting techniques, and alteration of ready-to-wear.

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

Prerequisite HE 77, 78. 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. *Four hours credit. (Three hours lecture, two hours laboratory.)*

A study of the scientific principles which are basic to protein, fat and carbohydrate cookery. The principles involved in hydration, crystallization, 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. *Four hours credit.*

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.

389. ADVANCED CLOTHING CONSTRUCTION. *Two hours credit. (One hour lecture, two hours laboratory.)*

Prerequisite, HE 72, 73, 188. Individual patterns designed from the basic block made in HE 188 or HE 288 are used in constructing gar-

ments. Fitting problems and construction techniques of the entire class will be used to provide a breadth of learning experiences. This will provide the student opportunities to develop more knowledge and skills in these areas of clothing construction.

396. DRESS DESIGN IN DRAPING. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, HE 188. 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. *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 (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.

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

3. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
IA 34	— Introduction to Industrial Arts.....	4
IA 70	— Introduction to General Metal.....	3
IA 71	— Elements of Art Metal and Metal Spinning...	3
IA 150	— Woodwork	9
IA 161	— Principles of Drafting.....	8
IA 174	— Elements of Machine Lathe Operation.....	2
FA 11	— Introduction to Design.....	5
	Electives in Industrial Arts*.....	6
	Electives	8
		48

*Required courses in the major. Select six hours from:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
IA 220	— Course Organization in Industrial Arts.....	3
IA 221	— The Place of the Arts in General Education....	3
IA 234	— History of Industrial Arts before 1870.....	2
IA 235	— Introduction to a Philosophy of Industrial Arts	3
IA 236	— Principles of General Shop Organization.....	3
IA 238	— Current Theory and Practice in the Arts.....	3

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

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

Industrial Arts Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
IA 150	— Woodwork	9
IA 161	— Principles of Drafting.....	8
	Electives in Industrial Arts.....	10
		27

Alternate Minor may consist of Woodwork—eight hours, Metalwork—eight hours, Drafting—eight hours and electives—three 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
IA 70	— Introduction to General Metal.....	3
IA 110	— Bookbinding	2-10
IA 116	— General Leathercraft	2-5
IA 118	— General Plastics	2-5
IA 141	— Graphic Arts	2-10
IA 150	— Woodwork	3-9
IA 161	— Principles of Drafting.....	2-16
IA 173	— Elements of Jewelry Work.....	2
IA 174	— Elements of Machine Lathe Operation.....	2
IA 180	— General Shop Electricity I.....	3
IA 181	— General Shop Electricity II.....	2
IA 264	— Industrial Arts Design.....	3
IA 270	— Advanced General Metalwork.....	3
IA 273	— Advanced Jewelry and Lapidary Work.....	3
FA 1	— Drawing	3
FA 13	— Lettering	2
FA 100	— Weaving	3
FA 116	— Craft Processes and Design.....	5
FA 117	— Pottery	3

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.* The basis for the development of a modern philosophy of industrial arts. Orientation to problems of teaching and teacher preparation.

70. 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.

71. ELEMENTS OF ART METAL AND METAL SPINNING. *Three hours credit.*

Prerequisite, IA 70. 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.

72. ELEMENTS OF GAS AND ELECTRIC WELDING. *Two hours credit.*

Prerequisite, IA 70. An introductory course in the field of gas and electric welding of mild steel and simple fabrication of projects.

110. 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.

116. 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.*

118. 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.*

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.*

143. NEWS PHOTOGRAPHY. *Two hours credit.* This course prepares students to compose pictures, learn about and how to do depth reporting with pictures, evaluation of pictures as news and the psychology of photography. Study is made of types and uses of cameras. Some dark room procedures included.

144. SCHOOL PUBLICATIONS—ANALYSIS, DESIGN AND LAY-OUT. *Four hours credit.* Instruction in basic philosophy, analysis and procedures of design and layout for all types of school publications including newspapers, annuals, magazines, and direct mail brochures.

145. PRODUCTION OF SCHOOL PUBLICATIONS. *Three hours credit.* Prerequisite, IA 144. Experience with the basic printing processes used in producing all kinds of publications, newspapers, annuals, magazines, and direct mailing pieces. This includes fundamental instruction in relief, lithographic, intaglio and screen printing as well as plate making techniques.

150. WOODWORK. *Maximum of nine hours credit.* The development of skills in bench and machine woodwork. The study of woods, materials and equipment. Unit a. Bench woodwork; Unit b. Intermediate woodwork; Unit c. Machine woodwork.

153. ADVANCED FURNITURE AND CABINET MAKING. *Three hours credit.* Prerequisite, IA 150. Students design and construct period and modern pieces of furniture. Study of production methods in industry. Advanced upholstery and woodfinishing techniques.

154. WOODFINISHING. *Two hours credit.* Prerequisite, IA 150. Techniques and processes in woodfinishing. Experience with traditional and new types of materials. A study of the needs of public school shops in this area of work.

155. EQUIPMENT AND MAINTENANCE PROBLEMS IN WOOD. *Three hours credit.* Prerequisite, IA 150. Upkeep and repair of woodworking tools and machines. Selection and purchase of woodworking tools, machines and supplies for a school shop.

156. 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.*

157. WOODTURNING. *Maximum of four hours credit.* Prerequisite, IA 150. Basic skills and related techniques in faceplate and spindle woodturning. Unit a. Beginning; Unit b. Advanced.

161. PRINCIPLES OF DRAFTING. *Maximum of sixteen hours credit.* Practical problems in drafting and planning as listed in the following units: Unit a. Two hours credit. Lettering, geometric construction, orthographic projection and missing views, dimensioning. Unit b. Three hours credit. Isometric, oblique, cabinet, diametric, perspective, pictorial drawing (exploded view), and free hand shop sketching. Unit c. Three hours credit. Revolutions, working drawings, inking, assembly, details, piping, electronic, welding, duplicating process: diazo, ozalid, blueprint and simple development. Unit d. Two hours credit. Intersections and pattern development. Unit e. Three hours credit. Beginning architectural drafting. Unit f. Three hours credit. Machine drawing and graphic methods.

173. ELEMENTS OF JEWELRY WORK. *Two hours credit.* Prerequisite, IA 71. An introduction to the basic process of jewelry construction including silver soldering, sawing, filing, ring construction, simple silversmithing and setting stones.

174. ELEMENTS OF MACHINE LATHE OPERATION. *Two hours credit.* Prerequisite, IA 70, 72. An introductory unit concerned with the basic operations performed on a machine lathe including straight and taper turning, thread cutting, and other operations.

180. GENERAL SHOP ELECTRICITY I. *Three hours credit.* Elementary principles of electricity that are applicable to projects in the junior and senior high schools. Emphasis placed on magnetism, production of electricity, transformers, induction, capacitance, and resonant circuits.

181. GENERAL SHOP ELECTRICITY II. *Two hours credit.* Advanced principles of electricity that are applicable to projects in the junior and senior high schools and construction of such projects. Emphasis placed on motors, generators, electrical wiring, and electrical measuring devices.

211. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN BOOKBINDING I. *Three 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.

212. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN BOOKBINDING II. *Three 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.

216. DESIGN PROBLEMS IN LEATHER. *Two 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.

217. DESIGN PROBLEMS IN SYNTHETIC MATERIALS. *Two hours credit.* Methods of design and techniques of construction in the area of synthetic craft materials. Development of course units suitable to a unit or general shop on the junior or senior high school level.

218. ADVANCED LEATHERCRAFT. *Three hours credit.* Prerequisite, IA 216. Advanced techniques in leathercraft. Methods of organization and teaching problems. Development of course material suitable to a unit or general shop.

219. ADVANCED PLASTICS. *Three hours credit.* Prerequisite, IA 217. 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.

220. COURSE ORGANIZATION IN INDUSTRIAL ARTS. *Three hours credit.*

Criteria underlying the organization of a course of study in industrial arts. Techniques by which courses are developed or revised. Each student prepares a course of study in the field of his interest.

221. 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.

222. INDUSTRIAL ARTS IN AMERICAN EDUCATION. *Three hours credit.*

A 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.

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

A study of the origin, movements, and leaders responsible for theories and philosophies of industrial arts.

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. TEACHING THE INDUSTRIAL ARTS. *Three hours credit.*

Problems in planning industrial arts courses. Philosophy, objectives, evaluation, and school shop organization are considered.

235. INTRODUCTION TO A PHILOSOPHY OF INDUSTRIAL ARTS. *Three hours credit.*

Prerequisite, IA 230 and 231. 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. *Three hours credit.*

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

- 242. ADVANCED THEORY AND PRACTICE OF TYPOGRAPHIC DESIGN.** *Maximum of nine hours credit.*
Prerequisite, IA 141. 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.*
Prerequisite, IA 141. This course will include copy preparation, camera and darkroom work, stripping and opaquing, plate making and offset press operation.
- 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.
- 254. WORKSHOP IN INDUSTRIAL ARTS FOR ELEMENTARY SCHOOLS.** *Three 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.
- 257. ADVANCED CONSTRUCTION PROBLEMS.** *Three hours credit.*
Prerequisite, IA 150. A course for advanced woodworking students with emphasis on application of the steel square to construction problems.
- 264. INDUSTRIAL ARTS DESIGN.** *Three hours credit.*
Principles of design as they apply to the several areas of industrial arts.
- 270. ADVANCED GENERAL METALWORK.** *Three hours credit.*
Prerequisite, IA 70. 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.
- 271. ADVANCED ART METAL.** *Three hours credit.*
Prerequisite, IA 71. 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.
- 272. ADVANCED GAS AND ELECTRIC WELDING.** *Three hours credit.*
Prerequisite, IA 72. 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.
- 273. ADVANCED JEWELRY AND LAPIDARY WORK.** *Three hours credit.*
Prerequisite, IA 173. 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.
- 274. ADVANCED MACHINE TOOL OPERATION.** *Two hours credit.*
Prerequisite, IA 174. 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 instructional methods at the junior and senior high school levels.
- 275. ADVANCED MACHINE SHOP PRACTICE.** *Three hours credit.*
Advanced course organization and practice for the secondary and junior college levels in machine tool operation, maintenance, construction specifications and machine shop theory.

281. PROBLEMS IN TEACHING GENERAL SHOP ELECTRICITY.
Three hours credit.

Prerequisite, IA 180 and 181. 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.

282. MOTORS, GENERATORS, AND ELECTRICAL WIRING. *Two hours credit.*

Prerequisite, IA 181. A study of the fundamental types of DC and AC generators and motors used in electricity. Deals with construction, repair, and maintenance problems common to AC-DC motors and generators. Also discusses electrical wiring and devices used to measure electrical energy.

290. POWER AND TRANSPORTATION. *Three hours credit.*

This course presents a comprehensive approach to the mechanical units which convert energy into usable power. The instructional experiences and technical information about today's energy converting power content will include: energy sources, design features, construction materials, production processes, operating principles, practical maintenance, and teacher guided experimentation and research. Other factors to be considered are relevant occupational information, related mathematics and science, consumer information, and practical safety precautions.

330. ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL ARTS. *Three 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.

331. A CRITIQUE OF MODERN INDUSTRIAL ARTS. *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.

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

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

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

Prerequisite, IA 230 and 231. 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. CRITIQUE FOR GENERAL SHOP ORGANIZATION. *Three hours credit.*

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

338. CURRICULUM DEVELOPMENT IN INDUSTRIAL ARTS.
Maximum of twelve hours credit.

A series of courses dealing with four basic areas in industrial arts. *Three hours credit*, each unit. Unit a: Graphic Arts; Unit b: Electronics; Unit c: Power and transportation; Unit d: Metals.

339. EVALUATION IN INDUSTRIAL ARTS. *Three 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.

343. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN THE GRAPHIC ARTS. *Three hours credit.*

The techniques and objectives of the graphic arts; their historical de-

velopment 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. *Three 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. *Three 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. *Three hours credit.*

Prerequisite, IA 351. A study of the problems the specialized teacher of woodworking in secondary schools must meet.

362. PROBLEMS IN DRAFTING AND PLANNING. *Maximum of six hours credit.*

Prerequisite, IA 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.

371. ADVANCED METAL CRAFT TECHNIQUES. *Three hours credit.*

Advanced metal tooling, etching, engraving, wire crafts, copper jewelry, forming, raising and spinning. Problems of organization and teaching techniques.

373. ADVANCED LAPIDARY AND SILVER CRAFTS. *Three hours credit.*

Advanced techniques in silver with emphasis on the lost wax process, enameling, lapidary, plating and jewelry.

374. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN METALS. *Three hours credit.*

Prerequisite, IA 70 and 72. This course shall include objectives, course content, shop organization, evaluation and methods of teaching the various phases of metalwork.

375. PROBLEMS OF THE METAL SHOP. *Three hours credit.*

Prerequisite, IA 374. 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.

380. ELECTRONICS. *Five 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.

381. INDUSTRIAL ELECTRONICS. *Two hours credit.*

Prerequisite, IA 380. A study of selected materials, components and circuits involved in electronic devices in industry. Special emphasis will be given to basic theory of operation and possible applications of electronic equipment. Deals with fuel cells, solar cells, facsimile reproduction, photo-electrical devices, computers, radar, high frequency, heating, motor controls, electronic counters and timers, resistance welding and electroluminescence lighting.

430. RESEARCH IN INDUSTRIAL ARTS. *Maximum of nine hours credit.*

Provides an opportunity for students to present and defend proposed studies. Members of class report and evaluate recent research in the field.

Division of Education

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 (Teacher Preparation)

Majors: Business Education—(Office Occupations or Distributive Education); Elementary Education; Special Education—(Audiology; Mental Retardation; Speech Correction or Teaching the Acoustically Handicapped.)

Minors: Business Education; Elementary Education; Library Science; Psychology; Special Education—(Mental Retardation or Speech Correction.)

Emphasis: Outdoor Education.

BACHELOR OF ARTS DEGREE (Liberal Arts)

Major: Business.

Minor: Business; Psychology

MASTER OF ARTS DEGREE (Teacher Preparation)

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

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: Available in all fields within the division.

DOCTOR OF EDUCATION DEGREE (Teacher Preparation)

Areas of Concentration: Business Education, Educational Administration, Educational Psychology and Guidance, Elementary Education, Secondary Education, Special Education: (Mental Retardation, or Speech Pathology.)

Supporting Areas: Business Education, Educational Administration, Educational Psychology and Guid-

ance, Elementary Education, Secondary Education, Special Education, Curriculum, Higher Education, History, Philosophy of Education, Outdoor Education, and Statistics & Measurements.

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 (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.

2. Advanced Teacher Education, 29 hours, plus ED 139, two hours credit.

3. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
GEG	10	— World Geography	
		<i>or</i>	
GEG	48	— Anglo-America	5
USH	75	— Unit Survey of United States History.....	5
FA	124	— Elementary Art	5
MUS	149	— Music Fundamentals	2
MUS	249	— Music Methods and Materials for Elementary Teachers	2
HPE	88	— Physical Education Activities for the Elementary School	2
HPE	101	— Health Education in the Elementary School.....	2
SCE	270	— Teaching Science in the Elementary School....	3
ARI	90	— Arithmetic for Elementary Teachers I.....	3
ED	109	— Teaching Handwriting and Spelling in the Elementary School	2
ED	110	— Improvement of Instruction in Reading in the Elementary School	3
ED	111	— Improvement of Instruction in English in the Elementary School	3
ED	112	— Improvement of Instruction in Arithmetic in the Elementary School	3
ED	113	— Improvement of Instruction in Social Studies in the Elementary School	3
ED	115	— Literature in the Elementary School.....	2
ED	222	— Reading in the Primary Grades	
		<i>or</i>	
ED	223	— Reading in the Intermediate Grades.....	3
			48

4. Completion of ED 110 and 112 before attempting student teaching.

5. Elementary education majors are required to earn either a minor of 27 quarter hours or to earn 15 quarter hours in each of two areas of concentration, one of which must be in the Division of Humanities, Social Studies, or Sciences. The chairman of the division offering the minor or area of concentration will determine the courses required.

6. Twenty-four to 27 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 advisor.

Elementary Education Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
ED 109	— Teaching Handwriting and Spelling in the Elementary School	2
ED 110	— Improvement of Instruction in Reading in the Elementary School.....	3
ED 111	— Improvement of Instruction in English in the Elementary School.....	3
ED 112	— Improvement of Instruction in Arithmetic in the Elementary School.....	3
ED 113	— Improvement of Instruction in Social Studies in the Elementary School.....	3
ED 115	— Literature in the Elementary School.....	2
SCE 270	— Teaching Science in the Elementary School.....	3
Electives	— Selection must be made from FA 124; HPER 88, 101; MUS 149, 249, but selection must be made from a division other than the one in which the major is earned.....	8
		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	— Introduction to Outdoor Education.....	3
ED 273	— Workshop in Outdoor Education.....	3
ED 380	— Philosophy and Principles of Outdoor Education	3

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. INTRODUCTION TO OUTDOOR EDUCATION. *Three hours credit.*
 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.*
 Prerequisite, EPG 20. Designed to give prospective teachers an experience in study of typical kinds of community life. Each student will participate during the quarter in some community activity.

- 101. BASIC CONCEPTS OF EDUCATION.** *Five hours credit.*
A unified course designed to familiarize students with the fundamentals of the history of American education, educational sociology, the professional role of the teacher, school administration as it pertains directly to the classroom teacher, and key knowledge unique to the elementary school, the junior high or senior high schools.
- 109. TEACHING HANDWRITING AND SPELLING IN THE ELEMENTARY SCHOOL.** *Two hours credit.*
A detailed consideration of content, methods, instructional materials and evaluation in the fields of handwriting and spelling. The student demonstrates competency in spelling and in manuscript and cursive handwriting.
- 110. IMPROVEMENT 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 kindergarten through the sixth grade.
- 111. IMPROVEMENT OF INSTRUCTION IN ENGLISH IN THE ELEMENTARY SCHOOL.** *Three hours credit.*
This course is the basic course in the teaching of English in the elementary school. It considers the scope and nature of an adequate program of instruction in English, and is concerned primarily with the identification of content to be taught and methods and materials to be used.
- 112. IMPROVEMENT OF INSTRUCTION IN ARITHMETIC IN THE ELEMENTARY SCHOOL.** *Three hours credit.*
A comprehensive analysis of the meaning theory, developmental method of teaching, what to teach, grade placement of content, methods of instruction with major emphasis on how to bring about insightful learning, tools of instruction including concrete and semi-concrete materials, and means of evaluating achievement.
- 113. IMPROVEMENT OF INSTRUCTION IN SOCIAL STUDIES IN THE ELEMENTARY SCHOOL.** *Three hours credit.*
A detailed basic consideration of objectives; construction and use of units, problem solving, selection and grade placement of content, methodology including the use of concrete experiences, audio-visual materials, group processes, questioning, reading, and techniques of evaluation.
- 115. LITERATURE IN THE ELEMENTARY SCHOOL.** *Two hours credit.*
A survey of children's literature that is appropriate for grades through the sixth. Chief emphasis on modern selections. Consideration of interests, and abilities governing the choice of literature in the first six grades.
- 139. INTRODUCTION TO STUDENT TEACHING IN THE ELEMENTARY SCHOOL.** *Two hours credit.*
Student engages in directed participation in a teaching situation four hours per week, under the supervision of a master elementary teacher in the laboratory school and arranges for one additional conference hour.
- 140. INTRODUCTION TO STUDENT TEACHING IN THE SECONDARY SCHOOL.** *Two hours credit.*
Student is assigned to a specific class in his major or minor area under supervision in the laboratory school. He will meet with the class and the supervising teacher five days per week and arrange for one additional conference hour.
- 141. METHODS OF TEACHING IN THE SECONDARY SCHOOL.**
(Industrial Arts, English, Foreign Languages, Speech, Drama,

Science, Mathematics, Business Education, Social Studies, Distributive Education, Psychology) *Three hours credit.*

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.*

Prerequisite, MUS 42. 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.*

Prerequisite, MUS 42. 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.*

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.*

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.*

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, FA 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, FA 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. *Three hours credit.*

Prerequisite, SCE 270. 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.

200. GREAT IDEAS SEMINAR. *Three hours credit.*

The Great Ideas Seminars are conducted by authorities nationally known in their fields of specialization. The purpose of the seminar is to provide information about current important ideas in each field of knowledge.

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.*

Prerequisite, ED 206. 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.

215. TECHNIQUES OF TEACHING IN SMALL SCHOOLS. *Three hours credit.*

This course offers opportunities to become familiar with and to evaluate new teaching techniques adapted to the instructional programs of small schools.

217. JUNIOR HIGH SCHOOL WORKSHOP. *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-allotment, subject matter areas, and functions of the junior high school.

220. ELEMENTARY READING WORKSHOP. *Maximum of nine hours credit.*

This course is concerned with problems in the teaching of reading in the elementary school. The problems presented from time to time will vary according to the lecturers who appear on the program.

222. READING IN THE PRIMARY GRADES. *Three hours credit.*

Prerequisite, ED 110, 251. The nature of reading, the pertinent research in the field, the curriculum in reading from the preparatory period through the primary grades, the selection of effective materials of teaching, methods and techniques of teaching, and the use of various types of tests will be studied.

223. READING IN THE INTERMEDIATE GRADES. *Three hours credit.*

Prerequisite, ED 110, 251. The purpose of this course is to emphasize the specific reading skills taught in the intermediate grades. These skills are identified and discussed in terms of instructional materials, methods, and evaluation procedures. The management of the reading program in the intermediate grades also receives attention in this course.

226. ENGLISH IN THE KINDERGARTEN AND PRIMARY GRADES. *Three hours credit.*

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. *Three hours credit.*

A course covering the research, theory, and best practices for the education in kindergartens of four and five-year-old children. Organization, housing, and equipping of new kindergartens, the readiness program for first grade, and parent education will have pertinent handlings within the course.

228. CONFERENCE AND WORKSHOP IN KINDERGARTEN—PRIMARY EDUCATION. *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.

230. READING READINESS. *Two hours credit.*

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.

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. *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. *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.

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.

251. STUDENT TEACHING. *Sixteen hours credit.*

A course which provides a practical application of the principles of learning and the techniques of instruction in the classroom. Opportunity is provided for the student to progressively assume the responsibilities related to teaching. Twelve weeks of full-time activity is normally required.

252. INTERNSHIP IN ADVANCED STUDENT TEACHING. *Maximum eight hours credit.*

Prerequisite, ED 251. An invitational program for individuals showing professional promise following completion of regular student teaching assignment. Experience under the direct supervision of a laboratory school supervisor is provided.

273. WORKSHOP IN OUTDOOR EDUCATION. *Three hours credit.*

An introductory course of a functional 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.

289. PROGRAMMING MATERIALS FOR INSTRUCTION. *Three hours credit.*

Examines the theoretical framework within which teaching machines and programmed learning are currently organized, assesses the current state of research, and provides the student with some basic principles for programming learning materials. Practice in programming materials is also given.

295. PHILOSOPHY OF EDUCATION. *Three hours credit.*

Prerequisite, ED 101. An introductory course in which the student considers the basic problems of knowledge, truth, reality, and value as perceived by the various schools of philosophic thought. The traditional philosophic positions are translated into educational schools of thought and application is made to the specific problems of education.

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.*

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. CURRICULAR PROBLEMS WORKSHOP. *Three hours credit.*

The purpose of this course is to afford students an opportunity to work with master teachers, subject matter experts or other consultants, in attacking fundamental curriculum problems involving such tasks as considering scope and sequence and producing curriculum materials.

308. PRODUCTION OF PHOTOGRAPHIC TEACHING MATERIALS. *Three hours credit.*

Prerequisite, ED 208, PHY 167. 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 laboratory experiences and required individual projects.

309. SUPERVISION OF HANDWRITING AND SPELLING IN THE ELEMENTARY SCHOOL. *Two hours credit.*

A comprehensive consideration of content, methods and materials, and evaluation in teaching handwriting and spelling. Research data in handwriting and spelling are reviewed.

310. SUPERVISION OF INSTRUCTION IN READING IN THE ELEMENTARY SCHOOL. *Three hours credit.*

A detailed consideration of the supervisory problems concerned with selection of what to teach, the grade placement of content, methods and materials of teaching and means of evaluating achievement in reading.

311. SUPERVISION OF INSTRUCTION IN ENGLISH IN THE ELEMENTARY SCHOOL. *Three hours credit.*

A detailed consideration of the supervisory problems concerned with selection of what to teach, the grade placement of content, methods and materials of teaching, and means of evaluating achievement in English.

312. SUPERVISION OF INSTRUCTION IN ARITHMETIC IN THE ELEMENTARY SCHOOL. *Three hours credit.*

A detailed consideration of the supervisory problems concerned with selection of what to teach, the grade placement of content, methods and materials of teaching, and means of evaluating achievement in arithmetic.

313. SUPERVISION OF INSTRUCTION IN SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. *Three hours credit.*

A detailed consideration of the supervisory problems concerned with selection of what to teach, the grade placement of content, methods and materials of teachings, and means of evaluating achievement in social studies.

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.

315. SUPERVISION OF INSTRUCTION IN CHILDREN'S LITERATURE. *Two hours credit.*

Consideration will be given to locating and evaluating children's books and to the methods of organizing, teaching and evaluating a literature program.

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.

319. 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.

320. SEMINAR IN ELEMENTARY SCHOOL READING. *Three hours credit.*

Prerequisite, ED 110 or 310. 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.*

Prerequisite, ED 111 or 311. 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.*

Prerequisite, ED 112 or 312. 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.*

Prerequisite, ED 113 or 313. 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.

324. REMEDIAL READING IN THE ELEMENTARY SCHOOL (THEORY). *Two hours credit.*

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. Cause of failures are investigated. Diagnostic and teaching techniques are presented.

325. SUPERVISED PRACTICE IN REMEDIAL READING. *Maximum nine hours credit.*

Prerequisite, ED 324. This course involves tutoring and individual or a small group of educationally retarded readers for four hours per week. At one class meeting 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.

330. 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.

331. 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.

332. PROBLEMS IN CURRICULUM DEVELOPMENT. *Three hours credit.*

A course 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.

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.

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. 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. 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. *Three 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. *Three hours credit.*

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.*

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.

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 STUDENT TEACHERS. *Three hours credit.*

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.*

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.*

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 basis for cooperative committee study and development of recommendations for improved practices.

369. EXPERIMENTATION IN EDUCATION. *Three hours credit.*

An analysis of school organization, curriculum, and instructional practices in the light of current research.

380. PHILOSOPHY & PRINCIPLES OF OUTDOOR EDUCATION. *Three 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.*

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.*

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 nine hours credit.*

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 nine hours credit.*

Prerequisite, ED 443. 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.*

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.*

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.*

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 (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit and ED 141, three hours credit.
3. The required courses in either of the majors listed below.
4. One minor of 27 quarter hours outside the field of Business and Business Education.
5. Twenty-nine 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 Credit</i>
BUS 4	— Advanced Typewriting and Office Practice.....	4
BUS 19	— 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 60	— Office Practice: Calculating Machines.....	2
BUS 115	— Business Correspondence	3
BUS 131	— Business Law I.....	2
BUS 150	— Business Statistics	3
BUS 250	— Business Finance	3
BUS 252**	— Office Management	
	<i>or</i>	
BUS 256**	— Business Organization and Management.....	3
BUS 285	— Systems and Procedures.....	3
BUE 272	— The Business Curriculum	3
ECO 30	— Introductory Economics	5

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* **Students may choose one of two designated courses to complete course work in this major.

Recommended electives in Business: 132, 133, 134.

Recommended electives in areas other than Business: The area of Economics, GEG 203 or ENG 210.

BUSINESS EDUCATION MAJOR**(With Concentration in Distributive Education)**

Required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BUS 41	— Introduction to Business.....	3	
BUS 54	— Consumer Economic Problems.....	3	
BUS 64	— Marketing	3	
BUS 72	— Salesmanship	3	
BUS 74	— Merchandise Information (Textiles).....	2	
BUS 76	— Display	2	
BUS 131	— Business Law I.....	2	
BUS 132	— Business Law II.....	2	
BUS 150	— Business Statistics	3	
BUS 158	— Psychology of Advertising.....	3	
BUS 171	— Principles of Retailing.....	3	
BUS 250	— Business Finance	3	
BUS 261	— Retail Management	3	
BUE 262	— Distributive Education Programs.....	5	
BUE 272	— The Business Curriculum.....	3	
ECO 30	— Introductory Economics	5	

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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; ECO 200; EPG 313, 317.

Business experience requirements vary from state to state. Students should plan this part of their program with their adviser during their freshman year. Approved business experience of at least 2,000 hours is required. A notarized affidavit must be filed with the adviser.

For certification in most states, ED 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</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, 11, 19**	— Beginning, Intermediate Gregg Shorthand and Transcription	11	
	<i>or</i>		
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	

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27

*BUE 272, The Business Curriculum, (three hours credit) may be substituted for ED 141 with the permission of the minor advisor.

**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.

Minor in Economic Education

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
BUS 54	— Consumer Economic Problems.....	3
BUE 230	— Economic Education Seminar.....	3
ECO 30	— Introductory Economics	5
ECO 102	— Contemporary Economic Problems.....	3
	Electives	13
		27

The electives must be planned in cooperation with the minor adviser. Elective courses may be chosen from the following list: ECO 200, Labor-Management Relations, *five hours credit*; 202, Money and Banking, *five hours credit*; 205, Russia's Soviet Economy, *three hours credit*; 210, History of Economic Systems: Socialism, Communism, Capitalism, Fascism, *five hours credit*; 241, Public Finance, *five hours credit*; 277, Government and Business, *three hours credit*; 212, International Economics, *three hours credit*; GEG 203, World Resources and Industries, *five hours credit*; BUS 64, Marketing, *three hours credit*; 158, Psychology of Advertising, *three hours credit*; 250, Business Finance, *three hours credit*; 253, Personnel Management, *three hours credit*; 254, Investments, *three hours credit*; 256, Business Organization and Management, *three hours credit*; 257, Principles of Insurance, *three hours credit*; BUE 255, Consumer Education in the Schools, *two hours credit*; HE 191, Management in Family Living, *three hours credit*.

BUSINESS MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following program is required:

1. General Education totaling 42 academic hours, plus six hours of physical education activity.
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	
	<i>or</i>	
BUS 133	— Business Law III	
	<i>or</i>	
BUS 134	— Business Law IV.....	2
BUS 150	— Business Statistics	3
BUS 250	— Business Finance	3
BUS 252	— Office Management	3
BUS 256	— Business Organization and Management	
	<i>or</i>	
BUS 261	— Retail Management	3
ECO 30	— Introductory Economics	5
ECO 102	— Contemporary Economic Problems.....	3

3. One minor of 27 hours outside the field of Business.

4. Sixty-three 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
ECO 30	— Introductory Economics	5
Electives in Business or Economics.....		6
		27

*Students may choose one of the three designated courses to complete course work in this minor.

SECRETARIAL MAJOR (Two-Year Non-Degree Program)

The following program is required:

1. General Education is not required for this major.
2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
BUS 2	— Typewriting II	2
BUS 3	— Typewriting III	2
BUS 4	— Advanced Typewriting and Office Practice.....	4
BUS 10	— Beginning Gregg Shorthand	
	<i>and</i>	
BUS 11	— Intermediate Gregg Shorthand	
	<i>or</i>	
BUS 18	— Shorthand Review	4 or 8
BUS 19	— Shorthand Transcription	3
BUS 20	— Principles of Accounting I.....	4
BUS 21	— Principles of Accounting II.....	4
BUS 41	— Introduction to Business.....	3
BUS 60	— Office Practice: Calculating Machines.....	2
BUS 64	— Marketing	3
BUS 110	— Secretarial Practice I.....	5
BUS 111	— Secretarial Practice II.....	5
BUS 112	— Secretarial Practice III.....	5
BUS 115	— Business Correspondence	3
BUS 127	— Payroll Accounting	2
BUS 131	— Business Law I.....	2
BUS 132	— Business Law II.....	2
BUS 150	— Business Statistics	3
BUS 228	— Federal Income Tax for Individuals.....	3
COM 1	— First Course in Communications: Writing.....	3
COM 2	— Second Course in Communications: Writing	3
COM 3	— Third Course in Communications: Speech.....	3
EPG 20	— General Psychology and Personal Adjustment	3
ECO 30	— Introductory Economics	5

3. A minor is not required.

4. Free electives to complete the 90 hours of academic credit required for the major.

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. 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. 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. A review of typewriting principles and their application to actual office work such as letters, forms, manuscripts, etc. Practice in the use of 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. Course comprises complete theory of Gregg Shorthand. Students who have had 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 18 in lieu of BUS 10 and 11.

11. INTERMEDIATE GREGG SHORTHAND. *Four hours credit.*

Prerequisite, BUS 10. Course comprises intensive review of Gregg shorthand theory and completion of *Gregg Dictation*. Students who have had one year of high school shorthand or the equivalent cannot take this course for credit.

18. SHORTHAND REVIEW. *Four hours credit.*

This course is devoted primarily to dictation and transcription.

19. SHORTHAND TRANSCRIPTION. *Three hours credit.*

Prerequisite, BUS 3; BUS 11 or 18. Emphasis is upon rapid and accurate transcription, speed dictation, punctuation, and other office skills.

20. PRINCIPLES OF ACCOUNTING I. *Four hours credit.*

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 ledges, and the effect of these transactions is reported on classified financial statements.

21. PRINCIPLES OF ACCOUNTING II. *Four hours credit.*

Prerequisite, BUS 20. 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.*

Prerequisite, BUS 21. 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.*

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.*

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 10-key and full bank adding-listing machines and rotary calculators.

64. MARKETING. *Three hours credit.*

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.*

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. *Two 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."

110. SECRETARIAL PRACTICE I. *Five hours credit.*

Advanced instruction in and practical application of the skills and knowledge needed to be a secretary. Class meets four hours a week plus five hours of work experience in an office on campus to be arranged.

111. SECRETARIAL PRACTICE II. *Five hours credit.*

Continuation of BUS 110. Advanced instruction in and practical application of the skills and knowledge needed to be a secretary. Class meets four hours a week plus five hours of work experience in an office on campus to be arranged.

112. SECRETARIAL PRACTICE III. *Five hours credit.*

Continuation of BUS 111. Advanced instruction in and practical application of the skills and knowledge needed to be a secretary. Class meets four hours a week plus five hours of work experience in an office on campus to be arranged.

115. BUSINESS CORRESPONDENCE. *Three hours credit.*

Basic principles and practices in the preparation of business correspondence are studied and applied.

127. PAYROLL ACCOUNTING. *Two hours credit.*

Prerequisite, BUS 20. 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.*

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.*

Prerequisite, BUS 131. 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.*

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.*

Prerequisite, BUS 131. 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.

150. BUSINESS STATISTICS. *Three hours credit.*

A course designed (1) to make students of business aware of the value of statistical analysis in the solution of business problems, (2) to give students sufficient acquaintance with the most commonly used methods of analysis, and (3) to enable them to use statistical data effectively in making business decisions.

158. PSYCHOLOGY OF ADVERTISING. *Three hours credit.*

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.*

Prerequisite, BUS 20, 21. 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.

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. *Three hours credit.*

A study of the principles and techniques of personnel management with attention given to their psychological foundations.

254. INVESTMENTS. *Three hours credit.*

Prerequisite, BUS 54. The course is designed to provide the individual investor with a working basis for investment policy. A study will be made of topics such as how to develop a logical investment program, how to recognize and minimize investment risks, how to formulate decisions, and how to take advantage of investment opportunities.

256. BUSINESS ORGANIZATION AND MANAGEMENT. *Three hours credit.*

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.*

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.*

Prerequisite, BUS 171. Functions of the main division of retailing. Emphasis is on the responsibilities of the store manager and current operating practices.

275. JOB ANALYSIS. *Two hours credit.*

Job analysis is studied as part of a job-study program. Techniques of preparing job analysis forms, collecting information, processing information, and putting the job analysis to work are considered. Job descriptions are developed and analyzed.

278. SALES MANAGEMENT. *Three 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.

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

The relationship of systems and procedures to policies and needs of management; job characteristics, management audit; flow charting. Analysis of operations by a study of work simplification, work measurement, work sampling. Current developments in human engineering, job design, forms control, records management, and company manuals.

286. ELECTRONIC DATA PROCESSING. *Three hours credit.*

Prerequisite, BUS 285. This introductory course is concerned with electronic computers in business; terminology, concepts and area; the logic of the computer and its operation; elements of programming, case studies; relationship of information to the decision making process; field trips to inspect installations.

287. BUSINESS DATA PROCESSING. *Three hours credit.*

Prerequisite, BUS 286. Computer programming in which the student will devise and complete an independent program in his field of interest or specialization such as mathematics, marketing, management, statistics, accounting, engineering, the behavioral sciences. Selected topics in data processing, analysis of the literature, current trends, developments in principles and practice.

320. MANAGEMENT ACCOUNTING. *Five hours credit.*

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. *Five 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.

341. FOUNDATIONS OF BUSINESS. *Three hours credit.*

A study of the major ideas sustaining business enterprise in the Western World. Discussion of the various factors which influence the modern business world: philosophical, political, economic, and social. Primarily a readings and discussion course for graduate students to provide a background for other business content courses.

358. ADVERTISING PROCEDURES. *Three hours credit.*

Prerequisite, BUS 158. 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. *Three hours credit.*

Prerequisite, BUS 64. 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.

379. MARKETING RESEARCH. *Three hours credit.*

Prerequisite, BUS 64. 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.

230. ECONOMIC EDUCATION SEMINAR. *Three hours credit.*

Prerequisite, ECO 30 and 102 and BUS 54. A study of the conceptual framework of economic education for potential teachers, administrators, curriculum specialists and guidance personnel.

255. CONSUMER EDUCATION IN THE SCHOOLS. *Two 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. DISTRIBUTIVE EDUCATION PROGRAMS. *Five hours credit.*

A study of the organization, administration, supervision, and coordination of secondary school, post secondary school, and adult distributive education programs.

266. DEVELOPMENT OF DISTRIBUTIVE EDUCATION INSTRUCTIONAL MATERIALS. *Two 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. 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. *Two 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. *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. *Maximum of nine hours credit.*

An intensive course designed primarily for distributive education coordinators.

353. IMPROVEMENT OF INSTRUCTION IN BOOKKEEPING.
Two hours credit.

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.
Two 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. *Three 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. *Two hours credit.*

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.
Two hours credit.

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.
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.
Five 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.
Five 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.
Two 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.

Five 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. *Three 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. *Three 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

Degree programs offered in Educational Psychology and Guidance are as follows: (1) an undergraduate minor in psychology; (2) a graduate major in Educational Psychology and Guidance leading to the Masters of Arts Degree; (3) an emphasis in School Psychology, School Psychometry and School Counseling leading to the Specialist in Education degree; (4) a concentration in Educational Psychology and Guidance leading to the Doctor of Education degree and providing advanced preparation in areas such as counselor education; school psychology, research and measurement, administration of personnel and guidance services, and learning and instruction in higher education.

Required courses for the undergraduate minor in psychology are:

<i>Course No.</i>		<i>Course Title</i>	<i>Qtr.</i>	<i>Hrs.</i>	<i>Credit</i>
EPG	21	— General Psychology and Human Performance			3
EPG	101	— Guidance in the Classroom.....			3
EPG	222	— Seminar: Psychological Issues.....			3
EPG	240	— Psychology of Learning.....			3
EPG	270	— Principles and Practices in Testing & Measurement			3
EPG	285	— Mental Hygiene and Emotional Adjustment..			3
SED	200	— The Education of Exceptional Children.....			3
		Electives			6

Candidates for the Masters degree, the Specialists degree, and the Doctor of Education degree are required to demonstrate basic proficiency in the following six areas: (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, practicums, 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. Copies of programs required for each degree may be obtained from the adviser, from the Educational Psychology and Guidance office, or the Department of Student Personnel.

Description of Courses

GUIDANCE AND COUNSELING

101. GUIDANCE IN THE CLASSROOM. *Three hours credit.*

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.

200. GREAT IDEAS SEMINAR: CREATIVE THINKING. *Three hours credit.*

The Great Ideas Seminars are conducted by authorities nationally known in their fields of specialization. The purpose of the seminar is to provide information about current important ideas in each field of knowledge.

201. GUIDANCE IN THE ELEMENTARY SCHOOL. *Three hours credit.*

A study of the principles of guidance and their application at the elementary level. Emphasis is upon the functioning of the guidance worker in meeting children's needs.

207. GUIDANCE INSTITUTE. *Maximum of fifteen hours credit.*

A course designed to meet the needs of teachers and counselors wishing to upgrade their proficiencies in guidance activities.

214. GUIDANCE WORKSHOP. *Maximum of six hours credit.*

This course is designed to provide concentration of time and study in a special problem in guidance. The needs and interests of class members will 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. *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. *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. *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.

309. STUDENT ACTIVITIES. *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. *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.

313. 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.

314. TECHNIQUES IN GROUP GUIDANCE. *Three hours credit.*

Prerequisite, EPG 101 or 317. 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.

315. COUNSELING THEORY AND TECHNIQUES. *Three hours credit.*

A study of the place of counseling in the guidance program and a critical analysis of the theoretical approaches used in conducting counseling interviews. Opportunity is provided to practice in the application of the various approaches.

316. CLINICAL METHODS IN PSYCHOLOGY. *Three hours credit.*

Prerequisite, EPG 285, 380, 382, 388 and 412. 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.

317. FOUNDATIONS OF GUIDANCE. *Three 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.

410. SUPERVISED PRACTICE IN GUIDANCE SERVICES. *Three hours credit.*

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.

412. ANALYSIS OF THE INDIVIDUAL. *Three hours credit.*

Prerequisite. EPG 270 and 370. 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.

415. SUPERVISED PRACTICE IN COUNSELING. *Three hours credit.*

Prerequisite, EPG 315. 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.

416. PLAY THERAPY. *Three hours credit.*

Prerequisite, EPG 415. Qualified graduate students majoring in Educational Psychology and Guidance examine the theoretical basis for play therapy and engage in practice under the supervision of one or more members of the staff.

GENERAL PSYCHOLOGY

20. GENERAL PSYCHOLOGY AND PERSONAL ADJUSTMENT.

Three hours credit.

A basic course in which psychological principles, methods, theories and research findings are studied. Attention is given to perception, cognition, maturation, motivation, learning, individual differences, mental health and their physiological correlates. Practical applications are made to give each student opportunities to modify his behavior.

21. GENERAL PSYCHOLOGY AND HUMAN PERFORMANCE.

Three hours credit.

Prerequisite, EPG 20. A foundation course in psychology designed to extend the understanding of human behavior through application of psychological theories, constructs, principles, and research findings to situational settings involving groups such as: individual and group differences, vocational and occupational profiles, industrial relations, group motivation, syndromes of abnormality.

220. GENERAL PSYCHOLOGY AND THE PRINCIPLES OF BEHAVIOR. *Three hours credit.*

An introductory course in psychology designed to help students develop a basic understanding of human behavior. Principles of psychology are developed and applied in the areas of perception and cognition, maturation, motivation, learning, emotions, and personal and social adjustment. Recommended as a substitute for EPG 20.

222. SEMINAR: PSYCHOLOGICAL ISSUES. *Three hours credit.*

This is one of the culminating experiences in the minor. Students will study, report, and discuss psychological issues and problems which they identify in their class observation and study experiences. They will also review and discuss research findings and conduct small research projects of their own.

321. TRENDS IN EDUCATIONAL PSYCHOLOGY AND GUIDANCE.

Three hours credit.

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.

422. SEMINAR: ISSUES IN EDUCATIONAL PSYCHOLOGY AND GUIDANCE. *Three hours credit.*

A seminar designed to develop competency in discussion and evaluation of psychological, professional, and ethical issues, pertinent research, and implications for action. The nature and functions of professional publications and organizations are examined.

GROWTH AND DEVELOPMENT

230. PSYCHOLOGY OF CHILDHOOD AND ADOLESCENCE. *Three hours credit.*

A course designed to assist prospective teachers to understand and guide the physical, mental, social, and emotional development of children and youth. Total psychological development from infancy to maturity is emphasized.

331. CHILD PSYCHOLOGY. *Three hours credit.*

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.*

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

140. EDUCATIONAL PSYCHOLOGY. *Five hours credit.*

Prerequisite EPG 20. A course designed to assist prospective teachers to build competence in understanding and guiding physical, mental, social, and emotional development from infancy to adulthood and in understanding and utilizing the teaching-learning process through applications of principles of learning, motivation, readiness, transfer, individual differences and evaluation.

240. PSYCHOLOGY OF LEARNING. *Three hours credit.*

A course designed to develop attitudes, understandings, and proficiencies in the application of psychological principles to the educative process. Principles, theories and research are applied to learning, motivation, transfer, readiness, remembering and forgetting, individual differences, social and emotional adjustment and evaluation.

340. THEORIES OF LEARNING. *Five hours credit.*

The several theories of learning are examined critically for the purpose of developing a working control of the learning process by the student.

347. LEARNING PROBLEMS: DIAGNOSIS AND REMEDIATION. *Three hours credit.*

The course considers techniques used by school psychologists in identifying and evaluating extreme learning problems. It is also concerned with planning and coordinating remedial experiences.

MEASUREMENT, EVALUATION AND RESEARCH

270. PRINCIPLES AND PRACTICES IN TESTING AND MEASUREMENT. *Three 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.

275. EXPERIMENTATION IN PSYCHOLOGY. *Three hours credit.*

This is a course designed to introduce the student to experimental and other psychological research. It is concerned with the basic principles and concepts involved in conducting effective experimentation and research, and provides practical experience in reviewing, conducting, and reporting psychological research.

370. APTITUDE AND ACHIEVEMENT ANALYSIS. *Five 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.

373. INDIVIDUAL TESTS OF INTELLIGENCE. *Three hours credit.*

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.*

Prerequisite, EPG 373. 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.

470. MEASUREMENT (PREDICTION AND ASSESSMENT). *Three hours credit.*

Prerequisite, MED 275, EPG 270, 370. An advanced course in measurement integrating the principles of measurement, research, and testing. Deals with the construction and use of predictor instruments. Emphasis is placed on the criterion problem and special methods of prediction and analysis.

471. MEASUREMENT (SCALING AND RELATED TECHNIQUES). *Three hours credit.*

Prerequisite, MED 275, EPG 270, 370. An advanced course on the theory and methods of scaling with emphasis on attitude scales. Several of the newer techniques, such as the Q-Sort and Semantic Differential, are also covered.

PERSONAL, EMOTIONAL AND SOCIAL ADJUSTMENT**281. PERSONALITY OF YOUNG CHILDREN.** *Three hours credit.*

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.

284. INDUSTRIAL PSYCHOLOGY. *Three hours credit.*

Students will study the basic methods used by psychologists in selection, placement, training, and motivation of industrial personnel. They will examine the psychological factors involving inter-personal relations influencing morale, production, job satisfaction, etc.

285. MENTAL HYGIENE AND EMOTIONAL ADJUSTMENT. *Three hours credit.*

Psychological principles, theories, and practices are examined and applied to individual, school, family, and community mental health problems.

293. SOCIODRAMA. *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.*

Prerequisite, EPG 380, 388, 340, 373. Develops theories and principles underlying projective techniques and their diagnostic and therapeutic value. Special attention is given to the Rorschach, thematic apperception tests, and other projective techniques as used in working with children, adolescents, and college students.

383. PROJECTIVE TECHNIQUES. *Three hours credit.*

Prerequisite, EPG 382, 374. This course is concerned with the ad-

ministration, 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.*

Prerequisite, EPG 285. A course designed to give an understanding of the principles of group dynamics as applied to group situations including the classroom.

387. SEMINAR IN SCHOOL PSYCHOLOGY. *Four hours credit.*

A seminar intended to develop an appreciation for the professional issues and problems of concern to the school psychologist. The course considers such topics as qualifications for test administration, confidentiality, relations with other professions, problems of referral, and report writing.

388. ABNORMAL PSYCHOLOGY. *Three hours credit.*

Prerequisites, EPG 285, 340, 380. 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
LS 280	— Organization and Administration of a School Library	5
LS 281	— Classification and Cataloging	5
LS 282	— Reference Materials for School Libraries	5
LS 283	— Book Selection for School Libraries	5
LS 284	— The Librarian and Reading Guidance for Youth	5
	Electives (minimum)	2
		27

Electives should be chosen from the following courses:

Course Number	Course Title	Hours Credit
ED 206	— Audio-Visual Materials in Education	4
ED 221	— Literature in the Elementary School	2
LS 285	— Junior High School Library Workshop	3

Description of Courses

LIBRARY SCIENCE

280. ORGANIZATION AND ADMINISTRATION OF A SCHOOL LIBRARY. *Five hours credit.*

This course includes a consideration of order and circulation procedures, supervising student personnel, the role of the librarian in the development of curriculum and guidance programs, the relationships of the librarian with teachers and administrators and with other local and state agencies.

281. CLASSIFICATION AND CATALOGING. *Five hours credit.*

In this course the student learns the fundamentals of classification according to the Dewey System and the construction of a dictionary catalog for the school 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. *Five 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. *Five hours credit.*

Discussion of book selection principles and book selection aids for school libraries. Covers reading levels and interests of children and young people. Course discusses suitable trade book materials for both elementary and high school libraries.

284. THE LIBRARIAN AND READING GUIDANCE FOR YOUTH. *Five hours credit.*

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

285. JUNIOR HIGH SCHOOL LIBRARY WORKSHOP. *Three hours credit.*

Prerequisite, LS 280. 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 Teacher Certificate with endorsement for acoustically handicapped, mental retardation or speech correction. A certifying program is also offered in audiology at the undergraduate level. Junior and senior students may take course work in the areas of teaching the visually handicapped and physically handicapped. This course work may be used for certification in the special areas of teaching visually handicapped and physically handicapped children when all requirements for certification are met.

The campus Special Education School, a cooperative project of the Greeley Public Schools and Colorado State College, provides a laboratory in which students may observe and do student teaching. At the present time this laboratory school enrolls mentally retarded, physically handicapped, acoustically handicapped, and visually handicapped children. The Special Education facility also includes a speech and

hearing clinic which provides complete audiometric evaluations as well as speech correction services; a research suite; and provision for testing and measuring exceptional children.

A graduate program is being developed to prepare vocational rehabilitation counselors.

SPECIAL EDUCATION MAJORS

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus methods and observation courses.
3. The required courses in either of the majors as listed.
4. Twenty-four to 32 quarter hours of electives to complete the 180 quarter hours of academic credit required for graduation.

SPECIAL EDUCATION MAJOR

(With Concentration in Mental Retardation)

Required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
SED 200	— The Education of Exceptional Children.....	3	
SED 210	— Introduction to Mental Retardation.....	4	
SED 211	— Education of Severely Mentally Retarded Children	3	
SED 212	— Curriculum Development and Methodology for Mentally Retarded.....	4	
SED 230	— Care and Pathology of the Physically Handicapped	3	
SED 264	— Speech Correction in the Classroom.....	3	
ED 206	— Audio-Visual Materials in Education.....	4	
EPG 230*	— Psychology of Childhood and Adolescence	3	
EPG 270	— Principles and Practices in Testing and Measurement	3	
FA 127	— Crafts for the Elementary School.....	3	
HPER 101	— Health Education in the Elementary School	2	
MUS 149	— Music Fundamentals	2	
	Electives in Special Education.....	11	

48

*If EPG 30 has been taken in the last 5 years, a Special Education elective may be substituted for EPG 230.

One minor of 27 hours outside the field of Special Education. For students planning to teach at the primary or intermediate levels a minor in elementary education is required.

Special Education Minor (Mental Retardation)

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
SED 200	— The Education of Exceptional Children.....	3
SED 210	— Introduction to Mental Retardation.....	4
SED 211	— Education of Severely Mentally Retarded Children	3
SED 212	— Curriculum Development and Methodology for Mentally Retarded.....	4
SED 264	— Speech Correction in the Classroom.....	4
EPG 230*	— Psychology of Childhood and Adolescence.....	3
EPG 270	— Principles and Practices in Testing and Measurement	3
FA 127	— Crafts for the Elementary School.....	3
	Electives	1
		27

*If EPG 30 has been taken in the last 5 years, a Special Education elective may be substituted for EPG 230.

SPECIAL EDUCATION MAJOR

(With Concentration in Acoustically Handicapped)

Required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
SED 200	— The Education of Exceptional Children.....	3
SED 250	— Pathology and Introduction to Education of the Deaf.....	3
SED 251	— Speech Development for Acoustically Handicapped Children	6
SED 252	— Language Development for Acoustically Handicapped Children	6
SED 253	— Methods of Teaching Deaf Pupils at Intermediate and Advanced Levels.....	6
SED 257	— Speech Reading	3
SED 260	— Speech Pathology I.....	3
SED 270	— Audiology	3
SED 274	— Practicum in Audiology.....	3
EPG 230*	— Psychology of Childhood and Adolescence....	3
EPG 270	— Principles and Practices in Testing and Measurement	3
Electives	6
		48

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

A minor in Elementary Education of 27 hours is required.

Recommended electives to complete the 180 quarter hours of academic credit required for graduation are: ARI 90, ED 222, 223, HPER 88, and PS 172.

SPECIAL EDUCATION MAJOR
(With Concentration in Speech Correction)

Required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
SED 200	— The Education of Exceptional Children.....	3
SED 260	— Speech Pathology I.....	3
SED 261	— Speech Pathology II.....	3
SED 262	— Clinical Practice in Speech Correction.....	8
SED 263	— Methods of Speech Correction.....	3
SED 265	— The Speech Mechanism.....	3
SED 266	— Programming Speech Correction in the Public Schools	3
SED 270	— Audiology	3
SED 274	— Practicum in Audiology.....	3
EPG 230*	— Psychology of Childhood and Adolescence....	3
EPG 270	— Principles and Practices in Testing and Measurement	3
EPG 285	— Mental Hygiene and Emotional Adjustment....	3
Electives		7
		48

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

To broaden the competencies of the student in wider viewpoint of this field, the following courses are recommended:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
SP 260	— Introduction to General Semantics	
SP 370	— Psychology of Speech	
SP 375	— Phonetics	
SED 210	— Introduction to Mental Retardation	
SED 230	— Care and Pathology of the Physically Handi- capped	
SED 251	— Speech Development for Acoustically Handi- capped children.	

One minor of 27 hours outside the field of Special Education is required. A minor in Elementary Education is highly recommended.

Special Education Minor (Speech Correction)

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
SED 200	— The Education of Exceptional Children.....	3
SED 260	— Speech Pathology I.....	3
SED 261	— Speech Pathology II.....	3
SED 262	— Clinical Practice in Speech Correction.....	5
SED 266	— Programming Speech Correction in the Public Schools	3
SED 270	— Audiology	3
SED 274	— Practicum in Audiology.....	3
EPG 270	— Principles and Practices in Testing and Measurement	3
Electives		1
		27

The program for a minor in speech correction is offered primarily to enable the public school teacher to assist children with minor speech problems. Individuals desiring to work as certified speech clinicians should consult with faculty members concerning further course and clinical work required for certification in speech correction.

SPECIAL EDUCATION MAJOR**(With Concentration in Audiology)**

Required courses in the major:

Course Number	Course Title	Hours	Credit
SED 200	— The Education of Exceptional Children.....	3	
SED 251	— Speech Development for Acoustically Handicapped Children	6	
SED 252	— Language Development for Acoustically Handicapped Children	6	
SED 257	— Speech Reading	3	
SED 260	— Speech Pathology I.....	3	
SED 261	— Speech Pathology II.....	3	
SED 262	— Clinical Practice in Speech Correction.....	3	
SED 270	— Audiology	3	
SED 271	— Speech Audiometry	3	
SED 272	— Advanced Audiometry	3	
SED 273	— The Hearing Mechanism.....	3	
SED 274	— Practicum in Audiology.....	9	
			48

Among the student's electives, care should be taken to include a broad understanding of information related to hearing and learning. Among the elective courses, the student may select from such areas as speech pathology and other types of special education, psychology, learning theory, physics, human anatomy and physiology.

One minor of 27 hours outside the field of Special Education is required. A minor in Elementary Education is highly recommended.

Description of Courses**GENERAL AND ADMINISTRATION****200. THE EDUCATION OF EXCEPTIONAL CHILDREN.** *Three hours credit.*

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. *One to six 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. *Three 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. APPRAISAL OF EXCEPTIONAL CHILDREN.** *Four hours credit.*
Prerequisite, EPG 270, 373, 374. A critical examination of objective tests used to appraise the intellectual abilities of exceptional children.
- 303. PRACTICUM IN APPRAISING EXCEPTIONAL CHILDREN.** *Three hours credit.*
Prerequisite, SED 302. Provides supervised practice in administering specialized tests to children who are visually handicapped, acoustically handicapped, cerebral palsied, speech impaired, or mentally retarded.
- 401. RESEARCH SEMINAR IN SPECIAL EDUCATION.** *Three hours credit.*
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. INTRODUCTION TO MENTAL RETARDATION.** *Four hours credit.*
Prerequisite, SED 200. A study of the social, emotional, physical, and mental characteristics of the mentally retarded child. Methods of classifying, diagnosing and treating retarded children will be discussed from medical, psychological, sociological, and educational points of view.
- 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, SED 200, 210. This course will have as its main purpose the development of integrated experience-units for primary, intermediate, and pre-vocational mentally retarded children. Experience-centered units will be built around the following three areas: occupational, economic, and social. The course will consist of readings, lectures, observation, experimentation and meetings.
- 311. WORKSHOP FOR THE VOCATIONAL REHABILITATION OF MENTALLY RETARDED YOUTH.** *Three hours credit.*
Prerequisite, SED 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, SED 212. This course will develop the application of the principles of preparation, development, and effective use of in-

tegrated 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, SED 200, 210 and 212. Individual observation and supervised practice in the education of the mentally handicapped. It is recommended that this course be taken over two consecutive quarters.

410. SOCIOLOGICAL AND EDUCATIONAL ASPECTS OF MENTAL RETARDATION. *Four hours credit.*

A study of the sociological and educational problems related to mental retardation. Major emphasis will be placed on research findings having to do with community and institutional care treatment, and education of the mentally retarded.

411. MEDICAL AND PSYCHOLOGICAL ASPECTS OF MENTAL RETARDATION. *Four hours credit.*

A study of the medical and psychological problems related to mental retardation. Included will be discussions of the medical causes, treatment, and prevention of mental retardation as well as a critical examination of research related to such areas as learning, perception, brain injury and psychotherapy.

PHYSICALLY HANDICAPPED

230. CARE AND PATHOLOGY OF THE PHYSICALLY HANDICAPPED. *Three hours credit.*

Prerequisite, SED 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.*

Prerequisite, SED 200 and 230. 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.*

An ophthalmologist presents the anatomy and physiology of the eye and the medical eye examination. An educator presents functional implications of various pathologies in the educational setting. Educational interpretation of the medical eye report.

- 241. SURVEY OF EDUCATION OF THE VISUALLY HANDICAPPED.** *Three hours credit.*
Educational, social, and emotional implications of visual disability. Overview of history, and current practices in educational and rehabilitation planning. Organization and implications of various education methods—pre-school through college. A review of private and public agencies, their philosophies, and programs.
- 242. PRINCIPLES OF EDUCATION OF THE PARTIALLY SEEING.** *Three hours credit.*
Identification, classification, and methods of program organization; principles of preparation, selection, effective use of instructional materials for children with limited vision. Adaptation of the school environment considered. Observation, discussion, and administration of the Snellen Vision Screening test presented.
- 243. BEGINNING BRAILLE.** *Three hours credit.*
History of development of braille system and other methods of reading used by the blind. Mastery of literary braille code. Development and use of special materials; slate and stylus techniques presented; introduction to Nemeth Code of Mathematics.
- 244. ELEMENTARY METHODS FOR THE BLIND.** *Three hours credit.*
Special instructional techniques in teaching reading through braille; use of audio and dimensional aids; current practices in arithmetic, language, arts, music, physical education, efficient living skills; orientation and mobility foundations. Materials preparation, adaptation of commercial devices emphasized.
- 245. SECONDARY METHODS FOR THE BLIND.** *Three hours credit.*
Curriculum adaptations and special methods; problems of adjustment and expansion of the operational environment. Use of guidance, counseling and vocational rehabilitation agency services in life planning for the senior high school blind student. Pre-adult and adult special services. Review of special legislation and typical services available to the young blind adult.
- 343. ADVANCED BRAILLE.** *Three hours credit.*
Intensive study of Nemeth Code; including material for algebra, calculus, trigonometry, and other advanced mathematics notation. Principles of transcription; editing and adaptation of print material for the braille reader. Sources of embossed material considered; a review of the volunteer movement. Overview of the music code; overview of chemical notation.
- 344. PRACTICUM WITH VISUALLY HANDICAPPED.** *Maximum of six hours credit.*
Supervised teaching experience with both blind and partially seeing children; placement evaluations; preparation of materials. Observation of varied programs, including resource room and residential school plans, rehabilitation agencies.
- 345. PRINCIPLES OF ORIENTATION AND MOBILITY FOR THE BLIND.** *Three hours credit.*
Independence in exploration of the environment as a life need. Technique in developing orientation skills; pre-cane mobility instruction. Philosophy and history of cane instruction, guide dogs, and other methods of travel. Current programs reviewed. Observation of special orientors working with children. Students will gain experience in traveling independently with cane.

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.

nance 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.*

Prerequisite, SED 250. Presentation of various methods commonly used in speech development of intelligible speech. Integration of speech with other language arts. Importance of preschool programs and parent education.

252. LANGUAGE DEVELOPMENT FOR ACOUSTICALLY HANDICAPPED CHILDREN. *Six hours credit.*

Prerequisite, SED 250. 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.

253. METHODS OF TEACHING DEAF CHILDREN AT INTERMEDIATE AND ADVANCED LEVELS. *Maximum of six hours credit.*

Prerequisite, SED 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.

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, SED 260 or 256, 261. 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, SED 251, 252, 256. Preparation of units of work in content subject areas. Expansion of vocabulary and language comprehension and usage. Curriculum planning. An opportunity will be given experienced teachers to work on specific problems.

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.

SPEECH CORRECTION

260. SPEECH PATHOLOGY I. *Three hours credit.*

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.

261. SPEECH PATHOLOGY II. *Three hours credit.*

Prerequisite, SED 260. A consideration of disorders of articulation, phonation, rhythm, and symbolization with emphasis on methods and materials of re-education.

262. 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.

263. METHODS OF SPEECH CORRECTION. *Three hours credit.*

Prerequisite, SED 260. The presentation of methods, materials, and techniques appropriate to speech correction in individual and group therapy. Emphasis is placed on practical procedures. Each student will begin the assembling of his own personal materials for future therapy use.

264. SPEECH CORRECTION IN THE CLASSROOM. *Three 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.

265. THE SPEECH MECHANISM. *Three hours credit.*

Prerequisites, SED 260 and 261. A study of the structure and physiology of the voice and hearing mechanisms.

266. PROGRAMMING SPEECH CORRECTION IN THE PUBLIC SCHOOL. *Three hours credit.*

Prerequisite, SED 260 or 264. The organization, administration, and evaluation of speech correction programs in public school settings. Special emphasis is placed on methods of screening large public school populations, organizing therapy on a basis of communication needs, fitting standard practices of therapy to the needs of the school.

360. SPEECH HABILITATION IN CEREBRAL PALSY. *Three hours credit.*

Prerequisite, SED 260. The speech problems which arise from various conditions of cerebral palsy, their etiology and manifestations. Attention is given to the various types of conditions, the extent to which speech is involved in each, the types of therapy indicated in each. Methods of assessing problems are demonstrated. Emphasis is placed on the special educational needs of the cerebral palsied person, his problems of life adjustment and communication.

361. CLEFT PALATE SPEECH AND THERAPY. *Three hours credit.*

Prerequisite, SED 260. A study of the problems of communication common to cleft palate speech. A focus is placed on the structural defects, the major trends in surgery and prosthetic treatment, possible etiology. Special emphasis is placed on the psycho-social problems in communication of individuals with cleft palate.

362. THE REHABILITATION OF PERSONS WITH APHASIA. *Three hours credit.*

Prerequisite, SED 260. A consideration of psycho-social and educational problems in the recovery from aphasia. The emphasis of this course is upon the problems of re-education of the individual who has lost language functions as the result of an insult to the central nervous system. Opportunity is afforded for the development of materials and techniques to be used in aphasia therapy.

363. THE THEORY AND TREATMENT OF STUTTERING. *Three hours credit.*

Prerequisite, SED 260. A consideration of several contemporary theories concerning the cause and nature of stuttering. An investiga-

tion of research findings, clinical evidence, and of the prejudices of prominent agencies and individuals in the literature. The student is provided an opportunity to work out his own rationale for stuttering therapy. Emphasis is placed on techniques of treatment which prove successful with stutterers.

364. VOICE DISORDERS AND TREATMENT. *Three hours credit.*

Prerequisite, SED 260. A study of the structure of the vocal mechanism, its diseases and pathologies, the nature of functional and organic voice problems. Consideration is given to the voice as an index of personality. Opportunity is provided to gain experience in examining the throat, in evaluating voice quality, and to develop techniques for treatment of voice disorders.

365. FUNCTIONAL AND ORGANIC PROBLEMS OF ARTICULATION. *Three hours credit.*

Prerequisite, SED 260. A survey of the variety of problems contributing to defective articulation. Consideration is given to research findings in current trends in therapy. Problems in articulation are seen in relationship to communication rather than isolated incidents of production.

366. DIAGNOSIS IN SPEECH PATHOLOGY. *Three hours credit.*

Prerequisite, SED 260 and 261. The techniques of clinical diagnosis and evaluation of speech pathologies. The student participates in all phases of assessment of speech and language problems. He is expected to complete a minimum of 100 hours of clinical internship in the area of diagnosis and evaluation under supervision.

461. SEMINAR: LANGUAGE PROBLEMS. *Three hours credit.*

Prerequisite, SED 260 and 261. An investigation of the patterns of normal speech and language development with special focus on research findings. Emphasis is placed on severe communication disruption as a result of deafness, brain damage, mental retardation or emotional disturbance.

462. SEMINAR: COMMUNICATION BARRIERS. *Three hours credit.*

Prerequisite, SED 260, 261. An investigation of the factors of interpersonal significance in communication breakdown. The study considers the individual within the framework of a social situation communicating by all those processes by which individuals influence each other. The interpersonal aspects of therapy serve as a focus.

463. PRACTICUM IN SPEECH DIAGNOSIS. *Three hours credit.*

Prerequisite, SED 260, 261. The student shall participate, under supervision, in the diagnostic program of the Speech and Hearing Clinic. This participation shall include all phases of diagnosis, evaluation of results, and disposition of the case. Opportunities to participate in diagnosis will be provided in additional facilities where appropriate.

464. PRACTICUM IN COMMUNICATION BARRIERS. *Three hours credit.*

Prerequisite, SED 260, 261. An investigation of communication barriers in cases and groups undergoing therapy in the Speech and Hearing Clinic. Focus will be placed on those interpersonal and intra-personal factors which limit successful communication, interfere with therapeutic processes, and inhibit normal integration.

AUDIOLOGY

270. AUDIOLOGY. *Three hours credit.*

A consideration of factors essential to the measurement of the loss of hearing acuity. Administration of hearing tests and interpretation of test results. The organization of hearing conservation programs, identification audiometry, and referral procedure.

271. SPEECH AUDIOMETRY. *Three hours credit.*

A presentation of the rationale for speech audiometry, the development of test materials, the techniques necessary for presentation, interpretation, and counseling from the results of speech tests of auditory acuity. Participation in a testing program to gain facility in the use of equipment of speech audiometry.

272. ADVANCED AUDIOMETRY. *Three hours credit.*

Prerequisite, SED 270 and 271. The theory and practice of advanced pure tone and speech audiometry. A consideration of the instrumentation necessary for such testing, the interpretation of audiometric findings with special emphasis on the effects of hearing loss on communication. A study of the rationale and conduct of clinical programs.

273. THE HEARING MECHANISM. *Three hours credit.*

A detailed study of the human ear, the processes of audition, and special attention to the psychophysics of audition. A consideration of the abnormalities and diseases of the hearing mechanism.

274. PRACTICUM IN AUDIOLOGY. *Three hours credit.*

Principles of and experience in the administration of hearing tests and their evaluation.

370. HEARING AIDS. *Three hours credit.*

Prerequisite, SED 270 and 271. The presentation of those means by which the acoustically-impaired may most effectively utilize residual hearing, including amplification, auditory training, and speech reading. Consideration is given to the individual and group hearing aids, their design, basis for selection, and training necessary for their successful use.

371. CLINICAL STUDY IN COMMUNICATION PROBLEMS. *Three hours credit.*

Prerequisite, SED 270, 271, 272. The evaluation of individuals with communication problems, a study is made of the various types of breakdown in communication, methods of distinguishing among these types by the use of the differential diagnosis. Emphasis is placed upon actual clinical application of evaluation techniques.

372. 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.

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, Physical Education and Recreation

The Division of Health, Physical Education and Recreation includes programs for both men and women. Degrees and majors and minors offered are:

BACHELOR OF ARTS DEGREE (Teacher Preparation)

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 HPER 61, Personal and Community Health.

MASTER OF ARTS DEGREE (Teacher Preparation)

Majors: Physical Education (Supervision), Physical Education (Dance), Health Education, Recreation.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

DOCTOR OF EDUCATION DEGREE (Teacher Preparation)

Area of Concentration: Health and Physical Education.

Supporting Area: Health and Physical Education.

PHYSICAL EDUCATION MAJOR FOR WOMEN

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours. HPER 80, 81, and 83 will be substituted for the six hours of physical education activity courses required as a part of the General Education Program.

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

3. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER 62	— First Aid.....	2
HPER 82	— Techniques of Hockey and Soccer.....	2
HPER 84	— Techniques of Tennis and Softball.....	2
HPER 85	— Techniques of Tumbling.....	2
HPER 90	— Techniques in Folk Dance.....	2
HPER 92	— American Square and Social Dance.....	2
HPER 93	— Techniques in Contemporary Dance.....	2
HPER 94	— Problems in Dance Composition.....	2

HPER	201*	—	Problems in School Health Programs	
			<i>or</i>	
HPER	102*	—	Health Education in the Secondary School.....	4
HPER	120	—	Applied Human Anatomy.....	5
HPER	121	—	Applied Human Physiology.....	5
HPER	125	—	Teaching of Team Sports (Women).....	2
HPER	126	—	Teaching of Dance.....	2
HPER	127	—	Teaching of Individual Sports.....	2
HPER	226	—	Tests and Measurements in Physical Education	3
HPER	232	—	Adapted Physical Education.....	3
HPER	235	—	Educational Interpretations of Health, Physical Education, and Recreation.....	3
HPER	272	—	Recreation Leadership	3
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*Students planning to teach in the elementary school will take HPER 201; those planning to teach in the secondary school will take HPER 102.

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

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

6. Electives may be used at the students' option and under advisement to complete teaching competencies in health education and driver education.

PHYSICAL EDUCATION MAJOR FOR MEN

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours. HPER 70, 71 and 72 will be substituted for the six hours of physical education activity courses required in General Education.

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

In addition men majoring in this field will complete an additional methods course, either ED 140, 141 or ED 141 in a minor outside of the major division.

3. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
HPER	62	— First Aid.....	2
HPER	73	— Theory and Practice of Basketball.....	2
HPER	74	— Theory and Practice of Swimming.....	1
HPER	75	— Theory and Practice of Wrestling.....	1
HPER	76	— Theory and Practice of Football.....	2
HPER	77	— Theory and Practice of Track.....	1
HPER	78	— Theory and Practice of Baseball.....	1
HPER	90	— Techniques in Folk Dance.....	2
HPER	92	— American Square and Social Dance.....	2
HPER	201*	— Problems in School Health Programs	
		<i>or</i>	
HPER	102*	— Health Education in the Secondary School....	4
HPER	120	— Applied Human Anatomy.....	5
HPER	121	— Applied Human Physiology.....	5
HPER	161	— Coaching of Football.....	2

HPER	162	—	Coaching of Basketball.....	2
HPER	163	—	Coaching of Track and Field.....	2
HPER	164	—	Coaching of Baseball.....	2
HPER	226	—	Tests and Measurements in Physical Education	3
HPER	235	—	Educational Interpretations of Health, Physical Education and Recreation.....	3
HPER	250	—	Administration of Physical Education.....	3
HPER	272	—	Recreation Leadership	3
				—
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*Students planning to teach in the elementary school will take HPER 201; those planning to teach in the secondary school will take HPER 102.

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

5. Twenty-four to 26 quarter hours of free electives to complete the 180 quarter hours of academic credit for graduation.

6. Electives may be used at the students' option and under advisement to complete teaching competencies in health education and driver education.

Physical Education Minor for Women (Elementary Level)

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>	
HPER	62	— First Aid.....	2	
HPER	85	— Techniques of Tumbling.....	2	
HPER	90	— Techniques in Folk Dance.....	2	
HPER	120	— Applied Human Anatomy.....	5	
HPER	201	— Problems in School Health Programs.....	4	
HPER	235	— Educational Interpretations of Health, Physical Education and Recreation.....	3	
ED	144	— Methods and Observation of Teaching Physi- cal Education in the Elementary School.....	3	
Electives to be planned with minor advisor.....			6	
				—
				27

Physical Education Minor for Women (Secondary Level)

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>	
HPER	62	— First Aid.....	2	
HPER	81	— Techniques of Volleyball and Basketball.....	2	
HPER	85	— Techniques of Tumbling.....	2	
HPER	102	— Health Education in the Secondary School.....	4	
HPER	120	— Applied Human Anatomy.....	5	
HPER	121	— Applied Human Physiology.....	5	
HPER	125	— Teaching of Team Sports		
<i>or</i>				
HPER	127	— Teaching of Individual Sports.....	2	
HPER	235	— Educational Interpretations of Health, Physical Education, and Recreation.....	3	
ED	145	— Methods and Observation of Teaching Physical Education in the Secondary School (Women)	2	
				—
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Physical Education Minor for Men (Elementary Level)

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
HPER	62	— First Aid.....	2
HPER	70	— Theory and Practice of Gymnastics and Matwork.....	2
HPER	71	— Theory and Practice of Team Sports.....	2
HPER	73	— Theory and Practice of Basketball.....	2
HPER	77	— Theory and Practice of Track.....	1
HPER	78	— Theory and Practice of Baseball.....	1
HPER	90	— Techniques in Folk Dance.....	2
HPER	120	— Applied Human Anatomy.....	5
HPER	201	— Problems in School Health Programs.....	4
HPER	235	— Educational Interpretations of Health, Physical Education and Recreation	
		<i>or</i>	
HPER	272	— Recreation Leadership.....	3
		Electives to be planned with minor adviser...	3
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Physical Education Minor for Men (Coaching Emphasis - Secondary Level)

Students will be accepted in this minor on application only. Application forms are available in the division office.

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
		A minimum of 4 hours elected from:.....	4
HPER	70	— Theory and Practice of Gymnastics and Tumbling	
HPER	73	— Theory and Practice of Basketball	
HPER	74	— Theory and Practice of Swimming	
HPER	75	— Theory and Practice of Wrestling	
HPER	76	— Theory and Practice of Football	
HPER	77	— Theory and Practice of Track	
HPER	78	— Theory and Practice of Baseball	
		A minimum of 4 hours elected from:.....	4
HPER	161	— Coaching of Football	
HPER	162	— Coaching of Basketball	
HPER	163	— Coaching of Track	
HPER	164	— Coaching of Baseball	
		And the following:	
HPER	120	— Applied Human Anatomy.....	5
HPER	121	— Applied Human Physiology.....	5
HPER	235	— Educational Interpretations of Health, Physical Education and Recreation	
		<i>or</i>	
HPER	260	— Scientific Principles of Coaching.....	3
HPER	270	— Administration of Athletics.....	3
HPER	280	— Care of Sports Injuries.....	3
			27

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

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
HPER	62	— First Aid.....	2
HPER	70	— Theory and Practice of Gymnastics and Tumbling.....	2
HPER	71	— Theory and Practice of Team Sports.....	2
HPER	72	— Theory and Practice of Individual Sports.....	2
HPER	73	— Theory and Practice of Basketball.....	2

HPER	90	—	Techniques in Folk Dance	
			<i>or</i>	
HPER	92	—	American Square and Social Dance.....	2
HPER	120	—	Applied Human Anatomy.....	5
HPER	121	—	Applied Human Physiology.....	5
HPER	226	—	Tests and Measurements in Physical Education	
			<i>or</i>	
HPER	235	—	Educational Interpretations of Health, Physical Education and Recreation.....	3
ED	145	—	Methods and Observation of Teaching Physical Education in the Secondary School	2
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Health Education Minor (Men and Women)

Course Number		Course Title	Hours	Credit
HPER	62	—	First Aid.....	2
HE	98	—	Elementary Nutrition	
			<i>or</i>	
HE	209	—	New Trends in Nutrition.....	3
HPER	99	—	Introduction to Community Health.....	4
HPER	201	—	Problems in School Health Programs	
			<i>or</i>	
HPER	102	—	Health Education in the Secondary School....	4
HPER	271	—	Safety Education	3
EPG	285	—	Mental Hygiene and Emotional Adjustment..	3
Electives to complete 27 quarter hours from the following: HPER 205, 213, 274; BIO 252; BOT 122; ZOO 216.....				8 or 10
				<hr/> 27

Dance Education Minor (Men and Women)

Course Number		Course Title	Hours	Credit
HPER	90	—	Techniques in Folk Dance.....	2
HPER	92	—	American Square and Social Dance.....	2
HPER	93	—	Techniques in Contemporary Dance.....	2
HPER	94	—	Problems in Dance Composition.....	2
HPER	256	—	Workshop in Contemporary Dance.....	4
HPER	257	—	Dance History and Philosophy.....	4
HPER	258	—	Dance Methods and Materials.....	4
FA	65	—	Beginning Scene Design.....	3
Electives to complete 27 quarter hours selected from the following:				
SP	113	—	Stagecraft	
SP	213	—	Advanced Staging Techniques	
SP	220	—	Stage Costuming	
MUS	276	—	Survey of American Music	
MUS	295	—	The Art of Music Listening	
HE	72	—	Elementary Clothing Construction	
				<hr/> 27

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 one to 61 inclusive with courses numbered from one to 60 meeting the Physical Education activity requirement of the Common Course program. HPER 61, Personal and Community Health, is an academic requirement of General Education. 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. **MOVEMENT FUNDAMENTALS.** *One hour credit.*
 6. **BEGINNING TUMBLING.** *One hour credit.*
 7. **ADVANCED TUMBLING.** *One hour credit.*
- Prerequisite, HPER 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, HPER 25.
27. ADVANCED SWIMMING. *One hour credit.*
Prerequisite, HPER 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, HPER 30.
32. ADVANCED CONTEMPORARY DANCE. *One hour credit.*
Prerequisite, HPER 30, 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.*
57. VARSITY GOLF. *One hour credit.*
61. PERSONAL AND COMMUNITY HEALTH. *Three hours credit.*
Designed to develop the understandings, attitudes, and practices which contribute to better individual and group health. Emphasis is placed upon the major health and safety problems of the college years and early adulthood.

SPECIAL CERTIFICATION COURSES

- 62. FIRST AID.** *Two hours credit.*
- 63. ADVANCED FIRST AID.** *One hour credit.*
Prerequisite, HPER 62.
- 64. INSTRUCTOR'S COURSE IN FIRST AID.** *One hour credit.*
Prerequisite, HPER 62, 63.
- 65. SENIOR LIFE SAVING.** *One hour credit.*
- 66. WATER SAFETY INSTRUCTOR'S COURSE.** *One hour credit.*
Prerequisite, HPER 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 HPER 62 First Aid, HPER 271 Safety Education, HPER 274 Methods and Materials in Driver Education. The remaining nine hours may be selected from a maximum of three 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 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 TEAM SPORTS (Men).** *Two hours credit.*
Fundamental skill techniques in team sports such as: volleyball, soccer, and softball. An emphasis will be placed on rules, offensive and defensive strategy, lead-up drills, game courtesies and the value of the activity to immediate and ultimate fitness. Volleyball and soccer will be the primary sports activities taught.
- 72. THEORY AND PRACTICE OF INDIVIDUAL AND DUAL SPORTS (Men).** *Two hours credit.*
Fundamental skill techniques in minor sports. Emphasis on fundamental skill techniques in individual and dual sports such as tennis, badminton, golf, archery, casting, horseshoes and others. Instruction will be given on rules, strategy, special skill techniques, game courtesies and the value of the activity to immediate and ultimate fitness. mate fitness.
- 73. THEORY AND PRACTICE OF BASKETBALL (Men).** *Two hours credit.*
Fundamental skill techniques in basketball.
- 74. THEORY AND PRACTICE OF SWIMMING (Men).** *One hour credit.*
Fundamental skill techniques in swimming.
- 75. THEORY AND PRACTICE OF WRESTLING (Men).** *One hour credit.*
Fundamental skill techniques of teaching wrestling.
- 76. THEORY AND PRACTICE OF FOOTBALL (Men).** *Two hours credit.*
Fundamental skill techniques in football.
- 77. 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.

- 78. THEORY AND PRACTICE OF BASEBALL (Men).** *One hour credit.*
Fundamental skill techniques in baseball.
- 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.*
Prerequisite, HPER 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.
- 86. TECHNIQUES OF ARCHERY AND BOWLING.** *Two hours credit.*
Fundamental skills, strategies, and rules of archery and bowling.
- 87. TECHNIQUES OF FENCING AND GOLF.** *Two hour credit.*
Fundamental skills, strategies, and rules of fencing and golf.
- 88. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL.** *Two hours credit.*
Designed for, required of, and restricted to majors and minors in elementary education. Content deals with basic principles and activities included in a well-rounded program of physical education for the elementary school.
- 90. TECHNIQUES IN FOLK DANCE.** *Two hours credit.*
Fundamental and advanced skills of folk dance.
- 92. AMERICAN SQUARE AND SOCIAL DANCE.** *Two hours credit.*
Fundamental and advanced skills of square and social dancing.
- 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.
- 97. 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.
- 99. INTRODUCTION TO COMMUNITY HEALTH.** *Four hours credit.*
Prerequisite, HPER 61. Designed to acquaint prospective teachers with health problems in a community and to make them aware of community agencies which cope with these problems.
- 101. HEALTH EDUCATION IN THE ELEMENTARY SCHOOL.** *Two hours credit.*
Prerequisite, HPER 61. A study of program planning for health instruc-

tion at the elementary school levels. This includes the organization of teaching units and selection of methods and materials for the various grade levels.

102. HEALTH EDUCATION IN THE SECONDARY SCHOOL. *Four hours credit.*

Prerequisite, HPER 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. APPLIED HUMAN ANATOMY. *Five hours credit.*

This course deals with the systematic analysis of human motion through the application of the principles of kinesiology. Major emphasis is placed on the anatomical and mechanical fundamentals of body dynamics and sports skills.

121. APPLIED HUMAN PHYSIOLOGY. *Five hours credit.*

The functions of the systems of man most notably affected by exercise, the lack of exercise and various work aids will be studied. Common physiological problems in the teaching of physical education and coaching of athletics will be considered.

125. TEACHING OF TEAM SPORTS (Women). *Two hours credit.*

A consideration of the basic techniques of team sports including skills, rules and strategies, emphasizing teaching procedures.

126. TEACHING OF DANCE. *Two hours credit.*

Prerequisite HPER 81. Teaching procedures of dance activities. For the physical education major student.

127. TEACHING OF INDIVIDUAL SPORTS. *Two hours credit.*

A consideration of the basic techniques of individual and dual sports, including skills, rules and strategy, emphasizing teaching techniques.

130. OFFICIATING FALL SPORTS FOR GIRLS. *One hour credit.*

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.

131. OFFICIATING WINTER SPORTS FOR GIRLS. *One hour credit.*

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 basketball.

132. OFFICIATING SPRING SPORTS FOR GIRLS. *One hour credit.*

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 rating will be given in softball and badminton.

161. COACHING OF FOOTBALL. *Two hours credit.*

Prerequisite, HPER 40, 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, HPER 42, 43 or 73. Theory and practice in scouting, charting, scoring, timing, and officiating. Principles of successful modern offensive and defensive play. Procedures in developing and utilizing playing personnel.

163. COACHING OF TRACK AND FIELD. *Two hours credit.*

Prerequisite, HPER 53 or 77. A study of the techniques of coaching the various events in track and field, the rules, and the methods of conducting track meets.

164. COACHING OF BASEBALL. *Two hours credit.*

Prerequisite, HPER 50, 51 or 78. Techniques and procedures in developing individual and team play. Defensive baseball: pitching, catching, infielding, outfielding, strategy. Offensive baseball: batting, base-running, strategy.

201. PROBLEMS IN SCHOOL HEALTH PROGRAMS. *Four hours credit.*

Problems and trends in elementary school health and safety instruction, health services and guidance, and healthful environment.

203. HEALTH EDUCATION WORKSHOP. *Three hours credit.*

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, HPER 101, 102 or 201. 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.

220. SCIENTIFIC BASES OF HEALTH AND PHYSICAL EDUCATION. *Five hours credit.*

This course is designed to acquaint the advanced student with the progress made in the scientific study of exercise and sports. Special attention is given to structural, mechanical, physiological, psychological, and therapeutic aspects of exercise and fitness.

226. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION. *Three hours credit.*

Designed to give the student a foundation in techniques of evaluation, including elementary statistical procedures, the preparation and administration of skill and written tests, and the use of other evaluative materials in the field.

232. ADAPTED PHYSICAL EDUCATION. *Three hours credit.*

Prerequisite, HPER 120, 121. Developmental, remedial, and corrective programs in physical education. Emphasis is given to adaptations which are designed to meet the needs of individuals requiring special attention above and beyond the regular physical education program.

235. EDUCATIONAL INTERPRETATIONS OF HEALTH, PHYSICAL EDUCATION, AND RECREATION. *Three hours credit.*

Prerequisite, HPER 120, 121. 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. *Four hours credit.*

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. *Four hours credit.*

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. *Four hours credit.*

Designed to assist the high school or college teacher with special problems in teaching and officiating team sports.

248. ADVANCED TECHNIQUES IN TEACHING DANCE ACTIVITIES. *Four hours credit.*

Special problems and procedures for teaching social, square and folk dance. For the advanced physical education major student.

250. ADMINISTRATION OF PHYSICAL EDUCATION. *Three hours credit.*

A study of administrative problems in physical education for men and women dealing with budget and finance, legal aspects, purchase and care of equipment and supplies, programs, public relations, intramural activities, and class organization.

255. CONTEMPORARY DANCE TECHNIQUES. *Four hours credit.*
Prerequisite, HPER 94. Basic technique, movement analysis and composition for the advanced physical education major student.

256. WORKSHOP IN CONTEMPORARY DANCE. *Four hours credit.*
Problems connected with the staging of dance performances.

257. DANCE HISTORY AND PHILOSOPHY. *Four hours credit.*
Prerequisite, HPER 93, 94. 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.*
Prerequisite, HPER 90, 92, 93, 94. Teaching procedures for folk, social, square and contemporary dance. For the dance education major and minor student.

260. SCIENTIFIC PRINCIPLES OF COACHING. *Four hours credit.*
Primarily for the athletic coach to assist him in teaching and coaching the usual major sports of the school competitive sports program. Designed to establish on a sound scientific basis the mechanical principles involved in developing techniques for sport competition.

261. MECHANICAL PRINCIPLES OF TEACHING ACTIVITIES IN PHYSICAL EDUCATION. *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. *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. *Two hours credit.*

Designed to assist the in-service teacher of major sports for men with special problems in the field of football, including organization, strategy, personnel.

266. ADVANCED TECHNIQUES IN TEACHING BASKETBALL TO MEN. *Two hours credit.*

Designed to assist the in-service teacher of major sports for men with special problems in the field of basketball, including organization, strategy, personnel.

268. PROGRAMS IN RECREATION. *Four hours credit.*

Designed to prepare the student for effective planning of varied types of recreation programs. Special attention is given to programs for public playgrounds, community centers, and such special groups as the aging, teenagers, young adults, and the handicapped.

270. ADMINISTRATION OF ATHLETICS. *Three hours credit.*

The administrative problems confronted by the coach: management of athletic events, schedules, budgets, finances, athletic facilities and equipment, awards, public relations, and insurance.

271. SAFETY EDUCATION. *Three hours credit.*

Comprehensive course for teachers and administrators in public schools.

272. RECREATION LEADERSHIP. *Three hours credit.*

Reading, reports and projects covering the philosophy, methods, and materials for the recreation leader.

274. METHODS AND MATERIALS IN DRIVER EDUCATION. *Four hours credit.*

Designed to give prospective teachers some experiences in methods, techniques and materials necessary to develop a driver education program. The course is divided into two parts, classroom and behind the wheel experiences. This course requires laboratory time in which prospective teachers of driver education practice driving.

275. ADVANCED DRIVER EDUCATION. *Four hours credit.*

Prerequisite, HPER 274. An advanced course, designed for Driver Education teachers, in which problems related to administration, instruction, evaluation, and research in Driver Education programs will be studied. Particular emphasis will be placed upon the development of improved testing procedures and instructional aids.

280. CARE OF SPORTS INJURIES. *Three hours credit.*

Prerequisite, HPER 120, 121. Intensive course in care and treatment of athletic injuries with time devoted to each specific injury. The etiology, pathology, sign and symptoms, treatment, and adapted activities will be given for the major injuries.

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, PHYSICAL EDUCATION, AND RECREATION. *Four hours credit.*

Prerequisite, HPER 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.*

Prerequisite, HPER 120, 121 or 220. Effect of muscular activities on the various systems and organs of the body.

336. THE SCIENCE OF BODY MECHANICS. *Four hours credit.*

Prerequisite, HPER 120, 220 or 232. 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 AND RECREATION. *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.

375. AREAS AND FACILITIES IN PHYSICAL EDUCATION AND RECREATION. *Four hours credit.*

Major problems involved in the planning, construction, and maintenance of varied types of recreation areas and facilities. Technical aspects of construction and maintenance will be emphasized.

376. SEMINAR IN CONTEMPORARY PROBLEMS IN RECREATION. *Four hours credit.*

Detailed study of important problems in the area of leisure and recreation in America.

377. 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. *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. *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. *Four hours credit.*

Prerequisite, HPER 401. 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.

405. HUMAN GROWTH AND DEVELOPMENT. *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. *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

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 (Teacher Preparation)

Majors: English, English (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 (Teacher Preparation)

Majors: English, a combined program in Speech and Drama.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

DOCTOR OF EDUCATION DEGREE (Teacher Preparation)

Area of Concentration: English Education.

Supporting Area: English Education.

ENGLISH MAJOR

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit and ED 141, three hours credit.
3. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
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 109, 110 or 111	— Creative Writing I, II or III.....	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	7
				48

4. At least one minor of 27 quarter hours.

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

English Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
ENG 210	— Advanced Expository Writing.....	3
ENG 57	— Survey of English Literature (700-1800).....	4
ENG 58	— Survey of English Literature (1800-the present)	4
ENG 59	— Survey of American Literature.....	4
ENG 226	— Literature and Materials in the Secondary School.....	4
	Electives in English.....	8
		27

ENGLISH MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.

2. Course requirements listed for the English Major for the Bachelor of Arts Degree (teacher preparation) 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 Credit</i>
ENG 210	— Advanced Expository Writing.....	3
ENG 57	— Survey of English Literature (700-1800).....	4
ENG 58	— Survey of English Literature (1800-the present)	4
ENG 59	— Survey of American Literature.....	4
ENG 211	— The English Language.....	4
	Electives in English.....	8
		27

ENGLISH MAJOR (Junior High School Level)

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.

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

3. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
ENG 10	— Freshman Literature.....	4
ENG 49	— English Poetry from Chaucer to Milton.....	3
ENG 50	— Shakespeare	3
ENG 51	— The Restoration and Eighteenth Century.....	3
ENG 52	— The Romantic Movement.....	3
ENG 53	— Victorian Prose and Poetry.....	3
ENG 54	— Contemporary English and American Literature	4
ENG 60	— American Literature to the Civil War.....	4
ENG 61	— American Literature Since the Civil War.....	4
ENG 109, 110 or 111	— Creative Writing I, II or III.....	2
ENG 227	— Literature and Materials in the Junior High School	5
ENG 228	— The Teaching of Reading in the Junior High School	5
SP 124	— Teaching Speech in Junior High School.....	4
	Elective	1
		48

4. At least one minor of 27 quarter hours.

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

LANGUAGE AND SPEECH MINOR (Junior High School Level)

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
ENG 203	— New Approaches to the Teaching of Grammar	3
ENG 209	— Advanced Grammar and Syntax.....	2
ENG 210	— Advanced Expository Writing.....	3
ENG 211	— The English Language.....	4
SP 123	— Basic Speech and Oral Reading.....	5
	Electives	10
		27

JOURNALISM MINOR

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
ENG 100	— Introduction to Journalism.....	2
ENG 101	— Newswriting	3
ENG 201	— Sponsorship of the School Newspaper-Annual	3
ENG 202	— Advanced Newswriting	3
SP 260	— Introduction to General Semantics.....	4
BUE 158	— Psychology of Advertising.....	3
IA 143	— News Photography	2
IA 144	— School Publications—Analysis, Design and Layout	4
IA 145	— Production of School Publications.....	3
		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.

4. CREATIVE EXPRESSION IN THE HUMANITIES I. *Two hours credit.*

This course divides itself into four or five sections. These are art, music, drama, creative writing and the dance. The student chooses one section and pursues creative activities in the medium which he has chosen.

5. CREATIVE EXPRESSION IN THE HUMANITIES II. *Two hours credit.*

This course divides itself into four or five sections. These are art, music, drama, creative writing and the dance. Each student chooses a section in which he has not had experience and continues in that group to the end of the quarter.

6. CREATIVE EXPRESSION IN THE HUMANITIES III. *Two hours credit.*

In this quarter of the course in creative expression the different art media are synthesized in a single artistic production. It is felt that the 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 have been studied previously.

240. ADVANCED COURSE IN THE HUMANITIES. *Four hours credit.*

Prerequisite, HUM 1, 2 and 3. 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.

COMMUNICATIONS

1. ELEMENTARY COMPOSITION I. *Three hours credit.*

The first of the two quarters of elementary expository writing, with introduction to functional grammar, sentence structure, punctuation, and paragraph organization.

2. ELEMENTARY COMPOSITION II. *Three hours credit.*

The second quarter of elementary expository writing, with instruction in diction, style, tone, logical thinking, the organization of well-developed reports, and a research paper.

3. PRINCIPLES OF SPEECH. *Three hours credit.*

A lecture and performance course in fundamentals of voice production, oral reading and public speaking.

ENGLISH

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.

57. SURVEY OF ENGLISH LITERATURE (700-1800). *Four hours credit.*

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

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

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

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

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, Sandburg, Faulkner, and Eliot.
- 100. INTRODUCTION TO JOURNALISM.** *Two hours credit.*
Emphasizes highlights of the history of American journalism, including newspapers, magazines, special types of publications, radio and television; analysis of commercial media, their functions and responsibilities in a democratic society.
- 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.
- 109, 110, 111. CREATIVE WRITING I, II, III.** *Two hours credit.*
Opportunity to write creatively under criticism with emphasis upon the individual's own purposes and experiences.
- 200. WORKSHOP IN THE TEACHING OF ENGLISH.** *Maximum of nine hours credit.*
A series of workshops in special problems in the teaching of English, conducted by authorities in the field.
- 201. SPONSORSHIP OF THE SCHOOL NEWSPAPER AND ANNUAL.** *Three hours credit.*
Instruction in all phases of preparation and publication of school newspapers and annuals.
- 202. ADVANCED NEWSWRITING.** *Three hours credit.*
Prerequisite, ENG 101. Principles of gathering and writing of news and feature stories, writing of editorials, editing and preparation of copy with emphasis upon educational news.
- 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.** *Four hours credit.*
A study of what should constitute a junior high school reading program—content, materials, and methods of instruction.
- 205. WORKSHOP FOR SCHOOL PUBLICATION SPONSORS.** *One hour credit.*
Acquaint students with role of publications as media for internal and external publics; study and experience procedures of doing school newspapers, school annuals, school handbooks; school radio programs.
- 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.*
Prerequisite, COM 1, 2. For upper division and graduate students with adequate preparation in grammar and composition. Application of the elements of style to the development of effective prose.

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. 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 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 theater.

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.

255. ELIZABETHAN DRAMA EXCLUSIVE OF SHAKESPEARE. *Four hours credit.*
The drama from 1558 to 1642; the major dramatists, stage conditions, acting companies, and changes in dramatic form and subjects reflecting the life of the times.

257. HISTORY OF IDEAS IN ENGLISH LITERATURE. *Three hours credit.*
A synthesis of the literary periods in English literature through a study of ideas.

- 258. READINGS IN ENGLISH LITERATURE FROM 700-1800.** *Four hours credit.*
A survey of English literature from Beowulf to the Romantic Movement.
- 259. READINGS IN ENGLISH LITERATURE FROM 1800 TO THE PRESENT.** *Four hours credit.*
A survey of English literature from the Romantic Movement to the present time.
- 260. READINGS IN AMERICAN LITERATURE TO 1865.** *Four hours credit.*
A survey of the beginnings of American literature until the time of the Civil War.
- 261. READINGS IN AMERICAN LITERATURE SINCE 1865.** *Four hours credit.*
A survey of modern American literature.
- 289. LITERATURE OF THE OLD TESTAMENT.** *Three hours credit.*
A study of selected books of the Old Testament with emphasis on their literary qualities, and on the moral and religious progress they reveal. The historical and cultural background of these writings will be studied.
- 290. LITERATURE OF THE NEW TESTAMENT.** *Three hours credit.*
A comparative study of the Gospels, followed by a study of other New Testament writings and of the historical and cultural background of the period in which they were written.
- 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.** *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.
- 305. 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.
- 306. 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.
- 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.** *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 language.

- 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.
- 318. SEMINAR IN RESTORATION AND EIGHTEENTH CENTURY DRAMA.** *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.** *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.*
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. 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.** *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.** *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).**
Four hours credit.
Prerequisite, ENG 209. 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. *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. *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 (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit and ED 141, three hours credit.
3. The following required courses in the major:

A. FOR BEGINNING STUDENTS IN LANGUAGES

1. Four years of one language or
2. Three years of one language (French, Spanish, or German) 36 and
3. 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.

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

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 FL 231 or 232.

FOREIGN LANGUAGES MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Course requirements listed for the Foreign Language Major for the Bachelor of Arts Degree (teacher preparation).
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 Quarter: Must enroll for FR 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 Quarter: Must enroll for FR 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 Quarter: Must enroll for FR 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.*

Prerequisite, two years of high school French or one year of college French. This course aims at developing the student's ability to express himself in correct and idiomatic French. (This course may be taken without having had FR 5.)

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 FR 5 or 6.)

105. SURVEY OF FRENCH LITERATURE I. *Three hours credit.*

Prerequisite, two years of college French. 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. 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. 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. 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. 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. 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 GER 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 I. *Three hours credit.*
Prerequisite, two years of college German. German literature from the earliest beginnings through the 17th century. Pagan and early Christian literature, and then emphasis on the folk epic, the courtly epic, the courtly lyric, and on the Reformation period, with readings from Martin Luther and the humanists.

106. SURVEY OF GERMAN LITERATURE II. *Three hours credit.*
Prerequisite, two years of college German. German literature of the 18th and 19th centuries. Emphasis on the six great classical writers . . . with more intense effort on Goethe and Schiller. The historical and social background of all six will be explored. The decline of Classicism and the flowering of Romanticism will be traced.

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

225. EIGHTEENTH CENTURY GERMAN LITERATURE. *Three hours credit.*

Prerequisite, two years of college German. The general trends of German literature in the eighteenth century. Emphasis will be placed on the Halle poets, Lessing, Wieland, Herder, and Goethe. Readings and lectures in German.

226. NINETEENTH CENTURY GERMAN LITERATURE. *Three hours credit.*

Prerequisite, two years of college German. The main trends of German literature of the nineteenth century, especially the Romantic Movement. Emphasis will be placed on the later work of Goethe and the writings of Schiller. Readings and lectures in German.

227. TWENTIETH CENTURY GERMAN LITERATURE. *Three hours credit.*

Prerequisite, two years of college German. The most important aspects of twentieth-century German literature: neo-romanticism, symbolism, expressionism, and other movements. Readings and lectures in German.

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.

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 on 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 on 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 on 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, RUS 1. 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, RUS 1 and 2. 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, RUS 1, 2, 3. Review of Russian grammar, initiative composition and the reading of intermediate Russian texts.

6. INTERMEDIATE RUSSIAN COMPOSITION AND CONVERSATION I. *Four hours credit.*

Prerequisite, RUS 5. A continuation of RUS 5 but emphasizing more intensive reading, oral reports, advanced composition and more extensive conversation.

7. INTERMEDIATE RUSSIAN COMPOSITION AND CONVERSATION II. *Four hours credit.*

Prerequisite, RUS 6. A continuation of RUS 6. A study of three Russian authors in their shorter works (Turgenev, Lermontov, Pushkin). Oral reports, advanced composition, and translation.

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 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.

5. INTERMEDIATE SPANISH I. *Four hours credit.*

Prerequisite, two years of high school Spanish or one year of college Spanish. Review of the basic principles of the language. Aural-oral orientation through oral and written composition, conversation and audio-visual aids; stressing normal fluency and readiness in the use of Spanish in ordinary communication.

6. INTERMEDIATE SPANISH II. *Four hours credit.*

Prerequisite, two years of high school Spanish or one year of college Spanish. A continuation of SPN 5 but emphasizing more intensive reading, oral reports, advanced composition and extensive conversation based on Spanish and Spanish-American culture.

7. INTERMEDIATE SPANISH III. *Four hours credit.*

Prerequisite, two years of high school Spanish or one year of college Spanish. A continuation of SPN 6. Based on Spanish-American cultural materials, sources, films, audio-visual materials and a higher level of all-round comprehension and fluent functional use of the language and culture.

105. SURVEY OF SPANISH LITERATURE AND CIVILIZATION.
Three hours credit.

Prerequisite, two years of college Spanish. 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. 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. A continuation 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, two years of college Spanish. Designed to fit the reading abilities and interests of various students. Class meets two days a week for intensive reading. Extensive outside reading is reported in conference.

205. THE HIGHLIGHTS OF SPANISH CIVILIZATION AND CULTURE. *Four hours credit.*

Prerequisite, two years of college Spanish. 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. *Four hours credit.*

Prerequisite, two years of college Spanish. 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.

216. ADVANCED SPANISH READING IN LITERATURE I. *Three hours credit.*

Prerequisite, two year of college Spanish. This is a study of early Spanish literature from the beginning to 1700 including the Golden Age.

217. ADVANCED SPANISH READING IN LITERATURE II. *Three hours credit.*

Prerequisite, two years of college Spanish. 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 (Teacher Preparation)**

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.

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

3. The following required courses in a major:

DRAMA MAJOR

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
SP	13	— Introduction to Stagecraft.....	3
SP	16	— Voice and Diction.....	4
SP	63	— First Course in Drama.....	4
SP	113	— Stagecraft	3
SP	114	— Introduction to the Theater.....	4
SP	115	— Beginning Characterization.....	3
SP	116	— Beginning Play Direction.....	4
SP	200	— Techniques of Play Direction.....	3
ENG	50	— Shakespeare	3
ENG	235	— Contemporary American Drama.....	3
FA	65	— Beginning Scene Design.....	3
		Electives in Drama.....	11
			<hr/> 48

SPEECH MAJOR

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
SP	16	— Voice and Diction.....	4
SP	62	— Public Speaking.....	4
SP	63	— First Course in Drama.....	4
SP	114	— Introduction to the Theater.....	4
SP	117	— Oral Interpretation	3
SP	118	— Argumentation and Debate.....	3
SP	218	— Discussion Techniques	4
SP	280	— American Public Address.....	4
SED	260	— Speech Pathology I.....	3
SED	266	— Clinical Practice in Speech Correction.....	1
		Electives	14
			<hr/> 48

4. At least one minor of 27 quarter hours.

5. Twenty-four 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 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
FA 65	— Beginning Scene Design.....	3
	Electives in Drama.....	3
		27

Speech Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
SP 16	— Voice and Diction.....	4
SP 62	— Public Speaking.....	4
SP 118	— Argumentation and Debate.....	3
SP 218	— Discussion Techniques	4
ED 141	— Teaching Speech in the Secondary Schools....	3
SED 260	— Speech Pathology I.....	3
SED 266	— Clinical Practice in Speech Correction.....	1
	Electives in Speech.....	5
		27

SPEECH OR DRAMA MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Course requirements listed for the Speech or Drama Major for the Bachelor of Arts Degree (teacher 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

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. LABORATORY FORENSICS. *One hour credit.*

Primarily for those students participating in campus and intercollegiate programs in speech. A total of four hours may be earned in SP 18 during the student's undergraduate program.

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, SP 13 or FA 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.*

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 SED 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.

200. TECHNIQUES OF PLAY DIRECTION. *Three hours credit.*

Prerequisite, SP 63, 115, and 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.)*

Prerequisite, SP 16, 63, 116. This course includes a brief history of oral mass media, a survey in the laymen's terms of the technical phenomena involved, a comparison of radio and television to other mass media, and a study of radio and television programs and production techniques.

210, 211, 212. SUMMER THEATRE WORKSHOP I, II, III. *Five hours credit.*

Workshop in techniques of acting, directing and technical work as observed in the daily rehearsal periods of the Little Theater of the Rockies. Students must spend six to eight hours per day in rehearsals, either as actor or technical assistant.

213. ADVANCED STAGING TECHNIQUES. *Four hours credit.*

Prerequisite, FA 65, 232, SP 113. The study and practice of the latest trends and developments in scenic design, staging methods and techniques. Special attention is directed toward stage management, care and maintenance of equipment and materials. Emphasis is upon stage mechanics and materials of the modern theater.

217. ADVANCED ORAL INTERPRETATION. *Three hours credit.*

Prerequisite, SP 117. 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. *Four hours credit.*

Prerequisite, FA 65, SP 113, 116. 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.*

Prerequisite, EPG 40, SP 208. 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. *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.

249. LABORATORY IN INSTRUCTIONAL MATERIALS IN TEACHING SPEECH. *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.

250. HISTORY OF SPEECH EDUCATION. *Four hours credit.*

A seminar study of speech education: history, practices, and trends.

251. SPEECH FOR THE CLASSROOM TEACHER. *Four hours credit.*

A course designed to increase the personal effectiveness of the teacher in the classroom with emphasis on the improvement of instructional speaking. Not for speech 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. *Four 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 plays.

316. SEMINAR IN THEATER PRODUCTION. *Four hours credit.*

Prerequisite, SP 200. 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. RHETORICAL THEORY. *Four hours credit.*

An analytical review of the major contributions of Greek, Roman, English and American rhetoricians from Corax to Winans.

360. GENERAL SEMANTICS. *Four hours credit.*

Prerequisite, SP 260. 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. *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

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. Graduates are prepared to teach both vocal and instrumental music in the schools at all levels—elementary, junior high school and senior high school. Degrees and majors and minors offered are:

BACHELOR OF ARTS DEGREE (Teacher Preparation)

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 (Teacher Preparation)

Major: Music Education (a five-year program)

MASTER OF ARTS DEGREE (Teacher Preparation)

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 (Teacher Preparation)

Area of Concentration: Music Education.

Supporting Area: Music Education.

MUSIC EDUCATION MAJOR

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 142, three hours credit, and ED 143, two hours credit.
3. Required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
MUS 2	— Sight Singing and Notation I.....	2	2
MUS 3	— Sight Singing and Elementary Theory II.....	2	2
MUS 4	— Sight Singing and Harmonic Analysis III.....	2	2
MUS 40, 41, 42	— Introduction to Music Education I, II, III.....	6	6
MUS 43, 44, 45	— Advanced Sight Singing and Choral Literature I, II, III.....	3	3
MUS 52, 53, 54	— Harmony I, II, III.....	9	9
MUS 58, 59, 60	— Music Literature and Styles I, II, III.....	3	3
MUS 152	— Counterpoint.....	3	3
MUS 153	— Form and Analysis.....	3	3
MUS 154	— Instrumentation.....	3	3
MUS 158, 159,			
160	— History of Music I, II, III.....	6	6
MUS 165	— Teaching Instrumental Music.....	3	3
MUS 162, 163,			
164*	— Instrumental Techniques and Conducting I, II, III		
	<i>or</i>		
MUS 170, 171,	Choral Techniques and Conducting		
172*	— I, II, III.....	3	3
			48

*Students may choose one of the two designated groups to complete course work in this major.

Bachelor of Arts (Teacher Preparation) 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:

Complete the requirements outlined for the Bachelor of Arts Degree (Teacher Preparation).

Complete one of the Music Minor plans listed below.

Complete 27 additional quarter hours of applied major instrument study and performance.

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

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
MUS 202	— Opera Workshop.....	5	5
MUS 242	— Vocal Repertoire: German Lieder.....	2	2
MUS 243	— Vocal Repertoire: French and English 19th & 20th Centuries.....	2	2
MUS 244	— Vocal Repertoire: 17th and 18th Centuries....	2	2
MUS 262	— Symphonic Literature.....	3	3
MUS 270	— Eighteenth Century Harmony and Forms.....	3	3
MUS 271	— Nineteenth Century Harmony and Forms.....	3	3
MUS 272	— Twentieth Century Harmony and Forms.....	3	3
MUS 277	— Church Music.....	3	3
MUS 295	— The Art of Music Listening.....	3	3

The candidate for the combined degrees will present a complete graduation recital.

MUSIC EDUCATION MINORS**Instrumental Music Teaching Emphasis (for music majors)**

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
MUS	13, 14, 15	— Beginning String Instruction.....	3
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	196	— Voice Class	1
MUS	197	— Flute and Saxophone Class.....	1
MUS	205	— Music Performance (Major).....	7
MUS	215	— Instrumental Literature	3
MUS	217	— Methods and Materials for Class Instrumental Instruction	3
MUS	220	— Instrument Repair and Care.....	2
MUS	241	— Marching Band Techniques.....	2
			27

Vocal and General Music Teaching Emphasis (for music majors)

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
MUS	10, 11, 12*	— Beginning Class Piano I, II, III or	
MUS	20, 21, 22*	— Intermediate Class Piano I, II, III or	
MUS	205*	— Music Performance (Piano).....	3
MUS	205	— Music Performance (Voice).....	4
MUS	13, 14, 15	— Beginning String Instruction 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	5
MUS	216	— Methods and Materials for Class Voice Instruction	3
MUS	242	— Vocal Repertoire: German Lieder.....	2
MUS	243	— Vocal Repertoire: French and English 19th and 20th Century.....	2
MUS	244	— Vocal Repertoire: 17th and 18th Centuries.....	2
			27

*Student may choose one of the three designated courses to complete work in this minor.

Students who major in areas other than music may select music minor plans from the following:

Voice and Choral Minor

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
MUS	2	— Sight Singing and Notation I.....	2
MUS	3	— Sight Singing and Elementary Theory II.....	2
MUS	4	— Sight Singing and Harmonic Analysis III.....	2
MUS	170, 171	— Choral Techniques and Conducting I, II.....	2
MUS	205	— Music Performance (Voice).....	3
MUS	205	— Music Performance (Choral).....	4
MUS	214	— Choral Literature	5
MUS	216	— Methods and Materials for Class Voice Instruction	3
MUS	242	— Vocal Repertoire: German Lieder.....	2
MUS	243	— Vocal Repertoire: French and English 19th and 20th Centuries.....	2
			27

Band and Band Instruments Minor

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
MUS	2	— Sight Singing and Notation I.....	2
MUS	3	— Sight Singing and Elementary Theory II.....	2
MUS	4	— Sight Singing and Harmonic Analysis III.....	2
MUS 162, 163,		Instrumental Techniques and	
164	—	Conducting I, II, III.....	3
MUS	165	— Teaching Instrumental Music.....	3
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
MUS	205	— Music Performance (Major Instrument).....	4
MUS	205	— Music Performance (Band).....	5
			27

Orchestra Minor

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
MUS	2	— Sight Singing and Notation I.....	2
MUS	3	— Sight Singing and Elementary Theory II.....	2
MUS	4	— Sight Singing and Harmonic Analysis III.....	2
MUS 13, 14, 15	—	Beginning String Instruction I, II, III.....	3
MUS 70, 71, 72	—	Laboratory Orchestra I, II, III.....	3
MUS 162, 163,		Instrumental Techniques and	
164	—	Conducting I, II, III.....	3
MUS	205	— Music Performance (Violin, Viola, Cello or Bass).....	6
MUS	205	— Music Performance (Orchestra).....	6
			27

Students minoring in any one of the three minors for non-music majors listed above are urged to elect ED 143, Observation and Participation in Secondary School Music — two hours.

Music Minor for Elementary Education Majors

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
MUS	2	— Sight and Singing and Notation I	2
MUS	3	— Sight Singing and Elementary Theory II	2
MUS	4	— Sight Singing and Harmonic Analysis III	2
MUS 10, 11, 12*	—	Beginning Class Piano I, II, III	
		<i>or</i>	
MUS 20, 21, 22*	—	Intermediate Class Piano I, II, III	3
		<i>or</i>	
MUS	205*	— Music Performance (Piano)	4
MUS 40, 41, 42	—	Introduction to Music Education	6
MUS	100	— Music Appreciation	2
MUS	205	— Music Performance (Choral)	3
MUS	210	— Music Literature for Elementary Grades	3
MUS	212	— Music Activities for Classroom Teachers	3
			27

*Students may choose one of the three designated course groups to complete work in this minor.

Music and Music Teaching Program for Elementary Classroom Teachers

The Division of Music provides an opportunity for the elementary education major to elect a 15 quarter hour area

of concentration in music designed to meet the peculiar needs of the elementary classroom teacher. The courses listed below, in some instances, bear the course numbers and titles required for music majors and music minors. The schedule of classes will indicate, however, the sections of these courses that are open to elementary education majors only. See a music faculty adviser for assistance in registration.

		<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
MUS	2	— Sight Singing and Notation I	2	2
MUS	3	— Sight Singing and Elementary Theory II	2	2
MUS	4	— Sight Singing and Harmonic Analysis III	2	2
MUS	10, 11, 12*	— Beginning Class Piano I, II, III		
		<i>or</i>		
MUS	20, 21, 22*	— Intermediate Class Piano I, II, III		
		<i>or</i>		
MUS	205*	— Music Performance (Piano)	3	3
MUS	100	— Music Appreciation	2	2
MUS	196	— Voice Class	1	1
ED	142	— Observation and Participation in Elementary School Music	3	3
				15

*Students may choose one of the three course combinations to satisfy the piano requirement.

Piano proficiency requirements may be fulfilled by proficiency examination, individual instruction or class instruction. It is recommended that elementary education majors pursuing the music concentration plan elect additional music performance activities from the music organizations listed on the following pages.

Music Performance Requirements for Music Majors

Major Instrument 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, or voice, under the tutorship of a private teacher.

Major Ensemble Performance—The music major must participate each quarter in the music organization in which his instrument normally belongs—band, orchestra, or choir. Piano and organ majors may select either a vocal or an instrumental organization.

Music Division Chorus and Orchestra—All music majors participate in the performance of large works for chorus and orchestra.

Recital Attendance—Music majors must attend the weekly student recital series and a designated number of faculty recitals, and locally sponsored concerts each quarter.

Music Performance Organizations and Applied Music Study

The Division of Music offers a complete program in music performance, and opportunities for individual studio instruction, to all interested and qualified college students. A description of the performing organizations, and the areas in which individual instruction is available is outlined below:

Music Division Chorus and Orchestra

The entire personnel of the Division of Music holds regularly scheduled bi-weekly meetings for the purpose of the study and performance of large works for chorus and orchestra. In connection with these bi-weekly convocations, the students taking part in private study with members of the Music Division faculty are presented in recital. Participation in this activity is required of all music majors and is open to the general college student who wishes to participate.

Concert Band

The Concert Band is limited in enrollment to approximately 90 members. This organization performs the best literature available for the band. Over the years the CSC band has become known throughout the region for its excellence as a concert organization. The band presents many concerts annually. A tour of Colorado each year receives enthusiastic acclaim throughout the state.

Marching Band

During the fall term the Marching Band "Pride of the Rockies" is open to all students who wish marching band experience.

Varsity Band

The Varsity Band is open to all band performers who wish a more limited band experience than is provided by the concert band. This band provides music for the winter and spring quarter athletic events and a spring concert open to the public.

Mixed Concert Choir

Membership in the concert choir is limited to approximately 60 singers. This organization performs a wide range of choral literature from the classics to the music of contemporary composers. The organization is recognized widely for its excellence as a choral performing group. It is in demand throughout the region for concert appearances.

Men's Concert Choir

This group is open to all male students who enjoy singing the standard literature for men's voices.

Women's Concert Choir

The women's choir is open to all women students who enjoy singing the literature for women's voices. This group performs for many local community and college events. Elementary education majors are especially urged to apply for membership.

Madrigal Singers

The Madrigal Singers are a chamber vocal group composed of 12 members in the performing organization. The interest in the madrigal literature, and the sight-reading experience has made membership in this organization sought after by music students. As a result, many student "visitors" attend the rehearsal for the experience gained. The performing membership changes upon a try-out basis.

Opera

An opera workshop is scheduled continuously through the school year. This group studies and performs opera literature both in larger and smaller forms. See course descriptions for further information.

Symphony Orchestra

The college symphony orchestra is a rapidly developing organization in which the wealth of the world's most outstanding music is performed. The orchestra is presented regularly in local concerts and participates in performances of the large works for chorus and orchestra performed by the faculty and students of the Division of Music.

Small Instrumental Ensembles

Many small instrumental ensembles are organized and function regularly as a part of the music performance programs. These ensembles include a woodwind quintet, brass ensemble, clarinet ensemble, saxophone ensemble, string quartet, and French horn ensemble. Other combinations are developed to meet the needs of the students.

Small Vocal Ensembles

In addition to the Madrigal Singers, quartets, trios, opera ensembles, and the like are organized to meet the needs of the talented vocalists. These organizations are available to students upon the invitation of the instructors.

Individual Instruction in Applied Music

The faculty of the Division of Music offers private lessons in music in all major instruments and voice. Students enrolled receive a minimum of a one-half hour lesson each week.

Individual Instruction in Voice
Individual Instruction in Piano

- Individual Instruction in Organ
- Individual Instruction in Stringed Instruments
(violin, viola, cello, bass)
- Individual Instruction in Percussion Instruments
- Individual Instruction in Woodwind Instruments
(flute, clarinet, oboe, English horn, bassoon, saxophone)
- Individual Instruction in Brass Instruments
(French horn, trumpet, trombone, baritone, tuba)

Registration Procedures for Music Performance Organizations and Individual Lessons in Applied Music

Music Majors

1. Each music major will normally enroll for two quarter hours credit in music performance activities and applied music study each term in residence.
2. The course number and title will appear on the student's registration as follows:
MUS 205 Music Performance (Major) 2 hours
3. In fulfilling the requirements for the course the student will:
 - a) Receive one private lesson each week.
 - b) Attend the weekly student recital series and the "performance class" seminars.
 - c) Perform on his major instrument in one of the primary music organizations in the Division of Music—band, orchestra, or chorus. (Piano or organ majors may select either a vocal or an instrumental organization.)
 - d) Participate in the Music Division Chorus and Orchestra. This is an activity providing the student an opportunity to perform large works for chorus and orchestra. Required of all music majors.
 - e) Perform as a member of small ensembles at the discretion of his teacher.
 - f) Attend a designated number of concert and recitals each quarter.
 - g) Fulfill performance requirements before graduation.
4. The student's final grade for the quarter will be assigned by the major instrument instructor. The grade will be computed from the composite grades earned in the areas described above.
5. The official transcript of the music major must show not less than 22 quarter hours of music performance and applied music credit at the time of graduation.

Non-Music Majors

1. The college student who wishes to enroll for individual instruction in applied music or a music activity such as band, orchestra, or choir will be issued an enrollment card by the Division of Music as follows:

MUS 205 Music Performance 1 hour

2. One hour credit each quarter will be granted to the non-music major who is enrolled in a music organization or who studies an instrument or voice privately with a member of the Music Division faculty.

3. Individual lessons with Division of Music faculty members will be arranged by the Division of Music secretary at the time of registration.

Admission to the Teacher Education Program

In addition to meeting the general requirements for formal admission to the teacher education program at the close of the sophomore year the student majoring in music must:

1. Demonstrate an acceptable level of performance on his major instrument or voice. Such ability will be evaluated by a jury examination conducted by the music faculty, and through the scheduled performances of the student in the weekly recital series.

2. The student must pass a proficiency examination in functional piano in which he will demonstrate his ability to play, at sight, piano accompaniments suitable for community and classroom singing.

3. He must demonstrate to a jury of the music faculty his ability to read music vocally at sight with the use of solfege symbols.

4. He must show acceptable aptitude for music study as demonstrated by his record in the required freshman and sophomore music courses — Sight-Reading and Ear-Training, Harmony, and Literature and Styles.

5. He must demonstrate, to the satisfaction of a reviewing music education committee, professional promise as a teacher.

Description of Courses

2. SIGHT-SINGING AND NOTATION I. *Two hours credit.*

Sight-reading of standard music materials, pitch and rhythmic dictation, symbols of music notation, staff, clefs, scale construction in major and minors keys, and intervals.

3. SIGHT-SINGING AND ELEMENTARY THEORY II. *Two hours credit.*

Prerequisite, MUS 2. 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.

4. SIGHT-SINGING AND HARMONIC ANALYSIS III. *Two hours credit.*

Prerequisite, MUS 2 and 3. Continuation of sight-reading, ear training and dictation; chords of seventh and ninth, cadences, analysis, and ear training of standard harmonic materials.

10. BEGINNING CLASS PIANO I. *One hour credit.*

This is a course designed to fit the needs of the music major who does not have a background in piano. This includes reading skills, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

11. BEGINNING CLASS PIANO II. *One hour credit.*

This is a course designed to fit the needs of the music major who does not have a background in piano. This includes reading skills, technique and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

12. BEGINNING CLASS PIANO III. *One hour credit.*

This is a course designed to fit the needs of the music major who does not have a background in piano. This includes reading skills, technique, and style necessary to the playing of simple accompaniments, community songs and other piano music.

13. 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.

14. BEGINNING STRING INSTRUCTION II. *One hour credit.*

A study, through performance, of the problems of string playing and the available literature for teaching classes in heterogeneous and homogeneous groups so that the student will be able, upon graduation, to establish string classes with full knowledge of the problem of string playing and their solution.

15. BEGINNING STRING INSTRUCTION III. *One hour credit.*

A study, through performance, of the problems of string playing and the available literature for teaching classes in heterogeneous and homogeneous groups so that the student will be able, upon graduation, to establish string classes with full knowledge of the problems of string playing and their solution.

20. INTERMEDIATE CLASS PIANO I. *One hour credit.*

This is a course in functional piano designed to fit the needs of the music major who has a slight background in piano. In this course is included the teaching of reading skills, technique, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

21. INTERMEDIATE CLASS PIANO II. *One hour credit.*

This is a course in functional piano designed to fit the needs of the music major who has a slight background in piano. In this course is included the teaching of reading skills, techniques, and styles necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

22. INTERMEDIATE CLASS PIANO III. *One hour credit.*

This is a course in functional piano designed to fit the needs of the music major who has a slight background in piano. In this course is included the teaching of reading skills, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music in the public schools.

40. INTRODUCTION TO MUSIC EDUCATION I. *Two hours credit.*

Prerequisite, MUS 4. 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.

41. INTRODUCTION TO MUSIC EDUCATION II. *Two hours credit.*

Prerequisite, MUS 40. A continuation of MUS 40. Methods and materials for the teaching of singing, music reading and related skills, music listening, and rhythm in the public school music program.

- 42. INTRODUCTION TO MUSIC EDUCATION III.** *Two hours credit.*
Prerequisite, MUS 41. A continuation of MUS 41. A study of lesson planning, and classroom techniques in the teaching of music reading, appreciation, creative music, music listening, and rhythm. Techniques in conducting high school music activities.
- 43. ADVANCED SIGHT-SINGING AND CHORAL LITERATURE I.**
One hour credit.
Prerequisite, MUS 2, 3 and 4. 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.
- 44. ADVANCED SIGHT-SINGING AND CHORAL LITERATURE II.**
One hour credit.
Prerequisite, MUS 43. Continuation of training in sight-singing, ear training, and includes rhythmic, melodic and harmonic dictation. Emphasis will be given to the reading of a wide variety of standard choral works graded to supply reading experiences of progressive difficulty.
- 45. ADVANCED SIGHT-SINGING AND CHORAL LITERATURE III.**
One hour credit.
Prerequisite, MUS 44. A continuation of the sight-singing, ear training, and dictation experiences given in the preceding courses of this series. Reading experience in this course will include standard materials for mixed women's and men's choruses, and the large vocal forms; opera and oratorio.
- 52. HARMONY I.** *Three hours credit.*
Prerequisite, MUS 4. A review of scales, intervals, triads and their inversions. Correlated studies in ear training, dictation, sight-singing and composition. Normal chord progressions.
- 53. HARMONY II.** *Three hours credit.*
Prerequisite, MUS 52. A structural harmony unit consisting of seventh chords, inversions, ninth chords and modulations. Correlated studies of ear training, dictation, sight-singing and composition.
- 54. HARMONY III.** *Three hours credit.*
Prerequisite, MUS 53. A structural unit of chromatic harmony, altered chords, embellishing chords, modulations and original compositions.
- 58. 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.
- 59. 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.
- 60. 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.
- 70. 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.
- 71. 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.

72. 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.

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.

149. MUSIC FUNDAMENTALS. *Two hours credit.*

A comprehensive study of the rudiments of music for the classroom teacher. Practice is given in simple ear training, music writing through dictation, rhythm work, syllable reading, and group singing.

151. PRINCIPLES OF PIANO TEACHING. *Three hours credit.*

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, MUS 54. A study of the five species of counterpoint through four parts (or voices): the invention, canon, and fugue; a seminar on the construction and form as applied to contrapuntal technique.

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.*

Prerequisite, MUS 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.

158. HISTORY OF MUSIC I. *Two hours credit.*

Prerequisite, MUS 2, 3 and 4. The historical changes in music from earliest times to the end of the sixteenth century with emphasis on the changes in style.

159. HISTORY OF MUSIC II. *Two hours credit.*

Prerequisite, MUS 158. A study of historical changes which took place in music in the baroque period (1600-1750) and the classic period (1750-1800) with emphasis on changes caused by the new monodic style found in opera, and the beginning of instrumental music.

160. HISTORY OF MUSIC III. *Two hours credit.*

Prerequisite, MUS 159. A study of the musical changes caused by the romantic, post-romantic and impressionistic periods from 1800 to 1920.

162. INSTRUMENTAL TECHNIQUES AND CONDUCTING I. *One hour credit.*

Prerequisite, MUS 2, 3, 4, 43, 44, 45, 52, 53 and 54. 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.

163. INSTRUMENTAL TECHNIQUES AND CONDUCTING II. *One hour credit.*

Prerequisite, MUS 162. The techniques and practice of instrumental conducting. The development of hand and baton technique. Meter patterns, tempo, style, dynamics, musical terms, study and preparation of the musical score. Extensive experience in interpretation of materials using the laboratory band and orchestra.

164. INSTRUMENTAL TECHNIQUES AND CONDUCTING III. *One hour credit.*

Prerequisite, MUS 163. The techniques and practice of instrumental conducting. The development of hand and baton technique. Meter patterns, tempo, style, dynamics, musical terms, study and preparation of the musical score. Extensive experience in interpretation of materials using the laboratory band and orchestra.

165. TEACHING INSTRUMENTAL MUSIC. *Three hours credit.*

This course will endeavor (1) to present the various aspects of instrumental music in the public schools, both physical and musical; (2) to assist the student in making a systematic preparation for the task of developing a well-rounded instrumental music program.

170. 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.

171. 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.

172. 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. *One hour credit.*

To develop a teaching knowledge of the clarinet family, their specific problems, their functions, and their possibilities. To acquaint the prospective teacher with the pedagogic and concert literature and to develop sufficient skill to demonstrate the clarinet.

191. TRUMPET CLASS. *One hour 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. *One hour credit.*

To develop a teaching knowledge of brass instruments. To acquire sufficient skill for purposes of demonstration.

193. STRING CLASS. *One hour credit.*

To develop a teaching knowledge of the characteristics of the strings, their resources, their difficulties and how best to overcome them. To study the basic principles of string performance and to acquire some technical facility by daily practice.

194. PERCUSSION CLASS. *One hour credit.*

To develop a teaching knowledge of percussion instruments, their possibilities, their functions, their difficulties and how to best overcome them, to acquire sufficient skill for purposes of demonstration.

195. DOUBLE REED CLASS. *One hour credit.*

To develop a teaching knowledge of the oboe and bassoon, their individual problems, their functions, and their possibilities. To acquaint the prospective teacher with the pedagogic and concert literature, to develop an understanding of the reed and to acquire sufficient skill to demonstrate these instruments.

196. VOICE CLASS. *One hour credit.*

For beginning voice students, particularly elementary majors and majors in instrumental music. Course includes fundamentals of singing, interpretation and solo repertoire.

197. FLUTE AND SAXOPHONE CLASS. *One hour credit.*

Prerequisite, MUS 190. To develop a teaching knowledge of the flute and saxophone, their individual problems, their functions, and their possibilities. To acquaint the prospective teacher with the pedagogic and concert literature, to develop an understanding of the problems of tone production and to acquire sufficient skill to demonstrate these instruments.

200. GREAT IDEAS SEMINAR: MUSIC. *Three hours credit.*

The Great Ideas Seminars are conducted by authorities nationally known in their fields of specialization. The purpose of the seminar is to provide information about current important ideas in each field of knowledge.

201. STAGE AND OPERA TECHNIQUES. *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. *Five 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.

205. MUSIC PERFORMANCE. *Maximum of 30 hours credit.*

Credit for all music performance courses and music activities such as band, orchestra, choir, small ensembles, and individual lessons in applied music will be entered on the student's registration under the title and course number appearing above.

206. MUSIC AND RECREATION. *Two hours credit.*

The following aspects of recreational music will be stressed: singing and leading of community songs; formation, training, and operation of community performance groups; learning to play some of the simple social instruments and becoming proficient in teaching others how to listen to music intelligently.

210. MUSIC LITERATURE FOR ELEMENTARY GRADES. *Three hours credit.*

Prerequisite, MUS 149 and 249. 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. *Five hours credit.*

Prerequisite, MUS 40, 41, 42, 149 and 249. 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. *Five 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.

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.

223. PRACTICUM IN BAND CONDUCTING AND PERFORMANCE. *Five hours credit.*

A laboratory course in advanced band conducting and performance. Supervised conducting experience under actual conditions is provided. Marching and football band performance will also be covered.

224. PRACTICUM IN CHORAL CONDUCTING AND PERFORMANCE. *Five hours credit.*

A workshop course in advanced choral conducting and performance. Provides opportunity for supervised conducting, analysis of choral materials, problems of choral organization, a study of the literature of choral conducting and practices.

225. PRACTICUM IN ORCHESTRAL CONDUCTING AND PERFORMANCE. *Five hours credit.*

A workshop course in advanced orchestral conducting and performance. Provides opportunity for supervised conducting, analysis of orchestral material, problems of organization, a study of the literature of orchestral conducting and practice.

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.

242. VOCAL REPERTOIRE: GERMAN LIEDER. *Two hours credit.*

A course in performance of nineteenth and twentieth century German art song, with particular emphasis upon style, technical requirements and diction.

243. VOCAL REPERTOIRE: FRENCH AND ENGLISH: 19th & 20th CENTURY. *Two hours credit.*

A course in performance of nineteenth and twentieth century English and French song, with particular emphasis upon style, technical requirements and diction.

244. VOCAL REPERTOIRE: 17th-18th CENTURIES. *Two hours credit.*

A course in performance of songs and airs before the nineteenth century, with particular emphasis upon style, technical requirements, and diction in English, Italian, French and German.

249. MUSIC METHODS AND MATERIALS FOR ELEMENTARY TEACHERS. *Two hours credit.*

Prerequisite, MUS 149. A comprehensive methods course for the elementary classroom teacher covering the teaching of singing, rhythm, music reading, creative activities and music listening. A list of recorded music and song literature for each grade will be developed by the class. Grade placement for all aspects of the music program will be studied.

250. SEMINAR IN MUSIC EDUCATION. *Three hours credit.*

Prerequisite, MUS 40, 41, 42; ED 143, 144, 251. A course designed for seniors who have completed student teaching. Each student will work independently on a problem occurring in his student teaching work. The class will be conducted as a seminar with reports and discussion of the students' problems.

251. TEACHING SECONDARY SCHOOL MUSIC. *Three hours credit.*

Prerequisite, MUS 40, 41, 42; ED 143, 251. 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.

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.

270. EIGHTEENTH CENTURY HARMONY AND FORM. *Three hours credit.*

Construction and harmonization of melodies. Review of figured bass and harmonic practices deriving from a study of Bach chorales, part forms, rondo, variation, and sonata principles appearing in eighteenth century music. Altered chords, modulation, non-chordalism, and tonality concepts within Baroque and Classic periods.

271. NINETEENTH CENTURY HARMONY AND FORM. *Three hours credit.*

Harmonic materials of the nineteenth century, beginning with a brief review of secondary sevenths, diminished sevenths, and continuing with augmented chords, ninth chords, modulation, sequence, and the whole tone scale. Study of simple part forms—song form with trio, rondo forms, variations and the sonata allegro—as used in the nineteenth century. Analysis of compositions in all major forms. Original compositions in shorter forms.

272. TWENTIETH CENTURY HARMONY AND FORMS. *Three hours credit.*

This course is concerned with new compositional technics employed in twentieth century music as revealed in new concepts of melody, harmony, rhythm and form. When possible, this course should be combined with MUS 385, Seminar: New Music.

274. TEACHING MUSIC APPRECIATION. *Three hours credit.*

Prerequisites, MUS 42, 249; 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. *Three hours credit.*

A comprehensive study of the music of our country and the people who have produced it, tracing the development of vocal and instrumental music from the time of the Puritans and Pilgrims to today. Some topics are folk music, symphony orchestra, jazz, and new film music. 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.

279. 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. *Three 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. *Five 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. *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. *Three 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.

317. INSTRUMENTAL TECHNIQUES AND MATERIALS (VIOLIN AND VIOLA). *Three hours credit.*

Prerequisite, MUS 193. 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.

318. INSTRUMENTAL TECHNIQUES AND MATERIALS (CELLO AND BASS). *Three hours credit.*

Prerequisite, MUS 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.

319. INSTRUMENTAL TECHNIQUES AND MATERIALS (WOODWINDS). *Five hours credit.*

Prerequisite, MUS 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.

320. INSTRUMENTAL TECHNIQUES AND MATERIALS (BRASS).
Five hours credit.

Prerequisite, MUS 191 or 192. An advanced course in the techniques, theories and problems of teaching and playing brass instruments.

323. COMPARATIVE VOICE METHODS AND MATERIALS. *Five 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.
Three hours credit.

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. *Three 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, MUS 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. *Five hours credit.*

Prerequisite, MUS 162, 163, 164 or 170, 171 and 172. A laboratory course in advanced problems of instrumental and choral conducting. Supervised conducting experience is provided.

360. HISTORICAL ANALYSIS OF MUSIC STRUCTURE. *Five hours credit.*

Prerequisite, MUS 158, 159, 160. 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.

370. AURAL THEORY. *Three 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.

380. SURVEY OF MUSIC HISTORY. *Three hours credit.*

A survey of music history beginning with Greek music and continuing to the present, designed specifically as a comprehensive review for the new graduate student. Emphasis is placed on styles and characteristics of the music of the Renaissance and succeeding periods. Study of musical scores and outside listening assignments are required.

381. SEMINAR: THE BAROQUE PERIOD. *Three hours credit.*

Music from 1600 to 1750. Beginning and development of opera from its Florentine beginnings through Venetian, Neapolitan and French styles; growth of chamber, orchestral and solo instrumental music; religious vocal music; principal forms, including sonata, suite, concerto, concerto grosso, oratorio, motet, fugue, toccata, prelude. Emphasis placed on compositions of Handel and J. S. Bach.

- 382. SEMINAR: THE CLASSIC PERIOD.** *Three hours credit.*
Historical and cultural influences bearing upon the emergence of eighteenth century classicism in music. The composers, representative works, forms, styles, and media of the Classic Era. Haydn, Mozart, and Beethoven and their treatment of the sonata principle.
- 383. SEMINAR: THE ROMANTIC PERIOD.** *Three hours credit.*
The course will be devoted to the analysis of representative music works of the Romantic period; scores and recorded music will be studied. Related literary movements will be discussed and research projects will be carried out concerning the aesthetic theories and musical criticism of the time.
- 384. SEMINAR: BEETHOVEN.** *Two hours credit.*
The life and works of Beethoven. Readings will be assigned as a basis for study and discussion of Beethoven's life and times. Special topics will be developed by individual students. A general review of the composer's complete works will be complemented by score and record study and analysis of representative compositions.
- 385. SEMINAR: NEW MUSIC.** *Two hours credit.*
This course is primarily concerned with new content and new media as revealed in music of the twentieth century. Literature and biography will be stressed in this course while the actual technical practices of modern composers will be more thoroughly investigated in the companion course, MUS 272, Twentieth Century Harmony and Forms.
- 401. RESEARCH SEMINAR IN MUSIC EDUCATION.** *Five 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.** *Three 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.**
Four hours credit.
MUS 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.** *Five hours credit.*
Prerequisite, MUS 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

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 (Teacher Preparation)

Majors: Biological Science, Chemistry, Physical Science, Mathematics (Junior High—Grades 7, 8, and 9), Mathematics (Secondary—Grades 9, 10, 11, and 12), Elementary Science, and Physics.

Minors: Chemistry, Earth Science, Elementary Science, Biological Science, Mathematics, and Physics.

BACHELOR OF ARTS DEGREE (Liberal Arts)

Majors: Biological Science, Chemistry, Physical Science, Physics, Mathematics, Medical Technology.

Minors: Biological Science, Chemistry, Earth Science, Mathematics, Medical Technology Minor in Chemistry, and Physics.

MASTER OF ARTS DEGREE (Teacher Preparation or Liberal Arts)

Majors: Mathematics, Biological Sciences — (General, Botany*, or Zoology*), Physical Science—(General, Chemistry*, or Physics*), Science Education.

* A Master's thesis is required in these programs.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

DOCTOR OF EDUCATION DEGREE (Teacher Preparation)

Area of Concentration: Science Education, Botany, Chemistry, Mathematics, Mathematics Education, Physics, Zoology.

Supporting Areas: Mathematics, Mathematics Education, Science.

BIOLOGICAL SCIENCE MAJOR

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit, ED 141, three hours credit.

3. The following required courses in the major:

a. Ecology Approach

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
BIO	151	— Cellular Biology.....	5
BIO	201	— Plant and Animal Classification.....	5
BIO	202	— Biotic Communities.....	5
BIO	251	— Evolution	
		<i>or</i>	
BOT	228	— Plant Taxonomy	3
BIO	252	— Genetics	5
BOT	23	— General Botany	5
BOT	225	— Plant Ecology I	
		<i>or</i>	
ZOO	213	— Aquatic Biology	5
CHM	41	— Principles of Chemistry II.....	5
CHM	42	— Introductory Organic Chemistry.....	5
ZOO	12	— General Zoology—Vertebrate.....	5
			48

b. Biochemistry Approach

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
BIO	151	— Cellular Biology.....	5
BIO	252	— Genetics	5
BOT	23	— General Botany.....	5
BOT	222	— Plant Physiology I	
		<i>or</i>	
ZOO	217	— Human Physiology	5
BOT	224	— Morphology of the Vascular Plants II	
		<i>or</i>	
ZOO	215	— Vertebrate Embryology	5
BIO	251	— Evolution	
		<i>or</i>	
BOT	228	— Plant Taxonomy	3
CHM	41	— Principles of Chemistry II.....	5
CHM	42	— Introductory Organic Chemistry.....	5
CHM	147	— Biochemistry	5
ZOO	12	— General Zoology—Vertebrate.....	5
			48

Eight to ten hours of electives should be selected from the following: Any 200 courses in zoology and botany not listed above.

4. Basic courses prerequisite for majors in biological science: CHM 40, BOT 22, and ZOO 11. Students may apply to take the final examination in any of these courses. If a student passes a final, he is not required to take the course.

5. One minor of 27 quarter hours.

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

BIOLOGICAL SCIENCE MAJOR

**Bachelor of Arts Degree (Teacher Preparation)
General Approach**

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.

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

3. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
BIO	151	— Cellular Biology	5
BIO	252	— Genetics	5
BOT	23	— General Botany	5
ZOO	12	— General Zoology	5
		— Electives (to be selected with approval of student's adviser)	28
			48

4. Basic courses prerequisite for majors in biological science: BOT 22 and ZOO 11. Students may apply to take the final examination in any of these courses. If a student passes a final, he is not required to take the course.

5. One minor of 27 quarter hours.

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

Biological Science Minor

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
BIO	151	— Cellular Biology.....	5
BOT	22	— General Botany.....	5
BOT	23	— General Botany.....	5
ZOO	11	— General Zoology—Invertebrate.....	5
ZOO	12	— General Zoology—Vertebrate.....	5
		Biology Electives	2
			27

Electives must be selected from: BIO 257, Conservation of Natural Resources; BIO 258, Field Biology; BIO 251, Evolution; BIO 252, Genetics; BOT 122, General Bacteriology; ZOO 216, Physiology of Narcotics and Stimulants; ZOO 217, Human Physiology.

Earth Science Minor

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
ESC	130	— General Meteorology.....	3
ESC	131	— Descriptive Astronomy.....	3
ESC	231	— Physical Geology	4
ESC	232	— Historical Geology.....	4
ESC	233	— Mineralogy	4
		Electives to be selected from the following: ESC 234, 235, 237; BIO 257, SCI 209.....	9
			27

Elementary Science Minor

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
BIO	151	— Cellular Biology.....	5
BIO	257	— Conservation of Natural Resources.....	4
SCI	109	— Science for Elementary Teachers.....	3
SCI	205	— Physical Science Concepts for Elementary Teachers	4
SCE	271	— Improvement of Science Instruction in the Elementary School Through Curriculum Development	3
		Science Electives	8
			27

Electives must be selected from: BIO 251, Evolution; Earth Science 130, General Meteorology; ESC 131, Descriptive Astronomy; ESC 236, General Geology; SCI 208, Elementary Science Workshop; ZOO 114, Ornithology.

Science Minor for Home Economic Majors

This minor consists of three or four quarters of chemistry and bacteriology (BOT 122) and electives with approval of the minor program adviser to complete 27 hours.

**SCIENCE MAJOR (With Concentration in Physical Science)
Bachelor of Arts Degree (Teacher Preparation)**

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit, and ED 141, three hours credit.
3. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
CHM 40	— Principles of Chemistry I.....	5
CHM 41	— Principles of Chemistry II.....	5
CHM 42	— Introductory Organic Chemistry.....	5
PHY 61	— General Physics—Mechanics.....	5
PHY 62	— General Physics—Electricity.....	5
PHY 63	— General Physics—Sound, Light, and Heat.....	5
BIO 151	— Cellular Biology.....	5
BOT 22	— General Botany <i>and</i>	
BOT 23	— General Botany	
	<i>or</i>	
ZOO 11	— General Zoology—Intertebrate <i>and</i>	
ZOO 12	— General Zoology—Vertebrate.....	10
	Physical Science (electives to be selected with approval of student's adviser).....	3
		48

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

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

It is recommended that in a Physical Science major plan the elective program is selected in relation to the kind of position for which one 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 (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit and ED 141, three hours credit.

3. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
CHM	46	— Qualitative Analysis.....	5
CHM	141	— Organic Chemistry I.....	5
CHM	142	— Organic Chemistry II.....	5
CHM	145	— Quantitative Analysis I.....	5
CHM	243	— Organic Chemistry III.....	5
CHM	246	— Advanced Quantitative Analysis.....	5
PHY	61	— General Physics—Mechanics.....	5
PHY	62	— General Physics—Electricity.....	5
PHY	63	— General Physics—Sound, Light, and Heat.....	5
		Chemistry (electives to be selected with approval of student's adviser).....	3
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4. One minor of 27 quarter hours. It is recommended that this minor be in Mathematics.

5. Twenty-four 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 (Teacher Preparation)**

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.

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

3. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
BOT	22	— General Botany.....	5
BOT	23	— General Botany.....	5
CHM	40	— Principles of Chemistry I.....	5
CHM	41	— Principles of Chemistry II.....	5
PHY	61	— General Physics—Mechanics.....	5
PHY	62	— General Physics—Electricity.....	5
ZOO	11	— General Zoology—Invertebrate.....	5
ZOO	12	— General Zoology—Vertebrate.....	5
ESC	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
			<hr/> 48

*Select a minimum of four hours from the following courses: BIO 151; BOT 122; or CHM 42.

4. One minor of 27 quarter hours.

5. 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 Credit</i>
PHY	63	— General Physics—Sound, Light, and Heat.....	5
ESC	231	— Physical Geology	4
ESC	232	— Historical Geology	4
ESC	130	— General Meteorology	3

ESC	131	—	Descriptive Astronomy	3
BIO	251	—	Evolution	3
BIO	252	—	Genetics	5
BIO	257	—	Conservation of Natural Resources	4
ZOO	217	—	Human Physiology	5

PHYSICS MAJOR

Bachelor of Arts (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.

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

3. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
CHM	46	— Qualitative Analysis	5
PHY	61	— General Physics—Mechanics	5
PHY	62	— General Physics—Electricity	5
PHY	63	— General Physics—Sound, Light, and Heat.....	5
PHY	161	— Mechanics I	4
PHY	162	— Electricity and Magnetism I	4
PHY	164	— Electrical Measurements	5
PHY	267	— Atomic Physics	
		<i>or</i>	
PHY	268	— Nuclear Physics I.....	5
		Physics (electives of 200 number or higher to be selected with approval of student's adviser)	10
			<hr/> 48

4. Mathematics minor of 27 quarter hours.

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

Chemistry Minor

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
CHM	40	— Principles of Chemistry I	5
CHM	41	— Principles of Chemistry II	5
CHM	42	— 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 Credit</i>
PHY	61	— General Physics—Mechanics	5
PHY	62	— General Physics—Electricity	5
PHY	63	— General Physics—Sound, Light, and Heat.....	5
		Physics (electives to be selected with ap- proval of student's adviser)	12
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ELEMENTARY SCIENCE MAJOR

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit, and ED 141 three hours credit.
3. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
BIO	258	— Field Biology (3 hours)	
		<i>or</i>	
ZOO	219	— Animal Ecology (4 hours).....	3-4
BOT	23	— General Botany	5
BOT	122	— General Bacteriology	5
ESC	236	— General Geology	4
ESC	131	— Descriptive Astronomy	3
CHM	40	— Principles of Chemistry I <i>and</i>	
CHM	41	— Principles of Chemistry II	
		<i>or</i>	
PHY	61	— General Physics—Mechanics <i>and</i>	
PHY	62	— General Physics—Electricity	10
SCE	270	— Teaching Science in the Elementary School....	3
ZOO	11	— General Zoology—Invertebrate	5
ZOO	12	— General Zoology—Vertebrate	5
		Electives to be selected with approval of stu- dent's adviser	4-5
			48

Electives recommended from the following: SCE 271, Improvement of Science Instruction in the Elementary School Through Curriculum Development; ESC 232, Historical Geology; ESC 130, Meteorology; BIO 151, Cellular Biology; BIO 251, Evolution; BOT 22, General Botany; ZOO 217, Human Physiology; ZOO 213, Aquatic Biology; CHM 42, Introductory Organic Chemistry; PHY 63, General Physics—Sound, Light, and Heat; SCI 109, Science for Elementary Teachers; SCI 209, Aviation and Space Flight; BIO 257, Conservation of Natural Resources; SCI 205, Physical Science Concepts for Elementary Teachers.

4. One minor of 27 quarter hours. It is recommended that this minor be in Elementary Education.

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

CHEMISTRY MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following is the required program.

1. General Education totaling 42 academic quarter hours, plus six 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>
CHM	141	— Organic Chemistry I.....	5
CHM	142	— Organic Chemistry II.....	5
CHM	145	— Quantitative Analysis I.....	5
CHM	243	— Organic Chemistry III.....	5
CHM	246	— Quantitative Analysis II.....	5

CHM	249	—	Inorganic Chemistry	4
CHM	281	—	Physical Chemistry I.....	5
CHM	282	—	Physical Chemistry II.....	5
CHM	283	—	Physical Chemistry III.....	5
			Chemistry (Electives to be selected with approval of student's adviser).....	4
				48

3. Physics 61, 62, 63.
4. A mathematics minor of 27 quarter hours (through calculus).
5. One year of foreign language (preferably German).
6. Electives to complete requirements for graduation.

SCIENCE MAJOR (With Concentration in Biological Science)

Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six 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 (teacher preparation).
3. One minor of 27 quarter hours preferably in mathematics or earth science.
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. General Education totaling 42 academic quarter hours, plus six 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 (teacher preparation).
3. One minor of 27 quarter hours preferably in Mathematics.
4. Electives to complete requirements for graduation.

PHYSICS MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Course requirements listed for the physics major for the Bachelor of Arts Degree (teacher preparation).
3. A mathematics minor of 27 quarter hours (through calculus).

4. Electives to complete requirements for graduation. It is recommended that these electives include an additional quarter of mechanics, an additional quarter of electricity and magnetism, and wave mechanics. A year of biological science or geology is also advisable.

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.*

The study of important general concepts of the nature of life. Prepared especially to help students in understanding the nature of living plant and animal organisms in a dynamic 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, its materials and landscapes, and the weather.

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. *Three 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. *Four hours credit.*

The fundamental concepts of physical science are presented to provide a background for teaching of physical science in the elementary school. This course is not applicable to a degree in science.

207. AEROSPACE EDUCATION WORKSHOP. *Three hours credit.*

The purpose of this course is to provide the elementary and secondary teacher with a general background in aviation and an understanding of the air and space age. Subject matter will include the elementary concepts of aircraft, rocket and satellite development, weather, navigation, theory of flight, and aviation in education.

208. ELEMENTARY SCIENCE WORKSHOP. *Three 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 nontechnical 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.

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.** *Three 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, 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.

273. PROBLEMS IN TEACHING PHYSICS. *Four hours credit.*

A study of current trends in the teaching of high school physics and the various problems which confront the teacher.

274. PROBLEMS IN TEACHING BIOLOGY. *Four hours credit.*

The course deals with the organization of biological units, teaching procedures, and evaluation of learning. Preparation of teaching materials and organization of lessons are included. Evaluation of present practices will be accomplished in terms of criteria that foster general education in a secondary school program.

275. PROBLEMS IN TEACHING CHEMISTRY. *Four hours credit.*

This course is designed to deal with special problems in the teaching of chemistry. This includes elementary concepts, laboratory and stock-room problems, and demonstrations.

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.

373. 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 ABILITIES OF CHILDREN THROUGH SCIENCE. *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 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. *Four hours credit.*

Prerequisite, MED 275. 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**50. GENERAL BIOLOGY.** *Four hours credit. (Three hours lecture, two hours laboratory.)*

This course should follow the Biological Science (SCI 4). It is adapted to the needs of elementary teachers and others without majors or minors in biology. The field work consists of a study of the biotic community in the out of doors followed by laboratory studies of classification, structure, and function of representative species in the plant and animal kingdoms. Science majors and minors will not receive credit for this course.

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.

201. PLANT AND ANIMAL CLASSIFICATION. *Five hours credit. (Two hours lecture, six hours laboratory.)*

Prerequisite, ZOO 11, 12, BOT 22, 23. An introductory course concerned with recognition and identification of plants and animals at the species and family levels. Emphasis on laboratory work involving collecting techniques, and use of keys and manuals.

202. BIOTIC COMMUNITIES. *Five hours credit. (Two hours lecture, six hours laboratory.)*

An introductory course concerned with the fundamentals, principles and concepts pertaining to plant and animal organization at the community level. Field trips required.

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

A study of the fundamental laws of heredity and their application to plants and animals, with emphasis on the heredity of man.

- 253. HUMAN GENETICS AND EUGENICS.** *Three hours credit.*
A survey of the principles of human heredity together with a consideration of their significance in the problems of the world today. The importance of human genetics in marriage counseling and in medical or legal practice is included. BIO 252 is recommended as a preparation for this course.
- 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.** *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.** *Four hours credit. (Three hours lecture, two hours laboratory.)*
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.
- 293. BIOTIC COMMUNITIES OF VARYING MAGNITUDES.** *Two hours credit. (NSF In-Service Institute)*
This course is concerned with the kinds of plants and animals that are characteristic of different biotic communities, and the relationships between these organisms and the continuum of the environment. Emphasis will be given to these populations as they participate in cycles of energy transformation, food distribution, water movement, and mineral use.
- 294. ADAPTIVE SEQUENCES OF PLANTS AND ANIMALS TO THE LAND ENVIRONMENT.** *Two hours credit. (NSF In-Service Institute)*
The primary objective of this course is to delimit some of the more significant morphologic and physiologic adaptations in organisms to the watery environment in comparison to those in the ambient atmosphere. These adaptations will be considered from their "primitive" to their "advanced" conditions as they might have evolved in response to progressively drier environments.
- 295. MECHANISMS OF EVOLUTION IN PLANTS, ANIMALS, AND MAN.** *Two hours credit. (NSF In-Service Institute)*
The main theme of this course is the mechanisms of evolution as they operate through reproduction and development in all organisms, including man. Special emphasis will be given to the physical and behavioral progress of man. Man's cultural evolution and his increasing control of his environment will also be discussed.
- 296. ECOLOGICAL PRINCIPLES.** *Five hours credit. (NSF Summer Institute)*
This course will arrange a laboratory situation similar to that recommended by BSCS for high school biology. Participants will set up experiments and demonstrations in the chronological sequence recommended by the ecological (green) version. Greatest attention will be given to ecological principles that are most critical for the survival of plants and animals.
- 297. BIOLOGICAL BASIS OF ANIMAL BEHAVIOR.** *Four hours credit. (NSF Summer Institute)*
Designed to give the physiological basis of response of animals to their environment, the course will consider the endocrine system, the

nervous system and metabolic demands of the animal in determining the basis of behavior. The animal behavior block of BSCS will be used as a guide for laboratory work.

298. PLANT RESPONSES. *Four hours credit. (NSF Summer Institute)*

This course is a study of the responses of plants to factors in the internal and external environment. Explanations of the plant responses will be given on a physicochemical basis. The BSCS manual for the laboratory block on regulation in plants by hormones will be used as a guide in the study.

299. SEMINAR IN SCIENCE INQUIRY. *Two hours credit. (NSF Summer Institute)*

This seminar will deal with the reasons for teaching science as inquiry and the practical consideration and applications in teaching biological science using the invitations to scientific inquiry established by the BSCS high school curriculum.

357. BIOLOGICAL RESEARCH. *Five hours credit. (Two hours lecture, six hours laboratory.)*

Designed to give the student actual practice in planning, executing, and presenting the results of a problem in the biological sciences. Each student selects a problem and carries it out through original research in the laboratory or field. He learns how to prepare and give reports of his results both in written and oral form.

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.)*

Prerequisite, BOT 22. 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, BOT 22. 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. *Two hours credit.*

A study of plants that affect the welfare of man with special emphasis upon non-agricultural plants.

222. PLANT PHYSIOLOGY I. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, BOT 22, CHM 42. A course dealing with the fundamental principles of absorption of water and minerals, transpiration, photosynthesis, translocation, respiration and growth of plants, including biochemical mechanisms.

- 223. MORPHOLOGY OF THE VASCULAR PLANTS I.** *Five hours credit. (Three hours lecture, four hours laboratory.)*
Prerequisite, BOT 22. Structure, development, and relationships of the primitive vascular plants.
- 224. MORPHOLOGY OF THE VASCULAR PLANTS II.** *Five hours credit. (Three hours lecture, four hours laboratory.)*
Prerequisite, BOT 22. Structure, development, and relationships of the Gymnosperms and Angiosperms.
- 225. PLANT ECOLOGY I—AUTECOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*
Prerequisite, BOT 22, 23. A study of the interrelations between individual plants and the environment including soil, climatic and biotic factors. The responses of plants to these factors are studied under controlled conditions in the laboratory, and in the field.
- 226. PLANT ANATOMY AND STAINING TECHNIQUES.** *Five hours credit. (Two hours lecture, six hours laboratory.)*
Prerequisite, BOT 22, 23. Study of plant tissues and the preparation of permanent slides of tissues and other plant materials.
- 227. IDENTIFICATION OF SEED PLANTS OF THE LOCAL FLORA.** *Five hours credit. (Two hours lecture, six hours laboratory.)*
Prerequisite, BOT 22. An introductory course concerned with recognition and identification of plants at the species and family levels. Use of keys, manuals, and collecting techniques.
- 228. PLANT TAXONOMY.** *Three hours credit.*
Prerequisite, BOT 227. 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.
- 229. PLANT DISEASES.** *Five hours credit. (Three hours lecture, four hours laboratory.)*
Prerequisite, BOT 22, 23. 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.)*
Prerequisite, BOT 22, 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.
- 322. PLANT PHYSIOLOGY II. METABOLISM.** *Five hours credit. (Three hours lecture, four hours laboratory.)*
Prerequisite, BOT 222, CHM 147. An intensive study of special phases of plant physiology including cell physiology and the metabolism of carbohydrates, fats, and nitrogen compounds.
- 323. PLANT GEOGRAPHY.** *Three hours credit.*
Prerequisite, BOT 228 or 325. A study of the floras of the past and present, and of the factors that have affected their distribution.
- 325. PLANT ECOLOGY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*
Prerequisite, BOT 22, 23. A study of plant communities and the interrelationships of the organisms therein as they are affected by the physical factors of the environment.
- 327. RESEARCH METHODS IN PLANT TAXONOMY.** *Five hours credit. (Three hours lecture, four hours laboratory.)*
Prerequisite, BOT 228. 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.

330. BOTANICAL SEMINAR. *One hour credit.*
Assigned reports on current botanical topics.

CHEMISTRY

40. 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.

41. PRINCIPLES OF CHEMISTRY II. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, CHM 40. 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 groups of students as CHM 40 and is necessary to provide a reasonably complete understanding of the basic concepts of chemistry.

42. INTRODUCTORY ORGANIC CHEMISTRY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, CHM 40, 41. 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.

46. QUALITATIVE ANALYSIS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, CHM 41 or MTH 23. In this course, the student is introduced to analytical theory and the methods of detection of common ions. The laboratory work illustrates the class discussion.

141. ORGANIC CHEMISTRY I. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, CHM 41. This course is the first of a series of three courses which cover the nomenclature and reactions of the various classes of organic compounds, together with basic electronic aspects of these compounds. The aliphatic and aromatic compounds are integrated in this series.

142. ORGANIC CHEMISTRY II. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, CHM 141. This course is the second of the series which covers the nomenclature, reactions and electronic theory of the various classes of organic compounds. Aliphatic and aromatic compounds are integrated in this series.

145. QUANTITATIVE ANALYSIS I. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, CHM 46. 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.

147. BIOCHEMISTRY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, CHM 42. An introduction to the chemistry of foods, nutrition, and body processes is given.

148. FOOD ANALYSIS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, CHM 42. This course deals with some of the techniques of qualitative and quantitative analysis of foods for certain inorganic and organic constituents.

242. ORGANIC CHEMISTRY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, CHM 40. 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. ORGANIC CHEMISTRY III. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, CHM 142. This course is the last of the series which covers the nomenclature, reactions and electronic theory of the various classes of organic compounds. Aliphatic and aromatic compounds are integrated in this series.

244. LABORATORY IN ORGANIC CHEMISTRY. *Maximum of two hours credit. (Two or four hours laboratory.)*

Prerequisite, CHM 243. Organic preparations and qualitative organic analysis constitute the laboratory work.

245. QUANTITATIVE ANALYSIS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, MTH 23 and CHM 41. 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. QUANTITATIVE ANALYSIS II. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, CHM 145. Special attention is given to the analysis of complex mixtures, and the use of certain analytical instruments.

249. INORGANIC CHEMISTRY. *Four hours credit.*

Prerequisite, CHM 145. This course is designed to bridge the gap between analytical chemistry and physical chemistry. The course will include units on atomic structure.

280. ORGANIC QUALITATIVE ANALYSIS. *Three hours credit.*

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.

281. PHYSICAL CHEMISTRY I. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, CHM 142, 145, MTH 33, PHY 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.

282. PHYSICAL CHEMISTRY II. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, CHM 281. This course is a continuation of CHM 281. The following topics are considered: solutions, homogeneous and heterogeneous chemical equilibria, and chemical kinetics.

283. PHYSICAL CHEMISTRY III. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, CHM 282. This course is a continuation of CHM 282. Electrochemistry, ionic equilibria, and colloids are considered.

284. INSTRUMENTAL METHODS OF ANALYSIS. *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, CHM 281 and CHM 246. 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.

344. THEORETICAL ORGANIC CHEMISTRY. *Three hours credit.*
Prerequisite, CHM 243, 282. An intensive study of the electronic theory and stereochemistry of organic molecules.

346. SEMINAR IN CHEMISTRY. *One hour credit.*
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.

349. ADVANCED INORGANIC CHEMISTRY. *Three hours credit.*
Prerequisite, CHM 249. Presented in this course is the descriptive chemistry of typical inorganic elements and compounds. Relationships within the periodic classification will be stressed and correlation of the chemistry of the various substances will be related to theoretical concepts treated in CHM 249.

381. CHEMICAL THERMODYNAMICS. *Three hours credit.*
Prerequisite, one year of Physical Chemistry. An advanced study of the fundamental laws of thermodynamics and calculation of thermodynamic quantities. Mathematical treatment is stressed.

382. STATISTICAL THERMODYNAMICS. *Three hours credit.*
Prerequisite, CHM 381. A course which deals with mathematical probability, fundamentals of statistical mechanics, Boltzmann statistics, partition functions, equilibrium constants in terms of partition functions, capacities of gas and solids, and Bose-Einstein and Fermi-Dirac statistics.

384. CHEMICAL SPECTROSCOPY. *Four hours credit. (Three hours lecture, two hours laboratory.)*
Prerequisite, CHM 381, 284. Designed to amplify the spectroscopy portion of CHM 344, Chemical Spectroscopy deals primarily with the application and theory of this important tool in chemical analysis. Emission and absorption spectroscopy are considered, but the primary emphasis is on infrared methods. A short section on nuclear magnetic resonance is included.

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.

230. COMMON MINERALS AND ROCKS. *Three hours credit.*
A laboratory course in the recognition of common minerals and rocks. Each student will collect and prepare a set of specimens for his classroom. Some library readings also required. Not applicable to a science degree.

231. PHYSICAL GEOLOGY. *Four hours credit. (Three hours lecture, two hours laboratory.)*
This is the introductory course in the geology sequence — a study of earth materials and the processes affecting them. The course includes work in the recognition of common minerals and rocks, and a study

of their origin, a study of weathering and erosion and the counter-processes of vulcanism and diastrophism. Two Saturday field trips are required.

232. HISTORICAL GEOLOGY. *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, ESC 231. 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.)*

Prerequisite, ESC 231. This course is an introductory study of about 100 minerals with emphasis on identification megascopically and by simple tests. Includes some introductory crystallography.

234. GEOMORPHOLOGY. *Four hours credit.*

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 photographs and topographic maps is stressed. The local area is used to demonstrate many of the landforms.

235. ROCKY MOUNTAIN GEOLOGY. *Three hours credit.*

Prerequisite, ESC 234. This course seeks to apply the student's geologic knowledge to a study of the extensive current literature in geology, and especially that which deals with the Rocky Mountain area. An overview of the development of the science of geology will introduce the course.

236. GENERAL GEOLOGY. *Four hours credit.*

The course includes a study of and recognition of minerals and rocks, materials of the earth's crust. This is followed by a study of the counter-processes at work degrading and aggrading the crust. Finally there is a very brief study of the geologic history of the Earth. The course is arranged especially for teachers (non-science majors) who will take no additional work in geology. Two Saturday field trips required.

237. ECONOMIC GEOLOGY. *Three hours credit.*

Prerequisite, ESC 233. This course will present a general introduction to the principles of origin of mineral deposits, both metallic and non-metallic. Then will follow a study of the geologic occurrence and some economic uses of the most common ores, coal, petroleum, and building materials.

PHYSICS

61. GENERAL PHYSICS—MECHANICS. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, MTH 25. The first quarter of the general course in physics treats of the laws, principles, and generalizations of mechanics.

62. GENERAL PHYSICS—ELECTRICITY. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, PHY 61. The second quarter of the general course in physics; treats the principles, laws, and generalizations in electricity.

63. GENERAL PHYSICS—SOUND, LIGHT, AND HEAT. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, PHY 62. The third quarter of the general course in physics treats of the laws, principles, and generalizations concerning sound, light, and heat.

161. MECHANICS I. *Four hours credit.*

Prerequisite, PHY 63 and MTH 34 taken concurrently. 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.*

Prerequisite, PHY 63 and MTH 34 or taken concurrently. First course of a sequence of two courses. An advanced study in electric fields, electric potential, magnetic fields and induced electromotive force.

164. ELECTRICAL MEASUREMENTS. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, PHY 63 and MTH 32 taken concurrently. A study of Kirchhoff's Laws and their application, components of AC circuits, and the solution of AC circuits by use of the vector method and complex number method.

165. MODERN PHYSICS. *Four hours credit.*

Prerequisite, PHY 63. A general course of the concepts in physics formulated since 1900 including an elementary presentation of atomic and nuclear physics.

166. RADIATION PHYSICS. *Four hours credit.*

Prerequisite, PHY 63. A course in the detection and evaluation of the various atomic and nuclear radiations. Topics to be covered include: Elementary atomic and nuclear theory, types of radiation, detectors, error analysis, and detection systems.

167. ELEMENTARY PHOTOGRAPHY. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, PHY 63. 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, PHY 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.

262. ELECTRICITY AND MAGNETISM II. *Four hours credit.*

Prerequisite, PHY 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, PHY 63 and MTH 33. This course is an introduction to the advanced study of light. Topics to be studied in this course include: geometrical optics, reflections, thin and thick lenses, optical instruments, wave theory of light, interference, diffraction and the electromagnetic nature of light.

264. ELECTRONICS. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, PHY 164 and MTH 33. A continuation of PHY 164. Topics to be covered include: simple diodes, triodes, power supplies, simple amplifiers, simple detectors, types of amplifiers, R. F. Circuitry and an introduction to transistor theory.

266. THERMODYNAMICS. *Four hours credit.*

Prerequisite, PHY 63, MTH 34. An introduction to heat and thermodynamics. This course covers thermodynamic systems, equations of state, the first and second law of thermodynamics and an introduction to kinetic theory.

267. ATOMIC PHYSICS. *Four hours credit.*

Prerequisite, PHY 161, 165; CHM 41, MTH 34. A study of modern

physics concepts including the electron and its properties, energy levels, quantum numbers, X-rays, and elementary aspects of relativity and quantum physics.

268. NUCLEAR PHYSICS I. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, PHY 161, 165, MTH 34. A study of the nucleus of the atom including nuclear processes, decay schemes, sub-atomic particles and high energy reactions.

361. INTRODUCTION TO THEORETICAL PHYSICS I. *Three hours credit.*

Prerequisite, PHY 261, 262, 263, MTH 35, 230. First course in a sequence of three courses. Particle and rigid body motion are treated by the methods of vector calculus, calculus of variations, and matrix algebra. Included are the LaGrangian and Hamiltonian formulations, small oscillations, rigid body motion, and relativistic mechanics.

362. INTRODUCTION TO THEORETICAL PHYSICS II. *Three hours credit.*

Prerequisite, PHY 361. Second course in a sequence of three courses. Static charge distributions in space, upon conductors, or in dielectrics, motion of charges and the magnetic field arising from such motion, electromagnetic induction, electromagnetic radiation, and magnetic properties of matter are examined by advanced mathematical techniques.

363. INTRODUCTION TO THEORETICAL PHYSICS III. *Four hours credit.*

Prerequisite, PHY 362. Third course in a sequence of three courses. Mathematical formalism and electromagnetic theory are utilized to analyze and connect the topics of Fresnel diffraction, dispersion, reflection, ordinary and double refraction, polarization, absorption, and scattering.

367. NUCLEAR MEASUREMENTS. *Two hours credit.*

Prerequisite, PHY 268. This is a laboratory course in which various nuclear phenomena are studied in the laboratory. Some of the experiments to be performed include G-M measurement techniques, gamma ray spectrum, absorption of alpha, beta, and gamma rays, half-life measurements.

368. NUCLEAR PHYSICS II. *Three hours credit.*

Prerequisite, PHY 268. A graduate course in theoretical nuclear physics. Topics include: elementary quantum theory, particle and photon interactions, theory of alpha, beta, and gamma decay, the shell and liquid drop models of the nuclear atom.

369. WAVE MECHANICS I. *Four hours credit.*

Prerequisite, PHY 261, 268 and MTH 230. 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.

469. WAVE MECHANICS II. *Three hours credit.*

Prerequisite, PHY 369. A continuation of Wave Mechanics I. Topics to be covered include: The three dimensional wave equation, eigenvalues and eigenfunctions, operators and expectation values, time dependent and time independent perturbation theory.

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, ZOO 11. The principles of animal biology are considered as they apply to the vertebrates. Anatomy and physiology of typical vertebrates are studied in the laboratory using representative specimens from each vertebrate class. The principles of ecology and evolution of vertebrates are considered.

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, ZOO 12. A detailed study of the systems of the vertebrates. The student is expected to make careful dissections of selected types. Sharks through mammals are used for laboratory study.

212. MAMMALIAN ANATOMY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 12. A study of injected laboratory mammals in which techniques of dissection and laboratory procedures are emphasized. Skeletal structure, musculature, and the morphology of organs of respiration, circulation and digestion are considered.

213. AQUATIC BIOLOGY. *Five hours credit. (Three hours lecture, four 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, ZOO 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. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 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. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, ZOO 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, ZOO 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, ZOO 12. The principles governing animal relationships with their environment. Distribution, food supply, migratory movements, and territorial requirements will be emphasized. Field work required.

310. ENTOMOLOGY. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, ZOO 11, 12. The study of the principal orders of insects. Specimens are collected locally and prepared by the student for classification and study. The role of insects as vectors in transmission of diseases and some control measures are considered in the latter parts of the course.

315. VERTEBRATE ORGANOGENY. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, ZOO 215. This course is a continuation of ZOO 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, ZOO 12. 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 (Junior High—Grades 7, 8, and 9)

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours; plus six quarter hours of physical education activity courses.

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

3. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
MTH 23*	— Algebra I	5
MTH 24*	— Algebra II	5
MTH 25*	— Trigonometry	5
MTH 31*	— Calculus with Analytic Geometry I.....	5
MTH 32*	— Calculus with Analytic Geometry II.....	5
MTH 33*	— Calculus with Analytic Geometry III.....	5
MTH 201	— Theory of Sets	3
MTH 202	— Basic Mathematical Logic	3
MTH 203	— Structure of Numbers	3
MTH 222	— Basic Matrix Algebra.....	5
MTH 250	— Probability Theory	3
Electives (MTH 34, 35, or on advice of department any course numbered 100 or above)		1

*Qualified students may be exempted by examination.

4. One minor of 27 quarter hours. It is recommended that this minor be in either biological science, physics or chemistry.

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

MATHEMATICS MAJOR (Secondary—Grades 9, 10, 11, and 12)

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.

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

3. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
MTH 31*	— Calculus with Analytic Geometry I.....	5
MTH 32*	— Calculus with Analytic Geometry II.....	5
MTH 33*	— Calculus with Analytic Geometry III.....	5
MTH 34*	— Calculus with Analytic Geometry IV.....	5
MTH 35*	— Calculus with Analytic Geometry V.....	3
MTH 201	— Theory of Sets	3
MTH 202	— Basic Mathematical Logic	3
MTH 203	— Structure of Numbers	3
MTH 222	— Basic Matrix Algebra.....	5
MTH 242	— College Geometry	5
MTH 250	— Probability Theory	3
Electives (on advice of department any courses numbered 100 or above)		3
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*Qualified students may be exempted by examination.

4. One minor of 27 quarter hours. It is recommended that this minor be in either biological science, physics or chemistry.

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

MATHEMATICS MINOR

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
MTH 31	— Calculus with Analytic Geometry I.....	5
MTH 32	— Calculus with Analytic Geometry II.....	5
MTH 33	— Calculus with Analytic Geometry III.....	5
Math. (electives selected with approval of advisor).....		12
		27

MATHEMATICS MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six 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>
MTH 31*	— Calculus with Analytic Geometry I.....	5	5
MTH 32*	— Calculus with Analytic Geometry II.....	5	5
MTH 33*	— Calculus with Analytic Geometry III.....	5	5
MTH 34*	— Calculus with Analytic Geometry IV.....	5	5
MTH 35*	— Calculus with Analytic Geometry V.....	3	3
MTH 201	— Theory of Sets.....	3	3
MTH 202	— Basic Mathematical Logic.....	3	3
MTH 203	— Structure of Numbers	3	3
MTH 230	— Differential Equations I.....	5	5
MTH 231	— Differential Equations II.....	5	5
MTH 250	— Probability Theory	3	3
	Electives	3	3
		<hr/>	<hr/>

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*Qualified students may be exempted by examination.

3. One minor of 27 quarter hours preferably in either Biological Science, Physics or Chemistry.

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, MTH 1. 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, MTH 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.

10. ELEMENTARY SLIDE RULE. *One hour credit.*
 Principles of operation of the slide rule and illustrations of its application to problem solving in the physical sciences are covered.

23. COLLEGE ALGEBRA I. *Five hours credit.*
 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.

24. COLLEGE ALGEBRA II. *Five hours credit.*
 Prerequisite, MTH 23. A course designed to extend basic college algebra to include topics not normally covered in the first-year course.

25. PLANE TRIGONOMETRY. *Five hours credit.*
 Prerequisite, MTH 24. 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.

31. CALCULUS WITH ANALYTIC GEOMETRY I. *Five hours credit.*
Prerequisite, MTH 24 and 25. A combined course in Analytic geometry and calculus. Fundamental principles of beginning analytic geometry including different forms of the equations of a straight line, are developed. Elementary phases of both differential and integral calculus, along with various applications of these subjects, are considered.

32. CALCULUS WITH ANALYTIC GEOMETRY II. *Five hours credit.*

Prerequisite, MTH 31. A continuation of MTH 31 of differential and integral calculus combined with analytic geometry, together with applications from all three fields. Special emphasis in calculus on transcendental functions, and an analytic geometry on conic sections.

33. CALCULUS WITH ANALYTIC GEOMETRY III. *Five hours credit.*

Prerequisite, MTH 32. The third course in the sequence of five courses in analytic geometry and calculus. Curve tracing is considered in analytic geometry, while the principal emphasis in calculus is on integration and formal procedures in integration.

34. CALCULUS WITH ANALYTIC GEOMETRY IV. *Five hours credit.*

Prerequisite, MTH 33. This is the fourth course in the sequence of five courses in calculus with analytic geometry. Infinite series, hyperbolic functions and partial differentiation are the main topics in calculus, with emphasis on solid analytic geometry in that area.

35. CALCULUS WITH ANALYTIC GEOMETRY V. *Three hours credit.*

Prerequisite, MTH 34. This is the final course in elementary analytic geometry and calculus combined. Such topics as multiple integrals, differential equations, and vector analysis are covered. The student, on completion of this sequence of courses, should be prepared to study more advanced and formal courses in mathematical analysis.

201. THEORY OF SETS. *Three hours credit.*

Prerequisite, MTH 33. 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, MTH 33. A course designed to introduce the student to those tools and techniques of logic as applied to mathematics. Introduces terminology and basic form of logic along with concepts of truth value. Statement calculus and treatment of proof discussed. The restricted predicate calculus is analyzed and applications to mathematics are discussed.

203. STRUCTURE OF NUMBERS *Three hours credit.*

Prerequisite, MTH 33. A rigorous development of the real and complex numbers. Beginning with Peano's axioms for natural numbers, the integers are developed by extension. The rational and real number systems are then obtained as successive extensions. Complex numbers are structured from pairs of real numbers. The nature of isomorphism is stressed.

205. MATHEMATICS OF FINANCE. *Five hours credit.*

Prerequisite, MTH 23. This course offers the student an opportunity to apply his elementary mathematics of arithmetic and algebra to problems of business. Such topics as simple and compound interest, annuities, installment buying, and life insurance are considered.

222. BASIC MATRIX ALGEBRA. *Five hours credit.*

Prerequisite, MTH 33. An introduction to the theory of determinants and matrices. The development of the algebra of matrices is followed by a consideration of the inverse of a matrix, rank of matrices, equivalence of matrices, and the relation of these concepts to systems of linear equations.

223. MODERN ALGEBRA I. *Five hours credit.*

Prerequisite, MTH 222. A study of modern abstract algebra including integral domains, fields, polynomials, rings, groups, isomorphisms, automorphisms, homomorphisms.

224. MODERN ALGEBRA II. *Five hours credit.*

Prerequisite, MTH 223. A continuation of MTH 223 with emphasis on linear algebra including vectors and vector spaces, matrix algebra, linear groups, algebra of classes.

230. DIFFERENTIAL EQUATIONS I. *Five hours credit.*

Prerequisite, MTH 34. A study of the theory and solution of differential equations. Ordinary and partial equations are treated along with numerous applications.

231. DIFFERENTIAL EQUATIONS II. *Five hours credit.*

Prerequisite, MTH 230. A continuation of MTH 230. Topics to be covered include series solutions of differential equations, systems of equations, partial differential equations, Fourier series and boundary value problems.

232. ADVANCED CALCULUS I. *Five hours credit.*

Prerequisite, MTH 34 and 201. 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.

233. ADVANCED CALCULUS II. *Five hours credit.*

Prerequisite, MTH 232. A second course in a sequence of three courses. The topics to be covered in this course will be as follows: sequences and series, functions of several real variables and integrals of functions of several variables.

234. ADVANCED CALCULUS III. *Five hours credit.*

Prerequisite, MTH 233. The third course in a sequence of three courses. From the background built up in the first two courses, this course will consider certain special topics of application. Some of the topics to be considered will be chosen from the following: Implicit functions; applications to geometry; the gamma and beta functions; line, surface, and space integrals; vector notation, Bessel functions, elliptic integrals.

242. COLLEGE GEOMETRY. *Five hours credit.*

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.

243. MODERN GEOMETRY I. *Five hours credit.*

Prerequisite, MTH 242. A first course in a two course sequence which will emphasize new topics in present-day geometry. This emphasis will be partly Euclidean in nature and partly non-Euclidean. Special emphasis will be placed upon the foundations of geometry along with the different geometries which can be developed from this foundation. Topics to be covered are: foundations of geometry, transformations, types of geometry, selected Euclidean topics.

244. MODERN GEOMETRY II. *Five hours credit.*

Prerequisite, MTH 243. A continuation of MTH 243. This course will continue to emphasize types of geometry with special emphasis being placed on non-Euclidean topics. Special types to be covered include: absolute geometry, parabolic geometry, elliptic geometry and differential geometry.

250. PROBABILITY THEORY. *Three hours credit.*

Prerequisite, MTH 34 and 201. 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.

251. MATHEMATICAL STATISTICS I. *Five hours credit.*

Prerequisite, MTH 250. Empirical distribution and concepts of random sample. Mathematical models and the normal family. Other sampling distributions including the t , X^2 , and F . Significance tests. Tests of hypotheses about a single parameter and two-parameter tests. Non-parametric tests. Estimation including maximum likelihood and confidence interval techniques.

252. MATHEMATICAL STATISTICS II. *Five hours credit.*

Prerequisite, MTH 251. A continuation of MTH 251. 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.

253. MATHEMATICAL STATISTICS III. *Five hours credit.*

Prerequisite, MTH 252. A continuation of MTH 252. Multi-variate analysis and additional topics in Analysis of Variance. Special attention to Design and Analysis of Experiments, with some practice in organizing such experiments.

291. THEORY OF NUMBERS. *Five hours credit.*

Prerequisite, MTH 32. 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, MTH 25. A course designed to show the teacher of mathematics some of the techniques and instruments used in many of the practical problems of measurement. Instruments studied are the slide rule, the sextant, and various instruments used in land surveying.

271. INSTRUCTIONAL MATERIALS IN SECONDARY SCHOOL MATHEMATICS. *Three hours credit.*

Prerequisite, MTH 31. This course introduces the student into the rich areas of possible sources of instructional materials which can be used for instructional purposes in the secondary school. Areas studied will include aesthetic values of mathematics, instructional models, historical materials, classroom equipment, recreational materials, and calculating devices.

274. HISTORY OF MATHEMATICS. *Five hours credit.*

Prerequisite, MTH 31. 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.

275. DESCRIPTIVE STATISTICS. *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.

276. STATISTICAL INFERENCE. *Five hours credit.*
Prerequisite, MED 275. Sampling tests of hypotheses, estimation of parameters, and correlational methods. Emphasis on methods in educational research.

277, 278, 279. MATHEMATICS TEACHERS' WORKSHOP I, II, III.
Three hours credit each.

Provision is made for students to work on individual problems related to the teaching of mathematics. A student may take no more than six quarter hours for credit.

372. CURRICULUM IN SECONDARY SCHOOL MATHEMATICS.
Four hours credit.

A study of the mathematics curriculum in grades 7-14 with emphasis on committee and commission reports, changes in textbooks, and modern curricular programs for both large and small secondary schools.

373. PROBLEMS IN THE TEACHING OF SECONDARY MATHEMATICS. *Four hours credit.*

Prerequisite, 27 quarter hours in college mathematics. Content, methods, special problems, and modern trends in algebra will be studied. Emphasis will be placed upon new approaches and content.

374. SEMINAR IN TEACHING SECONDARY MATHEMATICS. *Four hours credit.*

Content, methods, special problems, and modern trends in geometry and trigonometry will be studied. Emphasis will be placed upon new approaches and content.

375. DESIGN AND ANALYSIS OF EXPERIMENTS IN EDUCATION. *Five hours credit.*

Prerequisite, MED 276. 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.

376. CORRELATION METHODS. *Three hours credit.*

Prerequisite, MED 275 and 276. Correlation techniques. Multiple, partial, curvilinear, biserial, and tetrachoric correlation; discriminant analysis; correlation ratio and sampling theory applied to correlation.

471. SEMINAR IN MATHEMATICS EDUCATION. *Three hours credit.*

Prerequisite, MED 276, EPG 340. Recent issues, trends, research, and philosophy in teaching mathematics. Major emphasis will be placed upon theory and practice of learning mathematics and recent research in learning mathematics.

ARITHMETIC

90. 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.

91. ARITHMETIC FOR ELEMENTARY TEACHERS II. *Three hours credit.*

Prerequisite, ARI 90. 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. *Three hours credit.*

Designed to provide opportunity for elementary and junior high teachers and supervisors to acquire the understandings of arithmetic essential for effective teaching. Areas to be covered include: the structure of our number system and operations in it, special numbers, 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 six quarter hours of physical education activity courses. A minimum of 139 quarter hours will be earned on the campus of Colorado State College during the first three years and 47 quarter hours of Medical Technology will be earned during the senior year (July to June) at the Weld County General Hospital under the supervision of the clinical staff. The courses in Medical Technology are open only to majors in Medical Technology. The general college policies regarding registration and grading will be followed.

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six 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>
MT	250	— Urinalysis and Clinical Microscopy.....	4
MT	251	— Basal Metabolism and Electrocardiography....	1
MT	252	— Hematology	8
MT	253	— Pretransfusion Tests and Blood Bank Procedures	3
MT	254	— Clinical Chemistry.....	12
MT	255	— Serology	4
MT	256	— Medical Microbiology	12
MT	257	— Histologic Technique.....	3
		Electives	1
			<hr/> 48

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

4. Forty-four quarter hours are required by the American Society of Clinical Pathologists and the staff of the Weld County General Hospital in the following courses: CHM 147, BOT 122, COM 2, PHY 62, 63, MTH 23, 25, ZOO 11, BIO 151.

5. Twenty-four 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 Credit</i>
CHM	40	— Principles of Chemistry I.....	5
CHM	41	— Principles of Chemistry II.....	5
CHM	42	— Introductory Organic Chemistry.....	5
CHM	141	— Organic Chemistry I.....	5
CHM	145	— Quantitative Analysis I.....	5
		Electives	2
			<hr/> 27

Medical Technology

These courses are open only to majors in Medical Technology.

250. URINALYSIS AND CLINICAL MICROSCOPY. *Four hours credit.*

This is a fundamental course in urinalysis covering the characteristics of urine, qualitative tests for sugars, ketone (or acetone) bodies, and protein, quantitative tests for sugars and protein, and microscopic examination of urine. Kidney function tests, other chemical tests, pregnancy tests, and tests on gastric and duodenal contents are included.

251. BASAL METABOLISM AND ELECTROCARDIOGRAPHY. *One hour credit.*

This course covers the principles and techniques of determining the basal metabolic rate and the theory and technique of electrocardiography.

252. HEMATOLOGY. *Eight hours credit.*

This course covers the methods of obtaining blood, determination of hemoglobin, red and white blood cell counts, hematocrit, study of blood smears, platelet count, reticulocyte count, coagulation, clot retraction, bleeding and prothrombin time, direct eosinophile count, fragility of erythrocytes, sedimentation rate of erythrocytes and bone marrow smears preparation and study.

253. PRETRANSFUSION TESTS AND BLOOD BANK PROCEDURES. *Three hours credit.*

This course covers selection and pretesting of donors, copper sulphate method of determining minimum hemoglobin, bleeding of donors, basic theory of blood factors, ABO grouping tests, Rh factor and Rh., (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.*

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.*

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.*

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.*

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 Sciences

The Division of the Social Sciences 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 (Teacher Preparation)

Majors: Social Science, History, Social Studies (Junior High School.)
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 (Teacher Preparation)

Majors: Social Science, History, Social Studies Education.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

DOCTOR OF EDUCATION DEGREE (Teacher Preparation)

Area of Concentration: Social Studies.
Supporting Area: Social Studies.

SOCIAL SCIENCE MAJOR

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit and ED 141, three hours credit.
3. The following required courses in the major:

Course Number	Course Title	Hours Credit
GEG 10	— World Geography	5
ANT 20	— General Anthropology	5
ECO 30	— Introductory Economics	5
PS 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
SS 200	— Social Philosophy	3
		48

(For teaching the Social Studies the following courses *outside* the Social Science field: USH 70, 71, 72 and WHS 30, 31, 32 are necessary. To teach a separate subject like anthropology, economics, geography, international relations, political science or sociology, eight quarter hours in that subject are required.)

4. One minor of 27 quarter hours *outside* the Division of the Social Studies.

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

HISTORY MAJOR

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit and ED 141, three hours credit.
3. The following required courses in the major:

Course Number	Course Title	Hours Credit
WHS 30, 31, 32	— World History I, II, III.....	12
USH 70, 71, 72	— United States History I, II, III.....	9
Other History	— Advanced electives in history.....	24
SS 200	— Social Philosophy.....	3
		48

(For teaching the Social Studies 21 hours *outside* of history in *Social Science* are necessary. Credit should be obtained in *one* of the *three* following subjects: economics, sociology, anthropology, political science, international relations or geography. To teach a special subject eight quarter hours are a minimum.)

4. One minor of 27 quarter hours *outside* the Division of the Social Studies.

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

SOCIAL STUDIES MAJOR (Junior High School)

Bachelor of Arts Degree (Teacher Preparation)

The following is the required program:

1. General Education totaling 42 academic quarter hours, plus six quarter hours of physical education activity courses.
2. Advanced Teacher Education, 29 hours, plus ED 140, two hours credit and ED 141, three hours credit.
3. The following required courses in the major:

Course Number	Course Title	Hours Credit
WHS 30, 31, 32	— World History I, II, III.....	12
USH 70, 71, 72	— United States History I, II, III.....	9
USH 250	— History of Colorado.....	2
GEG 250	— Geography of Colorado.....	2
PS 40	— National Government of the U. S.....	5
GEG 10	— World Geography.....	5
GEG 48	— United States.....	5
	Electives (Select eight hours from the following: PS 171, 275; ECO 30; SOC 50; ANT 20)	8
		48

4. One minor of 27 quarter hours *outside* the Division.

5. 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 which *may* be selected from the recommended list.

6. 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.

Course Number	Course Title	Hours Credit
WHS 255	— Contemporary World History.....	5
USH 246	— Geographic Influences in U. S. History.....	2
BIO 257	— Conservation of Natural Resources.....	4
ESC 236	— General Geology.....	4

Professional Courses

A minimum of 10 additional hours which *may* be selected from this list. Other courses with advisement.

Course Number	Course Title	Hours Credit
ENG 204	— Developmental Reading in Grades 7, 8, 9.....	4
ED 206	— Audio-Visual Materials in Education.....	4
EPG 101	— Guidance in the Classroom.....	3
SSE 231	— Instructional Materials for Social Studies in the Junior High School.....	2

SOCIAL STUDIES MINORS

These are for secondary or elementary school teachers.

Social Science Minor

Twenty-seven quarter hours in the areas of anthropology, economics, geography, political science and sociology. The student, with advisement, 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:

Course Number	Course Title	Hours Credit
GEG 10	— World Geography.....	5
ANT 20	— General Anthropology.....	5
ECO 30	— Introductory Economics.....	5
PS 40	— National Government of the U. S.....	5
SOC 50	— Principles of Sociology.....	5

(To teach the Social Studies, USH 70, 71, 72 is recommended as a supplement. To teach a special subject, eight quarter hours is the minimum.)

World History Minor

Course Number	Course Title	Hours Credit
WHS 30, 31, 32	— World History I, II, III.....	12
Advanced electives in World History.....		15

(To teach the Social Studies, USH 70, 71, 72 and selected courses from two of the following areas: government, international relations, economics, sociology, geography and anthropology are recommended as a supplement. To teach a special subject eight quarter hours is the minimum.)

United States History Minor

Course Number	Course Title	Hours Credit
USH 70, 71, 72	— United States History I, II, III.....	9
	Advanced electives in United States History.....	18
		27

(To teach the Social Studies courses selected from two of the following areas: government, international relations, economics, sociology, geography, anthropology and WHS 30, 31, 32, are recommended as a supplement. To teach a special subject eight quarter hours is the minimum.)

Recommended Concentration in the Social Sciences for Elementary Education Majors

Take fifteen (15) quarter hours, with advisement, from one to three of the following areas: anthropology, economics, geography, history, political science or sociology. (Professor West will be elementary education adviser.)

Recommended Electives for Elementary School Teachers

Course Number	Course Title	Hours Credit
ANT 20	— General Anthropology.....	5
ANT 221	— Indians of the Americas.....	3
ECO 30	— Introductory Economics.....	5
ECO 102	— Contemporary Economic Problems.....	3
GEG 10	— World Geography.....	5
GEG 250	— Geography of Colorado.....	2
USH 246	— Geographic Influences in U. S. History.....	2
USH 250	— History of Colorado.....	2
USH 251	— Colonial America (1607-1763).....	3
USH 252	— History of the West.....	3
PS 40	— National Government of the U. S.....	5
PS 171	— State and Local Government.....	5
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 SCIENCE 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 Teacher Preparation majors except that supplementary courses required for teaching are not necessary.

SOCIAL SCIENCE MINORS

Liberal Arts Minors may be in social science, world history or U.S. history. Supplementary courses recommended for teachers are not necessary.

Description of Courses

GENERAL SOCIAL SCIENCE

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.

250. NEW VIEWPOINTS IN THE SOCIAL SCIENCES. *Three hours credit.*

A survey of recent findings and new interpretations in the various social science fields. Recent literature in the fields will be studied and discussed. Specialists will be invited to contribute to discussions. Teaching experience is a course prerequisite. Credit is not applicable to graduate programs in the Division of Social Studies.

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. *Five hours credit.*

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.** *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.

200. GREAT IDEAS SEMINAR: ANTHROPOLOGY.

Three hours credit.

The Great Ideas Seminars are conducted by authorities nationally known in their fields of specialization. The purpose of the seminar is to provide information about current important ideas in each field of knowledge.

220. WORLD ETHNOLOGY. *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. *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. CULTURES 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 will 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 are considered.

323. 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.

48. ANGLO-AMERICA. *Five 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.

121. PHYSICAL GEOGRAPHY. *Five hours credit.*

Prerequisite, SCI 5. The earth as a globe; the meteorological basis of climate; climates of the world; soils and their distribution; maps as tools; landforms, their recognition, causes and patterns.

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.

218. AUSTRALIA AND THE PACIFIC. *Two hours credit.*

A regional consideration of the advantages and limitations of the physical and cultural environment, population distribution, and economic development of Australia, New Zealand, Melanesia, Micronesia, and Polynesia.

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 is placed upon the heterogeneity of physical conditions, people, historical development, natural resources and economic activities. Particular attention is given to the problems and prospects of the Middle American countries in their efforts toward improved economic conditions and political stability.

238. SOUTH AMERICA. *Three hours credit.*

An analysis of the geographic characteristics of those Western Hemisphere nations lying south of the equator. Attention is focused upon the significant differences from place to place in physical conditions, racial and cultural heritage, and stage of economic development. Particular attention is given to the impact of the Industrial and Democratic Revolutions upon a previously pre-industrial society.

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. *Five hours credit.*

A study of the urban community as a geographical phenomena. Opportunity is provided for students to obtain practical field experience

within the local area. Attention is also given to the development of cartographic skills as an aid to meaningful organization and presentation of data.

392. SYRACUSE UNIVERSITY SUMMER FIELD COURSE IN GEOGRAPHY. *Eight hours credit.*

Most of each day is spent in the field. Evening seminars offer an opportunity to discuss ways and means of proceeding in field investigation. Practice is provided in the various map-making, recording, and interviewing techniques. The final weeks will be devoted to group field projects.

Economics

25. THE AMERICAN ECONOMY I. *Nine hours credit.*

The course will consist of four half-hour lessons per week for thirty-two weeks. These lessons will examine both the economy as a whole, asking questions about changing levels of jobs, incomes, and prices in the U.S. and major segments within the economy, focusing on such institutions as business firms, labor unions, farms, and households.

30. INTRODUCTORY ECONOMICS. *Five hours credit.*

An introductory analysis of the American economic system as it affects the average citizen. Considers resources, the market, business organization, labor, money and public finance.

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. *Five hours credit*

A study of the origins and present roles of our monetary system, commercial banking and Federal Reserve System.

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. *Five hours credit.*

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

212. 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.

225. THE AMERICAN ECONOMY II. *Nine hours credit.*

The course will consist of five half-hour lessons per week for thirty-two weeks. These lessons will examine both the economy as a whole, asking questions about changing levels of jobs, incomes, and prices in the U.S. and major segments within the economy, focusing on such institutions as business firms, labor unions, farms, and households.

241. PUBLIC FINANCE. *Five 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. ADVANCED 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.

320. HISTORY OF ECONOMIC THOUGHT. *Three hours credit.*

This course will trace the evolution of economic thinking from the period of the Old Testament up to the present day. Particular attention will be given the roles played by particular "schools" of economic thinkers, the genesis of their ideas and their contributions.

324. SEMINAR IN INTERNATIONAL ECONOMICS. *Three hours credit.*

Prerequisite, ECO 30; ECO 212 or 312. This course will be primarily concerned with current issues facing nations engaged in international trade. Specific interest will be directed toward problems facing the United States in the world economy.

Political Science (And International Relations)

40. NATIONAL GOVERNMENT OF THE UNITED STATES. *Five hours credit.*

Origin and adoption of the Constitution, basic principles of the American constitutional system, the machinery of popular control, and the structure of the national government.

171. STATE AND LOCAL GOVERNMENT. *Five hours credit.*

Prerequisite, PS 40. The organization of state, county, and municipal governments.

172. PROBLEMS IN UNITED STATES GOVERNMENT. *Three hours credit.*

Prerequisite, PS 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. *Two 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, PS 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.** *Five hours credit.*
Prerequisite, PS 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.*
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.*
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, SOC 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, SOC 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. *Five 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, SOC 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.*

World history—early times to 1200. Major civilizations. For teachers in elementary and secondary schools.

31. WORLD HISTORY II. *Four hours credit.*

World History—1200-1815. Major civilizations. For teachers in elementary and secondary schools.

32. WORLD HISTORY III. *Four hours credit.*

World history—1815 to the present. Major civilizations. For teachers in elementary and secondary schools.

221. THE GREAT WORLD ISSUES. *Two 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.*

An advanced study of world developments in recent times which will investigate the period from 1900 to the present. The course will discuss the ideologies of Communism, Socialism, Fascism, and Democracy in their world setting.

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.*

Prerequisite, WHS '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.*
Prerequisite, WHS 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.*
Prerequisite, WHS 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.*
Prerequisite, WHS 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.*
Prerequisite, WHS 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.** *Three 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.** *Five 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.*
Prerequisite, WHS 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.*
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.*

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.*

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. *Five hours credit.*

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. *Three 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.

253. GREAT MEN IN AMERICAN HISTORY. *Three hours credit.*

A biographical approach to American History focusing on the lives and contributions of such great Americans as Franklin, Washington, Hamilton, Jefferson, Marshall, Jackson, Lincoln, Holmes, Theodore Roosevelt, Wilson, and Franklin Roosevelt.

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. *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.

274. AMERICA COMES OF AGE. *Three hours credit.*

The course will examine the events, trends, and movements in the United States from 1870 to 1916. Major themes are political developments, the rise of Big Business and Big Labor, the settlement of the last frontier, America's emergence as a world power, and social and intellectual movements. Political developments to be studied include growth of congressional government, Populism and Free Silver, Progressivism, and Wilson's New Freedom.

356. TOPICS IN AMERICAN HISTORY. *Two 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.

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 1738, 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

231. INSTRUCTIONAL MATERIALS FOR THE SOCIAL STUDIES IN THE JUNIOR HIGH SCHOOL. *Two 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.

245. ELEMENTARY AND SECONDARY SCHOOL SOCIAL STUDIES CURRICULUM WORKSHOP. *Two 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. *Three 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. *Five 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. *Five 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.

