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Nancy Kindsvater, Secretary
Department of Fine Arts
*Binding courtesy of J. Max Lubbers and the
Department of Industrial Arts.*

University of Northern Colorado

Bulletin 1975-76



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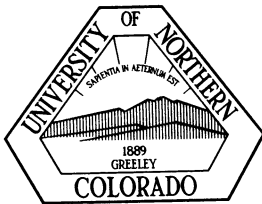
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**THUMB
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Number 4

UNDERGRADUATE CATALOG
1975-76

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UNIVERSITY CALENDAR 1975-1976

Summer Quarter, 1975

Monday, June 16 -- Registration for first five-week classes, eight-week classes, and ten-week classes. (Registration of subsequent classes may be completed on the day of that class. Students enrolling in classes beginning later may register on the first day of those classes.)

Tuesday, June 17 -- Classes Begin

Friday, July 4 -- Independence Day (No Classes)

Saturday, August 23 -- Commencement (Quarter Ends)

Fall Quarter, 1975 (52 Class Days)

Monday, September 15 -- Lab School Opens

Thursday, September 18 -- University Meetings, Faculty & Staff

Friday, September 19 -- College/School, Departmental Faculty Meetings

Sunday, September 21 -- New Undergraduate Students Report

Monday, September 22 -- New Students' Orientation & Registration Pickup

Tuesday & Wednesday, September 23 & 24 -- Registration

Thursday, September 25 -- Classes Begin

Friday & Saturday, November 7 & 8 -- Winter Quarter Early Registration (No Classes November 7)

Tuesday, November 25 -- Thanksgiving Vacation Begins (After Last Class)

Monday, December 1 -- Classes Resume

Saturday, December 13 -- Commencement (Quarter Ends)

Winter Quarter, 1976 (48 Class Days)

Monday, January 5 -- Registration

Tuesday, January 6 -- Classes Begin

Friday & Saturday, February 20 & 21 -- Spring Quarter Early Registration (No Classes February 20)

Saturday, March 13 -- Commencement (Quarter Ends)

Spring Quarter, 1976 (51 Class Days)

Monday, March 22 -- Registration

Tuesday, March 23 -- Classes Begin

Friday & Saturday, April 30 & May 1 -- Fall Quarter Preregistration (No Classes April 30)

Monday, May 31 -- Memorial Day (No Classes)

Saturday, June 5 -- Commencement (Quarter Ends)

Summer Quarter, 1976

Monday, June 14 -- Registration

Tuesday, June 15 -- Classes Begin

Monday, July 5 -- Independence Day (No Classes)

Saturday, August 21 -- Commencement (Quarter Ends)

A Guide to the 1975-1976 UNC Catalog or "How to Survive this Document"

This catalog is published in order to help you gain a clear picture of the University of Northern Colorado and its undergraduate educational programs.

It contains program and course descriptions for those interested in general undergraduate study or in securing the Bachelor of Arts, Bachelor of Music, or Bachelor of Science degree. If you are interested in courses or programs above the bachelor's degree level, you may request a copy of the Graduate School bulletin through the university's Graduate Office.

The undergraduate catalog is divided into 11 sections, each section contains a general content area. Section 1 -- **General Information** contains basic institutional information including the location of the UNC campus, its accreditation and its history. Section 2 -- **Admissions** explains admission procedures, including requirements, deadlines and procedures. Section 3 -- **Academic Information** includes information of interest to students including academic advising, course numbering system, schedule changes and withdrawal procedures. Section 4 -- **Academic Standards** explains policies and requirements that are of interest to undergraduate students, including the university's policy on attendance, credit by examination, probation and dismissal, the university's grading system and residence requirements. Section 5 -- **Institutional Structure and Programs** explains the structure of the university including colleges, schools and departments. It also explains non-degree programs that are either required or available to UNC students. Section 6 -- **Graduation Requirements** explains policies and procedures that affect a student's graduation from the university. Section 7 -- **Students Rights and Responsibilities** explains the university's expectations upon students as well as the university's obligations to students. Section 8 -- **UNC Services** explains services that are either offered by the university or available to UNC undergraduate students. Section 9 -- **Fees and Expenses** outlines the fees students will be expected to pay while attending the University of Northern Colorado. Section 10

Degree Programs displays undergraduate degree programs available to students. These programs are listed alphabetically according to the title of the major or minor degree. Consult the index for major and minor programs on page 48. Section 11 -- **Course Descriptions** is a collection of all courses offered by the University of Northern Colorado. Course are itemized alphabetically according to the course prefix.

The listing of a course or program in the official catalog does not constitute a guarantee or contract that the particular course or program will be offered during a given year. For an exact schedule of fall, winter, and spring classes, consult the Schedule of Classes. The summer schedule is given separately in the Summer Session bulletin.

GENERAL INFORMATION

The University of Northern Colorado is primarily concerned with the needs and welfare of students and directs its major attention to classroom teaching. It seeks to provide all students with a broad general education as well as preparation for selected professions (within the fields of business, education, health services, music, and some related areas) and pre-professions (such as pre-law and pre-medicine). Historically, a principal emphasis has been upon preparing students for careers in education.

A wide variety of program offerings are organized within eight schools and colleges (College of Arts and Sciences, College of Education, School of the Arts, School of Business, School of Educational Change and Development, School of Health, Physical Education and Recreation, School of Music, and School of Nursing). Advanced programs are offered through the Graduate School, and an Air Force officers program is available through the Division of Aerospace Studies.

For the convenience of students, the academic calendar is arranged on the quarter system, with new students being permitted to enter at the start of any quarter and to be enrolled continuously through all four quarters. This allows completion of the usual four-year baccalaureate program within three years if the student prefers. The quarters are of approximately equal length, beginning respectively in September, January, March, and June.

Location. The university is located in a residential area in the southern part of Greeley, Colorado, a city with a population of about 57,000 situated 30 miles from the front range of the Rocky Mountains. It lies roughly 50 miles north of Denver and 50 miles south of Cheyenne, Wyoming, at an elevation of 4,648 feet above sea level. The climate is dry and relatively mild.

History. The history of the University of Northern Colorado, is closely related to that of the Union Colony, which later became the city of Greeley. The Colony was organized in 1870 by a group of settlers from New York and New England under the leadership of Nathan Meeker and with the encouragement of Horace Greeley, famous publisher of the *New York Tribune*. It was to honor the latter that the name was changed from Union Colony to Greeley.

When the Colony was 18 years old, a movement was begun to establish a normal school to supply teachers for the state. The law creating the first State Normal School was signed on April 1, 1889, and the cornerstone of the original building (Cranford Hall, now demolished) was laid on June 13, 1890. Classes were started October 6, 1890. Certificates were granted upon completion of a two-year course of study.

In 1911 the name was changed by the legislature to Colorado State Teachers College. The institution was then offering four years of collegiate work and granting the Bachelor of Arts degree. Graduate work was first offered in 1913, with master's degrees being conferred at the commencement in June, 1914. In 1929 graduate work was extended to the doctoral level, and in 1934 the first Doctor of Philosophy degree was awarded. Other degrees, including the Doctor of Education, the Specialist in Education, and the Doctor of Arts, were approved later.

In 1935 the name of Colorado State College of Education was adopted to recognize the fully developed graduate program as an integral part of the institution. Another name change took place in 1957, when the legislature shortened the name to Colorado State College. Meanwhile, professional programs in such fields as business, medical technology, music, and nursing had been developing. In recognition of the institution's broadened functions and extensive undergraduate and graduate programs, the name was changed to the University of Northern Colorado in May, 1970.

On July 1, 1973, legislation creating a separate governing board for the University of Northern Colorado became effective. The University, formerly one of several institutions of higher education controlled by the Trustees of State Colleges in Colorado, is now governed by the Trustees for the University of Northern Colorado, a board of seven members appointed by the Governor of the State. Funds for its operation are derived from appropriations of the state legislature, student tuition and fees, special federal grants, and various private gifts.

Accreditation and Affiliation. The university is a member of and accredited by the North Central Association of Colleges and Secondary Schools (since 1916).

Various of its academic programs have special accreditation by the following: American Chemical Society (1968), Colorado State Board of Accountancy (1967), Colorado State Board of Nursing (1965), National Association of Schools of Music

(1967), National Council for Accreditation of Teacher Education (1960), and National League of Nursing (1966).

The institution holds membership in the American Association of Colleges for Teacher Education, the American Association of State Colleges and Universities, the American Council on Education, the Council of Graduate Schools in the United States, the Midwest Conference on Graduate Study and Research, the Western Association of Graduate Schools, and other educational organizations.

Campus. The physical facilities of the university consist of 17 academic buildings, 23 residence halls and apartments for students, and a number of other permanent or temporary buildings used for various miscellaneous purposes, such as service buildings, faculty apartments, athletic facilities, faculty offices, and sorority or fraternity houses. The campus of approximately 240 acres is situated one mile south of the main Greeley business district and is divided into three areas: East Campus, Central Campus, and Darrell Holmes Campus. Residence halls for men and women are located on the East and West campuses and residences for women on the Central Campus. University-owned apartments for married students and families are on the East Campus. Besides athletic fields for the major outdoor team sports on the East Campus, there are extensive recreational and sports areas on all three campuses.

All but two buildings on the Darrell Holmes Campus have been built within the last 10 years, and further development is planned for this area. A major addition in 1970 was the new James A. Michener Library. The new Candelaria Hall houses the arts and sciences and Lawrenson Hall, the 17-story apartment-style dormitory, opened in 1972. The Butler-Hancock Physical Education facility opened in January of 1975.

The University also owns a mountain campus of 80 acres and five buildings near the city of Estes Park and another 80-acre tract south of Greeley.

ADMISSIONS

Admission Policy

A high school graduate or a person holding a high school equivalency certificate may be admitted to the University of Northern Colorado 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 normally must be received one month prior to registration. Individuals are encouraged to submit applications as early as possible, since enrollments may be limited due to UNC's capped enrollment.

Minimal requirements for freshman admission are:

1. Graduation from an accredited high school with a minimum of 15 secondary school units. Graduates from high schools not accredited will be examined for admission purposes.
2. Of the 15 units required, 10 must be chosen from the following academic fields: English (minimum of three units), foreign languages, mathematics, science, and social studies.
3. Rank in the upper one-half of the high school graduating class or scores above the national average on the American College Test.

All new students are required to submit scores from the American College Test (ACT). Entrance examination results should be submitted as early as possible so admission status can be determined without delay. Information regarding the ACT examination may be obtained from high school principals or counselors.

The Committee on Admissions uses additional information such as secondary school grades, trend in quality of high school performance, and principal or counselor recommendations, as well as recommendations from officials of reputable community agencies, in assessing the probability of satisfactory performance in the academic program of the university.

A person 18 years of age or over who is not a high school graduate may be admitted to a degree program if the results of the GED examination taken at least one month prior to the day of registration show he has the academic ability to do college work successfully.

Freshman Admission Procedures. 1. An application for admission may be obtained from a high school principal or counselor. Out-of-state students write to the Office of Admission, the University of Northern Colorado.

2. Fill in the Application for Admission and have the high school office attach a transcript and send it to the Office of Admissions. Applications may be filed any time after the beginning of the senior year in high school and normally not later than 30 days prior to registration day. Individuals are encouraged to submit applications as early as possible, since enrollments may be limited because of UNC's capped enrollment.

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

3. Take the American College Test (ACT).

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

Information regarding the University Orientation/Pre-Registration Program will be mailed prior to the opening of the University to those applicants entering each quarter.

Freshman Admissions Timetable. Applications may be filed at any time during the senior year in high school but normally not later than 30 days prior to registration day. Individuals should submit applications as early as possible, since enrollments may be limited due to UNC's capped enrollment. The application must be accompanied by a \$10.00 transcript and evaluation fee, which is non-refundable. The American College Test (ACT) is required and should be taken early enough so that the test results may be considered at the time the application is filed. An October or December test date is recommended. Junior year test scores will be accepted. Applicants for financial aid must submit the Family Financial Statement of the American College Testing Program in order to be considered for financial aid. This form is used for consideration for scholarships, student loans and grants. A student must have been officially admitted to the university before the offer of scholarships or financial aid package becomes final. Financial aid applications received by March 1 will be given first priority for consideration.

Transfer Admissions. A student transferring from another college or university may be admitted if he has a "C" average academic record and is in good standing at the college or university from which he is transferring. His application must be received one month prior to registration. Individuals are encouraged to submit applications as early as possible, since enrollments may be curtailed because of UNC's capped enrollment.

Transfer Credit. Students graduating from a junior college or transferring two years of college work may have to spend more than two years at the University of Northern Colorado 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 the University of Northern Colorado, graduation in two additional years is possible in most cases. Credit earned at a junior college after completion of the sophomore year or beyond 96 quarter hours of credit will not be transferable.

Students transferring to the university from junior or community colleges who have completed equivalent programs in general education, as determined by the university admissions office, will receive full credit for such work and are excused from further general education requirements.

The University of Northern Colorado *does not* accept credit from other colleges and universities in which grades below "C" have been earned.

Since 1949 the University of Northern Colorado has accepted in transfer a maximum of 90 quarter hours of academic credit plus 6 physical education credits, 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 the University of Northern Colorado.

Any college work earned more than 15 years prior to the time the baccalaureate degree is granted at the University of Northern Colorado may be applicable toward a degree at the discretion of the major and minor departments.

Previous grade point averages are used for admission purposes only and are not carried forward to the student's academic record at the University of Northern Colorado. The student will begin a new University of Northern Colorado grade point average which will not be combined with any previous grade point average earned.

The University of Northern Colorado allows no transfer of credit from non-accredited colleges and universities outside the State of Colorado.

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

Transcripts from other colleges and universities that contain credit necessary for completion of degree requirements at the University of Northern Colorado must be received by the University prior to the quarter of graduation.

Transfer Procedures. File with the Office of Admissions, the University of Northern Colorado (a) An Application for Admission including high school record; (b) two official transcripts of all credits earned at other colleges or universities; (c) an application for transfer of credit (d) a report of health examination.

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

In order to insure an evaluation for admission, these materials must normally be sent to the Office of Admissions, the University of Northern Colorado, 30 days in advance of the quarter for which the transfer student wishes to enroll. Individuals are encouraged to submit applications as early as possible, since enrollments may be limited because of UNC's capped enrollment. Necessary forms may be obtained from the Office of Admissions, and the letter of inquiry should state specifically that the student is an undergraduate transfer student. (*Graduate Students: Please consult the Graduate Catalog for details concerning graduate students.*)

Transfer Student Admissions Timetable. All applications and two official transcripts from each college or university attended must normally be filed 30 days prior to the quarter for which the transfer student wishes to enroll. Individuals are encouraged to submit applications as early as possible, since enrollments may be limited due to UNC's capped enrollment. The application must be accompanied by a \$10.00 transcript and evaluation fee, which is non-refundable. *All undergraduate students, whether full- or part-time, must make application for admission and be officially admitted in order to take course work. There is no "unclassified" or "special student" status for undergraduate students.*

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

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

The application for admission and all credentials, including the TOEFL score, should be mailed in time to reach the University of Northern Colorado not later than 90 days prior to registration day. Individuals are encouraged to submit applications as early as possible, since foreign enrollments may be curtailed because of limited facilities. Students are advised to begin their studies at the University of Northern Colorado with the first quarter of the academic year which begins in September.

Medical Examination. Prior to final admission and following a medical examination by a qualified medical practitioner, a student shall submit to the Student Health Service of the University a health report in a form which is acceptable to the staff of the Student Health Service indicating the health status of the student. Such information is necessary to provide better medical care while attending the University, to insure the health of others in the community and to assist the student in progressing toward his educational goals.

Additional Admission Requirements to Programs. Some programs require previous experience, course work, or different procedures prior to acceptance into those programs. Students should consult the appropriate department or the program description located between pages 147 and 335 in this catalog.

Personal and Social Qualities. A student seeking admission to the University of Northern Colorado is expected to possess personal and social qualities befitting the curriculum he wishes to study, in keeping with the objectives and traditions of the university, and desirable for the vocation he or she plans to enter. After admission to the university, the student 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.

A student is expected to have such speech skills as will enable that person to progress satisfactorily in the chosen curriculum and to perform adequately when in a later vocation.

ACADEMIC INFORMATION

Academic Advising. It is the firm expectation that all students at the University will work with faculty members in defining and developing their academic programs. While some academic departments do not require their students to obtain advisement prior to each quarter's registration, all faculty of the University are expected to be available to advise students.

Students should check with the chairman of their department to be assigned a faculty adviser. Students who have not yet declared a major should contact the Dean of Students Office to be assigned an adviser.

Academic Credit. The normal undergraduate course load for a quarter is 15 hours of academic credit. During Early and Preregistration period, students may register for a maximum of 18 academic credit hours. During registration and ending with the last day for adding courses, students who have a 2.75 or higher cumulative grade point average may enroll for additional hours with approval from the office of the Dean of Students. It is recommended that students desiring to take more than 18 hours seek prior departmental academic counseling. Students who have less than a 2.75 cumulative grade point average may not take in excess of 18 academic hours. Exceptions may be made to the policy for legitimate hardship cases by the Dean of Students Office.

All credit toward graduation is computed in "quarter credit hours." The term "one quarter hour" means a course is offered for one hour, one day a week through a quarter of approximately ten weeks.

Courses offered during Fall, Winter, Spring and Summer quarters will carry the credit designated in the catalog. Students may register for "No Credit," however, they must pay the appropriate tuition and fees. No audit or visitors cards are issued.

Course Numbers. The course numbers are divided into three groups:

1. Lower Division: (a) 100 level courses for freshman students; (b) 200 level courses for sophomore students.
2. Upper Division: 300-499 level courses for junior and senior students.
3. Graduate Division: 500-700 are graduate courses. (a) Qualified juniors and seniors may be admitted to 500 level courses by special permission; (b) No undergraduates may be admitted to 600 or 700 level courses.

Course Work May Count for Next Degree. Students in the last quarter of academic study for one degree may register for graduate courses which are in excess of the requirements for that degree when application for admission to the next higher degree program has been filed prior to the final quarter. If a student is admitted, he or she *must* complete a Petition to Count Work on the Next Higher Degree in the quarter *prior* to enrolling in the course(s). Students will be held for final examinations in the courses taken for the next higher degree.

Late Enrollment. No student will be permitted to enroll in a course after the first week of the Fall, Winter, Spring and Summer quarters.

Schedule Changes. Students may change their schedule by the drop-add procedure at the Records Office. No classes may be added to a student's schedule after the first full week of classes.

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

Withdrawal from Class. When a student registers for a class, that student is considered to be a member of that class. If the student should wish to withdraw from the class, he or she must first obtain a withdrawal form from the Records Office and obtain the signature of the faculty member teaching the class. If the faculty member refuses to sign the withdrawal form, the student should contact the Student Personnel Office. No withdrawals from class are permitted during the last two weeks of a quarter. Withdrawal deadlines for each quarter are posted in the Schedule of Classes.

A faculty member can withdraw a student who does not attend the first two class meetings. It is the student's responsibility to notify the instructor if he or she cannot attend the first two meetings. Since not all instructors will exercise this option, a student cannot rely on this process to be withdrawn from a class.

Complete Withdrawal from the University. Students who wish to completely withdraw from classes during the quarter must initiate the withdrawal in the Student Affairs Office. Faculty members and their offices must also have official notification of the withdrawal.

Individual Studies. Individual studies are available in most disciplines. This type of study involves a great amount of self-directed study on the part of the individual student under the guidance of an instructor.

The following policies concerning registration apply:

1. The study must be limited to four hours per quarter.
2. The approved ID/IS registration form used. The applicant must have the approval evidenced by signature of the instructor who will direct the study, the student's adviser, and the department chairman of the department in which the study is to be done. It is suggested that students consult their instructor prior to the day of registration.

ACADEMIC STANDARDS

Academic Appeals Board. The purpose of the Academic Appeals Board is to provide the student with easily implemented means for appealing any academic decision which he considers unwarranted or capricious. Before initiating these procedures, or between any of the appeals steps outlined below, the student may and is encouraged to seek advice from his academic adviser or from any of the Deans in the Student Personnel Department.

It is further recommended that prior to submitting an appeal to the Academic Appeals Board an attempt at mediation between student and instructor be pursued with the aid and advice of the university ombudsman. It is assumed at this stage the ombudsman could serve as an impartial third party.

Procedure:

Step 1 – The student who has a specific academic problem should first discuss such problem with the instructor of the class where the problem originated.

Step 2 – If the student does not feel that his initial conference with the instructor has resolved the problem, he or she should then request a conference with the instructor's Department Chairman. (If the instructor involved is the Department Chairman, the student should schedule his Step 2 conference with the instructor's Academic Dean.) In matters concerning departmental policy, the student should take his problem directly to the Department Chairman.

Step 3 – If the student is not satisfied with the results of Step 2 conference, he or she may appeal his case to the Academic Appeals Board, filing a written request for a hearing through the office of the Vice-President for Academic Services.

Academic Standing. The scholastic standing of all students is computed on the basis of courses attempted at this university only. For determining scholarship rank in the awarding of honors, the honor point system is used. The honor point

average is a quotient obtained by dividing the total number of honor points earned by the total number of hours attempted (that is, those for which grades of "A", "B", "C", "D", or "F" are recorded). All grades earned by a student at the University of Northern Colorado become a permanent part of the student's academic record and are computed in the cumulative average. If a student repeats a course previously taken at the University of Northern Colorado, both the first and second grade received remain on the record and are computed in the cumulative average.

An undergraduate either currently or formerly enrolled is either:

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

"Good standing" signifies that the student is eligible to return and continue his studies at the University of Northern Colorado. It covers good standing in respect to both grades and conduct.

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

Academic probation is meant to be a warning to the student and is not intended as a penalty. No notation is made on the official transcript.

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

Attendance. Regular attendance in all classes will be assumed and encouraged. The instructor will determine the relationship between class attendance and the objectives of his class and the way in which he or she will evaluate attendance as a factor in the achievement of the student. A student may be withdrawn by the instructor if that student does not attend the first two class meetings.

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

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

A student is a freshman until he has successfully completed 45 quarter hours of course credit, and is a sophomore after successfully completing 45 quarter hours of credit until he or she has successfully completed 90 quarter hours of course credit. A student is a junior after successfully completing 90 quarter hours of credit until he or she has successfully completed 135 quarter hours of credit. A senior is a student who has successfully completed 135 quarter hours until graduated with a baccalaureate degree. When applying for a student teaching assignment, a student must have a cumulative grade point average of 2.3 and a 2.3 average in the area in which he or she plans to student teach.

Credit by Examination. The University of Northern Colorado offers hour credit and/or course exemption by examination for certain courses designated by the various departments. The university recognizes the College Entrance Examination Board's Advanced Placement Program, the College Level-Examination Program (CLEP), and offers the opportunity to challenge certain general education courses on the campus. Successful challenges provide exemption from courses, but the awarding of credit for specific courses is at the option of the school or department.

No student may challenge by examination a course for which he or she is enrolled or registered. A student may only challenge by examination once unless approval is granted by the dean of the school or college in which the course is offered. Information regarding credit by examination may be obtained by writing to the Office of Admissions. Score reports should be forwarded to the Office of Admissions for evaluation. A fee is charged for each examination given.

Regulations Governing Academic Probation and Dismissal. A student will be

placed on academic probation if that student fails to attain the designated quarter or cumulative average within the following classifications:

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

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

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

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

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

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

A student placed on academic suspension may not enroll at the University of Northern Colorado without approval of the Committee on Scholastic Standing. Such students may not seek such approval until after the lapse of one academic quarter.

Readmission of Students Who Have Been Dismissed for Academic Reasons.

A student who has been required to withdraw from the university for academic reasons and is petitioning for readmission must account definitely for the expenditure of the time in a profitable way since leaving the university and should give good reasons for believing that he or she will improve upon the previous record if readmitted. Such a student is not eligible to be considered for readmission until after the lapse of at least one quarter, not counting the summer quarter. Petition for readmission must be made in writing to the Assistant Dean of Students, the University of Northern Colorado. This is a letter of petition, not a formal application for readmission. A student who has attended another institution(s) since enrollment at the University of Northern Colorado must furnish an official transcript from each institution attended.

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 "I" incomplete; "W" approved withdrawal; "TF" unapproved withdrawal. An "I" must be removed by the end of the succeeding quarter. If the Incomplete is not removed by the end of the succeeding quarter, it will remain as an Incomplete on the transcript. If the student wishes to receive credit for the course in which he has received an Incomplete after the lapse of one quarter, he must again enroll in that course. "NR" indicates no record and means that the thesis or dissertation has not been completed. A grade of "S" or "U" indicates satisfactory or unsatisfactory work.

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

Computing Grade Averages. Prior to September, 1966, the university computed grades on a five-point system. After the above date, grades are computed on a four-point system: Each of the letters of the marking system has a numerical value.

The letter "A" has a value of four (4) points; "B" has a value of three (3) points; "C" has a value of two (2) points; "D" has a value of one (1) point; and no points are given for an "F". If all the student's marks were "C's," he would have a grade average of 2.0. If one-half of his marks were "C's," and the other half "D's," the numerical value of his grade average would be 1.5. A grade of "S" does not carry any points nor is such a grade computed in the grade point average. However, the credit hours do count toward credits earned. In order to compute a grade point average, divide the total number of hours attempted into the total number of honor points.

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.

Residence Requirements. At least 45 quarter hours of credit must be earned in courses taken on the campus at Greeley to meet the minimum residence requirement for an undergraduate degree including some work in the major field to be determined by the college, school or department. Course work taken off the campus, both correspondence and off-campus courses, cannot be counted as residence credit in meeting the requirement of 45 quarter hours of credit which must be earned in classes on the University of Northern Colorado campus. In addition, 30 of the last 45 credit hours of a degree program must be earned while enrolled in on-campus courses at the University of Northern Colorado.

Recognition of Academic Excellence

Dean's List of Distinction. Students who have achieved 3.75 or above while carrying 12 hours or more for three consecutive quarters during the academic year will be included on the Dean's List of Distinction.

Dean's Honor Roll. Students who have achieved 3.50 to 3.75 while carrying 12 hours or more for three consecutive quarters during the academic year will be included on the Dean's Honor Roll.

Graduation with Honors. A student may be graduated with honors on the basis of his cumulative grade point average. The following GPA's will be designated as follows:

1. The top two percent of the graduating class: *Summa Cum Laude*
2. The next two percent of the graduating class: *Magna Cum Laude*
3. The next two percent of the graduating class: *Cum Laude*

COLLEGES, SCHOOLS, DEPARTMENTS AND PROGRAMS OF INSTRUCTION

COLLEGE OF ARTS AND SCIENCES

Robert O. Schulze, Dean
John A. Beel, Associate Dean

The College of Arts and Sciences offers courses in various departments leading to the Bachelor of Arts degree. The offerings are designed to give broad, diversified educational opportunities and at the same time to provide the ground work for preparation in professions such as law, medicine, and teaching.

Each student regularly admitted to the College of Arts and Sciences is required to complete General Education as specified earlier in this catalog. He must also select a major subject for concentration and must meet all the requirements of his major department. Those wishing to be recommended for certification to teach in secondary schools must also complete at least 31 quarter hours of Professional Teacher Education courses as prescribed by the College of Education during their junior and senior years.

Academic Departments

Anthropology Department

Kenneth R. Ayer, Chairperson

Professors: Fay, B. Mickey

Associate Professor: J. Mickey

Assistant Professors: Ayer, Higgins, Kettel, Lutz

Instructors: Denning, Haug, Wanner

Biological Sciences Department

Ronald K. Plakke, Chairperson

Professors: Gapter, Plakke, Rich, Richards, Schmidt, Thomas, Thorpe.

Associate Professors: Buss, Lindauer

Assistant Professors: Fitzgerald, Harmon, Heimbrook, Peeples

Black Studies Department

Dorothe T. Clark, Chairperson

Assistant Professors: Clark, Stroud

Chemistry Department

William G. Koch, Chairperson

Professors: Beel, Fields, James, Koch, Schreck, Tomasi, Woerner

Associate Professors: Kovar, Meilahn, Pringle

Communication Department

Richard J. Crawford, Chairperson

Professors: Crawford, DeBoer, Holley

Associate Professor: Longwell

Assistant Professors: Camp, Ross, Smith, Warnemunde

Instructors: Cissna, Hess, Rood, Trapp

Earth Sciences Department

K. Lee Shropshire, Chairperson

Associate Professors: Cobb, Dietz, Shropshire

Assistant Professors: Hackett, Hopkins, Matthews, Slater

Economics Department

Orvel L. Trainer, Chairperson

Professor: Trainer

Associate Professor: Anderson

Assistant Professors: Garrison, Mahanty

Instructors: Rivera, St. Aubyn

English Department

Forrest Frease, Chairperson

Professors: Boyle, Carriar, Cross, C. Frease, F. Frease, Harrison, Jones, Starr
Associate Professors: Brand, Brewer, Finnegan, Huff, Myers, Prinic, N. Wilson
Assistant Professors: Agan, Applegate, F. Bowles, Doyle, E. Kearns, Kiefer, Loftis, Luere, C. Meyer, Peercy, Rea, Santos, Varner, S. Wilson, Witwer
Instructors: S. Bowles, Lackie, Stallings

Environmental Studies Program

Cary J. Goulard, Coordinator

Foreign Language Department

Glenda J. Brown, Chairperson

Professor: Graham

Associate Professor: Brown

Assistant Professors: Ensz, Freyre, Haughton, Hoffman, Keppeler, Lange, Owechko, Sandstedt

Instructor: Evans

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

Geography Department

Steven L. Scott, Chairperson

Professor: Lehrer

Associate Professors: Dietz, Kearns

Assistant Professors: Collins, Francis, Scott

Instructors: Barton, Krimbill

History Department

Barry Rothaus, Chairperson

Professors: Arnold, Boeck, Byerly, Larson, A.R. Reynolds

Associate Professors: Cornebise, Knott, Powers, Rothaus, Rowe

Assistant Professors: Alves, Edgerton, Lonsdale, Worrall

Instructor: Mrs. A. Reynolds

Mathematics Department

Donald D. Elliott, Chairperson

Professors: Cavanagh, Elliott, Fisch, Johnson, Popejoy, D. Schmidt

Associate Professors: Bosch, Fuelberth, Heiny, Johnston, McNerney, Richardson, Schweers, Tolar

Assistant Professors: Anders, Rumford

Mexican American Studies Department

Carlos Leal, Chairperson

Assistant Professors: Leal, Sandoval

Philosophy Department

Frank A. Morelli, Chairperson

Assistant Professors: Dhar, Hodapp, Morelli

Physics Department

Wallace Aas, Chairperson

Professors: Fry, Hamerly

Associate Professors: Aas, Ellingson

Assistant Professor: Fadner

Political Science Department

Richard Perchlik, Chairperson

Professors: Christensen, Perchlik

Associate Professors: Bookman, Knapp

Assistant Professors: Klein, Mazurana, Watson

Science Education Department

George L. Crockett, Chairperson

Professors: Crockett, Olson, Sund, Trowbridge

Assistant Professors: Hackett, Hunt

Sociology Department

Zahi S. Kamal, Chairperson

Professor: Robert O. Schulze

Associate Professors: Kamal, Quammen

Assistant Professors: Cleere, Jennison, Murphy, O'Connor, Trahan, Vonk, Wiloughby

Instructors: Hey, Jones, Marshall, Oreskovich

Theatre Arts Department

John W. Willcoxon, Chairperson

Professor: J. Willcoxon

Associate Professors: Girault, Norton

Assistant Professors: Kendrick, Sturges, Van Loo

Instructor: Nagel

COLLEGE OF EDUCATION

Bruce W. Broderius, Dean

Richard L. Bear, Associate Dean

Geo. F. Sanderson, Assistant Dean: Teacher Certification

Robert Johnson, Assistant Dean: Secondary Education

The College of Education is a professional college offering specialized degree programs in education for the preparation of elementary and secondary school teachers, educational media personnel, and other education specialists for the schooling processes. These programs include offerings on the undergraduate level leading to the Bachelor of Arts and Bachelor of Science degrees.

The College of Education provides all prospective teachers accepted in the Professional Teacher Education Program with the professional core of subjects and experiences for the development of professional competencies requisite to successful teaching. Additionally, it provides selected components of the general education program.

Academic Departments

College Student Personnel Work

Norman Oppelt, Chairperson

Professor: Oppelt

Curriculum and Instruction

Joe Nichols, Chairperson

Professors: Broderius, Morrison, Nichols, Stoffler

Assistant Professor: Rosales

Educational Administration

Arthur R. Partridge, Chairperson

Professors: Luketich, Partridge, Ritter, Wilsey

Associate Professors: D. Montgomery, Saffell, Schroeder

Educational Field Experiences

Robert C. Richardson, Director

Professors: Harkness, Van Maanen

Associate Professors: G. Burns, Erickson, Febinger, Fielder, J.M. Johnson, Richardson, Warner, Weltner

Assistant Professors: Cochrane, Cox

Instructors: Fisk, Rose

Educational Media Department

D. Harold Bowman, Chairperson

Professors: Bowman, Cyphers

Associate Professor: Seager

Assistant Professor: Green

Instructors: Gibbons, Duckett

Elementary Education and Reading Department

Alvin O. Mosbo, Chairperson

Professors: D. Brown, Claybaugh, Glaser, Kelly, Lewis, Lowry, Mosbo, Nebel

Associate Professors: Arnold, A. Burron, D. Burron, Henry, E. Wolfe

Assistant Professors: J. Cordova, Good, M. Nelson, Pavlik

Instructors: P. Brown, Shivley

Foundations of Education Department

Franklin D. Cordell, Chairperson

Professors: Sanderson, Turner, Usher

Associate Professors: Cordell, Jacobs, Roat

Assistant Professors: Clute, Glassman

Higher Education Department

Kenneth Hogan, Chairperson

Professor: Hogan

Psychology, Counseling and Guidance Department

Darrell E. Anderson, Chairperson

Professors: D. Anderson, Bear, Clevenger, Koplitz, Luker, Lutey, Montgomery

Associate Professors: Blake, Goff, Osorno, Praul, Rave, Shaw, Schenkman, Welch

Assistant Professors: Bakewell, Delaney, Friedman, Gallegos, Morris, Norton, Orzut, Poston, Richards, Severson, H. Thornburg, S. Thornburg, Tate, Zellner

Instructors: Larnard, Fontanez, Hill

Research and Statistical Methodology Department

Beatrice Heimerl, Chairperson

Professors: B. Heimerl, Houston, Schmid

Assistant Professors: Lynch, Shaw

**SCHOOL OF SPECIAL EDUCATION
AND REHABILITATION**

Daniel C. McAlees, Dean

Willard G. Jones, Assistant Dean

Professors: Bitter, Eldredge, Gearheart, Jones, O. Kolstoe, Lundeen, McAlees, Napier, K. Owens, Wolfe

Associate Professors: Bowen, Cronin, Gay, Hull, B. Kolstoe, Reinert, Weishahn.

Assistant Professors: Baker, Bliler, Campaign, Carvajal, DeRuitter, Lane, Livingston, Miller, Millslagle, Olson, Resnick, Tripp, Tuttle, Underwood, Wright

Instructors: Bluechel, Cordova, Kaley, Kappan, Kozisek, Reed, Uhrig

SCHOOL OF THE ARTS

William R. Erwin, Jr., Dean

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

Academic Departments

Fine Arts Department

Robert B. Turner, Chairperson

Professors: Ball, D. Johnson

Associate Professors: Blubaugh, Cordiner, Moody, Schumacher, Turner

Assistant Professors: Barucchieri, Durr, Haas, Luster, Macfarlane, Myers, Welsh

Instructors: Carter, B. Johnson, Naumer, Shin, Voisard

Home Economics Department

Elizabeth P. Wirick, Chairperson

Associate Professors: Burns, Walters, Wirick

Assistant Professors: Egeness, Meyer, Sorensen, Taylor

Instructors: Grable, Krosky, Sommers

Industrial Arts Department

Robert G. Hammond, Chairperson

Professors: Erwin, Hammond, Jelden, Johnson, Olson, Roy

Associate Professor: Lubbers

Assistant Professor: Kruger

Instructor: Morimoto

SCHOOL OF BUSINESS

Ramon P. Heimerl, Dean

The School of Business has two primary objectives: (1) to develop professional competence in functional areas of business administration for those students who will assume responsibilities for leadership in business and (2) to develop professional competence in subject matter areas for those students who will assume responsibilities for leadership in the teaching profession.

To accomplish these objectives, the School of Business offers a four-year program of studies leading to the Bachelor of Science degree in business administration and a four-year program of studies leading to a Bachelor of Arts degree in business teacher education and journalism.

Academic Departments

Accounting

Finance and Insurance

General Business and Business Teacher Education

Management

Marketing

Journalism

Professors: Damgaard, Hartman, Heimerl, Kennedy, Teglovic, Waterman, Yetka-Byrnes

Associate Professors: H. Anderson, R. Anderson, Clithero, Duff, Halldorson, McConnell, Palmer, Robins, Stewart

Assistant Professors: Allen, Allerheiligen, Beall, Brown, DeBoer, Dierks, Douglas, Fletcher, Garrison, Hansen, Harris, Levenson, Massin, Saam, Van Hook, Williamson

Instructors: Elton, Muhs

SCHOOL OF EDUCATIONAL CHANGE AND DEVELOPMENT

The School of Educational Change and Development provides students who desire to pursue an individually designed program the opportunity to do so. Consult the program description for further information about the School of Educational Change and Development.

SCHOOL OF HEALTH, PHYSICAL EDUCATION AND RECREATION

Robert A. Montgomery, Dean

The three primary functions of the School of Health, Physical Education and Recreation are:

1. The professional preparation of teachers, coaches, supervisors, and administrators of Health and Physical Education.
2. The professional preparation of recreation leaders and administrators.
3. The professional preparation of Allied Health Specialists.

Academic Departments

Health Education

Physical Education (Men)

Physical Education (Women)

Recreation

Professors: Barham, Behling, Everett, Lindahl, Rossi, Sage, Shirley, Steffy, Van Anne

Associate Professors: Blasi, Cooke, Heiss, Malumphy, McKain, Parkos, Phillips, Van Dinter, Wright

Assistant Professors: Benich, Cody, Dixon, Fri, Hedberg, Hildreth, LaBonde, Maughan, McMillen, Mosser, Peterson, Petroff, Rodriguez, Rollins

Instructors: Bauer, Carlisle, DoBell, Harrison, James, Libera, Minton, Pelczar, Tresvan, Wheeler

Affiliate Professors: Cloyd Arford, M.D., Nathan Clifford, M.D., Donald Cook, M.D., James Wheeler, M.D.

SCHOOL OF MUSIC

James E. Miller, Dean

Robert S. James, Administrative Assistant Dean

The School of Music is a professional school offering preparation for the teacher of music at all levels of education and for those interested in performance or theory and composition. It also provides courses for the student interested in music as part of his general and cultural education. Faculty and students in the School of Music

take a leading part in the cultural activities on the campus. The School of Music is a full member of the National Association of Schools of Music.

Academic Departments

Brass and Percussion

History and Literature

Music Education

Piano and Organ

Strings

Theory and Composition

Voice

Woodwind

Brass and Percussion Department: Edwin Baker, Chairperson

History and Literature Department: James Upton, Chairperson

Music Education Department: Dwight Nofziger, Chairperson

Piano and Organ Department: Walter Schenkman, Chairperson

String Department: Howard Mickens, Chairperson

Theory and Composition Department: Dale Dykins, Chairperson

Voice Department: Claude Schmitz, Chairperson

Woodwind Department: Loren Bartlett, Chairperson

Professors: Bartlett, Dykins, Evans, Himmel, King, J. Miller, Nofziger, Schenkman, Schmitz, Skinner, Walker

Associate Professors: Baker, Copley, Goes, James, Linscome, Mickens, K. Miller, Upton

Assistant Professors: Bourassa, Ehle, Fuller, Graham, Jamieson, Lehnert, Melhado, Murray, Pfund, Rhoads, Robinson, R. Smith, W. Smith

Instructors: Coppom, Haun, Herrick, Hines

SCHOOL OF NURSING

Phyllis Drennan, Dean

The School of Nursing offers a twelve-thirteen quarter program leading to the degree Bachelor of Science in Nursing. The purpose of the program is to prepare qualified students for practice as professional nurses and to provide the foundation for graduate study in nursing.

The School is accredited by the National League for Nursing and by the Colorado State Board of Nursing. Graduates are eligible to write the Colorado State Board of Nursing examination for licensure as registered nurses.

Professor: Drennan

Associate Professors: Sawatzky, Thompson

Assistant Professors: Babich, Biegel, Bossart, Hallan, Heckman, Hurlock, Payton, Stroh, Swingle, Yelton

Instructors: Baird, Comer, Perry, Streich, Tanner, Tracy

DIVISION OF AEROSPACE STUDIES

Lt. Col. Neil H. Keddington, Chairperson

Both four year and two year Air Force ROTC programs are in use at the University of Northern Colorado. Candidates are educated to assume duties as Air Force Second Lieutenants upon graduation from the university. AFROTC graduates normally go on active duty with the USAF soon after completion of

AFROTC. Initial assignments may include pilot training, navigator training or technical courses related to the individual's assignment. Women applicants are eligible.

Assistant Professor: Lt. Col. James R. Clark

Assistant Professor: Capt. Charles S. Erwin

Dean of Students Office

The Associate Vice President of the University and Dean of Student Services coordinates all of the activities of the departments in the area of Student Services. The area of responsibilities in the Dean of Students Office involves student development; general areas of student problems; policy investigation and student life; group advising; individual counseling; administration of academic standards; undeclared major advising program; and cooperative programming with other administrative, faculty, and student groups.

The Center for Non-Traditional and Outreach Education

Robert O. Singer, Associate Dean and Director

Richard Wood, Associate Director

Clarence O. Haeker, Director of Off-Campus Classroom Instruction

Bobbe L. Davey, Assistant Director of Off-Campus Classroom Instruction

John A. Ketchum, Director of Administrative Services

The Center houses all off-campus programs in one administrative unit. Through it, the University offers:

- a. off-campus classes
- b. multi-media learning packages
- c. correspondence courses
- d. external degree programs

Off-campus classes are given in various parts of the state primarily as a service to public school teachers and school systems. Multi-media learning packages and correspondence courses are provided for the convenience of students wishing to earn university credits who cannot attend classes either on or off the campus. Whenever feasible, the Center also tailors, for schools in Colorado, external degree programs.

In addition, the Center exercises academic management and coordination for the *Center for Special and Advanced Programs, (CSAP)*, which has been created to meet the educational needs of the employed adult. Its programs are designed to enable students to obtain degrees without undue interference with full-time employment. This program uses a flexible course format which permits the fully employed adult to participate in a full-time degree program that specifically utilizes and builds upon his work experience and allows the student to develop a program that will be relevant to his career objectives. Seminars preceded by directed readings, workshops, lectures, discussions, case studies, and individual study and research form the basis for much of the course work.

Periodically, the Center, through the College of Education, will also offer classes or workshops on campus dealing with the whole field of non-traditional education.

Outreach Independent Study, Correspondence and Learning Package

Courses. A University of Northern Colorado policy states that a student may earn and apply a maximum of 45 quarter hours of credit through correspondence courses, learning package courses or extension courses toward a bachelor's degree. This includes: University of Northern Colorado correspondence and learning package courses and correspondence and extension work transferred from other colleges

and universities. Correspondence and learning package courses must be completed, graded and recorded the quarter before the student expects to graduate.

Students who are not pursuing nor applying correspondence and learning package credits toward a University of Northern Colorado degree are not limited in the number of credits they can earn. Students who plan to use credits earned through UNC correspondence or learning package courses toward a degree at another university or college are advised to consult with the proper officials at the institution granting the degree to be sure the credit is acceptable.

A student pursuing an undergraduate degree program at the University of Northern Colorado 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 the University of Northern Colorado must request written permission to take the specific courses before enrolling. The request for permission must be accompanied by a copy of the course description, an indication of where it is to be held, the number of sessions to be held, the length of each session, the hours of credit for the course, and the name, title, and position of the person offering the course. A course must be taught by a regular full-time faculty member on the staff of the college or university granting the credit and upon whose official transcript the course will appear. General education course requirements are subject to the approval of the Registrar, and major and minor requirements must have the additional approval of the school or department involved.

Students must obtain a current copy of the Correspondence Bulletin or the Off-Campus Bulletin for complete information and regulations concerning correspondence and off-campus courses.

General Education Requirements

All students pursuing work for the bachelor's degree must complete satisfactorily (1) at least 60 quarter hours of courses designated as General Education (42 quarter hours of courses in the Bachelor of Music, Nursing, and Medical Technology) and (2) all courses required by the school or department in which a student elects a major. (See Majors and Minors, see page 48.) In addition, students may select other courses to meet the minimum requirement for graduation of 180 quarter hours. A faculty adviser from the department of the student's major subject is assigned to assist in program planning.

Courses must be chosen from each of the following categories as specified:

Category 1*, Communications. Two courses are required: English (language or linguistics), Communications, Foreign Languages, Journalism, Mathematics.

Category 2*, Professional and Applied Studies. Two courses are required: Aerospace Studies, Business, Fine Arts, Health, Home Economics, Industrial Arts, Music, Nursing, Physical Education, Recreation, Theatre.

Category 3*, Social and Behavioral Sciences. Three courses are required: Anthropology, Economics, Geography, Political Science, Psychology, Sociology.

Category 4*, Humanities and Integrative Studies. Three courses are required: Black Studies, English (literature), History, Humanities, Philosophy, Interdisciplinary Studies, Mexican American Studies.

Category 5*, Sciences. Three courses are required: Astronomy, Biology, Botany, Chemistry, Earth Science, Environmental Studies, Geology, Meteorology, Oceanography, Physics, Zoology.

Instructor Course Units (ICU's). Two courses are required: ICU's are categorized into the five areas named above (Communications, Professional and Applied Studies, Social and Behavioral Sciences, Humanities and Integrative Studies, Sciences) and may be used to meet the requirements of any of the respective areas as well as that of the ICU. The two required ICU's should be taken under two different instructors.

*Category designations are marked in the *Course Descriptions* section in the back of the catalog.

Courses required or counted toward the student's major (including prerequisites) will not be considered as part of the general education program.

Courses required in the Professional Teacher Education (PTE) core and courses dealing with pedagogical principles and methodology will not count toward meeting general education requirements.

Courses in general education may be taken in all four undergraduate years.

Other courses may be elected from departments outside the major to meet the minimum requirement of sixty (60) quarter hours in general education, (42 quarter hours for a student completing a Bachelor of Music, Nursing degree, or Medical Technology).

Junior College Transfers. Students transferring to the university from junior or community colleges who have completed equivalent programs in general education, as determined by the university admissions office, will receive full credit for such work and are excused from further general education requirements.

Honors Program

Forrest W. Frease, Director

Admission Requirements. A student who has completed 45 quarter hours of course work at the University of Northern Colorado and who shows evidence of outstanding academic ability may be invited to participate in the honors program on the basis of departmental recommendation. Selection is limited to approximately the highest five percent of the freshman class. Other evidence of academic ability will be considered. No student will be admitted who ranks below the 90th percentile in his standing in the class as measured by grades obtained in courses taken at the University of Northern Colorado.

Transfer students who have completed 45 quarter hours of work and who wish to participate in the honors program may apply for admission after the first, second, or third quarter of work at the University of Northern Colorado. These students must be recommended by two faculty members in their field and must possess a 3.25 cumulative grade point average or better.

A student who completed 45 quarter hours of work at the University of Northern Colorado and has attained a 3.25 cumulative grade point average may apply for admission to the honors program at any time during the sophomore year. Recommendations from two faculty members in the specific discipline should accompany the request. All applications are reviewed by the director of the honors program and the department or school concerned.

Program Enrichment. The program of an honors student is individually planned. An honors student, therefore, may be excused from certain required courses, except those which may be necessary for teacher certification.

Sophomore Honors. During the sophomore year, each academic department participating in the honors program offers a special course each quarter designated for honors students only. The course title for each department is: Honors 251: Sophomore Honors Seminar. The course carries one to three hours of credit. The content and activities of the course vary from one department to another. Each academic department provides the kind of activity which will enrich the educational experience of the honor student in his particular discipline. Basically, the course is structured in terms of the student's needs and interests.

Junior Honors. In the junior year each honors student enrolls in Honors 351: Junior Honors Project. The aim of the course is to increase the student's familiarity with the literature of his field and/or the current issues in his field. The department, school, or college concerned may assign the student to an individual professor or to a

seminar group. This course carries regular university credit at the rate of one to three hours each quarter.

Senior Honors. In the senior year each honors student enrolls in Honors 451: Senior Honors Research Project or Thesis. The course carries one to three hours of credit each quarter. During the senior year the student will gain assistance with his project or thesis from a professor of his own choosing or from a professor assigned to him by the department. The professor advises the student concerning different aspects of his subject or project for study, the result of which shall be an acceptable written report handed in at least three weeks before the honors student is to be graduated.

International Education and Exchange Programs. Honors students are encouraged to investigate the opportunities provided by the University to study in foreign countries. Students interested in such an educational experience may obtain detailed information at the Office of International Education.

Student Review. Cumulative grade averages of honors students shall be reviewed at the end of each academic year. In general, an honors student shall be expected to register for a full-time program and to maintain better than a 3.25 cumulative average as well as a comparable average in the major and minor fields.

Graduation with Honors. Graduating seniors completing the required honors work as specified by the various departments, schools, or colleges will be graduated "With Honors." To be graduated with honors, each student must complete a thesis or a creative project. Participants in the honors program who graduate in the upper six percent of their class will be graduated with the appropriate designation.

Each honors student is required to submit the title of his honors thesis or project to the office of the director of the honors program 12 weeks before his graduate date.

Special designations are given students who are graduated in the upper six percent of their class. The top two percent will be graduated *Summa Cum Laude*, the next two percent will be graduated *Magna Cum Laude*, and the next two percent will be graduated *Cum Laude*.

International Education and Exchange Programs

The Office of International Education, Carter 209, offers many services to students from other nations or to American students seeking to study in foreign countries or in exchange programs with other American campuses.

Students from other countries are provided assistance in matters of program planning, immigration laws, housing, vacation-time visits, campus activities, and community-home sponsors.

American students may seek advice and assistance in their quests to qualify for and obtain scholarships or grants to study abroad. Application forms are processed through the Office of International Education. Among the scholarships and grants available are the Fulbright-Hays, Rhodes, George C. Marshall Memorial Fund, The American-Scandinavian Foundation Fellowships and others. Programs for study abroad are also available through the Institute of European Studies and College Abroad.

The American Association of State Colleges and Universities (of which UNC is a member) is developing study centers in various parts of the world. At the present time UNC students may apply through the Office of International Education, for up to one year's study as part of their UNC degree program in the AASCU centers in Montreal, Canada; Rome, Italy; and Puebla, Mexico; Bahia, Brazil; and Madras, India. Additional centers will be operating in the next few years in other parts of the world.

Several departments offer Study/Travel programs, usually of one quarter's duration. Credit varies with the program. In most cases one or more weeks are

spent in academic preparation on campus before leaving on the travel phase of the program.

UNC Program in Florence, Italy: Studies in Comparative Arts. Beginning in summer 1974, the University officially inaugurated a study abroad program in Florence, Italy -- the heart of the Renaissance. Originally a program centered in the Department of Fine Arts, the program quickly included the Departments of Humanities and Anthropology because of their close relationship to the meaning of the Renaissance period. From time to time and as conditions permit, courses which relate well to the core program may be offered by other departments. For further information on the program and courses offered, see the appropriate department section and course listings or contact the Florence Program Office, 351-2651 or the Office of International Education, 351-2396.

Laboratory School

The Laboratory School is a department of the College of Education with a comprehensive elementary/secondary educational program for grades kindergarten through high school. The elementary school student population is 75 pupils in the primary continuum (grades K-2), 75 pupils in the intermediate continuum (grades 3-5), 150 students in the middle school continuum (grades 6-8), and 300 students in grades 9-12. The primary role and mission of the Laboratory School is to provide a clinical experience for the pre-student teacher. This experience enables the pre-student teachers to be actively involved in the classroom environment of the elementary/secondary students before they enter the field as student teachers. Information on the Teacher Education program may be obtained from the Assistant Director for Teacher Education, telephone 351-2196. Information on enrollment procedures and fees for the elementary/secondary students may be obtained from the Associate Director of the Laboratory School, telephone 351-2117.

Pre-Professional Courses

Courses applicable to pre-law, pre-medicine, pre-dentistry, and pre-engineering are designed for students interested in beginning their course work at the University of Northern Colorado. Variations in course requirements for these areas are made to conform to the requirements of the college the student will attend to complete his academic work. Students interested in pre-law should consult with Dr. R.O. Schulze, Dean of Arts and Sciences. For guidance within the areas of pre-medicine and pre-dentistry, students should see Dr. Gordon Tomasi, Professor of Chemistry, and Chairman of the Pre-Med Advisory Committee. Students interested in pre-engineering should see Mr. Wallace Aas, Chairman, Department of Physics.

Professional Teacher Education

Only students of definite professional promise are admitted to the Professional Teacher Education (PTE) program and allowed to pursue teacher education curricula at an advanced level. Admission to and graduation from a teacher education program is based upon scholarship (2.3 gpa), personality, character and the physical characteristics requisite to successful teaching.

Application to the PTE Program should be made at the beginning of the quarter and must be turned in before the second Friday of that quarter. It takes the remainder of the quarter to process applications.

As soon as a student has acquired no fewer than 45 quarter hours, he or she should make written application to the Professional Teacher Education Committee requesting formal admission to the PTE program. The necessary application forms are available in the College of Education Office in McKee Hall. The application

forms require a declaration of major to be pursued as recommendation for certification can be obtained in the major area only. Departmental endorsement for admission must be sought for each major declared, so if the student has a double major, adds or changes teaching areas, new application must be made for permission to pursue curricula in each area.

Transfer students may apply for admission to the PTE program during their first quarter on campus provided they have transferred in 45 quarter hours of acceptable course work and possess a 2.3 gpa (minimum) at the previously attended University. If a transfer student has transferred in 60 or more quarter hours of acceptable course work and possesses a 2.3 gpa (minimum) at the previously attended University, he is given one quarter of tentative admission to PTE and formal standing will be determined the second quarter, provided he has made formal PTE application during his first quarter on campus.

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

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

The professional education courses which are listed below are open only to students who have been formally admitted to the PTE program on full admission or probationary status. Transfer students may receive some exceptions on the basis of evaluation of transcripts from previously attended colleges or universities.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
EDF	365 <i>Basic Concepts of Education</i> .....	.5
EDF	485 <i>Philosophy of Education</i> .....	.3
EDFE	360 <i>to 379 -- Introduction to Teaching (appropriate to specialization or an equivalent observation/participation experience as prescribed by the academic department.)</i> .....	.2
	<i>Methods of Teaching (appropriate to specialization)</i> .....	.3
	<i>Educational Psychology</i> .....	.5
	<i>(These are several optional ways of satisfying this requirement. Contact the PTE Office for information concerning this.)</i>	
EDFE	<i>Supervised Teaching for initial teacher certification</i> .....	.18

"In addition to the above requirements, all persons requesting a UNC recommendation for certification after July 1, 1975, will be required to be competent to work with the moderately and mildly handicapped child in the regular classroom.

The following are required:

EDSE	401	Handicapped Students in the Regular Classroom
and		
EDSE	402	Working With Handicapped Students in the Elementary School
or		
EDSE	403	Working With Handicapped Students in the Secondary School

Exception: the above competencies may be gained by an approved departmental equivalency.”

PTE Option: Teacher Year Alternative. Any student interested in the Teacher Year Alternative may apply for this special program in the PTE Office, McKee 518 after completion of a minimum of 30 hours of course work to include 4 hours credit in EDFE 270, Teacher Aid Work: This option involves an integrative team taught and field based program jointly planned by students and faculty. The program will run for three consecutive quarters with students receiving approximately 15 hours of PTE course credit per quarter. Student teaching is included. Students applying for the Teacher Year Alternative will be expected to satisfy all PTE admission requirements with the exception of the need for 45 hours of completed credit.

There must be satisfactory completion of courses designated by the school or department concerned to earn recommendation for student field work, graduation, and certification. For transfer students, this may also be on the basis of the evaluation of transcripts from previously attended colleges and universities. Students are also evaluated on other criteria besides scholarship by their major department. They are judged on personality, physical and moral characteristics, interest and reliability. The major department has the authority to hold back a student if he is not qualified in any or all of these areas. This is why each and every student should seek the guidance of his adviser throughout his entire teaching program.

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

Supervised Teaching for Certification. Assignments are made in cooperating schools in the state and out of state with the approval of the Director of Educational Field Experiences upon the recommendation by the student’s major department and the Professional Teacher Education Committee.

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

The minimum field experience requirement for graduation with institutional recommendation for a teaching certificate is 18 quarter hours of student field work. A minimum of nine hours of student field work must be in a major field.

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

University policy does not allow students in the field to be salaried for the same experience for which they receive credit. Students receiving 18 hours of credit in the field may not enroll for any other UNC courses during that quarter.

The following requirements must be completed before the beginning of student field work:

1. Admission to the PTE program in the major(s) in which the student will be doing student field work.
2. Met all specific departmental requirements for field experience.
3. Be cleared by the UNC Health Service.

In addition, all applicants are urged to elect and complete EDFE 270 and EDFE 380 before accepting a field assignment.

Application for Student Field Experience. To apply for student field experiences, a student may obtain detailed information and application forms at any time in the Educational Field Experiences office, McKee 27. The Continuous Application and Placement System calls for the student to proceed with his own screening

process. If the student wishes placement in a particular quarter, he or she must submit an application and required documentation in accordance with the following schedule:

for **Fall placement**: no later than May 1.

for **Winter placement**: no later than November 1.

for **Spring placement**: no later than February 1.

for **Summer placement**: no later than May 1.

Students interested in internships and/or other types of extended field experiences which combine both credit and pay should contact the Area Coordinators in the Department of Educational Field Experiences for information concerning the various options.

Vocational Teacher Education

Students who plan to seek a career in Vocational Education within Colorado must meet credentialing requirements, set forth by the Colorado State Board for Community Colleges and Occupational Education as published in the State Plan. The University of Northern Colorado is recognized by this State Agency for the training of Vocational teachers in Business and Office Education, Distributive Education, Home Economics Education, and Health Occupations Education. Students should refer to the following section of this Catalog for detailed information related to specific Vocational Education Program Areas.

Business and Office Education, page 58.

Distributive Education, page 58.

Home Economics Education, page 88.

Health Occupations Education, page 85.

There are several generic Vocational Education Courses taught at the undergraduate level; refer to Vocational Education, page 144.

Credentialing Requirements. Every program has two elements within their program credentialing requirements: (1) Work Experience; (2) Formal Education. It will be necessary for each student to consult with the professor within the particular program area to get detailed information concerning credentialing requirements.

GRADUATION REQUIREMENTS

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

2. A student must have earned 180 quarter hours of credit.

3. A student must have a minimum residence of 45 quarter hours on the University of Northern Colorado campus. In addition, 30 of the last 45 credit hours of a degree program must be earned while enrolled in on-campus courses at the University of Northern Colorado.

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

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

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

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

8. The university catalog used on first classification may be used for a period of six years. After six years students must re-apply for graduation, have their records re-evaluated and must meet all requirements in the current catalog.

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

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

11. Any college work earned more than 15 years prior to the time the baccalaureate degree is granted at the University of Northern Colorado may be applicable toward a degree at the discretion of the major and minor departments.

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

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

ACADEMIC FREEDOM, RIGHTS AND RESPONSIBILITIES OF STUDENTS

Policies and Procedures have been established which reflect the University's concern for student freedom, rights, and responsibilities. Essentially, students can expect protection of freedom of expression, protection against improper disclosure of beliefs and associations, protection against improper academic evaluation, and protection of the student's right to due process in academic and disciplinary proceedings. The student can also expect to be held responsible for his performance and conduct in the classroom, on the campus, and in the community.

For further information, students may obtain a copy of the Academic Freedom, Rights and Responsibilities of Students document from the offices of the Dean of Students or Campus Ombudsman.

Citizenship Standards

University of Northern Colorado students neither gain nor lose any of the rights or responsibilities of other citizens by virtue of their student status. They are subject to the same federal, state, and local laws as non-students, and they are the beneficiaries of the same safeguards of individual rights as non-students.

Students have equivalent responsibility with the faculty for study and learning and for conducting themselves with academic integrity in a manner compatible with the university's function as an educational institution. The university expects its students, as well as its faculty and staff, to respect the rights and privileges of other people and their freedom to teach and to learn without disruption.

Specific rights, responsibilities and codes of conduct are listed in the following university documents: Administrative Handbook; Freshman Handbook; Statement of Academic Freedom, Rights and Responsibilities of Students; Guidelines to Residence Hall Living; Residence Hall Contract; Residence Hall Staff Manual and Statement of Vehicle Regulations. Information concerning students' rights and responsibilities are communicated through administrative, faculty and/or student committees, groups and organizations of the university community by meetings, publications and contracts. It is the student's obligation to conduct himself as a responsible citizen and to abide by the university's stated rules and regulations. In developing responsible student conduct, counseling, guidance, and admonition, as well as disciplinary proceedings, are used. Student conduct involving minor infractions of university regulations will subject the student to disciplining probationary action by the university. Student conduct involving major infractions of university regulations will subject the student to suspension or expulsion from the institution.

UNC SERVICES

Bureau of Business and Public Research. The bureau's primary mission is to provide research and consultative services to business and government organizations. It has been officially designated by the U.S. Department of Commerce as a Census Summary Tape Processing Center and has assumed responsibility for establishing and coordinating the development of a regional planning data depository for the northern Colorado area.

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

Computer and Data Processing Center. The facilities are used to support academic programs at all levels. The center is available to all students, faculty, and staff for course work and/or research projects. In addition, the administrative data-processing facet of the university is processed by the center. The center staff provide consulting service and assistance to all users.

Counseling Center. Counseling services are available free of charge for all students of the university. Well-qualified counseling psychologists provide assistance to students in dealing with a wide variety of problems.

In our complex society, students are beset by many situations which may require the thoughtful and understanding consideration of a counselor. Concerns commonly discussed by students who come to the Counseling Center include:

1. Personal problems
2. Academic planning
3. Career planning
4. Marriage counseling
5. Personality and vocational tests
6. Study skills problems

The Center staff also sponsor encounter and personal growth groups, life planning seminars, marriage enrichment workshops, test and speech anxiety reduction programs, Career Planning Workshops, Assertive Training, 48-Hour Weekend Marathons, Relaxation Groups, and others as requested.

All Counseling Center files are confidential.

Students in need of immediate assistance can usually see a counselor within a few minutes, but making an appointment assures the student of being seen at a particular time. The Counseling Center is located in Gray 103. Phone, 351-2496.

Division of Student Personnel. The Division of Student Personnel assists students in all classroom and non-class activities and provides academic support services necessary to carry out the goals of the University. Faculty members assigned to Student Personnel work in the following areas: The Dean of Students Office, Admissions, Registrar and Records, Housing, Food Services, Counseling, Outreach Counselor, Financial Aids, Placement, Health Services, The Center for Human Enrichment, The University Center, Student Activities, and Special Resources for Disabled Students. The Division of Student Personnel assists students in testing the formal classroom experience against the real world. The mission of the office, then, is to assist the student in the acquisition of an education and help the student remove barriers which would interfere with his educational progress within the university environment.

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 university 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.

Financial Aids

The University of Northern Colorado offers a wide variety of financial aids for deserving and needy students. These awards are designed to assist needy students in meeting the financial requirements of their education.

The availability of financial assistance is subject to the financial resources available to the University.

All students seeking financial assistance are required to submit an Application for Financial Assistance to the University Financial Aids Office by March 30th and an A.C.T. Family Financial Statement to A.C.T. in Iowa City, Iowa, by February 15th for consideration of assistance for the next academic year. Applications and Family Financial Statements submitted after the dates indicated above will be considered as late applications and processed accordingly. Although late applications are considered for aid it is to the students advantage to meet application deadlines.

Loans. The University participates in the National Direct Student Loan Program, Federally Insured Student Loan Program, Nursing Student Loan Program for full-time students enrolled in the School of Nursing, and its own Short-Term Loan Program. Loan applicants must show financial need and at least average academic potential. Address all inquiries to the Director of Financial Aid, University of Northern Colorado.

Employment. Federal and State College Work-Study Program awards are available to qualified students for on-campus employment. In order to determine eligibility, students are required to submit the ACT Family Financial Statement. The University rate of pay is based on the minimum wage law, with consideration given to types of skills required on the job.

Students desiring part-time employment, other than work-study, must obtain a work permit from the Office of Financial Aid before they can accept employment in any area of the University.

The University also endeavors to assist students in securing off-campus employment. Off-campus hours and rates are determined by the individual employer.

Grants. All students who submit the ACT Family Financial Statement form are considered for Federally-funded Supplemental Educational Opportunity Grants. These grants are available to students who demonstrate a high degree of financial need and may be renewable up to four years, provided that financial need continues to be documented and the student makes normal academic progress.

Any Colorado resident student admitted to or attending the University of Northern Colorado who has a documented need is eligible to be considered for a Colorado State Grant.

Veterans Eligible for "G.I." Educational Benefits. All ex-service personnel entering under the Veterans' Education and Training Program must present a Certificate of Eligibility valid for use at the University of Northern Colorado. This Certificate must be presented to the Veterans Counselor in the Office of Veteran Affairs at the time of registration. To obtain the Certificate of Eligibility, students are required to submit the veteran's Application for Program of Education or Training (VA Form 21E-1990) to the nearest Veterans Administration Regional Office at least six weeks prior to the expected date of enrollment.

Veterans transferring from one institution to another should request new Certificates of Eligibility by submitting a Request for Change of Program or Place of Training (VA Form 21E-1995) to their nearest Veterans Administration Regional Office at least six weeks prior to enrollment at the University.

Further information concerning Veterans' Affairs may be obtained from the Office of Veteran Affairs at the University of Northern Colorado.

Awards and Scholarships

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

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 the University of Northern Colorado and the director of intramural athletics. The Scholarship Committee of the University 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 university for at least one year.

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

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

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 the University of Northern Colorado. Applications must be directed to the Director of Financial Aid, University of Northern Colorado, prior to March 15 for the following academic year. This scholarship is awarded to a Colorado resident whose father is deceased.

Lyman B. Graybeal Student Teaching Scholarship Fund. This fund has been established by Lyman B. Graybeal, the University of Northern Colorado Professor Emeritus of Education, former head of Secondary Education and Director of Student Teaching, and the late Grace Graybeal, to assist student teachers. Officials of the university will select one or more student teachers each year.

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

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 the University of Northern Colorado who is a resident of Weld County. The scholarship will be granted on an annual basis as income from the trust fund is available.

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

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

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

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 the University of Northern Colorado. A number of scholarships are awarded annually from this fund, and a recipient may qualify for each year she is attending the university as a full-time undergraduate student. Normally, a scholarship is not awarded before the sophomore year.

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

Mary A. Morrison Scholarship Fund. This fund was established by family and friends of Mary A. Morrison, a retired Greeley teacher. The scholarship is awarded to an incoming Spanish-surnamed freshman student pursuing a degree in education. The recipient will be selected on the basis of need and high probability of success in completing the requirements for a teaching certificate. The scholarship is to cover the cost of fees for the freshman year.

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

Nursing Scholarship Program. The University of Northern Colorado has been approved as a participant in the Nursing Scholarship Program. These scholarships are awarded on the basis of financial need, and a recipient may receive a maximum of \$2,000 for a school year.

Edward M. and Agnes S. Nusbaum Memorial Scholarship. This fund was established by Dr. Jesse L. Nusbaum in the name of his parents to serve the institution's need in connection with students who especially merit some financial assistance for their educational needs.

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

Tony D. Vaughan Memorial Scholarship. This fund was established to assist special education majors during their junior or senior year. Selection of the recipient is made by the Scholarship Committee, with recommendations from the School of Special Education and Rehabilitation.

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

Air Force ROTC University Scholarship Program. The Air Force ROTC offers a number of scholarships to selected students. These scholarships are available to well-qualified students in the four-year program only. Benefits include full tuition, laboratory expenses, incidental fees, and an allowance for books. In addition, the scholarship provides \$100 each month in non-taxable subsistence allowance.

Applicants are selected on the basis of qualifying test scores, quality of their academic work, extracurricular activities, a medical evaluation, and a rating by a board of Air Force officers.

Once awarded a scholarship, a cadet continues on scholarship status until graduation and commissioning unless he falls below qualifying standards (i.e., a freshman awarded a grant would normally remain on grant status for the full four years of his undergraduate college work).

A scholarship recipient incurs no additional active duty obligation.

All inquiries should be directed to the Chairman, Department of Aerospace Studies.

Alpha Delta Kappa Scholarship. This fund was established by the Colorado Alpha Delta Kappa Sorority and the local Alpha Delta Kappa Chapters to assist deserving Junior, Senior, or Graduate women who are residents of the State of Colorado, maintaining at least a 3.0 grade average, and preparing for a career in teaching.

Student Health Program

A program of health services is available for the purpose of meeting health needs and maintaining good health which in turn, facilitates the students' progress toward educational goals. This is accomplished by providing medical and mental health services, preventive medicine, health education, access to and coordination with local medical facilities, and a health insurance program. The student group health and accident insurance plan provides hospitalization and care for sickness and accidental injury. All full-time students (7 quarter hours or more) have access to these benefits upon payment of student fees. Services available to part-time students are limited as outlined in the Student Health Services and Insurance brochure. This brochure, which describes benefits provided and how to use the program, is available at registration and at the Health Center. Also, a copy may be obtained by writing directly to the Student Health Center. A brief description of the program is as follows:

1. **The Health Center** (on-campus out patient clinic). Provides an initial source of help for any student who has a known or suspected health problem. Examples of benefits provided are services by physicians and registered nurses, diagnostic laboratory, emergency first aid, immunizations, referrals, mental health services, administration of allergy medications, and counseling for health problems.

2. **The Off-Campus Program.** Provides up to three office calls (\$6 each), one diagnostic x-ray, and \$10 for diagnostic laboratory tests each quarter by a contractual agreement with local physicians.

3. **The Student Group Hospitalization and Accident Insurance.** Provides care 52 weeks per year anywhere in the United States or Canada. Major medical benefits are not provided.

Copies of Medical Records will be sent to other institutions for a \$2.00 fee.

Housing

The University of Northern Colorado provides a variety of housing accommodations for students. On-campus accommodations are provided for approximately 3,150 single students in residence halls. One hundred university-owned furnished apartments are provided for married students during the academic year. Summer Quarter usage of residence hall facilities provides for an additional 280 units for families.

Residence Requirements in Brief. Any undergraduate student enrolled, summer included, is subject to the university housing regulations.

All first year freshman students must live in university residence halls for at least one year with the following exceptions: (1) students 21 years of age or over; (2) students who have completed more than 45 credit hours; (3) students whose parents or guardians live in the Greeley vicinity; (4) married students; (5) veterans. A veteran must have served at least 12 months in active status in one of the United States military services.

Residence Halls. The housing staff at the University of Northern Colorado strives to provide comfortable, wholesome, pleasant living conditions, healthy and appealing food, and an opportunity to enhance the educational experience of students who live in the residence halls. Group living in a university setting is a unique learning experience. Interaction with people from other geographical areas, ethnic groups and religions provides an opportunity to broaden one's perspective of life. Further, the opportunity, in a secure setting, to compare one's own life style and values with those of other individuals and groups is a vital element in the maturation process of every student. Most rooms are designed for two students. They are fully furnished, including blankets, drapes, and bed linens. Students may add to their room furnishings with small belongings from home. All residence halls have recreation rooms, lounges, study areas, cleaning equipment and personal laundry facilities and ironing boards. (Students provide their own personal linens, towels, and irons.)

Food Service. Meals prepared in each dining hall are served cafeteria style. University food staff plans menus which give proper emphasis on nutrition, quality and quantity. At least two choices of main courses, salads and desserts are offered at noon and evening meals. Special diets or menus are not provided. Three meals a day are served Monday through Saturday. Two meals (break fast and dinner) are served on Sundays, official university holidays, and the closing day of each quarter. No refunds are made for meals missed. Additional servings are available at all meals on most items.

Staff. A professionally-trained staff is provided in each residence hall to assist students and an active student government is elected to give leadership to activities and programs. The intramural athletic program, a scholastic-cultural program, and most of the social life on campus originate from the residence units. Activities, programs and counseling services are designed to supplement and enrich student education. Hall activities are financed by a small dues assessment on each resident. Each hall also has student representation on the coordinating body of the Residence Hall Coalition.

Residence Hall Regulations. Regulations applicable to residence hall living attempt to provide ample opportunity for personal growth and self-discipline. Group living requires certain regulations that apply to all. These are published in the Housing Contract and student handbooks, and students are involved to a large measure in determining the local regulations by which residents will live.

Students are not required to maintain hours. After closing hours access to residence halls can be arranged. All residence halls normally close by 11:00 p.m. on Sunday through Thursday and by 1:00 a.m. on Friday and Saturday nights.

Contracts. Each reservation and assignment in all residence halls is available only on a contract basis for the school year (Fall, Winter and Spring Quarters), or for the remaining portions of the school year for students entering after the Fall Quarter. Separate contracts for Summer Quarter housing only are available. Room reservations for the next school year are made at the end of spring term for students already on campus who wish to return to the residence halls. In all except the apartment type halls (Turner and Lawrenson Halls), both room and meals are included. Apartment hall residents as well as students living off-campus may contract individually for meals at adjacent dining facilities on either a full or partial board plan. Separate meal contracts are for one quarter and may be renewed each quarter.

Generally, STUDENTS ARE NOT PERMITTED TO TERMINATE A CONTRACT UNLESS THEY WITHDRAW FROM THE UNIVERSITY OR BECOME MARRIED after entering the contractual agreement. The contract is binding throughout the full academic year. In exceptional cases, where a student's circumstances have radically changed after entering the contract, he may petition the University Housing Office for release. OBLIGATIONS TO THE TERMS AND CONDITIONS OF THE CONTRACT DO NOT TERMINATE UNTIL THE UNIVERSITY HAS OFFICIALLY APPROVED A PETITION FOR RELEASE FROM CONTRACT.

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

A \$25.00 refund will be made to academic year applicants who cancel their housing contract on or before August 15. Applicants who contract during the year starting with the Winter, Spring, or Summer Quarters are subject to the cancellation deadline dates below:

November 15 (for Winter Quarter applicants)

February 15 (for Spring Quarter applicants)

May 15 (for Summer Quarter applicants)

Notice received after these dates in each quarter or no notice to forego attendance at the university results in a full forfeiture of the deposit. A housing deposit for a student who is assigned to university housing will be held during all consecutive reservation periods and the full period of residence. The deposit will be refunded by mail, when all monies owed to the university are paid and the contract fulfilled, approximately 60 days after termination of campus residence.

Rates. Rates are established on a room and board basis and vary slightly depending upon hall location and size of the room. Changes are authorized by the Board of Trustees. Notification of changes in rates is given at least 30 days in advance of any school quarter.

Married Student Housing Facilities. There are 98 permanent two-bedroom furnished apartments available for students and their immediate families. These apartments are located on university-owned property near residence halls on the East Campus between 17th and 18th Streets. Applications for rentals are made to the Director of Housing, University of Northern Colorado, Greeley, Colorado, 80639.

Off-Campus Housing. The Housing Office, provides limited assistance for students who are not required to live in residence halls to obtain housing in the city of Greeley. Board is available in the residence halls on a contract basis for students living off-campus.

The Housing Office assists students who cannot find university housing by maintaining current lists of private rooms, apartments and houses that are available in the Greeley area. Students seeking off-campus residence are advised to arrive in Greeley early.

Only those persons who agree to the Colorado Fair Housing Act of 1959 are eligible to be listed with the University of Northern Colorado. The University of Northern Colorado does not inspect nor approve off-campus housing.

Insurance Institute

The function of the Insurance Institute is to formulate insurance courses and other insurance programs in cooperation with the School of Business and insurance industry and to act as coordinator of these courses and programs. Special emphasis

is placed on undergraduate work in insurance and on in-service training for insurance industry personnel in academic work leading to advanced professional designations and general seminars for professional improvement.

Outreach Counselor

The Outreach Counselor has a varied job at UNC. The main responsibility is to develop organizational communication models which will encourage an atmosphere of trust, empathy, identity, and security between the faculty, staff, and administration. The Outreach Counselor receives much student contact since the office also provides assistance to students who are undecided as to an area of study. The Outreach Counselor is a specialist in developing a healthy university environment.

KUNC-FM

KUNC-FM is a professional, non-commercial radio station serving all segments of the community. KUNC is managed by the Media Planning and Production Center, and is staffed by full-time personnel plus part-time student announcers. Colorado's first public-radio station, KUNC is affiliated with National Public Radio (NPR). Besides national network coverage, KUNC broadcasts programs of local and regional interest, striving for high quality cultural, informational and educational programming. The station broadcasts in stereo at a frequency of 91.5 mhz, with 3,000 watts of power, 18 hours a day, 365 days a year. A bi-monthly guide describes program offerings and is available free of charge.

Libraries

The main University Library is located on the Darrell Holmes Campus and incorporates some of the latest equipment and techniques known to library science to provide the materials and services necessary for student and faculty research and study.

The library materials collection, comprised of a total of over 962,379 library units or 691,570 volume equivalents, is housed largely in the Michener Library.

The Library holdings contain representative collections of literature in the fields of knowledge taught at the University; also, bound periodicals, government documents, pamphlets and reference materials in the variety of formats, e.g., print, microforms, motion pictures, filmstrips, slides, maps, phono records and tapes, braille writing, videotapes and cassettes, etc.

The stacks are open to all students and other patrons, individual and group study facilities are located in or near all stack areas.

The Educational Information Retrieval Service, a new educational service rendered via computer search, and works through the Reference Services.

The Multi-media Services, located on the lower level of the Michener Library, are composed of the Film Library Services; Photo-Duplication Services; Microforms Reading and Storage; Educational Resources Center, containing educational materials, textbooks, curriculum guides, testing materials, et cetera, for the student who is preparing to teach; special Reserve Book Facility and Reading Area; and Services to the Handicapped.

The Music Library is located in Carter Hall 307. Selected Library volumes, including music reference materials, together with music recordings, scores, and listening equipment are available.

The Laboratory School libraries (K-6 and 7-12) are located in Bishop-Lehr Hall. The best of children's and young adult literature has been gathered in approximately 23,000 volumes, together with other learning media, for the laboratory school student and faculty use. College students preparing to teach also find this facility and its collection worth examining.

Tours and special instruction in library use are available on request.

Media Services

Assistance to faculty and students in the location, acquisition, and utilization of media is available from two regular services on campus:

The Instructional Materials Services is located in Michener Library L-10. Here faculty film requests and orders are processed. A Library of 2,000 films, 900 filmstrips, several hundred audio recordings, and numerous video tapes is available. All audio-visual equipment and films for the University are centrally located at and supplied by the IMS. Student projectionists are provided for faculty members who desire this help. Portable video units utilizing ½-inch video tapes are also available on loan from the IMS.

The Media Planning and Production Services in the Department of Educational Media are located in McKee 101. In addition to consultative services, the following facilities and staff skills are available: Audio production studies provide tape recording and duplication services. A graphics production staff is available in the center for the creation and reproduction of visual and photographic instructional materials. Through the facilities of the Instructional Television (ITV) division, a complete production studio is available. A three-channel distribution system allows for playback of videotapes or distribution of locally originated live telecasts to most buildings on campus.

Campus Ombudsman

Members of the academic community who have concerns which they are unable to reconcile through the existing University structure are encouraged to contact the Campus Ombudsman by telephoning 351-2889 or by writing c/o University of Northern Colorado, Greeley, Colorado 80639.

The Ombudsman is a neutral party who fields complaints and indications of confusion from University members, who acts on those complaints in the form of advice or investigation, and who makes known the results of an investigation. The Ombudsman assumes no authority to alter or reverse decisions made by University officials. The strength of the office lies in an impartial position, in the privilege to free inquiry, and in the ability to act on an informal and personal level.

An Ombudsman Advisory Board, composed of students, faculty, and administrative staff, is available to hear complaints or inquiries regarding the Ombudsman. The Board may be contacted through the Office of the Ombudsman.

Office of Alumni Relations

As early as 1919 UNC, then the Colorado State Normal School, compiled a listing of alumni and their locations. Interest in maintaining active alumni relations programs have persisted since that time. On February 11, 1965, the Alumni Association was established as a non-profit corporation independent of the University. The Association is governed by a 21 person Board of Directors and has as its purpose the creation and encouragement of programs mutually beneficial to the University and its alumni. Membership in the organization is open to all who have attended UNC for a minimum of one quarter as a full-time student (12 quarter hours) or a minimum of 15 quarter hours as a part-time student. A Student Alumni Advisory Council works in conjunction with alumni programs. The Office of Alumni Relations coordinates all alumni records and activities. For further information contact the Office of Alumni Relations.

Placement Service

The Placement Center is located in Carter Hall, Room 401, and provides service to the student, the employer, and the University. A file of credentials can be established for graduating seniors, alumni, and for students who have a college

degree and completed course work at our University. Enrollment is not required, but highly recommended. Established credentials are maintained for a period of five years from the time of the last enrollment date. Reenrollment and updating must transpire within five years of last enrollment or credentials are destroyed.

Employment is not guaranteed. University students and Placement Center enrollees are offered counseling service and other assistance which will aid the candidate in reaching a career decision based on a full appreciation of individual potential. Included in our facilities are seven private rooms for personal interviewing and a library section which contains files of materials relating to vacancies and prospective employers.

Special Resources Program for the Disabled

The Coordinator-Counselor for Disabled Students provides assistance to the physically handicapped in their pursuit of higher education. This program attempts to meet the various needs of severely disabled students. Resource services offered to disabled students include interpreters, tutors, notetakers, an English for the Deaf class, and professional counseling services. Other more specialized services are offered for the visually handicapped and for the orthopedically disabled.

Student Activities

All campus organizations must apply each year through the Associated Students to the Department of Student Services for charter approval. When organizations are recognized by the Associated Students and the Department of Student Services, facilities of the campus set aside for such purposes may be used by the groups.

Most student activities are coordinated in the University Center, located on 20th Street between 10th and 11th Avenues. The Center is designated to be the hub of campus community life. Most University Center facilities are open to all faculty, staff, students, and visitors on a regular weekly schedule. The use of university facilities for nonacademic purposes is scheduled through the Center's Scheduling Office.

Students who do not maintain acceptable grade averages will not be permitted to participate in varsity athletics, dramatics, debate, and other extra-curricular activities of the university, nor will they be eligible to be employed on the campus.

Student Government. Student government and activities on the campus are administered by the members of the Associated Students under the sponsorship of the Department of Student Services. The Associated Students elect an Executive body in the Spring and the Student Congress is elected half in the Spring and half in the Fall.

Membership in the Associated Students permits students to attend most cultural, social, dramatic and athletic events without additional charge. Facilities of the University Center are also available to members.

Athletics. The intercollegiate athletic activities of the university are governed by a Board of Athletic Control on which both students and faculty are represented. Intercollegiate athletic programs are scheduled in football, basketball, baseball, field and track, wrestling, swimming, gymnastics, tennis and golf. Competition is afforded with women from other colleges in basketball, volleyball, track and field, field hockey, softball, tennis, badminton, gymnastics, and swimming. Gunter Hall, Butler-Hancock Hall, Jackson Field, and the Holmes Campus athletic fields afford the facilities for the major indoor and outdoor sports.

The university is a member of the Great Plains Athletic Conference, and is bound by the rules of that body in governing eligibility of athletics and the conduct of students at or in connection with athletic events.

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

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

Publications. Students interested in journalism have an opportunity for expression in three student publications; the Mirror (a tri-weekly newspaper) and Colorado North Review and Quarterly Overview (general interest and literary magazines).

Clubs and Honorary Fraternities. Each school or college of the university sponsors honorary fraternities and clubs of various types which are of special interest to students majoring or minoring in the school or college. 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 Psi Omega, national drama fraternity;
 Gamma Theta Upsilon, national geography honorary;
 Lambda Sigma Tau, national science fraternity;
 *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;
 Delta Pi Epsilon, national business education fraternity (alpha alpha chapter);
 Pi Mu Epsilon, national math fraternity.

The following honorary and service fraternities are for men:

Arnold Air Society, honorary AFROTC society;
 Kappa Kappa Psi, national band fraternity;
 Phi Delta Kappa, national professional education fraternity.

Women's honorary and service organizations include:

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

*Members of the Association of College Honor Societies.

Social Organizations. At the University of Northern Colorado there are eight national social sororities and seven national social fraternities. Sororities are: Alpha Delta Pi, Alpha Gamma Delta, Alpha Xi Delta, Alpha Phi, Alpha Sigma Alpha, Delta Zeta, Sigma Kappa, and Sigma Sigma Sigma. Fraternities are: Alpha

Zeta Omega, Lambda Chi Omega, Sigma Alpha Epsilon, Sigma Chi, Sigma Phi Epsilon, Tau Kappa Epsilon, Theta Xi.

All students are eligible for pledging once they have matriculated. To be eligible for initiation, students must maintain at least a 2.0 cumulative grade point average.

Panhellenic Council, composed of two representatives from each sorority, functions as the coordinating agent for its respective groups, governing pledging and initiation and maintaining a high plane of inter-sorority relations on the campus. The council sponsors several awards to the member organizations including awards for high scholastic achievement. The Greek Council, composed of the presidents of each fraternity and sorority, is the coordinating agent among the Greeks. It fosters cooperation among the Greeks and sponsors total Greek activity.

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

Performing Arts. The Little Theatre of the Rockies and the Opera Guild present a wide variety of activities in theatre and music during the academic year. All students may audition and/or participate in all production activities by attending try-outs at the beginning of each quarter.

Qualified students are eligible to participate in the choirs, the university bands, the university orchestra, and the Greeley Philharmonic Orchestra. During the academic year, the School of Music presents special programs.

FEES AND EXPENSES

All rates quoted below are established for 1974-75 and are subject to a provision that the University reserves the right to change tuition, fees, and other charges without notice. As with all state-supported institutions, the rates are affected by legislative action which may not be finalized until late spring of any given year.

Be sure to check for revised information concerning tuition and fees prior to registration either by writing the Office of Public Services or by contacting the Office of Administrative Services at (303) 351-2206.

Tuition and student services fees are incurred during each quarterly registration period and are due and payable at the time shown on the billing which is mailed to the student each quarter. Charges are assessed for the total of partial or full programs whether taken for credit or no credit.

On-Campus Instruction

FALL, WINTER OR SPRING QUARTERS

	Colorado Resident	Non-Resident
Six Credit Hours or Less:		
Tuition, Per Credit Hour of Enrollment	\$16.00	\$30.00
*Student Services Fees	11.00	11.00
More than Six Credit Hours:		
Tuition	\$110.00	\$441.00
**Health Insurance	12.50	12.50
*Student Services Fees	34.00	34.00
Total	\$156.50	\$487.50

SUMMER QUARTER

Six Credit Hours or Less:

Tuition, Per Credit Hour of Enrollment	\$16.00	\$30.00
*Student Services Fees	11.00	11.00
<i>(\$11.00 charge does not apply to workshops of less than an 8-week duration.)</i>		

More than Six Credit Hours:

Tuition	\$120.00	\$480.00
*Student Services Fees	33.00	33.00
Total	\$153.00	\$513.00

Off-Campus Instruction***

(Continuing Education Services)

Tuition Per Credit Hour of Enrollment

Group Instruction****

Correspondence Study	
Multi-media Learning Packages	
(For Courses numbered 300 and above)	\$16.00
(For Courses numbered 299 and below)	11.00

*Student Services Fees are committed for the support of student activities programs, the Student Health Center, and Associated Student government. No part of these fees is remitted to those students who may not desire to make use of any or all of the privileges provided. Full-time students receive I.D. cards validated for admission to campus athletic events, performing arts productions, selected lectures and other events, as specified for admission under the I.D. card.

**Health Insurance coverage is required for all students who register for seven academic hours or more each quarter, except summer. Details of this coverage may be obtained from the Student Health Center.

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

****When group instruction involves a sequential program or external degrees, additional program fees may be charged.

The right of a student to classification as a resident for tuition payment purposes in a state institution of higher education is determined under state Law -- Colorado Revised Statutes 1966, as amended, 1973. Administrative procedures fix status before or at the time of registration. If, following a registration and payment of tuition, the status conferred on a student is questioned for revision, appeal may be made on a specific form and the case will be reviewed by the University Committee on Residence Status. The determination by the committee following the review is final. All matters concerning residency status rulings shall be filed with the Office of the Registrar, where referrals will appropriately be made to the University Committee on Residence Status.

Incidental Extra Fees Applicable Under Specified Conditions

Certified Statement of Issuance of Teaching Certificate and/or diploma	\$1.00
Change of Program: Assessed for each add-drop slip processed	2.00
Extension of Credit: Assessed if and when a deferred payment program is concluded to be effective within a quarter	5.00
Assessed charges are due and payable at the time shown on the billing which is mailed to the student each quarter. Deferments are arranged only for sufficient cause and only for payments by installments within the quar-	

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ter. Any action which has the effect of postponing a cash collection beyond the date on which a charge is due will automatically invoke the applicable extension of credit charge. No registration is permitted without a down payment of at least one-third of total charges. No deferment is issued for a limited course program or for a campus residence of one month or less.

Late Registration Fee: Assessed for registration after scheduled registration time	5.00
Assessed for each added day of late registration	2.00
Late Fee Payment: Assessed for a fee payment completed on the first day following the days scheduled for regular fee payment	5.00
Assessed for each added day of late fee payment	2.00
Late Application for Graduation	10.00
Meal Ticket Replacement	5.00
Official Transcript of University Records, per copy	1.00
*Optional Student Health Insurance Coverage Summer Quarter Only ...	14.50
(If a student was not enrolled full-time -- for more than six credit hours -- Spring Quarter 1975, he does not have health insurance coverage for the Summer Quarter of 1975.)	
Special Billing: Assessed when an itemized invoice of an account is requested by the student or a supporting agency	1.00
Special Program Fees such as bowling, skiing, field trips, golf	At Cost
Special Tests by the Counseling Service	At Cost
Student Identification Card Replacement	5.00
Transcript Evaluation Fee for applications for the baccalaureate and master's degrees and graduate student certification program	10.00
*This insurance can be obtained <i>only</i> by requesting coverage at registration or at the Student Health Center during the first week of the quarter.	

Fees for Music Instruction

Individual music lessons, per quarter	
Non-music majors	\$15.00
Persons not enrolled in the university or affiliated schools	25.00

Placement Center Charges

(The placement year begins September 1 and ends August 31)

Initial enrollment	\$10.00
Re-enrollment	10.00
First and subsequent copies of credentials mailed when applicant has not re-enrolled, per copy	2.00
Telephone calls, postage for Air Mail and Special Delivery are billed at actual cost.	

Residence Hall Charges

All rates quoted are subject to a provision that the University reserves the right to change rates prior to the beginning of any academic quarter.

RESIDENCE HALLS WITH ROOM AND BOARD (Occupancy: two persons per room)	Quarterly Rates Per Student
Harrison, McCowen, Wilson, Wiebking	\$390.00
Belford, Tobey-Kendel, Sabin, Snyder	375.00
Cross, Hadden, Hays, Troxel	370.00

RESIDENCE HALLS, APARTMENT STYLE, WITHOUT BOARD

(Occupancy: Four persons per apartment)

Turner Hall	\$185.00
Lawrenson Hall	200.00

Board service only is available at the residence halls on a quarterly contract basis for students living in Turner Hall, Lawrenson Hall or off-campus.

Family Facilities. Additional family facilities are available Summer Quarter only, limited to the student and three (3) dependents per family, including furnishings and utilities.

Summer Quarter

Turner Hall	\$350.00
Lawrenson Hall	400.00

Monthly

Student Family Apartments, East Campus, leased on 12-month contract (Includes furnishings and utilities)	\$120.00
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Policy on Reassessments, Refunds, Retentions on Withdrawal

Adjustments in tuition or fees are permitted after registration only under specified conditions. In most circumstances a change in the number of credit hours for which a student registers will not affect the charges initially assessed. When changes in a course of study within the first week result in registration of less than seven hours, applicable refund of tuition and fees will be made.

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

Refunds allowed against paid tuition and student services fees upon withdrawal are provided as follows:

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

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

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

DEGREE PROGRAMS

UNDERGRADUATE MAJOR, MINOR, AND NON-DEGREE PROGRAMS 1975-76

Title	Emphasis	Liberal Arts	Teacher Education
Aerospace minor		X	
Anthropology major		X	
Anthropology minor		X	
Biological Sciences major		X	X
Biological Sciences minor		X	X
Black Studies major		X	
Black Studies minor		X	
Botany major		X	
Business minor		X	
Business Administration major	Accounting	X	
Business Administration major	Finance	X	
Business Administration major	General	X	
Business Administration major	Management Adm.	X	
Business Administration major	Management Info. Science	X	
Business Administration major	Management/Mgmt. Sci.	X	
Business Administration major	Management/Public Adm.	X	
Business Administration major	Marketing	X	
Business Administration major	Office Admin.	X	
Business Teacher Ed. major	Basic Bus. & Econ.		X
Business Teacher Ed. major	Distributive Ed.		X
Business Teacher Ed. major	Office Education		X
Business Teacher-Ed. minor			X
Chemistry major		X	X
Chemistry minor		X	X
Chem. minor for Med. Tech.		X	
Communication major	PTE		X
Communication major	Human Relationship	X	
Communication major	Mass Media	X	
Communication major	Law and Public Policy	X	
Communication major	Organization	X	
Communication minor		X	X
Comm. minor for El. Ed.			X
Dance Education minor			X
Dietetics major		X	
Earth Sciences major		X	X
Earth Sciences minor		X	X
Ecology minor		X	
Economics minor		X	
Economics Ed. minor			X
Ed. Field Experiences -- non-degree program			
Educational Media minor			X
Elementary Ed. major			X
Elementary Education:	Bilingual-Bicultural		X
Elementary Education: Early Childhood			X
Elementary Science minor			X
English major		X	X
English minor		X	X
Environmental Studies minor		X	

Family Life & Consumer Education major		X	
Fine Arts major		X	X
Fine Arts minor		X	X
Florence Program -- non-degree program			
Food & Nutrition major		X	
French major		X	X
French minor		X	X
Geography major		X	
Geography minor		X	
German major		X	X
German minor		X	X
Gerontology major		X	
Health major		X	
Health minor		X	
Health Education major			X
Health Education minor			X
History major		X	X
History minor		X	X
Home Ec. Ed. major			X
Home Economics minor			X
Home Ec. minor in Bus.		X	
Home Ec. minor in Sci.		X	
Humanities minor		X	
Individual Tutorial Program-- non-degree program			
Industrial Arts major		X	X
Industrial Arts minor		X	X
Interdis. Studies major		X	X
Journalism major	Business	X	X
Journalism major	Radio/Television	X	X
Journalism major	Social Science	X	X
Journalism major	The Arts	X	X
Journalism minor			X
Junior High School Sci. major			X
Mathematics major		X	X
Mathematics minor		X	X
Medical Technology major		X	
Mexican American Studies major		X	
Mex. Amer. Studies minor		X	X
Middle School Ed. major			X
Music major		X	X
Music minor		X	
Music major	Instrumental	X	
Music major	Piano	X	
Music major	Theory/Composition	X	
Music major	Vocal	X	
Music Education major	Instrumental		X
Music Education major	Vocal, Piano & General		X
Musical Theatre major		X	
Nursing major		X	
Outdoor Education-Environ. Education minor			X
Philosophy minor			X
Physical Education major	Elementary		X
Physical Education major	Secondary		X
Physical Education minor			X
Physical Science major			X
Physics major		X	X
Physics minor		X	X
Political Science major		X	
Political Science minor		X	
Pre-School minor			X
Pre-School Ed. major			X
Psychology major		X	
Psychology minor		X	X

**UNDERGRADUATE MAJOR, MINOR, AND NON-DEGREE PROGRAMS
1975-76**

(continued)

Title	Emphasis	Liberal Arts	Teacher Education
Recreation major		X	
Russian minor		X	X
Russian-Soviet Studies minor		X	
School of Educational Change & Development major		X	X
Social Science major		X	X
Sociology major		X	
Sociology minor		X	
Spanish major		X	X
Spanish minor		X	X
Special Education major	Acous. Handicapped		X
Special Education major	Audiology	X	X
Special Education major	Mental Retardation		X
Special Education major	Speech Pathology	X	X
Rehabilitation & Related Services major		X	
Theatre Arts major		X	X
Theatre Arts minor		X	X
Voc. Teacher Education -- non-degree program			
Women's Studies minor		X	X
Zoology major		X	

Aerospace Studies

Administered by the Department of Aerospace Studies

Aerospace Studies Minor. Requirements for a minor are completion of the 12 hours of the General Military Course and the 18 hours of the Professional Officer Course, excluding AS-403, for a total of 30 hours.

AFROTC Curriculum

Four-Year. The four-year program requires student participation in the General Military Course (GMC) and the Professional Officer Course (POC), each requiring six quarters. During the second year of the GMC, qualified cadets may apply for membership in the POC. Cadets selected by the Professor of Aerospace Studies (PAS) will enter the POC at the beginning of the junior year or six quarters prior to completion of their academic program. Cadets will be commissioned in the Air Force Reserve on completion of: (1) the GMC and POC, (2) a four-week Field Training Course between the sophomore and junior year, and (3) college degree requirements.

Two-Year. The two-year program requires student participation in six academic undergraduate and/or graduate quarters concurrently with the POC. Students will compete for selection during the academic year preceeding the year of entrance into the POC. Students will be commissioned in the Air Force Reserve on completion of: (1) a six-week Field Training Course during the summer prior to entering the POC, (2) the POC, and (3) six quarters of undergraduate/graduate academic work, and (4) college degree requirements. Testing information is available at the AFROTC office.

Flight Instruction Program. Students selected for Pilot Training receive 25 hours of flight instruction and ground school during the senior year of the POC. Only males may participate in the flying portion of the FIP. Students possessing a

private flying license are excluded from this portion of training.

General Military Course

The General Military Course is a two-year program open to all full-time, undergraduate students. Air Force uniforms and textbooks are furnished. Veterans and Junior ROTC graduates may request waiver of portions of the GMC. Also, the GMC may be compressed into one year to accommodate students entering out-of-phase.

Freshmen enroll in the following courses:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
AS 100	U.S. Military Forces in the Contemporary World I .....	.2
AS 101	U.S. Military Forces in the Contemporary World II .....	.2
AS 102	U.S. Military Forces in the Contemporary World III .....	.2

Sophomores enroll in the following courses:

AS 200	The Developmental Growth of Air Power I .....	.2
AS 201	The Developmental Growth of Air Power II .....	.2
AS 202	The Developmental Growth of Air Power III .....	.2

Professional Officer Course

The Professional Officer Course is a two-year program which prepares the student for active duty service as a commissioned officer in the United States Air Force Reserve. The curriculum is continually up-dated to include current technological developments made by the military establishment. All course instruction is student-centered. The Professor of Aerospace Studies selects the most highly qualified applicants for enrollment. Corps Training is arranged within the cadet corps on an individual basis.

Required Professional Officer Courses:

AS 300	Security Forces in America I .....	.3
AS 301	Security Forces in America II .....	.3
AS 302	Security Forces in America III .....	.3
AS 400	Concepts of Air Force Leadership .....	.3
AS 401	Concepts of Air Force Leadership and Management I .....	.3
AS 402	Concepts of Air Force Leadership and Management II .....	.3
*AS 403	Flight Instruction .....	.3

*AS 403 (Flight Instruction) is required for all pilot trainees; however, enrollment for the ground school class is open to any interested student.

Staff. Air Force personnel are assigned by Headquarters, United States Air Force. The Professor of Aerospace Studies (PAS) and instructional staff are officers with diversified experience.

AFROTC College Scholarship Program. The program includes full tuition, fees, reimbursement for all required text material, and \$100 per month. Both male and female students, in either the two-year or four-year program, may qualify on a competitive basis.

Anthropology Major

Administered by the Department of Anthropology

The Department of Anthropology offers a Liberal Arts major and minor in Anthropology. Students interested in being certified for teaching of Anthropology

must take a major in Social Sciences rather than in Anthropology.

Students pursuing the B.A. degree with a major in Anthropology must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. Two courses selected from each of the following areas: Cultural, Archaeology, Physical, and Theory; and one course from the area of Linguistics.
3. Electives in Anthropology chosen from any of the areas to total 48 hours credit.

	<i>Number of Required Courses</i>
I. General	0
Selected from ANT 100, 380, 472 (ANT 100 is not required of majors, but will count as 5 of the hours of electives. However, majors are strongly urged to take ANT 110, 140, and 170 early in their academic programs.)	
II. Cultural	2
Selected from ANT 110, 120, 121, 122, 220, 221, 222, 280, 281, 300, 320, 321, 322, 323, 324, 325, 326, 327, 328, 331, 335, 337, 381, 382, 383, 420, 421, 431.	
III. Archaeology	2
Selected from ANT 140, 240, 241, 242, 340, 341, 342, 344, 345, 346, 440, 450.	
IV. Physical	2
Selected from ANT 170, 370, 371, 372, 373, 470, 471.	
V. Theory	2
Selected from ANT 384, 442, 480, 481.	
VI. Linguistics	1
Selected from ANT 360, 361.	
VII. Electives	Courses to total 48 hours

4. A further requirement of a minor or a concentration of at least 27 hours agreed upon in consultation with the adviser.

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

Following are the requirements for the minor:

1. One course selected from each of the following areas: Cultural, Archaeology, Physical, Theory, and Linguistics. In addition, electives in Anthropology chosen from any of the areas to total 27 hours credit.

	<i>Number of Required Courses</i>
I. General	0
Selected from ANT 100, 380, 472 (ANT 100 is not required of majors, but will count as 5 of the hours of electives. However, majors are strongly urged to take ANT 110, 140, and 170 early in their academic program.)	
II. Cultural	1
Selected from ANT 110, 120, 121, 122, 220, 221, 222, 280, 281, 300, 320, 321, 322, 323, 324, 325, 326, 327, 328, 331, 335, 337, 381, 382, 383, 420, 421, 431.	
III. Archaeology	1
Selected from ANT 140, 240, 241, 242, 340, 341, 342, 344, 345, 346, 440, 450.	
IV. Physical	1
Selected from ANT 170, 370, 371, 372, 373, 470, 471.	
V. Theory	1
Selected from ANT 384, 442, 480, 481.	
VI. Linguistics	1
Selected from ANT 360, 361.	
VII. Electives	Courses to total 27 hours

Biological Sciences Major

Administered by the Department of Biological Sciences

Students majoring in Biological Sciences must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. Take the following:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BIO 101	Principles of Biology	5	5
BIO 102	Principles of Botany	5	5
BIO 103	Principles of Zoology	5	5
BIO 231	Genetics	5	5
BIO 361	Microbiology	5	5
BIO 391	Seminar in Research I	1	1
BIO 392	Seminar in Research II	1	1
BIO 350	Cell Physiology		
	<i>or</i>		
BOT 350	General Plant Physiology	5	5
	<i>or</i>		
ZOO 250	Human Physiology		
BOT 323	Morphogenesis of the Nonvascular Plants		
	<i>and</i>		
BOT 324	Morphogenesis of the Vascular Plants		
	<i>or</i>		
ZOO 325	Comparative Morphogenesis of the Vertebrates I	8	8
	<i>and</i>		
ZOO 326	Comparative Morphogenesis of the Vertebrates II		
BOT 310	Plant Taxonomy		
	<i>or</i>		
ZOO 316	Entomology	5	5
BOT 340	Plant Ecology		
	<i>or</i>		
ZOO 340	Animal Ecology	5	5
	Electives in biology, botany, or zoology to be selected with approval of student's major adviser	10	10
			60

3. To fill the options listed above and the electives, students must have a minimum of 15 quarter hours in courses with the prefix BOT and 15 quarter hours in courses with the prefix ZOO.

4. CHEM 104 or 106, 105 or 107, 130 or 332 are required.

5. Students interested in becoming certified to teach Biological Sciences in secondary schools must complete, in addition to the above requirements, Professional Teacher Education (PTE) 36 hrs. (including EDFE 372, two hours credit, and SCED 442, three hours credit) and BIO 371, one hour credit.

6. A minor of 27 or more quarter hours is recommended. Chemistry or physics is suggested.

7. Electives to complete 180 hours required for graduation.

Biological Sciences Minor

Following are the requirements for minor:

BIO 101	Principles of Biology	5
BIO 102	Principles of Botany	5
BIO 103	Principles of Zoology	5
BIO 231	Genetics	5
	Electives to be selected with approval of student's minor adviser	7
		27

Minors interested in teaching Biological Sciences in secondary schools must complete the minor listed above plus additional electives to be selected with approval of the student's minor adviser to complete 36 hours.

Black Studies Major

Administered by the Department of Black Studies

The Black Studies Program offers a major and a minor.

Students pursuing the B.A. with a major in Black Studies must plan their program to fulfill the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog.
2. Following courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BLS 101	Crisis of Identity	3	
BLS 220	Black Community Development	3	
BLS 240	Dynamics of Racism	3	
BLS 260	Themes in Afro-American Literature	3	
HIST 277	History of the Black Man in America I	3	
HIST 278	History of the Black Man in America II	3	
HIST 279	History of the Black Man in America III	3	
BLS 380	Education in the Black Community	3	
BLS 392	Linguistic Styles of Black America	3	
BLS 399	Community Study Project	1-4	
BLS 495	Interpersonal Communication	3	
	Black Study Electives to be selected from courses listed below with the approval of the Coordinator of Black Studies	14-17	
		<u>48</u>	

Black Studies Electives

BLS 308	Interpersonal Growth Workshop	3
BLS 322	Black Nationalism	3
BLS 340	The Black Family	3
BLS 350	Black Psychology	3
BLS 360	Rhythm and the Black Experience	3
BLS 420	Black Urban Politics	3
BLS 430	Law and the Black Community	3
BLS 460	Black Religion	3
BLS 462	Theatre of Black America	3
BLS 463	The Black Man in American Drama II: 1945 to the Present	3
BLS 464	Seminar in Black Theatre	4
BLS 465	Black Media	3
BLS 480	Black Curriculum Development	3

Black Studies Minor

ENG 312	Afro-American Literature	3
HIST 277	History of the Black Man in America I	3
HIST 278	History of the Black Man in America II	3
HIST 279	History of the Black Man in America III	3
BLS 101	Crisis of Identity	3
BLS 240	Dynamics of Racism	3
BLS 220	Black Community Development	3
BLS 399	Community Study Project	1-4
	Electives selected from the following list with the approval of the Coordinator of Black Studies	2-5
		<u>27</u>

Black Studies Minor Electives

BLS 308	Interpersonal Growth Workshop	3
BLS 322	Black Nationalism	3
BLS 340	The Black Family	3
BLS 350	Black Psychology	3
BLS 360	Rhythm and the Black Experience	3

BLS	420	Black Urban Politics .....	.3
BLS	430	Law and the Black Community .....	.3
BLS	460	Black Religion .....	.3
BLS	462	Theatre of Black America .....	.3
BLS	463	The Black Man in America Drama II: 1945 to the Present .....	.3
BLS	464	Seminar in Black Theatre .....	.4
BLS	465	Black Media .....	.3
BLS	480	Black Curriculum Development .....	.3
BLS	495	Interpersonal Communication .....	.3

Botany Major

Administered by the Department of Biological Sciences

Students pursuing the B.A. degree with a major in Botany must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. Take the following:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BIO	101	Principles of Biology .....	.5
BIO	102	Principles of Botany .....	.5
BIO	103	Principles of Zoology .....	.5
BIO	231	Genetics .....	.5
BIO	361	Microbiology .....	.5
BIO	391	Seminar in Research I .....	.1
BIO	392	Seminar in Research II .....	.1
BOT	310	Plant Taxonomy .....	.5
BOT	323	Morphogenesis of the Nonvascular Plants .....	.4
BOT	324	Morphogenesis of the Vascular Plants .....	.4
BOT	340	Plant Ecology .....	.5
BOT	350	General Plant Physiology .....	.5
		Electives to be selected with approval of major adviser .....	.10
			<hr/> 60

3. It is recommended that one minor of 27 or more quarter hours in chemistry, physics, or mathematics be included.

4. It is recommended that a minimum of 15 quarter hours in each of the above fields (chemistry, physics, or mathematics) not selected as a minor be included.

5. It is recommended that a foreign language be included.
6. Electives to complete 180 hours required for graduation.

Business Administration

Administered by the School of Business

Students pursuing the B.S. degree with a major in Business Administration must plan their programs to meet the following requirements:

1. Complete all General Education requirements as specified earlier in this catalog.

2. The required courses listed in the Business Core plus the requirements in one of the areas of specialization.

3. Additional course work, of which at least 15 hours must be in courses offered in the School of Arts, the College of Arts and Sciences, the School of Music, and the Department of Psychology, Counseling, and Guidance.

4. A minor is not required.

Business Administration Core

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BUS	100	The American Business System3
BUS	150	Principles of Management4

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BUS	180	Introduction to Business Data Processing	3
BUS	205	Business Communications	3
BUS	220	Principles of Accounting I	4
BUS	221	Principles of Accounting II	4
BUS	231	Business Law I	3
BUS	260	Marketing	4
BUS	291	Business Statistics I	5
BUS	370	Business Finance	4
ECON	100	Introductory Economics	5
ECON	102	Contemporary Economic Problems	3
*MATH	115	Essentials of Mathematics I	3
			48

*Two years of high school algebra may be substituted for MATH 115.

Emphasis in Accounting

The emphasis in accounting and the accounting department are approved under the State Accountancy Law of Colorado. Students who complete all requirements for a degree with this emphasis meet the academic requirements for taking the Certified Public Accountant examination in Colorado.

Students transferring accounting courses to UNC must complete the following courses at UNC as minimum requirements to receive a Bachelor of Science Degree in Business Administration with an accounting emphasis: BUS 321, 322, 324, 420, 427, and 428 or 429.

BUS	232	Business Law II	3
BUS	233	Business Law III	3
BUS	320	Intermediate Accounting I	4
BUS	321	Intermediate Accounting II	4
BUS	322	Intermediate Accounting III	4
BUS	323	Cost and Managerial Accounting I	4
BUS	324	Cost and Managerial Accounting II	4
BUS	420	Advanced Accounting I	4
BUS	427	Auditing	4
BUS	428	Income Tax Accounting I	3

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

BUS	326	Governmental and Institutional Accounting	4
BUS	421	Advanced Accounting II	4
BUS	429	Income Tax Accounting II	3
			7
			44

Emphasis in Finance

BUS	292	Business Statistics II	3
BUS	320	Intermediate Accounting I	4
BUS	340	Introduction to Insurance	3
BUS	456	Business Policies and Management	3
BUS	470	Financial Management	3
BUS	471	Investments	3
ECON	202	Money and Banking	5
Fifteen additional hours of Finance courses or other Business courses with approval of adviser			15
			39

Emphasis in General Business

BUS	232	Business Law II	3
BUS	233	Business Law III	3

BUS	292	Business Statistics II	3
BUS	323	Cost and Managerial Accounting I	4
BUS	365	Marketing Strategy	4
BUS	453	Personnel Management	4
BUS	456	Business Policies and Management	3
BUS	471	Investments	3
ECON	200	The Price System	3
		Electives in Business, Economics, and the Behavioral Science areas	9
			<u>39</u>

Emphasis in Management -- Administration Option

BUS	292	Business Statistics II	3
BUS	323	Cost and Managerial Accounting I	4
BUS	354	Human Behavior in Business	4

One of the following:

BUS	396	Management Science -- Deterministic Models	3
BUS	397	Management Science -- Probablistic Models	3 3
BUS	453	Personnel Management	4
BUS	454	Development of the Labor Movement	2
BUS	455	Collective Bargaining	3
BUS	456	Business Policies and Management	3

At least 13 hours of additional course work chosen from among the following:

ECON	200	The Price System	4
ECON	350	Income and Employment Analysis	4
BUS	320	Intermediate Accounting	4
BUS	352	Procurement	3
BUS	383	Electronic Data Processing -- COBOL	3
BUS	455	Collective Bargaining	3 13
			<u>39</u>

Emphasis in Management -- Information Science Option

BUS	281	Electronic Data Processing -- FORTRAN	3
BUS	292	Business Statistics II	3
BUS	320	Intermediate Accounting I	4
BUS	323	Cost and Managerial Accounting I	4
BUS	383	Electronic Data Processing -- COBOL	3
BUS	385	Electronic Data Processing -- Data Management	3
BUS	388	Systems and Procedures I	3
BUS	389	Systems and Procedures II	3
BUS	396	Management Science -- Deterministic Models	3
BUS	397	Management Science -- Probablistic Models	3
BUS	453	Personnel Management	4
BUS	456	Business Policies and Management	3
BUS	482	Special Topics in Management Information Systems	3
BUS	489	Computer Simulation Models	3
			<u>45</u>

Emphasis in Marketing

BUS	261	Salesmanship	3
BUS	361	Retail Management	4
BUS	362	Advertising	3
BUS	365	Marketing Strategy	4
BUS	366	Consumer Behavior	4

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BUS	456	Business Policies and Management	3
BUS	460	Market Analysis and Research	4
BUS	462	Marketing Problems	4
BUS	470	Financial Management	3

Student will elect two of the following courses:

BUS	363	Sales Management	3
BUS	364	Distribution Management	3
BUS	461	Advertising Strategy	3
BUS	464	International Marketing	3
BUS	465	Seminar in Retailing	3
			<u>6</u>
			38

Emphasis in Office Administration

BUS	112	Typewriting III	3
BUS	109	Calculating Machines and Business Arithmetic	3
*BUS	118	Advanced Shorthand	4
BUS	211	Office Practicum I	5
BUS	214	Records Management	2
BUS	219	Shorthand Transcription	4
BUS	281	Electronic Data Processing – Fortran	
or			
BUS	383	Electronic Data Processing – Cobol	3
BUS	452	Office Management	3
BUS	453	Personnel Management	4
COMM	420	General Semantics	4
			<u>4</u>
			39

The following course is recommended as an elective:

COMM	300	Parliamentary Leadership Training	2
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*Prerequisites to these courses cannot be taken as part of the emphasis.

Secretarial (Two-Year Non-Degree Program)

The following are required:

BUS	100	The American Business System	3
BUS	101	Consumer Business Problems	3
BUS	109	Calculating Machines and Business Arithmetic	3
BUS	111	Typewriting II	3
BUS	112	Typewriting III	3
BUS	116	Beginning Gregg Shorthand	4
BUS	117	Intermediate Gregg Shorthand	4
BUS	118	Advanced Shorthand	4
BUS	150	Principles of Management	4
BUS	180	Introduction to Business Data Processing	3
BUS	205	Business Communications	3
BUS	211	Office Practicum I	5
BUS	212	Office Practicum II	5
BUS	214	Records Management	2
BUS	219	Shorthand Transcription	4
BUS	220	Principles of Accounting I	4
BUS	221	Principles of Accounting II	4
BUS	231	Business Law I	3
COMM	110	Communication: Public Form	3
ENG	101	Elementary Composition	3
ENG	102	The College Research Paper	3

PSY	120	General Psychology	3
		Business Electives	12
			Minimum 90

Business Administration Minor

BUS	100	The American Business System	3
BUS	150	Principles of Management	4
BUS	205	Business Communications	3
BUS	220	Principles of Accounting I	4
BUS	221	Principles of Accounting II	4
BUS	231	Business Law I	3
ECON	100	Introductory Economics	5
		Electives in Business or Economics	10
			Minimum 36

Business Teacher Education

Students pursuing the B.A. degree with a major in Business Teacher Education must plan their programs to meet the following requirements:

1. Complete all General Education requirements as specified earlier in this catalog.
2. The required courses listed in the Business Teacher Education Core plus the required courses for the specialization plus business, economics, vocational education or business teacher education electives.
3. Professional Teacher Education courses as listed within the Program Requirements section of this catalog. For Business Teacher Education these consist of EDF 365, EDF 485, any five hours of PSY 301-326, Student Field Experience, BEVE 340, and three hours of methods courses in Business Teacher Education as planned by adviser.
4. Electives to complete the 180 quarter hours of academic credit required for graduation.
5. A minor is not required.
6. Many schools require a vocational credential for teaching business. Each major in Business Teacher Education should check with the Department Chairman during his first enrollment in UNC concerning requirements for this credential. Among the requirements are:
 - a. Approved occupational experience in the area of specialization.
 - b. Specific vocational education courses.
 - c. Student Field Experience with a credentialed vocational teacher.

Business Teacher Education Core

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
BUS 100	The American Business System	3
BUS 101	Consumer Business Problems	3
*BUS 110	Typewriting I	3
BUS 150	Principles of Management	4
**BUS 170	Principles of Finance	3
BUS 180	Introduction to Business Data Processing	3
BUS 205	Business Communications	3
BUS 220	Principles of Accounting I	4
BUS 221	Principles of Accounting II	4
BUS 231	Business Law I	3
BUS 260	Marketing	4
BEVE 371	Evaluation in Business Subjects	3
ECON 100	Introductory Economics	5
VE 310	Vocational Education Foundation-Seminars	3

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*One year of typewriting in high school may be substituted.

**BUS 370 may be substituted for BUS 170 with consent of student's adviser.

Emphasis in Basic Business and Economics

BUS	111	Typewriting II	3
BUS	112	Typewriting III	3
BUS	232	Business Law II	3
BUS	233	Business Law III	3
BUS	340	Introduction to Insurance	3
BUS	371	Personal Finance	3
BEVE	341	Methods and Materials of Teaching Typewriting	1
BEVE	342	Methods and Materials of Teaching Bookkeeping	1
BEVE	344	Methods and Materials of Teaching Basic Business	1
BEVE	430	Economic Education Seminar	3
		Two additional courses in Economics	6-10
		Electives in Business, Economics, Business Teacher Education or Vocational Education to total 34 hours	34

Emphasis in Office Education

BUS	111	Typewriting II	3
BUS	112	Typewriting III	3
BUS	211	Office Practicum I	
BUS	212	Office Practicum II	5-10
BUS	214	Records Management	2
BUS	452	Office Management	3
BEVE	341	Methods and Materials of Teaching Typewriting	1
BEVE	342	Methods and Materials of Teaching Office Practice	1
BEVE	451	Preparation for Teaching Vocational Business and Office Education	3
BEVE	481	Teaching Improvement Seminar in Vocational Business and Office Education	2
VE	412	Cooperative Education and Coordination Techniques	3
		<i>and</i>	
BUS	320	Intermediate Accounting I	4
BUS	321	Intermediate Accounting II	4
BUS	428	Income Tax Accounting I	3
BEVE	343	Methods and Materials of Teaching Bookkeeping	1
		<i>or</i>	
BUS	116	Beginning Gregg Shorthand	4
BUS	117	Intermediate Gregg Shorthand	4
BUS	118	Advanced Gregg Shorthand	4
BEVE	342	Methods and Materials of Teaching Shorthand	1

Emphasis in Distributive Education

Business Teacher Education majors electing this specialization must complete BEVE 347, Instructional Methods in Distributive Education, four hours credit, in partial fulfillment of requirement two listed above. Approved occupational experience in the areas of marketing of at least 4,000 hours is required for a vocational teaching credential. The student should contact the distributive education faculty in the Department of Business Teacher Education during his first enrollment at UNC to discuss the occupational experience requirement. An application regarding occupational experience is submitted to the Business Teacher Education Department during the quarter in which one plans to graduate. It is recommended that during the sophomore year of enrollment the student enroll in VE 210, Career Opportunities Seminar in Vocational Education, one hour credit. It is suggested that the student look for additional electives in the Vocational Education section of this catalog.

BUS	261	Salesmanship	3
BUS	361	Retail Management	4
BUS	362	Advertising	3
BUS	365	Marketing Strategy	4
BUS	465	Seminar in Retailing	3
BEVE	345	Organization and Administration of Distributive Education	3

Select four of the following:

BEVE	360	Teaching Retail Store Operations	1
BEVE	361	Teaching Retail Merchandising	1
BEVE	362	Teaching Retail Promotion	1
BEVE	363	Teaching Marketing Information Systems	1
BEVE	364	Teaching Marketing Personnel	1
BEVE	365	Teaching the Wholesaling and Service Occupations	3
BEVE	471	Student Teaching Improvement Seminar in Distributive Education	2
VE	310	Vocational Education Foundation-Seminars	3
VE	412	Cooperative Education and Coordination Techniques	3
		Electives in Business, Business Teacher Education or Vocational Education planned by major adviser	5
			<u>40</u>

Business Teacher Education Minor

BUS	100	The American Business System	3
BUS	101	Consumer Business Problems	3
*BUS	110	Typewriting I	3
BUS	111	Typewriting II	3
BUS	112	Typewriting III	3 3-6
		<i>Shorthand Emphasis</i>	
BUS	116,	117, 118, Beginning, Intermediate, Advanced Gregg Shorthand	12
		<i>or</i>	
		<i>Bookkeeping Emphasis</i>	
BUS	220,	221, Principles of Accounting I, II	8
		<i>or</i>	
		<i>Basic Business Emphasis</i>	
BUS	150	Principles of Management	4
BUS	231	Business Law I	3
BUS	260	Marketing	4
BUS	371	Personal Finance	3
ECON	100	Introductory Economics	5
		Electives in Business or Business Teacher Education to complete 36 hours	5-15
			<u>36</u>

*One year of typewriting in high school may be substituted.

Most states require courses in methods and materials of teaching specific subjects for certification. Students minoring in Business Teacher Education should take BEVE 340, 341, 342, 343, or 344.

Chemistry Major -- Liberal Arts

Administered by the Department of Chemistry

Students pursuing the B.A. degree with a major in Chemistry must include the following courses in their programs:

1. General Education as specified earlier in this catalog.
2. Courses in the major:

Course No.	Course Title	Hours	Credit
CHEM 104	Principles of Chemistry I	5	
	or		
CHEM 106	Principles of Chemistry IA	5	5
CHEM 105	Principles of Chemistry II	5	
	or		
CHEM 107	Principles of Chemistry IIA	5	5
CHEM 111	Qualitative Analysis	5	
CHEM 301	Inorganic Chemistry I	3	
CHEM 311	Quantitative Analysis I	5	
CHEM 332	Organic Chemistry I	5	
CHEM 333	Organic Chemistry II	5	
CHEM 334	Organic Chemistry III	5	
CHEM 335	Advanced Laboratory in Organic Chemistry	1	
CHEM 390	Chemical Literature	1	
CHEM 401	Inorganic Chemistry II	3	
CHEM 402	Laboratory in Inorganic Chemistry	1	
CHEM 414	Instrumental Methods of Analysis	5	
CHEM 431	Organic Qualitative Analysis	3	
CHEM 451	Physical Chemistry I	4	
CHEM 452	Physical Chemistry II	4	
CHEM 453	Physical Chemistry III	4	
CHEM 454	Physical Chemistry I Laboratory	1	
CHEM 455	Physical Chemistry II Laboratory	1	
CHEM 456	Physical Chemistry III Laboratory	1	

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3. Mathematics including 131, 132, 133, and 234.
4. Physics 265, 266, 267.
5. One year of foreign language (preferably German) is recommended.
6. Electives to complete requirements for graduation.

Those students planning a career in chemistry should familiarize themselves with the professional training requirements of the American Chemical Society. These requirements will be met by completing the above program in the proper sequence in addition to six quarter hours of senior research or six quarter hours of advanced courses in chemistry listing CHEM 453 as prerequisite. A reading knowledge of German is also required. Students completing this program will be certified to the American Chemical Society as meeting its Minimum Standards.

Chemistry Major -- Teaching

Administered by the Department of Chemistry

Students majoring in Chemistry who plan to teach in the public schools must include the following courses in their programs:

1. General Education as specified earlier in this catalog.
2. Professional Teacher Education, 31 hours, plus EDFE 372, two hours credit, and SCED 441, three hours credit.
3. Courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
CHEM 104	Principles of Chemistry I	5	
	<i>or</i>		
CHEM 106	Principles of Chemistry IA	5	5
CHEM 105	Principles of Chemistry II	5	
	<i>or</i>		
CHEM 107	Principles of Chemistry IIA	5	5
CHEM 111	Qualitative Analysis	5	
CHEM 301	Inorganic Chemistry I	3	
CHEM 311	Quantitative Analysis I	5	
CHEM 332	Organic Chemistry I	5	
CHEM 333	Organic Chemistry II	5	
CHEM 334	Organic Chemistry III	5	
PHYS 260	Introductory Physics -- Mechanics	4	
PHYS 261	Introductory Physics -- Heat, Sound, and Light	4	
PHYS 262	Introductory Physics -- Electricity and Magnetism	4	
	<i>or</i>		
PHYS 265	General Physics -- Mechanics	5	
PHYS 266	General Physics -- Electricity	5	
PHYS 267	General Physics -- Sound, Light, and Heat	5	12-15
	Chemistry electives to be selected with approval of student's adviser	5-8	
	(CHEM 495, Seminar in Teaching Chemistry is strongly recommended.)		

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

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

Chemistry Minors

Following are the requirements for the art and sciences minor:

CHEM 104	Principles of Chemistry I	5	
	<i>or</i>		
CHEM 106	Principles of Chemistry IA	5	5
CHEM 105	Principles of Chemistry II	5	
	<i>or</i>		
CHEM 107	Principles of Chemistry IIA	5	5
CHEM 111	Qualitative Analysis	5	
	<i>and</i>		
CHEM 130	Introductory Organic Chemistry	5	
	<i>and</i>		
CHEM 311	Quantitative Analysis I	5	
	<i>or</i>		
CHEM 332	Organic Chemistry I	5	
	<i>and</i>		
CHEM 333	Organic Chemistry II	5	
	<i>and</i>		
CHEM 334	Organic Chemistry III	5	15
	Electives to complete the minor	2	
	Electives must be selected from the following courses: CHEM 111, 281, 301, 311, 314, 360, 482, 483. Alternate courses must be ap- proved by the Chemistry Department before the student enrolls in the course.		

 27

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

CHEM	104	Principles of Chemistry I .....	.5	
		or		
CHEM	106	Principles of Chemistry IA .....	.5	5
CHEM	105	Principles of Chemistry II .....	.5	
		or		
CHEM	107	Principles of Chemistry IIA .....	.5	5
CHEM	111	Qualitative Analysis .....	.5	
CHEM	130	Introductory Organic Chemistry .....	.5	
		or		
CHEM	332	Organic Chemistry I .....	.5	5
		Electives to complete the minor .....	.7	
				<u>27</u>

Electives must be selected from the following courses: CHEM 281, 301, 311, 314, 360, 482, 483. Alternate courses must be approved by the Chemistry Department before the student enrolls in the course.

Chemistry Minor for Medical Technology

CHEM	104	Principles of Chemistry I .....	.5	
		or		
CHEM	106	Principles of Chemistry IA .....	.5	5
CHEM	105	Principles of Chemistry II .....	.5	
		or		
CHEM	107	Principles of Chemistry IIA .....	.5	5
CHEM	111	Qualitative Analysis .....	.5	
CHEM	311	Quantitative Analysis I .....	.5	
CHEM	332	Organic Chemistry I .....	.5	
CHEM	333	Organic Chemistry II .....	.5	
				<u>30</u>

HONORS -- The Department of Chemistry participates in the Honors Program. See Page 23.

Communication Major

Administered by the Department of Communication

Students pursuing the B.A. with a major in Communication must plan their program to fulfill the following requirements:

1. Students shall meet all General Education requirements as specified earlier in this catalog. In selecting General Education courses, students should consult their communication advisers.

2. Students shall complete 50 hours of Communication course units.

3. Students shall (a) select a minimum of one area of emphasis (i.e., Mass Media, Organization, etc.) and (b) meet the course requirements for that area.

4. Students may select a minor or additional major from (a) those areas of emphasis listed below, (i.e., Mass Media, Human Relationship, etc.) or (b) any other related discipline approved by their advisers.

5. Students desiring entry into the Professional Teacher Education Program *must* select only the communication PTE emphasis or minor.

I. Communication: Professional Teacher Education Emphasis*

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
COMM 130	Voice and Speech Improvement .....	.3
COMM 170	Oral Interpretation .....	.3
COMM 212	Reason in Controversy .....	.3
COMM 250	Advanced Public Forum .....	.3
COMM 302	Small Group Communication .....	.4
COMM 323	Interpersonal Communication: Theory .....	.4
COMM 312	Practical Debate .....	.3
COMM 420	General Semantics .....	.4
COMM 486	Directing Communication Activities .....	.3
COMM 270	Readers Theatre .....	.3
THEA 240	Play Direction .....	.3
JOUR 105	Newswriting .....	.3
		<u>39</u>
	Electives in Communication (consult your adviser) .....	.11
		<u>50</u>

*See information under "Professional Teacher Education" in this catalog

II. Communication: Human Relationship Emphasis

COMM 220	Nonverbal Communication .....	.3
COMM 302	Small Group Communication .....	.4
COMM 323	Interpersonal Communication: Theory .....	.4
COMM 323	Interpersonal Communication: Situation .....	.4
	<i>or</i>	
COMM 323	Interpersonal Communication: Practical Application .....	.4
COMM 420	General Semantics .....	.4
*COMM 490	Workshop in Communication .....	.3
		<u>22</u>
	Electives in Communication .....	.28
		<u>50</u>

*Student should select a COMM 490 course (i.e., Family Communication, etc.) which is approved by the adviser.

III. Communication: Mass Media Emphasis

COMM 140	Principles of Mass Communication .....	.3
COMM 340	Radio Production .....	.4
COMM 342	TV Production .....	.8
COMM 345	Media Theory .....	.3
COMM 346	Media Practicum .....	.3
		<u>21</u>
	Electives will be in Communication or related disciplines as approved by the adviser.	.29
		<u>50</u>

COMM 510. Internship in Communication (in media) is an elective that may be taken only with the approval of the media faculty. This approval should be obtained one quarter in advance of the internship.

IV. Communication: Law and Public Policy Emphasis

COMM 212	Reason in Controversy .....	.3
COMM 250	Advanced Public Forum .....	.3
COMM 302	Small Group Communication .....	.4
COMM 312	Practical Debate .....	.3
*COMM 356	Communication Strategies .....	.3
*COMM 452	Seminar in American Public Address .....	.3
COMM 460	Persuasion .....	.3
COMM 554	Seminar in Public Discourse: Communication and the Law .....	.3
		<u>25</u>

Electives in Communication	25
	<u>50</u>

*Students should consult their advisers in selecting course subtitles.

V. Communication: Organization Emphasis

COMM 230	Nonverbal Communication	3
COMM 302	Small Group Communication	4
COMM 323	Interpersonal Communication: Theory	4
*COMM 330	Organizational Communication	6
COMM 400	Theories of Group Process	3
*COMM 490	Workshop in Communication	3
		<u>23</u>
	Electives in Communication and related disciplines	27
	*Students should consult their advisers in selecting course subtitles.	<u>50</u>

Communication Minor

1. Students may declare a communication minor by completing 30 credit hours including required courses in any one of the four communication emphasis areas: Human Relationship, Organization, Mass Media, Law and Public Policy. Students may elect to complete more than one Communication minor.

2. Students may select a communication minor in Professional Teacher Education *only* by completing the following outline of courses:

COMM 130	Voice and Speech Improvement	3
COMM 170	Oral Interpretation	3
COMM 212	Reason in Controversy	3
COMM 302	Small Group Communication	4
COMM 312	Practical Debate	3
COMM 323	Interpersonal Communication: Theory	4
COMM 270	Readers Theatre	3
COMM 420	General Semantics	4
COMM 486	Directing Communication Activities	3
		<u>29</u>
	Electives in Communication	<u>7</u>
		36

3. Communication Minor for Elementary Education/Preschool.

COMM 130	Voice and Speech Improvement	3
COMM 170	Oral Interpretation	3
COMM 302	Small Group Communication	4
COMM 375	Oral Interpretation of Children's Literature	3
COMM 420	General Semantics	4
THEA 280	Creative Dramatics	3
		<u>20</u>
	Electives in Communication	<u>9</u>
		29

Dance Education Minor (Men and Women)

Administered by the School of Health, Physical Education and Recreation

1. A student selecting this minor must have a major in a Teacher Education program.

2. The following courses are required.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
HPER	255 Modern Dance Techniques	4
HPER	256 Improvisation and Composition Forms	2
HPER	290 Analysis and Movements of Folk and Square Dance	2
HPER	291 Rhythms for the Elementary School	2
HPER	293 Analysis and Movements of Modern Dance	2
HPER	294 Problems in Dance Composition	2
HPER	296 Rhythmic Analysis and Dance Accompaniment	2
HPER	326 Teaching of Dance	2
HPER	456 Workshop in Modern Dance	4
HPER	457 Dance History and Philosophy	4
HPER	459 Dance Production in High School and College	2
	Electives	2
		30

Dietetics Major

Administered by the Department of Home Economics

This major prepares a student upon graduation to apply for a Dietetic Internship or traineeship, the completion of which qualifies an individual for membership in the American Dietetic Association. Typical positions for dietitians are found in the areas of hospital dietetics, commercial or college food service management, school lunch program supervision, public health nutrition, extended care facilities and consultation services.

NOTE: With additional study at the graduate level a wide-range of administrative positions in dietetics, research or teaching at the college level in food or nutrition courses and research in industrial laboratories is available.

1. No minor is required.

2. The following courses are required and listed according to recommended sequence.

- | | |
|--|---|
| a. *HEC 101, Self Identification | 2 |
| b. *HEC 108, Investigating the Home Economics Profession | 2 |

Freshman Year

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
BUS	180 Introduction to Data Processing	3
CHEM	104 Principles of Chemistry I	5
CHEM	105 Principles of Chemistry II	5
CHEM	130 Introductory Organic Chemistry	5
JOUR	105 Newswriting	4
ZOO	105 General Zoology (sub. for SCI 104 in Gen. Ed.)	4
		26

Sophomore Year

HEC	242 Principles of Food Preparation	4
HEC	249 Food Modules	1-3
HEC	251 Nutrition I	3
BIO	261 Medical & Public Health Microbiology	5
BUS	220 Principles of Accounting I	4
CHEM	281 Human Biochemistry	5
PSY	466 Industrial Psychology	3
ZOO	250 Human Physiology	5
		30-32

Junior Year

CD	331 Development of the Infant and Toddler	3
HEC	349 Food Modules	1-3
HEC	353 Diet Therapy	3
HEC	362 Demonstration Techniques	2
HEC	374 Consumer Aspects of Household Equipment	4

BUS	205	Business Communications	3
PSY	341	Phenomenological Approaches to Perception	3
			19-21

Senior Year

HEC	445	Experimental Food Studies	4
HEC	446	Food Service Administration	3
HEC	447	Quantity Food Purchasing and Preparation	4
HEC	448	Organization and Management of Food Service	3
HEC	449	Food Modules	1-3
HEC	451	Nutrition II	3
HEC	456	Infant and Child Nutrition	3
BUS	453	Personnel Management	5
			26-28

*These courses should be taken during the first year the student is enrolled as a major in Dietetics.

The student with the guidance of an adviser will select electives from courses in various departments to supplement major requirements to meet A.D.A. requirements and to meet individual needs and interests.

Earth Sciences Major

Administered by the Department of Earth Sciences

This program is for students interested in careers in astronomy, geology, meteorology, or oceanography, as well as for those desiring a broad background in the earth sciences. It is designed to be flexible enough to accommodate the interests and needs of each individual. When a student first elects an Earth Sciences major it is essential that he meet with an adviser in the department to discuss his goals and to outline a program of study which will enable him to achieve these goals. The department is interdisciplinary, and students will have an opportunity to gain experience in all the earth sciences.

Following are the requirements:

1. Meet all General Education requirements specified earlier in this catalog.
2. 80 quarter hours of science and mathematics courses, of which at least half must have AST, ESCI, GEOL, MET, and/or OCN prefixes.
3. Electives to complete the 180 quarter hours of academic credit required for graduation.

Earth Sciences Major (Teaching)

This program is for students who plan to teach earth science in the secondary schools.

1. Meet all General Education requirements specified earlier in this catalog.
2. Professional Teacher Education courses -- 31 hours, plus EDFE 372 -- two hours and SCED 441 -- three hours.
3. Science and mathematics courses (this list may vary depending on the background and needs of the individual student):

Course No.	Course Title	Hours	Credit
AST	301	Principles of Astronomy I	4
AST	302	Principles of Astronomy II	3
BIO	101	Principles of Biology	5
CHEM	104	Principles of Chemistry I	5
CHEM	105	Principles of Chemistry II	5
GEOL	201	Principles of Geology I	4
GEOL	202	Principles of Geology II	4
GEOL	203	Principles of Geology III	4

MATH	330	Mathematics for the Sciences I	3
MET	201	Principles of Meteorology I	4
MET	202	Principles of Meteorology II	4
OCN	301	Principles of Oceanography I	3
OCN	302	Principles of Oceanography II	3
PHYS	260	Introductory Physics -- Mechanics	4
PHYS	261	Introductory Physics -- Heat, Sound, and Light	4
PHYS	262	Introductory Physics -- Electricity and Magnetism	4
ESCI	499	Seminar in Earth Science	2
		Astronomy, Geology, Meteorology, and/or Oceanography electives to be selected in consultation with the student's adviser	15
			<u>80</u>

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

Earth Sciences Minor

Students minoring in Earth Sciences will, in consultation with a minor adviser, select 30 hours of Astronomy, Earth Science, Geology, Meteorology, and/or Oceanography courses best suited to their particular needs.

Those who plan to be teachers should select courses which will provide a broad background in the earth sciences. AST 100, GEOL 100, MET 100, and OCN 100 are minimum recommendations. To be qualified to teach earth science in secondary schools students must take a total of at least 36 quarter hours of science courses.

Ecology Minor

Administered by the Department of Biological Sciences

Following are the requirements for the minor:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
BIO	101 Principles of Biology	5
BIO	102 Principles of Botany	5
	<i>or</i>	
BIO	103 Principles of Zoology	5
BIO	234 Population Genetics	3
BIO	240 General Ecology	3
BIO	241 Modification of the Human Environment	2
BIO	242 Environmental Pollution	3
BIO	401 Conservation of Natural Resources	4
	Electives to be selected with the approval of minor adviser	2
		<u>27</u>

Economics Minor

Administered by the Department of Economics

1. Following is the required program:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
ECON	100 Introductory Economics	5
ECON	102 Contemporary Economic Problems	3
ECON	470 History of Economic Thought	3
ECON	200 The Price System	4
	Advanced Electives	12
		<u>27</u>

Economics minors will take two of the following: Geography 100, Anthropology 100, Political Science 100 or Sociology 100. Consult your adviser.

Students interested in being certified for teaching of Economics must take a major in Social Sciences rather than in Economics.

Economic Education Minor

Administered jointly by the Department of Economics and the School of Business.

Course No.	Course Title	Hours	Credit
BUS 100	The American Business System	3	
BUS 101	Consumer Business Problems	3	
BUS 371	Personal Finance	3	
BEVE 430	Economic Education Seminar	3	
ECON 100	Introductory Economics	5	
ECON 102	Contemporary Economic Problems	3	
	Electives in Business or Economics	17	
			36

The electives must be planned in cooperation with the minor adviser. Elective courses may be chosen from the economic courses listed on pages 182, 183, 184, and from the following list: GEOG 312, Economic Geography, five hours credit; BUS 260, Marketing, four hours credit; BUS 340, Introduction to Insurance, three hours credit; or HEC 211, Management for Today's Family, three hours credit.

Educational Field Experiences

The Educational Field Experiences department of the College of Education is charged with coordinating all types of student field experiences in cooperating schools for all departments of the university. Its course offerings include:

I. Early Field Experiences

Course No.	Course Title	Hours	Credit
EDFE 270	School and Community Aide	1-4	
EDFE 360	Introduction to Teaching: Primary Continuum	2	
EDFE 361	Introduction to Teaching: Intermediate Continuum	2	
EDFE 362	Introduction to Teaching: Middle School	2	
EDFE 363	Introduction to Teaching: Business	2	
EDFE 364	Introduction to Teaching: Communication	2	
EDFE 365	Introduction to Teaching: Fine Arts	2	
EDFE 366	Introduction to Teaching: Foreign Languages	2	
EDFE 367	Introduction to Teaching: Health, Physical Education and Recreation	2	
EDFE 368	Introduction to Teaching: Home Economics	2	
EDFE 369	Introduction to Teaching: Industrial Arts	2	
EDFE 370	Introduction to Teaching: Mathematics	2	
EDFE 371	Introduction to Teaching: Music	2	
EDFE 372	Introduction to Teaching: Sciences	2	
EDFE 373	Introduction to Teaching: Social Sciences	2	
EDFE 379	Introduction to Teaching: Inner City	2	
EDFE 380	Simulation Experiences in the Human Relations of Teaching	3	
EDFE 422	Individual Study in Student Field Experience	1-4	

II. Supervised Teaching for Certification

EDFE 420

Supervised Teaching: Special Education-Elementary Level	18
EDFE 430 Supervised Teaching: Special Education-Secondary Level	18
EDFE 440 Supervised Teaching: Pre-School Level	18

EDFE	450	Supervised Teaching: Elementary Level	18
EDFE	460	Supervised Teaching: Secondary Level	18
EDFE	470	Supervised Teaching: Vocational Education	18
EDFE	480	Advanced Supervised Teaching: Elementary Level	18
EDFE	490	Advanced Supervised Teaching: Secondary Level	18

Important Note. All EDFE courses are marked S-U with no grade point average computed.

Educational Media Minor

Administered by the Department of Educational Media

The purpose of this program is to prepare teachers to work in what has been variously called the comprehensive library, educational media center, instructional materials center or learning resource center. While the title is not significant the concept of teachers trained to handle both print and non-print materials is becoming increasingly important. This is particularly true of the person who works alone in a given media center.

Students pursuing the B.A. degree with a minor in Educational Media must plan their programs to fulfill the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog.
2. Complete required and elective courses below for a minimum of 27 hours.

Required Courses:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
EDEM	330 Instructional Materials: Problems of Organization, Storage and Retrieval	3	
EDEM	410 Introduction to Educational Resources	3 or 5	
EDEM	420 Design and Construction of Audio-Visual Materials	3	
EDEM	434 Reference Materials: Basic School Reference Service	3	
EDEM	530 Cataloging and Classification	3	
EDEM	536 Evaluation and Selection of Educational Materials	3	
EDEM	575 Organization and Administration of Educational Resource Center	5	

Electives:

EDEM	516 Utilization of Educational Resources	3	
EDEM	534 Reference Materials: Service in Specialized Subject Areas and Government Publications	3	
EDRD	314 Improvement of Instruction in Literature in the Elementary School	2	

Elementary Education

Administered by the Department of Elementary Education and Reading

Students pursuing the B.A. degree with an elementary education major must plan their programs to meet the following requirements.

1. All General Education requirements as specified earlier in this catalog.
2. The following required subject matter courses are applicable to general education only if a second major in Special Education is earned.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
FA	224 Elementary Art	3	
GEOG	100 World Geography or		
GEOG	148 Anglo-America	5	
HIST	175 Unit Survey of United States History	5	
MATH	191 Basic Mathematics I	3	
MATH	192 Basic Mathematics II	3	

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MUS	204	Music Fundamentals	2
MUS	205	Experiencing Music for Elementary Teachers	1
PSCI	100	National Government of the United States	5

3. Complete the professional education courses.

	365	Basic Concepts of Education	5
PSY	301-	326 (select five courses)	5
*EDFE	450	Supervised Teaching: Elementary Level	18
EDF	485	Philosophy of Education	3
			<u>31</u>

*Eighteen hours student teaching must be in elementary education in the kindergarten or in grades one through six. Internships are available.

4. Complete the elementary teacher education courses.

*EDEL	320	Improvement of Instruction in Mathematics in the Elementary School	3
*EDEL	330	Teaching Handwriting and Spelling in the Elementary School	2
*EDEL	340	Improvement of Instruction in English in the Elementary School	3
*EDEL	350	Improvement of Instruction in Social Studies in the Elementary School	3
EDFE	360,	361, or 362 -- Introduction to Teaching	2
EDRD	310	Improvement of Instruction in Reading in the Elementary School	3
EDRD	314	Improvement of Instruction in Literature in the Elementary School	2
*EDRD	411	Approaches to Reading Instruction	3
FA	225	Methods of Teaching Art in the Elementary School	2
HPER	288	Physical Education Activities for the Elementary School	2
HPER	301	Health Education in the Elementary School	2
MUS	206	Music Methods and Materials for Elementary Teachers	2
SCED	470	Teaching Science in the Elementary School	3
			<u>32</u>

*Must be taken at University of Northern Colorado.

5. A student who double majors in elementary education and special education may substitute FA 229 for FA 224 and 225.

6. A student who double majors in elementary education and special education and who completes EDSE 309 for the special education major may substitute one quarter hour of EDFE 270 in the regular classroom for EDFE 360, 361, and 362 in the elementary education major.

7. Elementary teachers will be prepared to meet a wide-range of educational needs and abilities including the mildly or moderately handicapped to be accommodated in the regular classroom.

8. A minor, any minor offered by the University of Northern Colorado, is required. A second major from a department other than the Department of Elementary Education and Reading may be earned in lieu of the minor. An individually designed program of 30 quarter hours planned with the elementary education adviser and filed in the Elementary Education Office may be earned in lieu of the minor.

9. Completion of a minimum of eighteen quarter hours in Elementary Teacher Education courses including EDEL 320, EDRD 310, and either EDFE 360, 361, or 362 before student teaching. EDEL 320, EDRD 310, and either EDFE 360, 361, or 362 must be completed before applying for student teaching.

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

Elementary Education: Bilingual Bicultural

Administered by the Department of Elementary Education

1. Completion of all requirements for the major Elementary Education: except the requirement of a minor.
2. Completion of the following courses.

MAS	101	Introduction to Mexican American Studies	4
MAS	102	Oral, Reading, and Written Spanish Communication: I	3
MAS	103	Oral, Reading, and Written Spanish Communication: II	3
MAS	104	Oral, Reading, and Written Spanish Communication: III	3
MAS	290	Intermediate Oral, Reading, and Written Spanish Communication	3
MAS	300	Advanced Oral, Reading, and Written Spanish Communication	3
EDEL/ MAS	472	Evaluation and Selection of Bilingual and Bicultural Materials	2
EDEL/ MAS	474	Teaching in a Second Language in the Elementary Bilingual and Bicultural School	3
EDCI/ MAS	481	History and Philosophy of Bilingual Education	3
			<u>27</u>

Elementary Education: Early Childhood Education

Administered by the Department of Elementary Education and Reading

1. Meet all general education requirements as specified earlier in this catalog.
2. Complete the professional education courses as specified for the major Elementary Education. (Student Teaching must be in kindergarten or in grades one through three.)
3. Take the following courses in elementary instructional techniques.

*EDEC	460	Nursery-Kindergarten Education	3
*EDEC	462	Classroom Management in Early Childhood	3
*EDEC	464	Introduction to Early Childhood Education	3
*EDEL	320	Improvement of Instruction in Mathematics in the Elementary School	3
*EDEL	330	Teaching Handwriting and Spelling in the Elementary School	2
EDFE	360	Introduction to Teaching: Primary Continuum	2
EDRD	310	Improvement of Instruction in Reading in the Elementary School	3
EDRD	314	Improvement of Instruction in Literature in the Elementary School	2
*EDRD	411	Approaches to Reading Instruction	3
FA	224	Elementary Art	3
FA	225	Methods of Teaching Art in the Elementary School	2
HPER	288	Physical Education Activities for the Elementary School	2
MUS	319	Music Activities for Classroom Teachers	2
			<u>33</u>

*Must be taken at University of Northern Colorado.

4. Preschool and child growth and development (18 quarter hours).

EDCD	136	Introduction to Preschool	2
EDCD	331	Development of the Infant and Toddler	3
EDCD	332	Sequences of Conceptual Learning	3
EDCD	333	Development and Guidance of the Preschool Child	4

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EDCD	334	Preschool Curriculum and Methods	3
EDCD	335	Observation and Participation in Preschool	3
EDCD	437	Administration of Programs for Young Children	3
EDCD	438	Practicum in Preschool Teaching	2
EDSE	266	Speech and Language Development	3
HEC	251	Nutrition I	3
PSY	230	Child and Adolescent Psychology	3

5. Diagnostic preparation (12 quarter hours).

EDCI	551	Problems in Teaching Minority Groups	3
*EDEC	461	Compensatory Programs in Early Childhood	3
*EDEC	463	Diagnostic Teaching in Early Childhood	3
EDEL/ MAS	472	Evaluation and Selection of Bilingual and Bicultural Materials	2
EDEL/ MAS	474	Teaching in a Second Language in the Elementary Bilingual and Bicultural School	3
EDGE	100	Education of Exceptional Children	3
EDGE	160	Introduction to Speech Correction	3
EDGE	306	Identification of Learning Disabilities in Early Childhood	3
EDGE	320	Introduction to the Education of Socially and Emotionally Disturbed Children	3
EDGE	326	Introduction to Teaching Learning Disabled Children	3
EDGE	369	Neurological Basis for Speech and Hearing	3
EDGE	575	Auditory Disorders in Children	3

Required courses to be taken at University of Northern Colorado.

6. Early childhood teachers will be prepared to meet a wide-range of educational needs and abilities including the mildly or moderately handicapped to be accommodated in the regular classroom.

7. Completion of a minimum of eighteen quarter hours in elementary instructional techniques including EDEL 320, EDRD 310, and EDFE 360 before student teaching. EDEL 320, EDRD 310, and EDFE 360 must be completed before applying for student teaching.

8. Sufficient electives to complete 180 quarter hours of academic credit. These electives will be chosen in consultation with the major adviser.

Elementary Science Minor
Administered by the Department of Science Education.

The following courses are required:

Course No.	Course Title	Hours	Credit
IO	401 Conservation of Natural Resources	4	4
CI	303 Elementary Biological Science	3	3
CI	309 Science for Elementary Teachers	3	3
CED	151 Introductory Science Field Experiences	2	2
	Electives to be selected with approval of student's minor adviser	15	15
			<u>27</u>

Recommended Electives:

ST	100	General Astronomy	4
IO	101	Principles of Biology	5
IO	102	Principles of Botany	5
IO	103	Principles of Zoology	5
IO	336	Evolution	3
EOL	100	General Geology	4
ET	100	General Meteorology	4

SCI	210	Values Act(i) on Environment	3
SCI	508	Science Workshop	3
ZOO	304	Ornithology	3

English Major (non-teaching) Administered by the Department of English

Students pursuing the B.A. degree with a non-teaching major in English must plan their programs to fulfill the following requirements:

1. General Education requirements as specified earlier in this catalog.
2. One minor totaling 27 quarter hours.
3. Courses in the major (listed below) in the following two (a and b) groups:
 - a. Core requirements totaling 8 hours.
 - b. Electives totaling 54 hours.

A. Core requirements totaling 8 hours:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
*ENG	111 Introduction to Poetry	4	
*ENG	112 Introduction to Fiction	4	
	or		
*ENG	113 Introduction to Drama	4	8
	Electives		54
			62

*Qualified students may be exempted by examination.

Choose any of the additional courses listed below or any of the courses listed under "Literature options" in the program for English majors in teacher education (page 74).

b. Electives totaling 54 hours:

ENG	240	Creative Writing Introduction to Poetry	4
ENG	241	Creative Writing: Introduction to Fiction	4
ENG	322	Discourse Structure	4
ENG	340	Creative Writing: Advanced Poetry	4
ENG	341	Creative Writing: Advanced Fiction	4
ENG	360	Chaucer	4
ENG	401	Greek and Comparative Mythology	4
ENG	402	The Short Story	4
ENG	403	Techniques of the Novel	5
ENG	404	Modern Literature About Childhood and Adolescence	4
ENG	405	Contemporary American Drama	4
ENG	406	Modern Drama Since Ibsen	4
EED	406	Literature for Adolescents	4
ENG	407	Advanced Studies in Poetry	4
ENG	408	Elizabethan Drama Exclusive of Shakespeare	4
ENG	409	Literary Criticism	4
ENG	410	History of Ideas in Literature	4
ENG	411	Biography and Autobiography	4
ENG	415	Literature of the Old Testament	4
ENG	416	Literature of the New Testament	4
ENG	418	Grammatical Analysis	4
ENG	419	Advanced Topics in Syntax	4
ENG	420	Stylistics	4
ENG	430	Studies in World Literature	4-12
ENG	441	Colloquium in Literature	4-12

4. Electives to complete the 180 hours of academic credit required for graduation.
5. ENG 101 and 102 may not count toward English major.

English Major (teaching) Administered by the Department of English

Students majoring in English, who plan to teach in the public schools must fulfill the following requirements.

1. General Education requirements as specified in this catalog.
2. Professional Teacher Education Core of 31 quarter hours plus EDFE 364, two quarter hours, and EED 341, four quarter hours. Prerequisites for admission into PTE as English majors are stipulated in section 5 below.
3. One minor totaling 27 quarter hours.
4. Courses in the major (listed below) in the following three (a,b,c) groups:
 - a. Core requirements totaling 28 hours.
 - b. Literature options totaling 24 hours.
 - c. Electives totaling 10 hours.

a. Core Requirements		28
*ENG	111 Introduction to Poetry	4
*ENG	112 Introduction to Fiction	4
	<i>or</i>	
*ENG	113 Introduction to Drama	4
ENG	319 Advanced Expository Writing	4
ENG	320 The English Language	4
ENG	321 Generative-Transformational Grammar	4
EED	402 Literature and Materials in the Secondary School	5
EDRD	420 Reading in the Secondary School	3

*Qualified students may be exempted by examination.

b. Literature Options	24
Choose two courses from each group.	

Group I:

ENG	211 Medieval Literature	4
ENG	212 Renaissance Literature	4
ENG	213 The Restoration and Eighteenth Century	4
ENG	301 Shakespeare: Early Plays	4
ENG	302 Shakespeare: Later Plays	4

Group II:

ENG	214 The Romantic Movement	4
ENG	216 American Literature to the Civil War	4
ENG	217 American Literature: From the Civil War to 1914	4
ENG	218 Early Victorian Literature	4
ENG	219 Later Victorian Literature	4

Group III:

ENG	220 English Literature: 1900 to 1939	4
ENG	221 English Literature: 1940 to the Present	4
ENG	225 American Literature from 1914-1939	4
ENG	226 American Literature from 1940 to the Present	4

c. Electives	10
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NOTE: Courses in Groups I, II, and III above that were not taken to fulfill the literature requirement can be elected as well as any of the courses listed below.

ENG	240 Creative Writing: Introduction to Poetry	4
ENG	241 Creative Writing: Introduction to Fiction	4
ENG	322 Discourse Structure	4
ENG	340 Creative Writing: Advanced Poetry	4

ENG	341	Creative Writing: Advanced Fiction	4
ENG	360	Chaucer	4
ENG	401	Greek and Comparative Mythology	4
ENG	402	The Short Story	4
ENG	403	Techniques of the Novel	5
ENG	404	Modern Literature About Childhood and Adolescence	4
ENG	405	Contemporary American Drama	4
ENG	406	Modern Drama Since Ibsen	4
EED	406	Literature for Adolescents	4
ENG	407	Advanced Studies in Poetry	4
ENG	408	Elizabethan Drama Exclusive of Shakespeare	4
ENG	409	Literary Criticism	4
ENG	410	History of Ideas in Literature	4
ENG	411	Biography and Autobiography	4
ENG	415	Literature of the Old Testament	4
ENG	416	Literature of the New Testament	4
ENG	418	Grammatical Analysis	4
ENG	419	Advanced Topics in Syntax	4
ENG	420	Stylistics	4
ENG	430	Studies in World Literature	4-12
ENG	441	Colloquium in Literature	4-12

Additional Requirements:

5. Students who intend to enter the teaching profession are required to complete at least two English courses with a minimum grade point average of 2.3 before being admitted to the PTE program.

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

Recommendations:

Prospective students are advised to elect one of the following courses in the sophomore year:

EDFE	270	Teaching Aide
THEA	280	Creative Dramatics

The following minors are recommended for teaching majors: foreign language, humanities, history, journalism, sociology, communication, theatre arts.

Teaching majors are urged to elect one or more of the following courses in supporting skills:

EDEM	410	Introduction to Educational Resources	5
EDEM	460	Television in Education	4
PHIL	220	Applied Logic	3
PSY	271	Introduction to Measurement and Evaluation	3
PSY	230	Human Growth and Development	3
COMM	170	Oral Interpretation	3
COMM	302	Small Group Communication	3
COMM	420	General Semantics	4

Teaching majors are advised to complete student teaching one quarter before graduation to allow for an independent study on problems in teaching *after* the student teaching experience.

English Minor (non-teaching)

Core Requirements			8
*ENG	111	Introduction to Poetry	4
*ENG	112	Introduction to Prose	4
		or	
*ENG	113	Introduction to Drama	4

Electives	23
	31

*Qualified students may be exempted by examination.

Choose any of the additional courses listed for the major.

English Minor (teaching)

Students with a minor in English who plan to teach English in the public schools should meet the following requirements:

Core Requirements	17
*ENG 111 Introduction to Poetry	4
*ENG 112 Introduction to Prose	4
or	
*ENG 113 Introduction to Drama	4
EED 402 Literature and Materials in the Secondary School	5
One of the following:	
ENG 319 Advanced Expository Writing	4
ENG 320 The English Language	4
ENG 321 Generative-Transformational Grammar	4
Electives	19
	36

*Qualified students may be exempted by examination.

Minors may choose from Groups I, II, III, and electives listed in program for English teaching majors. In addition, teaching minors may elect whichever courses in the ENG 319, 320, and 321 sequence they did not take to fulfill the requirement.

ENG 101 and 102 may not count toward English minor.

NOTE: Teaching minors, (except Elementary Education majors), who wish to student teach and/or be certified in English, must take EED 341, Methods and Materials for Teaching Language and Composition in the Secondary School.

Elementary Education majors minoring in English are to take the program for arts and sciences minors.

Students in the English program who have begun their program before 1973 should consult the head of the department for substitutions.

HONORS. The Department of English participates in the Honors Program. See page 23.

Environmental Studies Minor

The following 31 hours of intensive environmental studies represent an interdisciplinary approach to the many complex environmental problems.

1. The courses may be used as elective to the general education curriculum requirements.

2. The courses in the minor are:

Course No.	Course Title	Hours	Credit
ENST 110	Introduction to Environmental Studies	3	.3
ENST 210	Science of the Environment	3	.3
ENST 220	Population Dynamics and Genetic Probabilities	3	.3
ENST 230	Economics of Natural Resources	3	.3
ENST 240	Politics and the Environment	3	.3
ENST 250	Man's Atmospheric and Geological Environment	3	.3
ENST 260	Ecological Interpretations	3	.3

ENST	270	Social Implications of Ecology	3
ENST	280	Natural Resources and Technology	3
ENST	310	Future Environments and Ecosystem Modification	1
ENST	350	Environmental Pollution and Man's Health	3
			<u>31</u>

Additional courses which may be substituted for any of the above courses with the approval of the minor adviser are:

ENST	120	Man's Attitude Toward His Physical and Social Environments'	3
ENST	300	The General Systems Approach	4
ENST	361	Art and the Environment	3

Family Life and Consumer Education Major Administered by the Department of Home Economics

This major provides professional opportunities in the areas of social and youth services, utility companies, or commercial firms.

1. No minor is required.
2. The following courses are required in the recommended sequence:

a.	*HEC 101, Self Identification	2
b.	*HEC 108, Investigating the Home Economics Profession	2

Freshman Year

Course No.	Course Title	Hours	Credit
HEC 171	Design in Living	3	3
HEC 181	Basic Textiles	5	5
**HEC 190	Fundamentals of Clothing Construction	3	3
	***Science	15	15
			<u>26</u>

Sophomore Year

HEC 211	Management for Effective Living	3	3
HEC 212	Management Dynamics	3	3
HEC 221	Family Relationships	3	3
HEC 242	Principles of Food Preparation	4	4
HEC 249	Food Modules	1-3	1-3
HEC 250	Principles of Human Nutrition	3	3
			<u>17-19</u>

Junior and Senior Year

CD 331	Development of the Infant and Toddler	3	3
CD 333	Development and Guidance of the Preschool Child	4	4
HEC 349	Food Modules	1-3	1-3
HEC 362	Demonstration Techniques	2	2
HEC 371	Design for Shelter	3	3
HEC 372	Design for Interiors	3	3
HEC 374	Consumer Aspects of Household Equipment	4	4
HEC 415	Consumer Education	3	3
HEC 419	Home Management Practicum	3	3
HEC 445	Experimental Food Studies	4	4
HEC 449	Food Modules	1-3	1-3
HEC 465	Home Economics Programs for Special Needs	3	3
			<u>34-38</u>

*These courses should be taken during the first year the student is a major.

**Students with sufficient background are eligible to take competency exam for possible exemption from these courses or be exempted with comparable course work.

***These courses are to be selected with guidance of the student's adviser.

The student with the guidance of an adviser will select electives from courses in various departments to supplement major requirements and to meet individual needs and interests.

Fine Arts Majors

Administered by the Department of Fine Arts.

The Fine Arts Department offers a teaching and non-teaching major as well as a minor.

Students pursuing the B.A. degree with a major in Fine Arts must plan their programs to fulfill the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog.
2. Complete the following courses:

Course No.	Course Title	Hours	Credit
FA 100	Drawing	3	
FA 102	Figure Drawing	3	
FA 105	Design Theory	3	
FA 110	Art History I	3	
FA 111	Art History II	3	
FA 112	Art History III	3	
FA 203	Introduction to Watercolor Painting	3	
FA 215	Crafts: Design on Fabrics		
	or		
FA 216	Craft Expression in Construction	3	
FA 217	Introduction to Pottery	3	
FA 220	Introduction to Painting	3	
FA 258	Introduction to Sculpture	3	
FA 259	Printmaking	3	
			<u>36</u>

3. Complete two (2) areas of emphasis in Fine Arts totaling 30 hours. (An area of emphasis must consist of at least 12 quarter hours.)

Areas of Emphasis:

Ceramics
 Crafts
 Design
 Drawing
 History of Art
 Painting
 Printmaking
 Sculpture

4. Complete 18 additional electives in Fine Arts.
5. General education electives to meet requirements for graduation.

Fine Arts Teaching Major

Students majoring in Fine Arts who plan to teach in public schools should include the following courses in their programs:

1. Meet all General Education requirements as specified earlier in this catalog.
2. Professional teacher education, 33 quarter hours including EDFE 365, Introduction to Teaching, two hours credit) and EDFE 450 or 460, Student Teaching (elementary or secondary), 18 hours credit.
3. The following required courses in the major.

FA 100	Drawing	3
FA 102	Figure Drawing	3
FA 105	Design Theory	3

FA	110	Art History I	3
FA	111	Art History II	3
FA	112	Art History III	3
FA	203	Introduction to Watercolor Painting	3
FA	215	Crafts: Design on Fabrics <i>or</i>	
FA	216	Craft Expression in Construction	3
FA	217	Introduction to Pottery	3
FA	220	Introduction to Painting	3
FA	258	Introduction to Sculpture	3
FA	259	Printmaking	3
*EDFE	270	Teacher Aide, Fine Arts	1-4
**FA	339	Leading Ideas in Art for Teachers (Elementary/Secondary)	2
FA	430	Seminar in Art Education (El-Sec)	2
FA	432	The Curriculum in Art Education (El-Sec)	3
			<u>45</u>

*Majors must enroll in a minimum of one hour EDFE 270 (elementary) and one hour EDFE 270 (secondary).

**Must be taken prior to EDFE 365 and FA 341.

4. Students in this program must complete their student teaching prior to second quarter of the senior year. Then complete FA 430 and FA 432.

5. Complete one area of emphasis in Fine Arts for a minimum of 12 quarter hours. Areas of Emphasis: Ceramics, crafts, design, drawing, history of art, painting, printmaking, sculpture.

6. Summary of Fine Arts majors requirements: Forty-five (45) hours of required Fine Arts courses, twelve (12) hours in one area of Fine Arts emphasis and 27 hours of Fine Arts electives must be completed for a total of eighty-four (84) hours in the major.

7. The student may elect to become certified for (1) elementary art education, (2) secondary art education (including grades 7 through 12), or (3) elementary and secondary (K-12). If the student elects option 1, he is required to enroll in FA 244, FA 245, and FA 229. If he elects option 2, he will be required to enroll in FA 341 and EDFE 365. If he elects option 3, he will be required to enroll in all five of the courses listed for options 1 and 2.

Fine Arts Minor

1. Requirements for the Minor:

FA	100	Drawing	3
FA	102	Figure Drawing	3
FA	105	Design Theory	3
FA	110	Art History I	3
FA	111	Art History II	3
FA	112	Art History III	3

2. Elect 18 additional quarter hours in fine arts to complete 36 quarter hours.

UNC Program in Florence: Studies in Comparative Arts

Supervised by the Department of Fine Arts

Paolo Barucchieri, Director

The Department of Fine Arts supervises a program in Comparative Arts at a residence center, "La Poggerina" near Florence, Italy. Participation in this program may be used to partially satisfy major and minor requirements in the Department of Fine Arts, Anthropology, Humanities or General Education requirements. A description of this program may be found in this catalog on page 213.

Food and Nutrition Major

Administered by the Department of Home Economics

This major prepares a student for positions in commercial test kitchens, technical work in quality control, product development in laboratories in the food processing industry, or nutrition work in government agencies, or industry.

1. No minor is required.

2. The following courses are required and listed according to the recommended sequence:

- a. *HEC 101, Self Identification2
 b. *HEC 108, Investigating the Home Economics Profession2

Freshman Year

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
CHEM 104	Principles of Chemistry I	5
CHEM 105	Principles of Chemistry II	5
CHEM 130	Introductory Organic Chemistry	5
JOUR 105	Newsriting	4
		19

Sophomore Year

HEC 211	Management for Effective Living	3
HEC 221	Family Relationships	3
HEC 242	Principles of Food Preparation	4
HEC 249	Food Modules	1-3
HEC 251	Nutrition I	3
BIO 260	Microbiology	5
BUS 205	Business Communications	3
CHEM 261	Human Biochemistry	5
		27-29

Junior Year

CD 331	Development of the Infant and Toddler	3
CD 333	Development and Guidance of the Preschool Child	4
HEC 349	Food Modules	1-3
HEC 362	Demonstration Techniques	2
IA 342	Basic Photography	3
IA 345	Publication Production	5
		18-20

Senior Year

HEC 419	Home Management Practicum	3
HEC 445	Experimental Food Studies	4
HEC 446	Food Service Administration	3
HEC 447	Quantity Food Purchasing and Preparation	4
HEC 448	Organization and Management of Food Service	3
HEC 449	Food Modules	1-3
HEC 451	Nutrition II	3
HEC 456	Infant and Child Nutrition	3
		24-26

*These courses should be taken during the first year the student is a major.

The student with the guidance of an adviser will select electives from courses in various departments to supplement major requirements and to meet individual needs and interests.

French Major

Administered by the Department of Foreign Languages

Students pursuing the B.A. with a major in French must plan their programs to fulfill the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog. (Foreign Language majors are urged to take ANT 100, or SOC 100 or HIST 130, 131, and 132.) Student should consult his assigned adviser.

2. The following courses or their equivalents are required for the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
FR 201	Intermediate French I	4
FR 202	Intermediate French II	4
FR 203	Intermediate French III	4

In addition, one of the following series:

a. For students who plan to teach in the public schools:

FR 310	Intermediate French Conversation	3
FR 311	Intermediate French Composition	3
FR 312	Intermediate French Syntax and Stylistics	3
FR 400	Problems in Oral French	3
FR 410	French Civilization	3
	<i>or</i>	
FR 411	Contemporary France	3
	*Five French literature courses chosen from the departmental offerings	15
	**Electives in French to be chosen with the consent of the adviser	6
		<u>48</u>

Students who desire teaching certification will also take 31 credit hours in Professional Teacher Education, plus EDFE 366 (2 hours credit) and FL 341 (3 hours credit). Before being permitted to apply for student teaching, a Foreign Language major must have successfully passed the department oral proficiency examination in the language where application is made.

b. For students wishing a Liberal Arts major:

	*Five French literature courses chosen from the departmental offerings	15
	**Electives in French to be chosen with the consent of the adviser .....	.21
		<u>48</u>

*It is recommended that the student take FR 415 or the equivalent before beginning the literature courses.

**Three hours of FL 131, Foreign Language House and FL 410, Linguistics are the only FL prefix courses which may be applied toward the major.

3. **NOTE:** All work to be counted toward the B.A. degree in French must be beyond the first-year level.

4. In addition, a minor of at least 27 quarter hours approved by the Department.

5. Elective sufficient to complete requirements for the B.A. degree.

French Minor

Requirements for a French minor are as follows:

FR 201	Intermediate French I	4
FR 202	Intermediate French II	4
FR 203	Intermediate French III	4

In addition, one of the following series:

a. For students who plan to teach in the public schools:

FR	310	Intermediate French Conversation	3
FR	311	Intermediate French Composition	3
FR	312	Intermediate French Syntax and Stylistics	3
FR	400	Problems in Oral French	3
		Electives in French to be chosen with the consent of the adviser	6
			30

b. For students wishing a Liberal Arts minor:

		*Three French literature courses chosen from the departmental offerings	9
		Electives in French to be chosen with the consent of the adviser	9
			30

*It is recommended that the student take FR 415 or the equivalent before beginning the literature courses.

Geography Major

Administered by the Department of Geography

The Department of Geography offers a non-teaching major and minor in Geography.

Students pursuing the B.A. with a major in Geography must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog. (Students majoring or minoring in geography will take two of the following courses: ANT 100, ECON 100, PSCI 100, or SOC 100.)
2. The following required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
GEOG	120	Physical Geography I	3
GEOG	121	Physical Geography II	3
GEOG	122	Cultural Geography I	3
GEOG	123	Cultural Geography II	3
GEOG	148	Anglo-America	5
GEOG	364	Maps and Their Uses	2
		Electives in Advanced Regional Courses	14
		Electives in Advanced Systematic Courses	15
			48

3. At least one minor of 27 quarter hours.
4. Electives to complete the 180 hours of academic credit required for graduation.

Students interested in being certified for teaching Geography must take a major in Social Sciences.

Geography Minor

GEOG	100	World Geography	5
GEOG	148	Anglo-America	5
GEOG	364	Maps and Their Uses	2
		Electives in Advanced Regional Geography	5
		Electives in Advanced Systematic Geography	5
		Electives in Advanced Regional or Systematic Geography	5
			27

German Major

Administered by the Department of Foreign Languages

Students pursuing the B.A. with a major in German must plan their programs to fulfill the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog. (Foreign Languages majors are urged to take ANT 100 or SOC 100 or HIST 130, 131, 132.) Students should consult his assigned adviser.
2. The following courses or their equivalents are required for the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
GER 201	Intermediate German I	4
GER 202	Intermediate German II	4
GER 203	Intermediate German III	4

In addition, one of the following series:

- a. For students who plan to teach in the public schools:

GER 335	Intermediate German Conversation	4
GER 336	Advanced German Composition	4
GER 337	Advanced German Grammar	4
GER 345	Phonetics of the German Language	3
GER 400	Problems in Oral German	3
	Five German literature courses chosen from the departmental offerings	15
	*Electives in German to be chosen with the consent of the adviser	3
		<u>48</u>

*Three hours of FL 131, Foreign Language House and FL 410, Linguistics are the only FL prefix courses which may be applied toward the major.

Students who desire teaching certification will also take 31 credit hours in Professional Teacher Education, plus EDFE 366 (2 hours credit) and FL 341 (3 hours credit). Before being permitted to apply for student teaching, a Foreign Language major must have successfully passed the department oral proficiency examination in the language before application is made.

- b. For students wishing a Liberal Arts major:

GER 335	Intermediate German Conversation	4
	Five German literature courses chosen from the departmental offerings	15
	*Electives in German to be chosen with the consent of the adviser	17
		<u>48</u>

*Three hours of FL 131, Foreign Language House and FL 410, Linguistics are the only FL prefix courses which may be applied toward the major.

3. **NOTE:** All work to be counted toward the B.A. degree in German must be beyond the first-year level.

4. In addition, a minor of at least 27 quarter hours approved by the Department.
5. Electives sufficient to complete requirements for the B.A. degree.

German Minor

Requirements for a German minor are as follows:

GER 201	Intermediate German I	4
GER 202	Intermediate German II	4
GER 203	Intermediate German III	4

In addition, one of the following series:

a. For students who plan to teach in the public schools:

GER	335	Intermediate German Conversation	4
GER	336	Advanced German Composition	4
GER	337	Advanced German Grammar	4
GER	345	Phonetics of the German Language	3
GER	400	Problems in Oral German	3
			30

b. For students wishing a Liberal Arts minor:

GER	335	Intermediate German Conversation	4
		Three German literature courses chosen from the departmental offerings	9
		Electives in German to be chosen with the consent of the adviser	5
			30

Gerontology

Administered by the Department of Recreation

Students pursuing the B.S. degree with a major in Gerontology must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. The following courses in the major.

Course No.	Course Title	Hours	Credit
GERO	205	Introduction to Gerontology	4
HPER	236	Introduction to Health Aspects of Gerontology	4
HPER	369	Therapeutic Recreation	3
HPER	472	Recreation Leadership	3
HPER	495	Senior Seminar	4
ANT	381	Enculturation	4
EDSE	290	Orientation to Rehabilitation and Related Services	3
HEC	221	Family Relationship	3
PSY	230	Human Growth and Development	3
PSY	433	Maturity and Aging	3
MAS	302	The Contemporary Mexican American	3
SOC	341	Sociology of Aging	3
ZOO	156	Elements of Human Physiology-Anatomy	5
GERO	453	Internship in Gerontology	18
			63

3. One minor of 30 quarter hours, or 30 quarter hours of supporting courses selected with the approval of the major adviser in the Recreation Department.

4. Senior Gerontology majors will complete GERO 453, Internship in Gerontology, 18 hours. Courses GERO 205, PSY 433, SOC 341, HPER 369, and HPER 495 and a GPA of 2.3 in the required courses, as well as a 2.3 cumulative are prerequisites for GERO 453.

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

HONORS. The School of Health, Physical Education and Recreation participates in the Honors Program. See page 23.

Health Education Major (Teaching Emphasis)**Administered by the Department of Health**

Students pursuing the B.A. degree with a major in Health Education must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. Professional Teacher Education, 36 hours.
3. The following courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
CHEM 130	Introductory Organic Chemistry	5
ZOO 156	Elements of Human Physiology & Anatomy	5
	<i>or</i>	
HPER 222	Physiological Kinesiology	3
	<i>or</i>	
ZOO 250	Human Physiology	5
HPER 200	Introduction to Health Education	2
HPER 205	Issues in Health	3
	<i>or</i>	
HPER 237	Human Sexuality	3
	<i>and</i>	
HPER 238	Contemporary Issues in Drug Abuse	3
HPER 224	Maturational Kinesiology	3
	<i>or</i>	
PSY 432	Preadolescence and Adolescence	3
BIO 234	Population Genetics	3
HPER 236	Health Aspects of Gerontology	3
PSY 250	Humanistic Psychology	3
	<i>or</i>	
PSY 255	Psychology of Emotional Adjustment	3
HEC 251	Nutrition I	3
HPER 262	Standard First Aid and Personal Safety	2
HPER 299	Community Health	3
HPER 301	Health Education in the Elementary School	2
HPER 342	Modern Concepts of Health and Disease	3
HPER 343	Methods and Observation of Health Education	5
HPER 350	Introduction to Environmental Health	3
BIO 361	Microbiology	5
HPER 471	Safety Education	3
		54-59

Health Education Minor (Teaching Emphasis)

HPER 200	Introduction to Health Education	2
HPER 205	Issues in Health	3
	<i>or</i>	
HPER 237	Human Sexuality	3
	<i>and</i>	
HPER 238	Contemporary Issues in Drug Abuse	3
HPER 262	Standard First Aid and Personal Safety	2
PSY 250	Humanistic Psychology	3
	<i>or</i>	
PSY 255	Psychology of Emotional Adjustment	3
	<i>or</i>	
PSY 432	Preadolescence and Adolescence	3
HPER 299	Community Health	3
HPER 301	Health Education in the Elementary School	2
HPER 342	Modern Concepts of Health and Disease	3
HPER 343	Methods and Observation of Health Education	5
HPER 350	Introduction to Environmental Health	3
HPER 471	Safety Education	3
		29-32

Health Major (Non-Teaching Emphasis) Administered by the Department of Health

Students pursuing the B.S. degree with a major in Health must plan to fulfill the following requirements:

1. All general education requirements as specified earlier in this catalog.
2. Complete the required courses in the major:

CHEM	130	Introductory Organic Chemistry	5
		<i>or</i>	
CHEM	281	Human Biochemistry	5
ZOO	156	Elements of Anatomy and Physiology	5
		<i>or</i>	
HPER	222	Physiological Kinesiology	3
		<i>or</i>	
ZOO	250	Human Physiology	5
HPER	200	Introduction to Health	2
RSM	203	Introduction to Statistical Methods	3
HPER	224	Maturational Kinesiology	3
		<i>or</i>	
PSY	250	Humanistic Psychology	3
		<i>or</i>	
PSY	432	Preadolescence and Adolescence	3
BIO	234	Population Genetics	3
HPER	236	Health Aspects of Gerontology	3
HEC	251	Nutrition I	3
BIO	261	Medical and Public Health Microbiology	4
		<i>or</i>	
BIO	361	Microbiology	5
HPER	262	Standard First Aid and Personal Safety	2
HPER	299	Community Health	3
HPER	342	Modern Concepts of Health and Disease	3
HPER	350	Environmental Health	3
HPER	205	Issues in Health	3
		<i>or</i>	
HPER	237	Human Sexuality	3
		<i>or</i>	
HPER	238	Contemporary Issues in Drug Abuse	3
ZOO	412	General Parasitology	5
HPER	471	Safety Education	3
HPER	454	Internship in Health	9-18
		<i>and twelve hours from the following:</i>	
HEC	251	Nutrition I	3
SOC	272	The Community	3
SOC	310	Social Psychology	3
SOC	325	Sociology of Medicine	3
BUS	341	Life and Health Insurance	3
BUS	354	Human Behavior in Business	3
SOC	435	Socio-Cultural Change	3
ANT	470	The Nature of Man	3
ANT	472	Medical Anthropology	3

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Health Minor (non-teaching)

Students interested in the Health Science Minor (non-teaching) will be required to complete 36 hours from the following:

CHEM	108	General Chemistry	5
		<i>or</i>	
CHEM	130	Introductory Organic Chemistry	5
		<i>or</i>	
CHEM	281	Human Biochemistry	5

ZOO	156	Elements of Human Physiology-Anatomy .....	.5	
		<i>or</i>		
ZOO	250	Human Physiology (Preq. ZOO 121 or 326 and CHEM 281) .....	.5	5
PSY	250	Humanistic Psychology .....	.3	
		<i>or</i>		
PSY	432	Preadolescence and Adolescence .....	.3	3
HPER	299	Community Health .....	.3	3
HPER	342	Modern Concepts of Health and Disease .....	.3	3
HPER	350	Introduction to Environmental Health .....	.3	3
BIO	261	Medical and Public Health Microbiology .....	.4	
		(recommended CHEM 281, ZOO 121)		
		<i>or</i>		
BIO	361	Microbiology (Preq. CHEM 130-5) .....	.5	4-5

Nine hours of Electives from the following to complete 36 hours for the minor.

SOC	272	The Community .....	.3	
SOC	310	Social Psychology .....	.3	
SOC	325	Sociology of Medicine .....	.3	9
SOC	435	Socio Cultural Change3	
ANT	470	The Nature of Man3	
ANT	472	Medical Anthropology3	

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History Major

Administered by the Department of History

1. Meet all General Education requirements as specified earlier in this catalog.
2. Students pursuing the B.A. degree with a major in History, teaching or non-teaching, must take the following courses in the major:

	<i>Hours Credit</i>
I. World History I, II, III	12
HIST 130, 131, 132	
II. United States History I, II, III	9
HIST 170, 171, 172	
III. Survey of Asian History	4
HIST 240	
IV. Introduction to Historical Research	3
HIST 499	
V. Advanced Electives in History .....	.36
	<hr/> 64

3. One minor of 27 quarter hours preferably within the College of Arts and Sciences.

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

5. Electives sufficient to complete the 180 quarter hours required for the Bachelor of Arts degree.

6. Students majoring in history who plan to teach in the public schools are responsible for the program outlined above (1-5). Moreover, such students should be advised that the more subjects they are pursuing the greater the opportunity for employment. Regional Teaching accrediting agencies require at least 18 quarter hours of study in the specific discipline before the candidate is permitted to teach, e.g., 18 quarters Anthropology, 18 quarter hours in Geography, etc. *Non-history courses will not be counted towards the major.* Students will also take 31 quarter hours in the Professional Teacher Education Program (requirements and prerequisites for admission listed below) plus EDFE 373, two quarter hours credit and SSEd 341, three quarter hours credit.

a. The faculty of the History Department will not consider any student's application for the PTE program unless he has passed at least 21 hours in history, of

which at least eight hours of history have been passed at the University of Northern Colorado.

b. To be admitted to PTE one must have a grade point average of at least 2.3 in the major. In figuring the grade point average in the major, only courses taken at the University of Northern Colorado are counted, excluding the general education courses or their substitutes.

c. Before registering for EDFE 373 and SSED 341 one must have completed EDF 460 and PSY 302 to 326 (five 2-week units), and the following courses or their equivalents:

I. World History I, II, III	.....12
HIST 130, 131, 132	
II. United States History I, II, III	.....9
HIST 170, 171, 172	
III. Two of the introductory courses in the social sciences10
IV. Advanced Electives in History3
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The above requirements (6a,b,c,) also apply for the History minor.

d. Before registering for EDFE 460, Student Teaching, all majors in History must have completed at least 40 hours in the major.

History Minor

Student pursuing the B.A. degree with a minor in History, teaching or non-teaching, must take the following courses in the minor:

I. World History I, II, III	.....12
HIST 130, 131, 132	
II. United States History I, II, III	.....9
HIST 170, 171, 172	
III. Advanced Electives in History	.....15
	36

Students minoring in History should take two of the following basic courses to fulfill the General Education requirement: ANT 100, ECON 100, GEOG 100, PSCI 100, SOC 100.

These general education courses will not be counted toward the minor.

HONORS. The Department of History participates in the Honors Program. See page 23.

Home Economics Education

Administered by the Department of Home Economics

With the fulfillment of the specified Home Economics subject matter requirements, vocational and education courses, the student will be certified and credentialed to teach in home economics programs in the junior and senior high schools.

1. Cumulative GPA of 2.3 for admission into PTE.
2. Minor is recommended. Student should select a concentration in an area other than Home Economics to increase employment opportunities.
3. A total of five hours are required from food modules courses numbered HEC 249, 349 and 449 and may be taken after the freshman year.
4. The follow courses are required:

- a. *HEC 101, Self Identification 2
- b. *HEC 108, Investigating the Home Economics Profession 2

Freshman Year

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
HEC 171	Design in Living	3	
HEC 181	Basic Textiles	5	
HEC 193	Creative Clothing Construction	3	
			<u>11</u>

Sophomore Year

HEC 211	Management for Effective Living	3	
HEC 212	Management Dynamics	3	
HEC 221	Family Relationships	3	
HEC 242	Principles of Food Preparation	4	
HEC 249	Food Modules	1-3	
HEC 250	Principles of Human Nutrition	3	
			<u>17-19</u>

Junior Year

VE 310	Foundations of Vocational Education	2	
VE 311	History of Vocational Education	1	
CD 331	Development of Infant and Toddler	3	
CD 333	Development and Guidance of Preschool Child	4	
HEC 349	Food Modules	1-3	
HEC 362	Demonstration Techniques	2	
HECV 363	Introduction to Curriculum in Home Economics Education	3	
HECV 367	Principles/Practices of Evaluation in Home Economics Education	3	
HECV 369	Laboratory Management and Maintenance	1	
HEC 371	Design for Shelter	3	
HEC 372	Design for Interiors	3	
HEC 374	Consumer Aspects of Household Equipment	4	
HEC 395	Fashion Design - Flat Pattern Drafting	4	
	<i>or</i>		
HEC 494	Tailoring	4	
			<u>34-36</u>

Senior Year

VE 412	Cooperative Education and Coordination Tech	3	
HEC 415	Consumer Education	3	
HEC 449	Food Modules	1-3	
HECV 460	Occupations in Home Economics	3	
HECV 462	Preparation for Teaching Vocational Home Economics	3	
HECV 464	Home Economics Youth Organizations	2	
HECV 465	Home Economics Programs for Special Needs	3	
HECV 482	Teach Improvement Seminar in Vocational Home Economics	2	
			<u>20-22</u>

Recommended courses:

EDFE 270	Teaching Aids	1-4	
VE 290	Directed Occupational Experience	3-8	
EDSE 308-13	Handicapped Children in the Classroom	3	
EDSE 308-15	Education of Handicapped Children in Secondary Classroom	3	
EDEM 330	Instructional Materials-Problems of Organization, Storage, and Retrieval	3	
	<i>or</i>		
EDEM 420	Design and Construction of Audio-Visual Materials	3	
HEC 432	Teaching Child Development and Family Relationships	3	

For students who elect to qualify for occupational programs in public schools or other institutions, 2000 wage-earning hours in Home Economics related occupations are required.

Each student with a major in Home Economics Education will be assigned to a faculty adviser.

The following courses are required for professional teacher education certification:

PSY	301-326	Psychology Modules	5
EDF	365	Basic Concepts of Education	5
EDFE	368	Introduction to Teaching: Home Economics	2
EDFE	470	Supervised Teaching: Vocational Education	18
EDF	485	Philosophy of Education	3

*These courses should be taken during the first year the student is a major.

Home Economics Minors

A student who wishes to minor in Home Economics must register with the department prior to enrollment.

General Home Economics Minor

A minimum of 27 credit hours needs to be selected from the following courses (this is not a teaching minor):

HEC	171	Design in Living	3
HEC	181	Basic Textiles	5
HEC	193	Creative Clothing Construction	3
HEC	211	Management for Effective Living	3
HEC	221	Family Relationships	3
HEC	250	Principles of Human Nutrition	3
CD	331	Development of the Infant and Toddler	3
CD	333	Development and Guidance of the Preschool Child	4
HEC	340	Basic Food Preparation and Service	4
IA	359	Construction Activities for the Elementary School	3
HEC	371	Design for Shelter	3
HEC	372	Design for Interiors	3
HEC	415	Consumer Education	3
HEC	456	Infant and Child Nutrition	3

Home Economics Minor in Business

A student with a major in the Department of Home Economics may choose the following program for a minor in Business.

BUS	100	The American Business System	3
BUS	150	Principles of Management	3
BUS	220	Principles of Accounting I	4
BUS	260	Marketing	4
BUS	261	Salesmanship	3
BUS	361	Retail Management	4
BUS	362	Advertising	3
ECON	100	Introductory Economics	5

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Area of Emphasis

Textiles and Clothing

Courses in textiles and clothing enriched through recommended courses in Business, Economics, Fine Arts, Psychology, Science and Sociology, furnish know-

ledge and training essential to the student and ultimate consumer for satisfactory selection of clothing and household fabrics for the individual, the family, and the home.

The emphasis in textiles and clothing leads to opportunities in many areas such as teaching in stores, extension or trade schools, custom dressmaking or work with commercial companies as a consultant. It is recommended that the student work within the framework of the Family Life and Consumer Education Major. A student interested in careers opportunities in the fashion industry may elect to follow a minor in Business. The selection and sequence of courses is subject to approval by the major adviser in textiles and clothing.

Recommended Departmental Courses

HEC	181	Basic Textiles	5
HEC	190	Fundamentals of Clothing Construction	3
		<i>or</i>	
		Competency Exam	
HEC	193	Creative Clothing Construction	3
HEC	382	Consumer Textiles	4
HEC	384	Seminar in Textiles and Clothing	3
HEC	395	Fashion Design - Flat Pattern Drafting	4
HEC	481	Advanced Textiles	4
HEC	494	Tailoring	4

**Home Economics Science Minor
Administered by the Department of Chemistry**

This minor consists of three or four quarters of chemistry and microbiology (BIO 361) and electives with approval of the minor adviser to complete 27 hours.

**Humanities Minor
Administered by the English Department**

A pre-planned thirty-six hour program of coordinated courses in the arts and humanities requiring careful organization by the student with his adviser and the Director of Humanities.

Requirements:

1. Thirty-three hours of study in at least two, but no more than three of the areas of Anthropology, Communications, English, Fine Arts, History, Humanities, Music, Philosophy, Sociology, Theatre.
2. Careful coordination of related courses. These may be coordinated around a topic, theme, period of time or place; for example: topics or themes in classical or Renaissance or Asian culture; comparative studies in literature, art, philosophy; and so forth.
3. A three-hour independent study on a topic selected by the student at the culmination of the course work from ideas inspired by the courses. The study is to cut across disciplinary boundaries, and it may cross chronological or cultural lines. The purpose of the study is to help the student in integrating and synthesizing knowledge.
4. No hours in the student's major field will apply to the minor.

Following is a list of courses that may be drawn upon to build an integrated group of studies. Others from the departments listed may be taken with the approval of the adviser and the department or professor.

ANTHROPOLOGY 100, 110, 120, 121, 122, 220, 221, 222, 280, 300, 320, 321, 322, 323, 324, 325, 326, 327, 328, 331, 360, 361, 380, 381, 382, 383, 420, 421, 431. (Ant 100 or 110 recommended as prerequisites.)

COMMUNICATION 140, 170, 212, 220, 302, 323, 356, 400, 420, 490.

ENGLISH 211, 212, 213, 214, 216, 217, 218, 219, 220, 221, 225, 226, 301, 302, 325, 360, 401, 402, 403, 405, 406, 407, 408, 410, 411, 415, 416, 430, 440, 441, 450.

FINE ARTS 110, 111, 112, 360, ~~404~~, 362, 363, 364, 365, 366, 367, 368, 380, 381, 382.

HISTORY 125, 126, 127, 130, 131, 132, 170, 171, 172, 210, 220, 230, 350, 360, 458, 459, 490, 492.

HUMANITIES 201, 202, 203, 204, 205, 210, 220, 221, 222, 223, 226, 251, 252, 290, 301, 377, 378, 411.

MUSIC 140*, 141*, 142*, 143*, 240*, 241*, 242*, 340*, 448*, 449*, 285*, 385*, 485*

Applied music: maximum of 3 hours in study of any instrument or voice acceptable towards the minor.

Musical organizations: maximum of 3 hours acceptable towards the minor. (*Prerequisites would need to be fulfilled.)

PHILOSOPHY 100, 150, 201, 202, 203*, 270, 305*, 312*, 315*, 330, 355, 360*, 370*, 415*. (*Fulfill prerequisites or have consent of instructor.)

SOCIOLOGY 145*, 310*, 312*, 321*, 323*, 333*, 334*, 341*, 345*, 410*, 420*, 421*, 432*, 435*, 450*, 451*. (*Prerequisite SOC 100.)

THEATRE 230, 320, 430, 431, 432.

Florence Program: Humanities

For courses taught in Florence, see page 213.

Individual Tutorial Program

This highly-individualized, experimental program, initiated winter quarter 1975, is open to freshmen, sophomores, and first quarter juniors. A small number of faculty members have been designated as tutors, each of whom will be assigned from ten to twenty students. Each participating student will select a tutor upon entry into the program, and, thereafter, the student's entire educational experiences will be determined by agreement between the tutor and student. A student may enroll in a maximum of two regular courses each quarter; the bulk (and possibly, the entirety) of his credits, however, will be earned in tutorial study, consisting of blocks of essentially-independent work -- in the library, laboratory or field -- devised in consultation with the tutor. At frequent intervals the student will meet with his tutor for informal discussion of work projects and progress. Tutorial students with similar interests will also have an opportunity to meet together periodically. Each block of tutorial work will culminate in a research or analytical report or some other evidence of the student's accomplishment. No grades, other than satisfactory/unsatisfactory will be given, although the tutor will maintain a thorough evaluative record of the student's work and attainments.

Students interested in the program should consult one of the tutors: Professors Neal Croes (English), Richard Dietz (Earth Sciences), or James Wanner (Anthropology), or Dean Robert Schulze (Arts and Sciences).

Industrial Arts Major (Non-Teaching)

Administered by the Department of Industrial Arts

Students pursuing the B.S. degree with a major in Industrial Arts (non-teaching) must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. Mathematics 123 and 124.
3. Chemistry 104 and 105.
4. Physics 260 and 261.
5. Industrial Arts core which consists of 61-65 academic quarter hours as follows:

Course No.	Course Title	Hours Credit
IA 118	General Plastics (Synthetic Materials)	3
IA 141	Graphic Arts Fundamentals	3
IA 150	Wood Processing	3
IA 161	Principles of Drafting	3
IA 170	General Metals	3
IA 180	General Electricity	3
IA 190	Introduction to Power	2
IA 219	Plastics	2
IA 241	Graphic Arts	2
IA 261	Pictorial Drafting	2
IA 272	Gas and Electric Welding	3
IA 281	Electro-Mechanical Equipment and Measuring Instruments	2
IA 291	Internal Combustion and Reciprocating Engines	3
IA 350	Woodworking Technology	5
IA 362	Working Drawings	3
IA 374	Machine Tool Operation	2
IA 480	Electronic Circuit Applications	5-9
IA 433	Industrial Materials	3
	Business or Economics Electives	9
		61-65

6. Twenty academic quarter hour electives in industrial arts.
7. Free electives to complete 180 quarter hours of academic credit for graduation. Suggested areas as follows:

Air Science	Earth Science
Biology	Economics
Botany	Education
Business	Fine Arts
Chemistry	Mathematics
Philosophy	Special Education
Physics	Statistics
Psychology, Counseling & Guidance	Zoology

Industrial Arts Major (Teacher Preparation)

Administered by the Department of Industrial Arts

Students majoring in Industrial Arts who plan to teach in the public schools should meet the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. Professional Teacher Education, 31 hours, plus EDFE 369, two hours credit; EDFE 270, three hours credit (recommended that it be completed by the end of the sophomore year).
3. Required courses in the major:

IA 118	General Plastics (Synthetic Materials)	3
IA 141	Graphic Arts Fundamentals	3

IA	150	Wood Processing	3
IA	161	Principles of Drafting	3
IA	170	General Metals	3
IA	180	General Electricity	3
IA	190	Introduction to Power	2
IA	219	Plastics	2
IA	241	Graphic Arts	2
IA	261	Pictorial Drafting	2
IA	272	Gas and Electric Welding	3
IA	281	Electro-Mechanical Equipment and Measuring Instruments	2
IA	291	Internal Combustion and Reciprocating Engines	3
IA	320	Course Organization in Industrial Arts	3
IA	330	Methods of Teaching in the Secondary School Industrial Arts	3
IA	335	History and Philosophy of Industrial Arts	3
IA	336	Principles of General Shop Organization	5
IA	350	Woodworking Technology	5
IA	362	Working Drawings	3
IA	374	Machine Tool Operation	2
			<u>58</u>

4. Elect 10 additional hours from the following areas of industrial arts: Wood, Metal, Crafts, Drafting, Power, Graphic Arts and Electricity-Electronics (Total IA Major is 68 hours).

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

Minors in Industrial Arts

All students who wish to minor in Industrial Arts must register with the Department prior to enrollment in either of the two programs listed below.

Industrial Arts Minor (Teaching Preparation)

Required courses in the minor:

IA	161	Principles of Drafting	3
IA	261	Pictorial Drafting	2
IA	320	Course Organization in Industrial Arts	3
IA	336	Principles of General Shop Organization	5

Elect 17 quarter hours in industrial arts to meet the minor requirement of 30 hours.

Industrial Arts Minor (Non-Teaching)

This minor requires the election, with the approval of the minor adviser, of 30 quarter hours in industrial arts.

Interdisciplinary Studies Program

Under this recently-inaugurated program any undergraduate in the College of Arts and Sciences (and, with the approval of the appropriate dean, those in other schools and colleges) will be able to pursue an interdisciplinary course of study of his or her own devising in substitution for the traditional major and minor.

The major purposes of this program are to afford students greatly enlarged opportunities to pursue courses of study tailored to their individual interests and

needs; to encourage students to develop a greater awareness of the interrelatedness and wholeness of knowledge; to enable students to confront both contemporary and lasting human issues and problems in broad, realistic perspective; and to help lay the groundwork for students who aspire to useful careers in such important fields as environmental protection, urban affairs, and international relations.

Degree requirements under this program consist of: meeting all basic category requirements of the General Education program -- that is, completing three courses in the Sciences, three in the Social and Behavioral Sciences, three in Humanities and Integrative Studies, two in Communications, two in Professional and Applied Studies, and two ICU courses -- but, providing the foregoing are satisfied, the student need not complete the full complement of 60 hours in General Education; completing a coherent multi- or interdisciplinary program of approximately 90 hours, developed in consultation with at least two faculty members selected by the student (who will then serve as the student's advisory committee until the program is completed), and with the approval of a University-wide Committee on Interdisciplinary Studies; accumulating the total 180 quarter hours of academic credit required for graduation. (Students who plan to teach in the public schools should also include 36 hours of Professional Teacher Education courses in their program.) Students desiring to enter the program should do so not later than the second quarter of their junior year.

Interested students should consult with Dean Robert Schulze, Chairman of the Committee on Interdisciplinary Studies, or other members of that committee, or a member of the Admissions staff.

Journalism Major **Administered by the Department of Journalism**

News-Editorial Journalism Sequence

Students studying for the B.A. degree in Journalism with an emphasis in news-editorial study must plan their programs to fulfill the following requirements:

1. Meet all General Education Requirements as specified earlier in this catalog.
2. Journalism courses totaling 50 quarter hours.
3. Select one minor from among communication, English, business education, economics, history, political science, physical science, radio-television, social science, the arts, or business, to total 27 quarter hours; or select 27 quarter hours from various academic areas with the approval of a journalism adviser.
4. Electives to complete 180 quarter hours. Among these electives must be at least nine hours in one liberal arts study area, beyond requirements in that area specified for General Education and for the journalism major.
5. Each major, before his last quarter, must pass a typing proficiency test and a grammar-copyediting proficiency test.
6. Each major, after finishing the junior year, should take the one-quarter internship (JOUR 450) for 15 hours credit.
7. Majors are required to have at least three quarter hours of internship on student publications or work in the UNC news office, with permission of a journalism adviser.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
JOUR 100	Introduction to Journalism .....	.2
JOUR 105	Newswriting .....	.4
JOUR 115	Advanced Newswriting .....	.4
JOUR 200,	300, 400 -- Journalism Internship .....	.6
JOUR 250	News Editing .....	.3
JOUR 284	Techniques of Advertising .....	.3

JOUR	297	Feature Writing for News Media	3
JOUR	397	Master Journalists and Their Times	3
JOUR	399	Press and Current Affairs	3
JOUR	496	Opinion Formation	3
JOUR	498	Ethics and Libel	3
IA	345	Publication Production	5
COMM	420	General Semantics	4
		Electives in journalism or related liberal arts courses	4
			<u>50</u>

The emphasis areas are:

Radio-Television Emphasis

JOUR	200	Journalism Internship-Radio	3
COMM	130	Voice and Speech Improvement	3
COMM	141	Broadcast Advertising	3
COMM	150	Public Speaking	3
COMM	240	Radio Production and Practices	3
COMM	340	Introduction to Television Production	4
		Electives in Speech or Journalism	.11
			<u>27</u>

Social Science Emphasis*

HIST	171	United States History II	3
HIST	172	United States History III	3
GEOG	312	Economic Geography	5
PSCI	201	State and Local Government	5
SOC	145	Social Problems	3
		Electives in one of these areas: diplomatic history, contemporary history, economic history and problems, sociology, government or foreign policy	.8
			<u>27</u>

*If selecting this emphasis student takes the General Education requirements of ECON 100, PSCI 100 and SOC 100.

The Arts Emphasis

Electives recommended for the student interested in home economics are HEC 171, 192, 198, 211, 221, 271, 340, 415. Electives recommended for the student interested in industrial arts are IA 342, 443, 485, plus 18 additional hours

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Business Emphasis

BUS	100	The American Business System	3
BUS	101	Consumer Business Problems	3
BUS	150	Principles of Management	3
BUS	280	Marketing	4
BUS	281	Salemanship	3
BUS	382	Advertising	3
BUS	461	Advertising Strategy	3
COMM	240	Radio Production and Practices	3
		Electives in Business or Journalism	.11
			<u>Minimum 36</u>

Teacher Education Journalism Sequence

Students majoring in Journalism who plan to teach in the public schools should complete the requirements for the news-editorial journalism sequence listed above, with these additions:

1. Gain admittance to Professional Teacher Education as explained under that section early in this catalog.
2. Complete 36 quarter hours in professional education, including EDF 365, PSY 301, EDFE 260 or 270 (observation), JOUR 301 (methods), and EDFE 460, 461, or 462 (student teaching). The student teaching or internship will be substituted for the one-quarter internship (JOUR 450) listed in point 6 above. EDEM 420 is recommended as an elective.
3. Complete one minor in speech communication, English, anthropology, geography, business education, or other closely related teaching field.

Journalism Minor (teaching)

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

JOUR	100	Introduction to Journalism	2
JOUR	105	Newswriting	4
JOUR	115	Advanced Newswriting	4
JOUR	284	Techniques of Advertising	3
*JOUR	301	Methods of Teaching Journalism in the Secondary School	3
IA	345	Publication Production	5
COMM	420	General Semantics	4
		**Electives in journalism, English, speech, or social science	2
			27

*This course taken only if going into teacher education.
 **JOUR 250 recommended as elective credit.

HONORS. The School of Business participates in the Honors Program. See page 23.

**Junior High School Science Major
 Administered by the Department of Science Education**

Students majoring in Junior High School Science who plan to teach in the public schools are required to include the following courses in their programs:

1. All General Education requirements as specified earlier in this catalog.
2. Professional Teacher Education, 31 hours, and SCED 442, three hours credit.
3. SCED 151, Introductory Science Field Experiences.
4. The following courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
BIO	101 Principles of Biology	5	
BIO	102 Principles of Botany	5	
BIO	103 Principles of Zoology	5	
CHEM	104 Principles of Chemistry I	5	
	<i>or</i>		
CHEM	106 Principles of Chemistry IA	5	5
CHEM	105 Principles of Chemistry II	5	
	<i>or</i>		
CHEM	107 Principles of Chemistry IIA	5	5
PHYS	260 Introductory Physics -- Mechanics	4	
PHYS	261 Introductory Physics -- Heat, Sound, and Light	4	
GEOL	100 General Geology (If an Earth Sciences Minor is elected, replace GEOL 100 with four hours of additional electives.)	4	
	*Electives	19	
			56

5. One minor of at least 27 quarter hours.

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

***Recommended electives:**

AST	100	General Astronomy	4
BIO	231	Genetics	5
BIO	250	Cell Physiology	5
BIO	260	Microbiology	5
BIO	336	Evolution	3
BIO	360	Biology of Microorganisms	3
BIO	401	Conservation of Natural Resources	4
CHEM	130	Introductory Organic Chemistry	5
GEOL	201	Principles of Geology I	5
MET	100	General Meteorology	4
MET	320	Climatology	3
MET	330	Physical Meteorology	3
OCN	100	General Oceanography	3
OCN	201	Principles of Oceanography	3
PHYS	262	Introductory Physics - Electricity and Magnetism	4
SCI	210	Values Act(i) on Environment	3
ZOO	250	Human Physiology	5

Mathematics Major (Liberal Arts)

Administered by the Department of Mathematics

Students pursuing the B.A. with a major in Mathematics must plan their programs to fulfill the following requirements. (No minor is required in this program.):

1. All General Education requirements as specified earlier in this catalog.
2. Courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
*MATH 131	Calculus with Analytic Geometry I	4	
*MATH 132	Calculus with Analytic Geometry II	4	
*MATH 133	Calculus with Analytic Geometry III	4	
*MATH 234	Calculus with Analytic Geometry IV	4	
MATH 321	Introduction to Modern Algebra I	4	
MATH 322	Introduction to Modern Algebra II	4	
MATH 323	Introduction to Modern Algebra III	4	
MATH 432	Basic Analysis I	4	
MATH 433	Basic Analysis II	4	
MATH 434	Basic Analysis III	4	
	Electives to be selected from MATH 250 or higher, excluding MATH 280, 330, 331, 332, 351, 395 and 401	20	
			60

*Qualified Students may be exempted by examination.

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

Mathematics Majors (Teacher Education)

Administered by the Department of Mathematics

Students majoring in Mathematics who plan to teach in the secondary school should include the following courses in their programs (no minor is required in this program):

1. All General Education requirements as specified earlier in this catalog;
2. Professional Teacher Education 36 hours, including EDFE 370, two hours credit, and MED 341, three hours credit.
3. Courses in the major:

*MATH	131	Calculus with Analytic Geometry I	4
*MATH	132	Calculus with Analytic Geometry II	4
*MATH	133	Calculus with Analytic Geometry III	4
*MATH	234	Calculus with Analytic Geometry IV	4
MATH	321	Introduction to Modern Algebra I	4
MATH	322	Introduction to Modern Algebra II	4
MATH	323	Introduction to Modern Algebra III	4
MATH	341	Introduction to Modern Geometry I	4
MATH	342	Introduction to Modern Geometry II	4
MATH	380	Computer Programming	4
MATH	250	Elementary Probability Theory	4
MATH	432	Basic Analysis I	4
MATH	433	Basic Analysis II	4
		Electives to be selected from mathematics or mathematics education courses numbered 203 or higher	8
			60

*Qualified Students may be exempted by examination.

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

Students majoring in Mathematics who plan to teach in the elementary school should include the following courses in their programs:

1. Meet all General Education requirements as specified earlier in this catalog.
2. Professional Teacher Education 31 hours.
3. Courses in the major:

*MATH	131	Calculus with Analytic Geometry I	4
*MATH	132	Calculus with Analytic Geometry II	4
*MATH	133	Calculus with Analytic Geometry III	4
MATH	201	Basic Mathematical Logic	3
MATH	202	Theory of Sets	3
MATH	321	Introduction to Modern Algebra I	4
MATH	322	Introduction to Modern Algebra II	4
MATH	341	Introduction to Modern Geometry I	4
MATH	250	Elementary Probability Theory	4
		Electives: MATH 124, 125, 191, 192, 193, or any MATH or MED courses numbered 200 or higher. (Elementary Education majors cannot count MATH 191 or 192 in this major.)	14
			48

*Qualified Students may be exempted by examination.

4. Complete the additional requirements as stated on page 69 in this catalog for certification as an elementary school teacher.

Mathematics Minors

Following are the requirements for the Liberal Arts minor:

*MATH	131	Calculus with Analytic Geometry I	4
*MATH	132	Calculus with Analytic Geometry II	4
*MATH	133	Calculus with Analytic Geometry III	4
*MATH	234	Calculus with Analytic Geometry IV	4

Electives in mathematics numbered 124 or higher, at least eight of which must be in courses numbered 250 or higher excluding MATH 330, 331, 332, 395, and 401	14
	30

*Qualified Students may be exempted by examination.

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

1. Courses in the minor:

*MATH 131	Calculus with Analytic Geometry I	4
*MATH 132	Calculus with Analytic Geometry II	4
MATH 321	Introduction to Modern Algebra I	4
MATH 322	Introduction to Modern Algebra II	4
MATH 341	Introduction to Modern Geometry I	4
	**Electives in mathematics or mathematics education courses numbered 124 or higher	10
		30

2. MED 341, Methods of Teaching Mathematics.

*Qualified Students may be exempted by examination.

**It is recommended that a course be selected from among MATH 323, 342, 250, 305, 380, 464.

Following are the requirements for the minor in mathematics for Elementary Education majors:

MATH 193	Informal Geometry	3
	Electives to be selected with approval of the student's minor adviser	24
		27

HONORS. The Department of Mathematics participates in the Honors Program. See page 23.

Medical Technology Major
Administered by the Department of Chemistry

The four-year program leading to the B.A. degree in Medical Technology requires the student to earn a total of 180 academic quarter hours. A minimum of 132 quarter hours will be earned on the campus of the University of Northern Colorado during the first three years and 48 quarter hours of Medical Technology will be earned during the senior year (12 months) at one of the affiliated hospitals (Weld County General Hospital, Greeley; St. Francis Hospital, Colorado Springs; Mercy Hospital, Denver). These courses are under the supervision of the clinical staff at each hospital. Only a limited number of positions are available for the clinical year. Selection of students for placement will be made from qualified juniors in the program. Criteria for selection will include academic performance, with emphasis on work in the major and minor courses, length of time in the major and faculty recommendations.

Students admitted to the Medical Technology program must include the following courses in their program:

1. General Education (42 hours) as specified earlier in this catalog. Three required science courses will be accepted as meeting the area requirements in science.

2. Courses in the major:

Course No.	Course Title	Hours Credit
MTEC 450	Urinalysis and Clinical Microscopy	4
MTEC 452	Hematology	9

MTEC	453	Pretransfusion Tests and Blood Bank Procedures	5
MTEC	454	Clinical Chemistry	13
MTEC	455	Serology	3
MTEC	456	Medical Microbiology	12
MTEC	457	Histologic Technique	2
			<hr/> 48

3. The Medical Technology Chemistry minor of 27 or more hours.

4. Thirty-eight quarter hours are required by the American Society of Clinical Pathologists and the staff of the Weld County General Hospital in the following courses: BIO 350, BIO 361, CHEM 281 or CHEM 482 and 483, PHYS 261, 262, BIO 101, 103, ZOO 250.

5. Five hours of college mathematics.

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

Mexican American Studies Major

Administered by the Department of Mexican American Studies

Students pursuing the B.A. with a major in Mexican American Studies must plan their programs to fulfill the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog.
2. The following required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
MAS	101	Introduction to Mexican American Studies	4
MAS	102	Oral, Reading and Written Spanish Communication I	3
MAS	103	Oral, Reading and Written Spanish Communication II	3
MAS	104	Oral, Reading and Written Spanish Communication III	3
MAS	270	History of Mexico I	3
MAS	280	History of Mexico II	3
MAS	290	Intermediate Oral, Reading and Written Spanish Communication	3
MAS	300	Advanced Oral, Reading and Written Spanish Communication	3
MAS	302	Social Stratification in the Mexican American Community	3
MAS	304	Bicultural Systems	3
MAS	306	History of the Chicano in the Southwest	3
MAS	308	Survey of Mexican Literature	3
MAS	310	Linguistics Applied to Chicano Spanish	3
MAS	410	Survey of Contemporary Chicano Literature	3
MAS	412	Mexican American Art	3
MAS	414	Mexican American Philosophical Thought	3
			<hr/> 49

3. A minor of 27 or more quarter hours or a second major (strongly recommended).

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

Mexican American Studies Minor

MAS	101	Introduction to Mexican American Studies	4
MAS	302	Social Stratification in the Mexican American Southwest	3
MAS	304	Bicultural Systems	3
MAS	306	History of the Chicano in the Southwest	3
MAS	414	Mexican American Philosophical Thought	3
Electives to be selected with the approval of the student's minor adviser			11
			<hr/> 27

In addition to these 27 hours, students majoring in the teaching professions are required to take EDCI 551, Problems in Teaching Minority Groups, 3 hours credit, and to have Student Field Experience with Mexican American students.

Middle School Education

The Middle School Education major is a program leading to the B.A. degree for career teachers at middle school levels (usually a subset of grades 5-8). Students selecting this program will be assigned to a Middle School Advisory Group of about 12 students with an adviser. The Advisory Group will serve to help the student in planning the total program, arranging for early field experiences, providing for alternative and additional studies, promoting continuity in the total program, and giving some guidance during the first year of employment.

The Middle School Council establishes policy for this major and approves the proposed academic components of the middle school major for each student in the program.

Students pursuing this major must plan their programs to meet the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog.
2. Complete a Middle School Academic Major under one of the following plans:

Plan I. One major field with supporting field.

Plan II. Two related fields.

Plan III. A broad, interdisciplinary field.

The Middle School Academic Major must be approved by the student's adviser and by the Middle School Council and must contain a minimum of 60 quarter hours.

3. Complete the following Professional Education Program:

Course No.	Course Title	Hours	Credit
EDCI	101 Orientation to Education	.....	.2
EDCI	102 Orientation to Middle Schools	.....	.2
EDSE	401 Handicapped Students in Regular Classrooms	.....	.3
EDSE	403 Working with Handicapped Students in the Secondary School	.....	.3
PSY	190 General Psychology	.....	.3
	Electives in Psychology:		
	i. Courses on the early adolescent	.....	.5
	ii. Courses on teacher development	.....	.4
EDF	365 Basic Concepts in Education	.....	.5
EDF	485 Philosophy of Education	.....	.3
EDRD	420 Reading in Secondary Schools	.....	.3
EDFE	270 School and Community Aide	.....	.2 (or more)
EDFE	380 Simulation Experiences in the Human Relations of Teaching	.....	.3
EDFE	362 Introduction to Teaching (Middle School)	.....	.2
EDCI	341 Methods of Teaching (Middle School)	.....	.3
EDFE	460 Supervised Teaching (Middle School)	.....	.18
			<u>61</u>

Music Majors

Administered by the School of Music.

Students who are interested in majoring in music are not automatically accepted as music majors even though they meet the general admission requirements of the university. Formal applications for admission to the School of Music must be made through the office of the Dean of the School of Music. Auditions and interviews are part of the admission requirements. Admission forms are available upon request. Admission may be limited by availability of staffing and facilities.

Bachelor of Arts (non-teaching) Degree

Music Major
 Music Minor

Bachelor of Music (non-teaching) Degree

Emphasis in Instrumental, Voice or Piano performance or Theory and Composition.

A combined program with the Bachelor of Music Education Degree and the Bachelor of Music Degree in the performance or theory and composition areas.

Bachelor of Music Education (teaching) Degree

Music Education (Instrumental or Vocal, Piano and General Emphasis).
 Music Education and Elementary Education (a double major).
 Music Education and Music (combined with the Bachelor of Music Degree).

Bachelor of Arts Degree

1. Complete all General Education requirements as specified earlier in the catalog.

2. A 51-hour major in music as outlined below:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
	100	Recitals, Concerts, Productions 0
MUS	101,102, 103	Sight Singing & Theory I, II, III .....12
*MUS	141, 142, 143	Music Literature & Styles I, II, III 6
MUS	201, 202, 203	Advanced Sight Singing & Theory I, II, III 9
MUS	240, 241, 242	History of Music I, II, III 9
MUS	301	Counterpoint 3
MUS	302	Homophonic Forms 3
		Electives in Music 9
		51

*May be used as part of the 60 hours of required General Education.

3. One academic minor of 27 quarter hours outside the School of Music.

4. Two years of a Foreign Language.

5. Two quarter hours of applied music credit must be earned each quarter in residence in the student's major performance area. One quarter hours of credit must be earned each quarter in residence in a major musical organization (Concert Band, Varsity Band, Symphonic Wind Band, Laboratory Orchestra, Chamber Orchestra, University Symphony Orchestra, Mixed Concert Choir, University Singers, University Chorus, Women's Concert Choir or Varsity Men's Glee Club).

6. Meet all music performance and recital attendance requirements as listed in the respective departmental Applied Music and Performance Handbook.

7. Electives to meet requirements for graduation.

Music Minor (Liberal Arts)

MUS	101, 102, 103	Sight Singing & Theory I, II, III .....12
*MUS	141, 142, 143	Music Literature & Styles I, II, III 6
		Electives 15
		33

All students taking the music minor must complete the above core courses, either by taking the courses or challenging the examination.

In addition, the student may elect courses in music history, theory, literature, performance study, or ensemble participation to complete a 33 hour requirement (a maximum of 6 hours in performance and 3 hours in ensemble participation may apply towards meeting the elective requirements).

*May be used as part of the 60 hours required General Education.

Bachelor of Music Degree

Students pursuing the Bachelor of Music degree must plan their programs to meet the following requirements:

1. Complete 42 hours of General Education as specified earlier in this catalog for non-teaching degree programs.
2. Complete the required courses listed below for the Instrumental, Voice, Piano or Theory and Composition emphasis.
3. Meet all recital attendance requirements as listed in the respective departmental Applied Music and Performance Handbook.
4. Four credit hours of individual instruction shall be carried on during each quarter of residence and culminate in a senior recital or the performance of compositions by the candidate for the degree. See appropriate departmental Handbook.
5. Electives to meet requirements for graduation.
6. Students pursuing the Vocal Emphasis are required to have two years of a Foreign Language.

Instrumental Emphasis (Performance)

MUS	100	Recitals, Concerts, Productions	0
MUS	101, 102, 103	Sight Singing & Theory I, II, III	12
MUS	141, 142, 143	Music Literature & Styles I, II, III	6
MUS	160, 161, 162	Beginning Class Piano I, II, III	
		<i>or</i>	
MUS	260, 261, 262	Intermediate Class Piano I, II, III	
		<i>or</i>	
MUS	171, 271, 371, 471	Individual Performance in Piano	12
MUS	201, 202, 203	Advanced Sight Singing & Theory I, II, III	9
MUS	240, 241, 242	History of Music I, II, III	9
MUS	301	Counterpoint	3
MUS	302	Homophonic Forms	3
MUS	303	Instrumentation	3
MUS	320, 321, 322	Instrumental Techniques and Conducting I, II, III	3
MUS	402	Polyphonic Forms	3
MUS	403	Acoustics of Music	3
MUS	422	Individual Studies (Orchestral Excerpts)	1-4
MUS	423	Practicum in Band Conducting and Performance	
		<i>or</i>	
MUS	425	Practicum in Orchestral Conducting and Performance	3
MUS	449	History of Musical Instruments	3
		Applied Music	48
		Major Musical Organizations	12
		Small Ensembles	12

Voice Emphasis (Performance)

MUS	100	Recitals, Concerts, Productions	0
MUS	101, 102, 103	Sight Singing & Theory I, II, III	12
MUS	141, 142, 143	Music Literature & Styles I, II, III	6
MUS	160, 161, 162	Beginning Class Piano I, II, III	3
MUS	260, 261, 262	Intermediate Class Piano I, II, III	3
		<i>or</i>	
MUS	171, 271, 371, 471	Individual Performance in Piano	12
MUS	185, 285, 385, 485	Opera Workshop	6
MUS	201, 202, 203	Advanced Sight Singing & Theory I, II, III	9
MUS	240, 241, 242	History of Music I, II, III	9
MUS	301	Counterpoint	3
MUS	302	Homophonic Forms	3
MUS	303	Instrumentation	3
MUS	323, 324	Choral Techniques and Conducting I, II	2
		<i>or</i>	
MUS	424	Practicum in Choral Conducting and Performances	3
MUS	402	Polyphonic Forms	3
MUS	409	Stage and Opera Techniques	1-3

MUS	441	Choral Literature	3
MUS	442	Choral Literature from 1750	3
MUS	445	Vocal Repertoire: German Art Song	2
MUS	446	Vocal Repertoire: French Art Song	2
MUS	447	Vocal Repertoire: Italian Song	2
		Applied Music	48
		*Major Musical Organizations	12
		Foreign Languages	27-30
		Electives in Music	12-15

*At least one hour each quarter in residence.

Piano Emphasis (Performance)

MUS	100	Recitals, Concerts, Productions	0
MUS	101, 102, 103	Sight Singing & Theory I, II, III	12
MUS	134, 234, 334, 434	Piano Ensemble	3
MUS	141, 142, 143	Music Literature & Styles I, II, III	6
MUS	170, 270, 370, 470	Individual Performance in Voice	12
MUS	171, 271, 371, 471	Individual Performance in Piano	48
MUS	201, 202, 203	Advanced Sight Singing & Theory I, II, III	9
MUS	237, 238, 239	Piano Literature I, II, III	6
MUS	240, 241, 242	History of Music I, II, III	9
MUS	301	Counterpoint	3
MUS	302	Homophonic Forms	3
MUS	323, 324	Choral Techniques and Conducting I, II	2
MUS	350, 351, 352	Traditions in Piano Literature I, II, III	6
MUS	401	Improvisation	3
MUS	402	Polyphonic Forms	3
MUS	403	Acoustics of Music	3
MUS	404	Piano Accompanying	2
MUS	424	Practicum in Choral Conducting and Performance	3
MUS	437, 438, 439	Piano Literature I, II, III	6
MUS	461, 462, 463	Principal of Piano Teaching I, II, III	6
		Major Musical Organizations	12

Theory and Composition Emphasis

MUS	100	Recitals, Concerts, Productions	0
MUS	101, 102, 103	Sight Singing & Theory I, II, III	12
MUS	141, 142, 143	Music Literature & Styles I, II, III	6
MUS	160, 161, 162	Beginning Class Piano I, II, III	3
		or	
MUS	260, 261, 262	Intermediate Class Piano I, II, III	3
		or	
MUS	171, 271, 371, 471	Individual Performance in Piano	18
MUS	163, 164, 165	Beginning String Instruction I, II, III	3
MUS	201, 202, 203	Advanced Sight Singing & Theory I, II, III	9
MUS	240, 241, 242	History of Music I, II, III	9
MUS	301	Counterpoint	3
MUS	302	Homophonic Forms	3
MUS	303	Instrumentation	3
MUS	320, 321, 322	Instrumental Techniques and Conducting I, II, III	3
MUS	323, 324	Choral Techniques and Conducting I, II	2
MUS	340	Survey of History and Literature of Jazz	2
MUS	360	Voice Class	1
MUS	361	Flute and Saxophone Class	1
MUS	362	Clarinet Class	1
MUS	363	Double Reed Class	1
MUS	364	Trumpet and French Horn Class	1
MUS	365	Low Brass Class	1
MUS	366	Percussion Class	1
MUS	400	Pedagogy of Music Theory	3
MUS	401	Improvisation	2
MUS	402	Polyphonic Forms	3
MUS	403	Acoustics of Music	3

MUS	405	Sixteenth Century Counterpoint	3
MUS	422	Individual Study in Form and Analysis	3
*MUS	177, 277, 377, 477	Individual Instruction in Composition	36
		Major Musical Organization	12

*Individual Instruction in Composition is seldom rewarding for students who do not have a strong background in music theory. Students wishing to enter this program in the freshman year must submit to the Department of Theory and Composition evidence of prior training in the area. This evidence should consist of compositions, high school credits earned in music theory, etc. A personal interview with a member of the Theory and Composition staff should be arranged if at all possible.

Students who are not qualified to enter this program in the freshman year but hope to do so in the sophomore year should seek to be admitted to the School of Music as a major in a performing area for the freshman year.

Bachelor of Music Education with Teacher Preparation

Students pursuing the Bachelor of Music Education for the purpose of teaching must plan their program to meet the following requirements:

1. Complete all General Education requirements as specified earlier in this catalog, including six hours of MUS 141, 142, 143, Music Literature and Styles I, II, III.

2. Professional Teacher Education, 31 hours as specified in the Professional Teacher Education section of this catalog.

3. The required courses listed for the Instrumental Emphasis or the Vocal, Piano and General Emphasis.

4. Two hours of applied music credits are to be earned each quarter of residence in the student's major performance area and one hour of credit to be earned each quarter in residence in a major musical organization (Concert Band, Varsity Band, Symphonic Wind Band, Mixed Concert Choir, University Chorus, Women's Concert Choir, Varsity Men's Glee Club, University Symphony Orchestra, Chamber Orchestra, or Laboratory Orchestra University Singers).

5. Meet all music performance and recital attendance requirements as listed in the respective departmental Applied Music and Performance Handbook.

6. Electives to meet requirements for graduation.

7. Meet requirements for Admission to the Professional Teacher Education Program.

8. Marching Band is required during Fall Quarter of all wind and percussion students on campus in the instrumental music education program who plan to teach in the secondary schools and wish certification.

Instrumental Emphasis

MUS	100	Recitals, Concerts, Productions	0
MUS	101, 102, 103	Sight Singing & Theory I, II, III	12
*MUS	141, 142, 143	Music Literature & Styles I, II, III	6
MUS	160, 161, 162	Beginning Class Piano I, II, III	
		or	
MUS	260, 261, 262	Intermediate Class Piano I, II, III	
		or	
		Electives in Music (upon evidence of piano proficiency	6
MUS	163, 164, 165	Beginning Strings I, II, III	3
MUS	201, 202, 203	Advanced Sight Singing & Theory I, II, III	9
MUS	210	Introduction to Music Education	2
MUS	240, 241, 242	History of Music I, II, III	9
MUS	301	Counterpoint	3
MUS	302	Homophonic Forms	3
MUS	303	Instrumentation	3
MUS	310	Teaching Elementary General Music (PTE)	3

MUS	311	Teaching Middle-Junior High School General Music (PTE) .....	.3
MUS	313	Teaching Instrumental Music (PTE) .....	.3
MUS	320, 321, 322	Instrumental Techniques and Conducting I, II, III .....	.3
MUS	360	Voice Class .....	.1
MUS	361	Flute and Saxophone Class .....	.1
MUS	362	Clarinet Class .....	.1
MUS	363	Double Reed Class .....	.1
MUS	364	Trumpet and French Horn Class .....	.1
MUS	365	Low Brass Class .....	.1
MUS	366	Percussion Class .....	.1
MUS	412	Instrument Repair and Care .....	.2
MUS	443	Instrumental Literature .....	.3
		Applied Music .....	.22
		Major Musical Organization .....	.11
		**Music Electives (to be selected from the following) .....	.8

**Music Electives

MUS	206	Music Methods and Materials for Elementary Teachers (PTE) .....	.2
MUS	316	Teaching Music Listening .....	.3
MUS	317	Children's Song Literature .....	.3
MUS	318	Music Activities for Classroom Teachers .....	.3
MUS	325	Choral Conducting and Literature for the High School .....	.1
MUS	340	Survey of History and Literature of Jazz .....	.2
MUS	401	Improvisation .....	.2
MUS	410	Introduction to Vocal Pedagogy .....	.2
MUS	411	Methods and Materials for Class Instrumental Instruction .....	.3
MUS	414	Music for Children with Learning Disabilities .....	.3
MUS	444	Marching Band Techniques .....	.2
MUS	449	History of Musical Instruments .....	.3

*May be used as part of the 60 hours of required General Education.

Vocal, Piano, and General Emphasis

MUS	100	Recitals, Concerts, Productions .....	.0
MUS	101, 102, 103	Sight Singing & Theory I, II, III .....	.12
*MUS	141, 142, 143	Music Literature & Styles I, II, III .....	.6
MUS	160, 161, 162	Beginning Class Piano I, II, III .....	.3
		<i>and/or</i>	
MUS	260, 261, 262	Intermediate Class Piano I, II, III .....	.3
		<i>or</i>	
MUS	171, 271, 371, 471	Individual Performance in Piano (For Voice Majors) .....	.12
		<i>or</i>	
MUS	169, 269, 369, 469	Individual Performance in Voice (For Piano Majors) .....	.6
MUS	201, 202, 203	Advanced Sight Singing & Theory I, II, III .....	.9
MUS	210	Introduction to Music Education .....	.2
MUS	240, 241, 242	History of Music I, II, III .....	.9
MUS	301	Counterpoint .....	.3
MUS	302	Homophonic Forms .....	.3
MUS	303	Instrumentation .....	.3
MUS	310	Teaching Elementary General Music (PTE) .....	.3
MUS	311	Teaching Middle-Junior High School General Music (PTE) .....	.3
MUS	313	Teaching Instrumental Music (PTE) .....	.3

MUS	323, 324	Choral Techniques and Conducting I, II	1
MUS	325	Choral Conducting and Literature for the High School	1
**MUS	367	Brass and Percussion Class	1
**MUS	368	String Class	1
**MUS	358	Woodwind Class	1
		Applied Music	22
		Major Musical Organization	11
		***Music Electives (to be selected from courses below)	16
***Music Electives			
****MUS	185, 285, 385, 485	Opera Workshop	1-3
MUS	206	Music Methods and Materials for Elementary Teachers	2
MUS	316	Teaching Music Listening	3
MUS	317	Children's Song Literature	3
MUS	318	Music Activities for Classroom Teachers	3
MUS	340	Survey of History and Literature of Jazz	2
MUS	401	Improvisation	2
MUS	404	Piano Accompanying	2
MUS	409	Stage and Opera Techniques	1-3
MUS	410	Introduction to Vocal Pedagogy	2
MUS	414	Music for Children with Learning Disabilities	3
MUS	437, 438, 439	Piano Literature IV, V, VI	6
MUS	441	Choral Literature	3
MUS	442	Choral Literature from 1750	3
*****MUS	445	Vocal Repertoire: German Art Song	2
*****MUS	446	Vocal Repertoire: French Art Song	2
*****MUS	447	Vocal Repertoire: Italian Song	2
MUS	461, 462, 463	Principles of Piano Teaching I, II, III	6

*May be used as part of the 60 hours of required General Education.

**Individual Performance may be substituted.

****Maximum of ten hours applicable toward the sixteen required hours of electives.

*****Requires a proficiency level II in piano or voice as a prerequisite.

Admission to the Professional Teacher Education Program.

In addition to meeting the general requirements for formal admission to the Professional Teacher Education Program at close of the sophomore year the student majoring in music must:

1. Demonstrate an acceptable level of performance on his major instrument or voice. Such ability will be evaluated by a jury examination conducted by the music faculty, and through the scheduled performances of the student in the weekly recital series.

2. Pass a proficiency examination in functional piano in which he will demonstrate his ability to play, at sight, piano accompaniments suitable for community and classroom singing.

3. Demonstrate to a jury of the music faculty his ability to read music vocally at sight with the use of solfege.

4. Show acceptable aptitude for music study as demonstrated by his record in the required freshman and sophomore music courses -- Sight-singing and Theory, Harmony, and Literature and Styles.

5. Demonstrate to the satisfaction of a reviewing music education committee, professional promise as a teacher.

6. Submit transcript with PTE Admission Application.

7. Meet all music performance and recital attendance requirements as listed in the respective departmental Applied Music and Performance Handbook.

Bachelor of Music Education and Bachelor of Music Degrees

Combined Degrees Program

Admission to candidacy for the combined Bachelor of Music Education and Bachelor of Music degrees is based upon the recommendation of a School of Music faculty reviewing committee. The student who desires to complete the combined degrees must demonstrate outstanding musical talent. Application for admission to the combined degree program must take place prior to the close of the student's second year in the university.

Requirements:

1. Complete the requirements for the B.M.E. degree in Music Education.
2. Complete the performance and small ensemble requirements in the B.M. degree.
3. Present a complete graduation recital.
4. Meet all music performance and recital attendance requirements as listed in the respective departmental Applied Music and Performance Handbook.
5. Complete the requirements listed below in an emphasis area.

Instrumental Emphasis

1. Complete a minimum of an additional 26 hours in applied music and 12 hours in large and small ensembles.
2. Complete the following courses:

MUS	100	Recitals, Concerts, Productions	0
MUS	402	Polyphonic Forms	3
MUS	403	Acoustics of Music	3
MUS	423	Practicum in Band Conducting and Performance <i>or</i>	
MUS	425	Practicum in Orchestral Conducting and Performance	3
MUS	449	History of Musical Instruments	3

Voice Emphasis

1. Complete a minimum of an additional 26 hours in Individual Performance in Voice.
2. Complete 27 to 30 hours of a Foreign Language.
3. Complete the following courses:

MUS	100	Recitals, Concerts, Productions	0
MUS	185, 285, 385, 485	Opera Workshop	1-3
MUS	316	Teaching Music Listening	3
MUS	402	Polyphonic Forms	3
MUS	424	Practicum in Choral Conducting and Performance	3
MUS	441	Choral Literature to 1750	3
MUS	442	Choral Literature from 1750	3
MUS	445	Vocal Repertoire: German Art Song	2
MUS	446	Vocal Repertoire: French Art Song	2
MUS	447	Vocal Repertoire: Italian Song	2

Theory and Composition Emphasis

Students seeking the combined degrees with Theory and Composition as the areas of emphasis for the Bachelor of Music program must have an area of emphasis in performance to satisfy the requirements for the Bachelor of Music Education degree. Theory and Composition majors must have a total of 18 hours of credit in piano, all or a portion of which will have been earned in satisfying the requirements for the Bachelor of Music Education program. The candidate for the combined

degrees must also complete the following courses:

(If there appears to be duplication between the B.M.E. and the B.M. degrees see your adviser in Theory and Composition.)

MUS	320, 321, 322	Instrumental Techniques and Conducting I, II, III	.3
MUS	323 324	Choral Techniques & Conducting I, II	.2
MUS	340	Survey of History & Literature of Jazz	.2
MUS	361	Flute & Saxophone Class	.1
MUS	362	Clarinet Class	.1
MUS	363	Double Reed Class	.1
MUS	364	Trumpet & French Horn Class	.1
MUS	365	Low Brass Class	.1
MUS	366	Percussion Class	.1
MUS	400	Pedagogy of Music Theory	.3
MUS	401	Improvisation	.2
MUS	402	Polyphonic Forms	.3
MUS	403	Acoustics of Music	.3
MUS	405	16th Century Counterpoint	.3
MUS	422	Individual Study in Form & Analysis	.3
*MUS	177, 277, 377, 477	Individual Instruction in Composition	.36

*Individual Instruction in Composition is seldom rewarding for students who do not have a strong background in music theory. Students wishing to enter this program in the freshman year must submit to the Department of Theory and Composition evidence of prior training in the area. This evidence should consist of compositions, high school credits earned in theory, text books used, etc. A personal interview with a member of the Theory and Composition staff should be arranged if at all possible.

Students who are not qualified to enter this program in the freshman year but hope to do so in the sophomore year should seek to be admitted to the School of Music as a major in a performing area for the freshman year.

**Music Education and Elementary Education
(Double Major Program)**

Requirements:

1. General Education totaling 60 academic quarter hours.
2. Music courses as outlined below:

MUS	100	Recitals, Concerts, Productions	.0
MUS	101, 102, 103	Sight Singing & Theory I, II, III	.12
*MUS	141, 142, 143	Music Literature and Styles I, II, III	.6
MUS	160, 161, 162	Beginning Class Piano I, II, III	
		or	
MUS	260, 261, 262	Intermediate Class Piano I, II, III	
		or	
MUS	171, 271, 371, 471	Individual Performance in Piano	.6
MUS	170, 270, 370, 470	Individual Performance in Voice (For voice majors)	.6
MUS	201, 202, 203	Advanced Sight Singing & Theory I, II, III	.9
MUS	210	Introduction to Music Education	.2
MUS	240, 241, 242	History of Music I, II, III	.9
MUS	310	Teaching Elementary General Music (PTE)	.3
MUS	323, 324	Choral Techniques and Conducting I, II	.2
MUS	316	Teaching Music Listening	.3
MUS	401	Improvisation	.2
EDFE	450	Supervised Teaching: Elementary Level (General Music) (PTE)	.9
		Major Ensemble	.6

**Music Electives (to be selected from courses listed below)	8-10
	<u>82-84</u>

*May be used as part of the 60 hours of required General Education.

****Music Electives**

MUS	206	Music Methods and Materials for Elementary Teachers (PTE)	2
MUS	317	Children's Song Literature	3
MUS	318	Music Activities for Classroom Teachers	3
MUS	341	Music and the Related Arts	2
MUS	414	Music for Children with Learning Disabilities	3

Recitals, Concerts and Productions

All undergraduate students must enroll in MUS 100, Recitals, Concerts, and Productions, each quarter in residence as part of their course programs. For specific requirements, see the respective departmental School of Music *Applied Music and Performance Handbook*.

Applied Music

The music major must demonstrate continuous growth in his ability to perform on his major instrument. Each student will be expected to appear frequently as a soloist in the weekly student recital series. During the senior year he will be presented in joint recital with other graduating seniors. Such proficiency in performance requires continuous study of the major instrument, or voice, under the tutorage of a private teacher.

Credit for all individual music instruction will be entered in the student's registration under the title and course number appearing below:

In each course-level listed, for Individual Performance in Applied Music, there shall be three levels of evaluation of a student's performance, depending upon the degree being sought: 1. Music Performance Major (B.M.), 2. Music Education Major (B.M.E.) or 3. the Non-music Major.

Refer to the "Handbook" for specific references.

100-200 series -- Introductory work in the fundamentals of the chosen performance medium -- technical studies and repertoire will be selected according to the student's need. FOR FRESHMEN AND SOPHOMORES.

300-400 series -- Continuation of technical studies for further development of performance competency. Repertoire from the standard literature will be selected. Voice majors will begin to draw from Italian, German and French sources in the art song, opera and oratorio. FOR JUNIORS AND SENIORS.

169, 269, 369, 469.	INDIVIDUAL PERFORMANCE IN VOICE FOR NON-VOICE MUSIC MAJOR. <i>Two-four hours credit.</i>
*170, 270, 370, 470.	INDIVIDUAL PERFORMANCE IN VOICE. <i>Two-four hours credit.</i>
*171, 271, 371, 471.	INDIVIDUAL PERFORMANCE IN PIANO. <i>Two-four hours credit.</i>
*172, 272, 372, 472.	INDIVIDUAL PERFORMANCE IN ORGAN. <i>Two-four hours credit.</i>
*173, 273, 373, 473.	INDIVIDUAL PERFORMANCE IN STRINGS. <i>Two-four hours credit.</i>
*174, 274, 374, 474.	INDIVIDUAL PERFORMANCE IN WOODWINDS. <i>Two-four hours credit.</i>
*175, 275, 375, 475.	INDIVIDUAL PERFORMANCE IN BRASS. <i>Two-four hours credit.</i>

- *176, 276, 376, 476. INDIVIDUAL PERFORMANCE IN PERCUSSION. *Two-four hours credit.*
- *177, 277, 377, 477. INDIVIDUAL INSTRUCTION IN COMPOSITION. *Two-four hours credit.*
- *178, 278, 378, 478. INDIVIDUAL PERFORMANCE IN HARP. *Two-four hours credit.*
- *179, 279, 379, 479. INDIVIDUAL PERFORMANCE IN GUITAR. *Two-four hours credit.*

*May be used by non-music majors as part of the 60 hours of required General Education.

Performance Organizations

The music major must participate each quarter in a major musical organization in which his instrument normally belongs -- band, orchestra, or choir. Piano and organ majors may select either a vocal or an instrumental organization for a minimum of eight hours. The remaining three quarter hours will be in a piano ensemble.

Credit for all music performance organizations will be entered on the student's registration under the title and course number appearing below:

- 100 series -- Freshmen
 200 series -- Sophomores
 300 series -- Juniors
 400 series -- Seniors

- *130, 230, 330, 430. STRING ENSEMBLE. *One hour credit.*
- *131, 231, 331, 431. BRASS ENSEMBLE. *One hour credit.*
- *132, 232, 332, 432. WOODWIND ENSEMBLE. *One hour credit.*
- *133, 233, 333, 433. PERCUSSION ENSEMBLE. *One hour credit.*
- *134, 234, 334, 434. PIANO ENSEMBLE. *One hour credit.*
- *135, 235, 335, 435. GUITAR ENSEMBLE. *One hour credit.*
- **180, 280, 380, 480. MIXED CONCERT CHOIR. *One hour credit.*
- **181, 281, 381, 481. UNIVERSITY CHORUS. *One hour credit.*
- **182, 282, 382, 482. UNIVERSITY SINGERS. *One hour credit.*
- **183, 283, 383, 483. WOMEN'S CONCERT CHOIR. *One hour credit.*
- **184, 284, 384, 484. VARSITY MEN'S GLEE CLUB. *One hour credit.*
- *185, 285, 385, 485. OPERA WORKSHOP. *one-three hours credit.*
- *186, 286, 386, 486. CHORUS AND ORCHESTRA WORKSHOP. *One hour credit.*
- **190, 290, 390, 490. SYMPHONIC WIND BAND. *One hour credit.*
- **191, 291, 391, 491. CONCERT BAND. *One hour credit.*
- *192, 292, 392, 492. MARCHING BAND. *One hour credit.*
- **193, 293, 393, 493. VARSITY BAND. *One hour credit.*
- *194, 294, 394, 494. JAZZ ENSEMBLE. *One hour credit.*
- *195, 295, 395, 495. UNIVERSITY BRASS CHOIR. *One hour credit.*
- **196, 296, 396, 496. UNIVERSITY SYMPHONY ORCHESTRA. *One hour credit.*
- **197, 297, 397, 497. CHAMBER ORCHESTRA. *One hour credit.*
- **198, 298, 398, 498. LABORATORY ORCHESTRA. *One hour credit.*

*May be used by non-music majors as part of the 60 hours of required General Education.

**Major Musical performance organizations.

HONORS. The School of Music participates in the Honors Program. See page 23.

Musical Theatre Major

Administered by the School of Music and Department of Theatre Arts

The program leading to the B.A. degree with a major in Musical Theatre is designed to prepare students for work in musical comedy. Students who are interested in majoring in Musical Theatre are not automatically accepted into the program even though they meet the general admission requirements of the University. Auditions and interviews are part of the admission requirements for acceptance into the program.

Formal application for admission into the Musical Theatre major must be made in writing to the office of the Dean of the School of Music or to the office of the Chairman of the Department of Theatre Arts.

Professors:

School of Music: Himmel, Schmitz, Skinner; Department of Theatre Arts: Willcoxon

Associate Professors:

School of Music: Linscome; Department of Theatre Arts: Girault

Assistant Professor:

Department of Theatre Arts: Kendrick

Instructors:

School of Music: Coppom, Hines; Department of Theatre Arts: Nagel

Students pursuing the B.A. degree with a major in Musical Theatre must plan their programs to meet the following requirements:

1. Complete 60 hours of General Education as specified earlier in this catalog.
2. Meet all recital and production attendance requirements as specified for the program. (see your adviser).
3. The following courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
MUS	100 Recitals, Concerts, Productions	0
MUS	101, 102, 103 Sight Singing & Theory I, II, III	12
*MUS	141, 142, 143 Music Literature & Styles I, II, III	6
THEA	160 Acting I (Internals)	3
MUS	170, 270, 370, 470 Individual Performance in Voice	24
**MUS	171, 271 Individual Performance in Piano	12
MUS	185, 285, 385, 485 Opera Workshop	12
THEA	260 Acting II (Externals)	3
THEA	261 Stage Make-up	2
THEA	270, 271, 272 Stage Movement I, II, III	3
THEA	370, 371, 372 Rhythmic & Dramatic Movement I, II, III	3
MUS	409 Stage & Opera Techniques	2
THEA	465, 466, 467 Musical Theatre Repertory I, II, III	6
MUS	468 Individual Coaching in Musical Theatre Repertory	12
	(To be taken concurrently with THEA 465, 466, 467)	6
THEA	Individual Performance in Theatre (in technical theatre work only)	4
MUS	Music Performance (Vocal Ensembles)	12
		110

*May be used as part of the 60 hours of General Education, thus allowing for six additional hours of electives.

**A competency examination may be taken and, if passed, the hour requirements waived, thus allowing for six additional hours of electives.

Students contemplating graduate work should prepare themselves to meet the requirements of graduate study in music or theatre arts. This would involve preparing themselves in the disciplinary competencies as well as research requirements to enter graduate school. At the present, there is little graduate opportunity in musical theatre. See your adviser.

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

Nursing Major **Administered by the School of Nursing**

Students pursuing the B.S. degree with a major in Nursing must plan their programs to fulfill the following requirements:

1. Complete the General Education requirements of 60 quarter hours. Three of the required pre-nursing science courses will be accepted as meeting the General Education requirements in the area of sciences.

2. Required support courses:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
CHEM 108	General Chemistry .....	.5
CHEM 109	General Chemistry -- Organic .....	.5
CHEM 281	Biochemistry .....	.5
ZOO 105	Vertebrate Zoology .....	.4
ZOO 121	Mammalian Anatomy .....	.4
ZOO 250	Physiology .....	.5
ZOO 251	Medical Pharmacology .....	.4
BIO 261	Microbiology .....	.4
PSY 120	General Psychology .....	.3
SOC 100	Principles of Sociology .....	.5
ANT 100	General Anthropology .....	.5
HEC 251	Nutrition I .....	.3
HEC 353	Diet Therapy (taken in upper division) .....	.3

3. Nursing courses:

NURS	200, 201, 202	Techniques and Skills in Nursing Practice I, II, and III .....	.6
NURS	205, 210, 215, 220, 225	Conceptual Foundations for Nursing Practice I, II, III, IV, V	10
NURS	300, 301, 302	Process of Professional Nursing I, II, III	15
NURS	305, 310, 315	Selected Concepts and Theories in Professional Nursing I, II, III .....	.6
NURS	350	Psychopathological Concepts in Nursing .....	.2
NURS	360	Pathophysiological Concepts in Nursing .....	.4
NURS	330, 335, 340	Professional Nursing in Specialty Areas I, II, III .....	.9
NURS	400, 401	Advanced Professional Nursing Process I and II	10
NURS	405, 410, 415	Advanced Concepts and Theories in Professional Nursing I, II, and III .....	.6
NURS	422	Individual Studies in Nursing	1-4
NURS	430, 435	Professional Nursing in Complex Specialty Areas I, II .....	.6
NURS	450	Special Emphasis in Selected Professional Nursing Roles	6-12

4. Electives sufficient to complete requirements for graduation.

Policy for Admissions of Students to the Nursing Major

Pre-clinical Program. Applicants seeking admission to the School of Nursing must meet the general admission requirements of the university. It is highly

recommended that students planning for a career in nursing include chemistry, physics, biology, and math in their high school program. Proficiency in basic mathematics is essential to succeed in the nursing program.

In addition to the general health requirements, applicants to the nursing program must bring the following immunizations up to date before entering the university: adult diphtheria-tetanus and polio.

Application is made to the University of Northern Colorado Office of Admissions.

Acceptance to the University into the pre-clinical program does not guarantee admission to the clinical nursing program. Students enrolled in the pre-clinical program will receive academic advising from members of the School of Nursing faculty.

Clinical Program. A separate admission and acceptance process is required for the student to enter clinical nursing courses at the beginning of the sophomore year. Forms for applying to the clinical program and information regarding application procedure may be obtained at the School of Nursing. The following factors will guide the Admissions and Promotions Committee of the School of Nursing in selecting candidates for admission to the clinical program:

1. Cumulative grade point average earned
 - a. at the University of Northern Colorado
 - b. or at a previous institution in the case of a transfer student.
2. Grades earned below a C in all prior studies with emphasis on grades in the supporting courses.
3. Results of the health examination required for admission to the clinical nursing program. (See Health Policies for nursing majors on page 116 of this catalog.)
4. Recommendation of the student's academic adviser.
5. Scores on selected tests measuring such factors as: aptitude; cognitive, affective, and psychomotor skills; and achievement. (Information on testing requirements may be obtained from the School of Nursing at the time of application.)
6. Evidence of personal and social qualities appropriate for professional nursing practice (intellectual curiosity, self-direction, dependability, and ability to work well with others).

The number of students admitted to the clinical nursing program is calculated on the available resources. Available resources may limit possibilities for readmission to the program for those students who withdraw from the program for any reason.

Registered Nurses Pursuing a Degree. Graduates of state approved diploma or associate degree programs who are currently licensed to practice as registered nurses are eligible for admission to the nursing program fall, winter, and spring quarters. Registered nurse students may challenge selected nursing courses after admission to the University and the School of Nursing. Evaluation occurs on two levels, content and practice. The College Level Examination Program (CLEP) offers the opportunity to challenge certain general education courses (see University Policy). Curriculum objectives are the same for the registered nurse student and the generic student of nursing.

Promotion. A grade of C is a minimum requirement for progression in the clinical nursing courses. The School of Nursing faculty reserves the right to place on probation or to require the withdrawal from the clinical nursing program any student who, in their professional judgment, fails to satisfy the requirements of scholarship, health status, and/or performance in the clinical practicum.

Graduation. The degree of Bachelor of Science in nursing will be granted by the University of Northern Colorado upon the recommendation of the faculty of the School of Nursing for those who have successfully completed the prescribed curriculum with an average of C or above.

William R. Ross Award. In 1966 the School of Nursing faculty established the William R. Ross Achievement Award in honor of retiring president, Dr. William R. Ross. This award recognizes each year a senior nursing student for outstanding scholarship, leadership, and service.

HONORS. See page 23.

Health Policies for Nursing Majors. Within the academic year preceding the first clinical course, a conference with a nurse in the Student Health Service is required for an assessment of the student's health status. If health concerns exist, further diagnostic studies are required.

In addition to the Nursing Conference the following are required:

1. **Immunizations:** adult tetanus-diphtheria, and polio. The student's previous immunization record should be checked. A complete series, a booster or no further immunizations may be indicated at this time.
2. **Tests:** a tuberculin skin test, a large chest x-ray*, VDRL, and a rubella titer. If the rubella titer is negative, the student will be advised to consult with a physician to determine whether immunization for rebella is indicated.

*The University does not own an x-ray machine. Chest x-rays will be at the student's expense.

Additional Expenses for Nursing Majors. In addition to the regular tuition and fees, nursing majors have the following expenses:

<i>Year</i>	<i>Quarter</i>	<i>Item</i>	<i>Amount*</i>
Sophomore	Fall	Uniforms and caps**	\$65.00-75.00
		Chest x-ray	10.00
		White shoes	15.00-20.00
		Name pin	.50
		Bandage scissors	5.00
		Watch with second hand	8.00-20.00
Junior	Fall	Stethoscope	6.00-25.00
Senior	Spring	School pin	35.00
		Chest x-ray	10.00

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

**Uniform orders are taken toward end of freshman year.

Assignments for Clinical Experience. Nursing students have opportunities for a variety of clinical experiences with health agencies. . . hospitals, long term care, industry, and community. . . in northeastern Colorado. Students work closely with agency personnel as well as with individually assigned faculty members. Assignments are made to the agencies according to available space. All assignments require transportation and may necessitate moving from the Greeley area.

Outdoor Education-Environmental Education Administered by the Department of Educational Media

Undergraduate Minor-Outdoor Education

The purpose of this program is to prepare teachers in the area of Outdoor Education and Environmental Education. Numerous opportunities are provided for students to actively participate in learning experiences conducted beyond the classroom. Natural and community environmental resources are utilized in provid-

ing direct, firsthand learning experiences. Undergraduate students are provided an opportunity to participate in Outdoor Laboratory School Programs conducted in the University Laboratory School and Special Education and in public school outdoor school programs. Course offerings, which have significance for this broad area, are offered in many departments of the University. An opportunity to participate in adventure education programs is provided. Students interested in Outdoor Education should pursue the following program under the advisement of the Coordinator of Outdoor Education. Listed below are specific courses offered in this area.

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
OED 250	Outdoor Education and Environmental Awareness	3
OED 350	Education for Leisure Through Outdoor Education	4
OED 450	Programs in Outdoor Education	3
OED 308	Workshop in Outdoor Education	3
BIO 401	Conservation of Natural Resources	4
ENST 361	Art and the Environment	3
GEOG 350	Geography of Colorado	3
	or	
GEOG 353	Geography of the Great Plains	2
JOUR 496	Opinion Formation	3
MUS 315	Music and Recreation	2
		28

Philosophy Minor

Administered by the Department of Philosophy

The Department of Philosophy wishes to allow maximum student participation in the selection of his/her minor program. Students minoring in Philosophy will, in consultation with a philosophy faculty, select 30 hours of Philosophy courses best suited to their particular needs.

The following is a suggested guideline:

	<i>Hours Credit</i>
I. Logic	3
COMM 120, PHIL 340	
II. History of Philosophy	6
PHIL 201, 202, 203, 305, 312	
III. Value Theory	3
PHIL 150, 330, 355	
IV. Systematics	6
PHIL 315, 360, 370, 415, 430, 440	
V. Electives	12
	30

Philosophy minors intent upon graduate school in Philosophy must consult with Philosophy faculty.

Physical Education Majors

Physical Education (Men)

George H. Sage, Chairman

Students pursuing the B.A. degree with a teaching major in Physical Education must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. Complete a minimum of 19 quarter hours from the following list of courses:

Course No.	Course Title	Hours	Credit
HPER	138 Senior Lifesaving	2	
HPER	139 Water Safety Instructors Course	2	
HPER	270 Analysis and Movements of Weight Training and Conditioning	1	
HPER	271 Analysis and Movements of Soccer or Speedball	1	
HPER	272 Analysis and Movements of Field Hockey	1	
HPER	273 Analysis and Movements of Basketball	2	
HPER	274 Analysis and Movements of Volleyball	1	
HPER	275 Analysis and Movements of Wrestling	2	
HPER	276 Analysis and Movements of Football or Flag Football	2	
HPER	277 Analysis and Movements of Track	2	
HPER	278 Analysis and Movements of Baseball or Softball	2	
HPER	279 Analysis and Movements of Self Defense	1	
HPER	280 Analysis and Movements of Badminton	1	
HPER	281 Analysis and Movements of Fencing	1	
HPER	282 Analysis and Movements of Bowling	1	
HPER	283 Analysis and Movements of Swimming	1	
HPER	284 Analysis and Movements of Tennis	1	
HPER	285 Analysis and Movements of Tumbling and Gymnastics	2	
HPER	286 Analysis and Movements of Archery	1	
HPER	287 Analysis and Movements of Golf	1	
HPER	289 Analysis and Movements of Skiing	1	
HPER	290 Analysis and Movements of Folk and Square Dance	2	
HPER	293 Analysis and Movements of Modern Dance	2	

3. The MPE Department has a required Motor Activity Competency Program which must be met for graduation of each student. In order to meet the Motor Activity Competency requirements a student must pass established Competency Examinations in nine (9) of the following motor activity areas:

Football	Tennis
Basketball	Self Defense
Tumbling & Gymnastics	Soccer
Wrestling	Volleyball
Track	Weight Training and Conditioning
Baseball	Folk and Square Dance

Motor Activity Competency examinations consist of a knowledge and skill proficiency test. Standard criteria for acceptable competency for each motor activity area have been established. Competency in each motor activity may be met in the following ways:

A. Competency examinations may be taken by students while they are enrolled in the Analysis and Movements class in that motor activity. (NOTE: Passing the Analysis and Movements class for a particular motor activity *does not* automatically mean that the competency requirement for that sport or activity has been passed. The Competency Program and the Analysis and Movements series of classes are independent of each other. The Analysis and Movement classes are designed to help students improve their ability in the various motor activities but some students will not have mastered an activity well enough to pass the Men's Physical Education Department Competency requirement for it by the end of one quarter, although they may receive a passing grade for the class.)

B. Competency examinations may be taken after a student has completed the Analysis and Movements class for that motor activity, if the student does not meet the Competency Requirement while taking the class.

C. When Competency examinations are to be taken in (B) above, the student must arrange the examination at the convenience of the instructors. Normally, competency examinations given in (B) will be given only once per quarter.

4. The following courses are also required in the major:

HPER	200	Introduction to Physical Education	3
HPER	205	Issues in Health	3

HPER	220	Anatomical Kinesiology	3
HPER	221	Mechanical Kinesiology	3
HPER	222	Physiological Kinesiology	3
HPER	223	Psychological Kinesiology	3
HPER	262	Standard First Aid and Personal Safety	2
HPER	346	Assistant Teaching	1
HPER	361	Coaching of Football	2
HPER	362	Coaching of Basketball or HPER 365 -- Coaching of Wrestling	2
HPER	363	Coaching of Track and Field or HPER 364 -- Coaching of Baseball	2
HPER	380	Prevention and Care of Sports Injuries	2
HPER	426	Tests and Measurement in Physical Education	3
HPER	435	Educational Interpretations of Health, Physical Education and Recreation	3
HPER	450	Administration of Physical Education	3

5. Professional Teacher Education, 36 hours, plus HPER 344, three hours credit, and HPER 345, two hours credit.

6. HPER 345 and at least 17 hours of the HPER Analysis and Movement classes and 7 of the Motor Activity Competencies *must be* completed before a student may teach in this field.

7. A minor of 30 quarter hours or more. It is recommended that this be a teaching minor. This minor may be selected outside the School of Health, Physical Education and Recreation, or from within the School of Health, Physical Education, and Recreation, in either Health Education or in Dance Education.

8. Most states require courses in methods and observation of teaching specific subjects for certification. Students majoring in this field are encouraged to take Introduction to Teaching and Methods of Teaching in their minor.

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

Physical Education Minor (Men and Women -- Coaching Emphasis)

Entry to this minor requires athletic participation at the University of Northern Colorado and approval by either Women's or Men's athletic department. *Before enrolling* in courses in this minor, secure applications from the school HPER office.

A minimum of 6 hours elected from:		6	
HPER	270	Analysis and Movements of Weight Training and Conditioning	1
HPER	272	Analysis and Movements of Field Hockey (Women)	1
HPER	273	Analysis and Movements of Basketball (Men)	2
<i>or</i>			
HPER	273	Analysis and Movements of Basketball (Women)	1
HPER	274	Analysis and Movements of Volleyball (Women)	1
HPER	275	Analysis and Movements of Wrestling (Men)	2
HPER	276	Analysis and Movements of Football (Men)	2
HPER	277	Analysis and Movements of Track (Men)	2
<i>or</i>			
HPER	277	Analysis and Movements of Track (Women)	1
HPER	278	Analysis and Movements of Baseball (Men)	2
<i>or</i>			
HPER	278	Analysis and Movements of Softball (Women)	1
HPER	283	Analysis and Movements of Swimming (Men)	1
<i>or</i>			
HPER	283	Analysis and Movements of Swimming (Women)	2
HPER	284	Analysis and Movements of Tennis	1
HPER	285	Analysis and Movements of Tumbling and Gymnastics	2
A minimum of 6 hours elected from:		6	
HPER	227	Coaching and Officiating of Gymnastics	2
HPER	228	Coaching and Officiating of Track and Field (Women)	2
<i>or</i>			
HPER	363	Coaching of Track and Field (Men)	2
HPER	229	Coaching and Officiating of Field Sports (Women)	2

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HPER	230	Coaching and Officiating of Volleyball (Women)	2
HPER	231	Coaching and Officiating of Basketball (Women)	2
		<i>or</i>	
HPER	362	Coaching of Basketball (Men)	2
HPER	232	Coaching and Officiating of Tennis	2
HPER	233	Coaching and Officiating of Swimming	2
HPER	234	Coaching and Officiating of Softball (Women)	2
		<i>or</i>	
HPER	364	Coaching of Baseball (Men)	2
		And the following:	
HPER	220	Anatomical Kinesiology	3
		And two of the following:	
HPER	221	Mechanical Kinesiology	3
HPER	222	Physiological Kinesiology	3
HPER	223	Psychological Kinesiology	3
		And the following:	
HPER	380	Prevention and Care of Sports Injuries	2
HPER	496	Sociological Dimensions of Sport in American Society	3
HPER	470	Administration of Athletics	3

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

1. The student must complete a minimum of 19 quarter hours from the following list of courses:

HPER	138	Senior Lifesaving	2
HPER	139	Water Safety Instructors Course	2
HPER	270	Analysis and Movements of Weight Training and Conditioning	1
HPER	271	Analysis and Movements of Soccer or Speedball	1
HPER	272	Analysis and Movements of Field Hockey	1
HPER	273	Analysis and Movements of Basketball	2
HPER	274	Analysis and Movements of Volleyball	1
HPER	275	Analysis and Movements of Wrestling	2
HPER	276	Analysis and Movement of Football or Flag Football	2
HPER	277	Analysis and Movements of Track	2
HPER	278	Analysis and Movements of Baseball or Softball	2
HPER	279	Analysis and Movements of Self Defense	1
HPER	280	Analysis and Movements of Badminton	1
HPER	281	Analysis and Movements of Fencing	1
HPER	282	Analysis and Movements of Bowling	1
HPER	283	Analysis and Movements of Swimming	1
HPER	284	Analysis and Movements of Tennis	1
HPER	285	Analysis and Movements of Tumbling and Gymnastics	2
HPER	286	Analysis and Movements of Archery	1
HPER	287	Analysis and Movements of Golf	1
HPER	289	Analysis and Movements of Skiing	1
HPER	290	Analysis and Movements of Folk and Square Dance	2
HPER	293	Analysis and Movements of Modern Dance	1

2. See Physical Education major for Men for a description of the Motor Activity Competency Program which must be met for this Minor.

3. The following courses are also required for this minor:

HPER	200	Introduction to Physical Education	3
HPER	220	Anatomical Kinesiology	3
		And two of the following:	
HPER	221	Mechanical Kinesiology	3
HPER	222	Physiological Kinesiology	3
HPER	223	Psychological Kinesiology	3
		And the following:	
HPER	262	Standard First Aid and Personal Safety	2

HPER	345	Methods and Observations of Teaching Physical Education in the Secondary School	2
HPER	346	Assistant Teaching	1
HPER	426	Tests and Measurement in Physical Education	3
		or	
HPER	435	Educational Interpretations of Health, Physical Education, and Recreation	3

4. HPER 345 and at least 17 hours of the HPER Analysis and Movement classes and 7 of the Motor Activity Competencies *must be* completed before a student may student teach in this field.

Physical Education (Women)

Margaret E. Everett, Chairman

Students pursuing the B.A. degree with a teaching major in Physical Education must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. The Physical Education Major for Women is based on a competency program in Movement, Coaching and Officiating.

A. *Movement Competencies*: There are three levels of movement competencies.

Level one: Minimum movement competencies as determined by a candidacy test taken prior to enrolling in Analysis and Movement classes.

Level two: Competencies indicating good basic fundamental skills and knowledge.

Level three: A high level of competency in skills and knowledge.

Movement Competencies Required:

Level two competencies are required in each of the activities listed below:

Group A: **Team Sports**: Basketball, Softball, Speedball, Field Hockey, Volleyball, Flag Football.

Group B: **Individual and Dual Sports**: Archery, Fencing, Tennis, Badminton, Bowling, Golf, Track & Field.

Group C: **Other Activities**: Swimming, Modern Dance, Folk & Square Dance, Gymnastics.

Level three competencies are required in four (4) of the above activities, no more than two of which can come from the same group.

Level one competencies may be met in three ways. Pass the candidacy test 1) on entrance into the program, 2) after having taken a service class in the activity, 3) after individual work and practice in the activity.

Competency examinations for levels two and three may be taken by the student 1) while enrolled in an Analysis and Movements class in that activity. (NOTE: Passing the class would not necessarily mean the competency had been achieved unless the level of skill and knowledge met the competency standard), 2) after a student has completed the Analysis and Movements class if the level of competency has not been reached in a class, 3) without enrolling in an Analysis and Movements class in the Activity if the student feels she has sufficient knowledge and skill.

The following courses are available to help the student meet level two and three competencies:

HPER	271	Analysis and Movements of Speedball	1
HPER	272	Analysis and Movements of Hockey	1
HPER	273	Analysis and Movements of Basketball	1
HPER	274	Analysis and Movements of Volleyball	1
HPER	276	Analysis and Movements of Flag Football	1
HPER	277	Analysis and Movements of Track	2

HPER	278	Analysis and Movements of Softball	1
HPER	280	Analysis and Movements of Badminton	1
HPER	281	Analysis and Movements of Fencing	1
HPER	282	Analysis and Movements of Bowling	1
HPER	283	Analysis and Movements of Swimming	2
HPER	284	Analysis and Movements of Tennis	1
HPER	285	Analysis and Movements of Tumbling and Gymnastics	2
HPER	286	Analysis and Movements of Archery	1
HPER	287	Analysis and Movements of Golf	1
HPER	290	Analysis and Movements of Folk and Square Dance	2
HPER	293	Analysis and Movements of Modern Dance	2
HPER	294	Problems in Dance Composition	2

B. Coaching and/or Directing Competencies: A student must display competency in two of the following:

Coaching -- Badminton, Basketball, Field Hockey, Gymnastics, Softball, Swimming, Tennis, Track & Field, Volleyball.

Directorship -- Modern Dance Show, Synchronized Swimming Show, Intramurals.

C. Officiating Competencies: A student must earn at least an Apprentice DGWS rating (or an equivalent nationally recognized rating) in two of the following sports: Badminton, Basketball, Field Hockey, Gymnastics, Softball, Swimming, Tennis, Track & Field, Volleyball. The following Coaching and Officiating classes are available to help the student meet these competencies:

HPER	227	Coaching and Officiating of Gymnastics	2
HPER	228	Coaching and Officiating of Track and Field	2
HPER	229	Coaching and Officiating Field Sports	2
HPER	230	Coaching and Officiating of Volleyball	2
HPER	231	Coaching and Officiating of Basketball	2
HPER	232	Coaching and Officiating of Tennis	2
HPER	233	Coaching and Officiating of Swimming	2
HPER	234	Coaching and Officiating of Softball	2
HPER	459	Dance Production in High School and College	2

3. The following courses are also required in the major:

HPER	205	Issues in Health	3
HPER	220	Anatomical Kinesiology	3
HPER	221	Mechanical Kinesiology	3
HPER	222	Physiological Kinesiology	3
HPER	223	Psychological Kinesiology	3
HPER	235	Teaching Experiences Seminar	1
HPER	262	First Aid	2
HPER	325	Teaching of Sports	2
HPER	326	Teaching of Dance	2
HPER	346	Assistant Teaching	1
HPER	380	Prevention and Care of Sports Injuries	2
HPER	426	Tests and Measurement in Physical Education	3
HPER	432	Adapted Physical Education	3
HPER	435	Educational Interpretations of Health, Physical Education, and Recreation	3
HPER	450	Administration of Physical Education	3

4. Professional Teacher Education, 36 hours, plus HPER 344, three hours credit, and HPER 345, two hours credit.

5. HPER 344 and 345 and all Level Two Competencies must be completed before a student may student teach in this field.

6. A teaching minor of 30 quarter hours or more. It is recommended that this be a teaching minor. This minor may be selected outside the School of Health, Physical

Education and Recreation, or from within the School of Health, Physical Education and Recreation in either Health Education or in Dance Education.

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

Physical Education Minor for Women (Secondary Level)

1. Students selecting this minor must have a major in a Teaching Education Program.

2. This minor is based on a competency program in Movement, Coaching and Officiating. See Physical Education Major for Women for definition of levels of competency and how they may be met.

A. *Movement Competencies*: Level one competencies are prerequisite for admission in the Analysis and Movements classes. Level two competencies are required in four (4) activities out of each of the following groups:

Group A: **Team Sports**: Basketball, Softball, Speedball, Field Hockey, Volleyball, Flag Football.

Group B: **Individual and Dual Sports**: Archery, Fencing, Tennis, Badminton, Bowling, Golf, Track & Field.

Group C: **Other Activities**: Swimming, Modern Dance, Folk & Square Dance, Gymnastics.

Level three competencies are required in four (4) of the above activities, no more than two of which can come from the same group.

B. *Coaching Competency*: A student must display competency in at least one of the coaching areas listed in Physical Education Major for Women.

C. *Officiating Competency*: A student must earn at least an Apprentice DGWS rating (or an equivalent nationally recognized rating) in at least one of the officiating areas listed in Physical Education Major for Women. The Coaching and Officiating courses listed may be used to gain these competencies.

3. The following courses are also required in the minor:

HPER	220	Anatomical Kinesiology	3
HPER	221	Mechanical Kinesiology	3
HPER	222	Physiological Kinesiology	3
HPER	223	Psychological Kinesiology	3
HPER	262	Standard First Aid and Personal Safety	2
HPER	345	Methods and Observation of Teaching Physical Education in the Secondary School (Women)	2
HPER	426	Tests and Measurement in Physical Education	3

4. HPER 345 and all level two movement competencies must be completed before a student may student teach in this field.

Physical Education (Men and Women) Elementary School Emphasis)

Students pursuing the B.A. degree with a major in Physical Education (Elementary School Emphasis) must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. The Physical Education major Elementary School Emphasis is based on a competency program.

A. Women

Movement Competencies: Level one competencies are prerequisite for admission in the Analysis and Movements classes. Level two competencies are required in each of the activities listed below:

Group A: Team Sports: Basketball, Softball, Volleyball, Soccer or Speedball, Football or Flag Football.

Group B: Individual Sports: Track & Field.

Group C: Other Activities: Folk & Square Dance, Gymnastics, Swimming

Level three competencies are required in three of the above activities, (no more than two of which can come from the same group).

See Physical Education major for Women for definition of levels of competency and how they may be met.

Coaching Competency: A student must display competency in at least one of the coaching areas.

B. Men

Movement Competencies: In order to meet the Motor Activity Competency requirements a student *must* pass established Competency Examinations in nine of the following sports or physical activities:

Football
Basketball
Tumbling and Gymnastics
Wrestling
Track
Baseball
Tennis
Self Defense
Soccer
Volleyball
Folk and Square Dance
Swimming

Motor Activity Competency examinations consist of a knowledge and skill proficiency test. Standard criteria for acceptable competency for each motor activity area have been established. Competency in each motor activity may be met in the following ways:

A. Competency examinations may be taken by students while they are enrolled in the Analysis and Movements class in that motor activity. (NOTE: Passing the Analysis and Movements class for a particular motor activity *does not* automatically mean that the competency requirement for that sport or activity has been passed. The Competency Program and the Analysis and Movements series of classes are independent of each other. The Analysis and Movement classes are designed to help students improve their ability in the various motor activities but some students will not have mastered an activity well enough to pass the Men's Physical Education Department Competency requirement for it by the end of one quarter, although they may receive a passing grade for the class.)

B. Competency examinations may be taken after a student has completed the Analysis and Movements class for that motor activity, if the student does not meet the Competency Requirement while taking the class.

C. When Competency examinations are to be taken in (B) above, the student must arrange the examination at the convenience of the instructors. Normally, competency examinations given in (B) will be given only once per quarter.

Coaching Competencies: Men majoring in this program must complete two coaching classes.

3. The following courses are also required:

HPER	220	Anatomical Kinesiology	3
HPER	221	Mechanical Kinesiology	3
HPER	222	Physiological Kinesiology	3
HPER	223	Psychological Kinesiology	3
HPER	224	Maturational Kinesiology	3
HPER	245	Tumbling, Apparatus, and Self-testing Activities for the Elementary School Child	2
HPER	262	Standard First Aid and Personal Safety	2

HPER	291	Rhythmic Education in the Elementary School	2
HPER	301	Health Education in the Elementary School	2
HPER	426	Tests and Measurement in Physical Education	3
HPER	432	Adapted Physical Education	3
HPER	435	Educational Interpretations of Health, Physical Education, and Recreation	3
OED	250	Introduction to Outdoor Education	3

4. Professional Teacher Education, 31 hours, plus HPER 344, 3 hours credit.

5. HPER 344 and all level two competencies must be completed before a student may student teach in this field.

6. A minor of 30 quarter hours or more. It is recommended that this be a teaching minor. This minor may be selected outside the School of Health, Physical Education and Recreation, or from within the School of Health, Physical Education and Recreation, in either Health Education or in Dance Education.

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

Physical Education Minor (Men and Women -- Elementary Level)

1. Students selecting this minor must have a major in a Teacher Education program.

2. This minor is based on a competency program in Movement and Coaching.

A. Women

Movement Competencies: Level one competencies are prerequisite for admission in the Analysis and Movements classes. Level two competencies are required in each of the following activities listed below.

Group A: **Team Sports:** Basketball, Softball, Volleyball, Soccer or Speedball, Football or Flag Football.

Group B: **Individual Sports:** Track & Field.

Group C: **Other Activities:** Folk & Square Dance, Gymnastics, Swimming.

Level three competencies are required in three of the above activities, no more than two of which can come from the same group.

See Physical Education major for women for definitions of levels of competency and how they can be met.

Coaching Competency: A student must display competency in at least one of the coaching areas.

B. Men

Movement Competencies: In order to meet the Motor Activity Competency requirements a student *must* pass established Competency Examinations in nine of the following sports or physical activities:

Football	Tennis
Basketball	Self Defense
Tumbling and Gymnastics	Soccer
Wrestling	Volleyball
Track	Folk and Square Dance
Baseball	Swimming

Motor Activity Competency examinations consist of a knowledge and skill proficiency test. Standard criteria for acceptable competency for each motor activity area have been established. Competency in each motor activity may be met in the following ways:

A. Competency examinations may be taken by students while they are enrolled in the Analysis and Movements class in that motor activity. (NOTE: Passing the Analysis and Movements class for a particular motor activity *does not*

automatically mean that the competency requirement for that sport or activity has been passed. The Competency Program and the Analysis and Movements series of classes are independent of each other. The Analysis and Movement classes are designed to help students improve their ability in the various motor activities but some students will not have mastered an activity well enough to pass the Men's Physical Education Department Competency requirement for it by the end of one quarter, although they may receive a passing grade for the class.)

B. Competency examinations may be taken after a student has completed the Analysis and Movements class for that motor activity, if the student does not meet the Competency Requirement while taking the class.

C. When Competency examinations are to be taken in (B) above, the student must arrange the examination at the convenience of the instructors. Normally, competency examinations given in (B) will be given only once per quarter.

Coaching Competencies: Men minoring in this program must complete two coaching classes.

3. The following courses are required:

HPER	220	Anatomical Kinesiology	3
HPER	224	Maturational Kinesiology	3
And one of the following:			
HPER	221	Mechanical Kinesiology	3
HPER	222	Physiological Kinesiology	3
HPER	223	Psychological Kinesiology	3
And the following:			
HPER	245	Tumbling, Apparatus and Self-testing Activities for the Elementary School Child	2
HPER	262	Standard First Aid and Personal Safety	2
HPER	291	Rhythms for the Elementary School	2
HPER	344	Methods and Observation of Teaching Physical Education in the Elementary School	3
HPER	426	Tests and Measurement in Physical Education	3

4. HPER 344 and level two competencies must be completed before a student may student teach in this field.

Physical Science Major (Teaching)

Administered by the Department of Physics

This is a broad degree in physical science (teaching) under which programs can be tailored to the individual needs of the student.

1. Meet all General Education requirements as specified earlier in this catalog.
2. Professional Teachers Education, 31 hours, plus EDFE 372, two hours credit, and SCED 441, three hours credit.
3. A total of 60 hours minimum in chemistry, physics, and related fields.
4. A program of specific content requirement will be determined between the student and his/her adviser and each such program.

Physics Major

Administered by the Department of Physics

Students pursuing the B.A. with a major in Physics must plan their programs to fulfill the following requirements:

1. General Education requirements as specified earlier in this catalog.
2. The following courses in the major:

Course No.	Course Title	Hours	Credit
PHYS	265	General Physics -- Mechanics	5
PHYS	266	General Physics -- Electricity	5

PHYS	267	General Physics -- Sound, Light, and Heat	5
PHYS	365	Mechanics I	4
PHYS	366	Electricity and Magnetism I	4
PHYS	367	Optics I	4
PHYS	368	Atomic Physics	5
PHYS	465	Mechanics II	3
PHYS	466	Electricity and Magnetism II	3
PHYS	468	Nuclear Physics I	5
		Electives to be selected with approval of student's adviser	12
			<u>55</u>

3. A mathematics minor of 27 or more quarter hours (through calculus).
4. CHEM 104 or 106 and CHEM 105 or 107.
5. Electives to complete requirements for graduation.

Physics Major (Teaching)

Students majoring in Physics who plan to teach in the public schools should include the following courses in their programs:

1. General Education requirements as specified earlier in this catalog.
2. Professional Teacher Education, 31 hours, plus EDFE 372, two hours credit, and SCED 441, three hours credit.

3. The following courses in the major:

PHYS	265	General Physics -- Mechanics	5
PHYS	266	General Physics -- Electricity	5
PHYS	267	General Physics -- Sound, Light, and Heat	5
PHYS	361	AC Circuits	5
PHYS	365	Mechanics I	4
PHYS	366	Electricity and Magnetism I	4
PHYS	468	Atomic Physics	5
		or	
PHYS	468	Nuclear Physics I	5
		Physics electives of 300 number or higher to be selected with approval of student's adviser	15
			<u>48</u>

4. A minimum of 27 quarter hours of mathematics to include calculus through MATH 234.
5. CHEM 104 or 106, 105 or 107, and 111.
6. Additional hours of electives to complete 180 quarter hours of academic credit required for graduation.

Physics Minor

Following are the requirements for the arts and sciences minor:

PHYS	265	General Physics -- Mechanics	5
PHYS	266	General Physics -- Electricity	5
PHYS	267	General Physics -- Sound, Light, and Heat	5
PHYS	365	Mechanics I	
		or	
PHYS	366	Electricity and Magnetism I	4
		Physics electives to be selected with approval of student's minor adviser	8
			<u>27</u>

Substitute PHYS 268, Modern Physics, for SCI 103 requirement.

Physics minors interested in being qualified for teaching in the secondary school must complete the minor listed above.

HONORS. The Department of Physics participates in the Honors Program. See page 23.

Political Science Major
Administered by the Department of Political Science

Political Science offers a non-teaching major and minor in Political Science. Students pursuing the B.A. with a major in Political Science must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog. (Students majoring or minoring in political science will take two of the following courses: GEOG 100, ANT 100, ECON 100, or SOC 100.)
2. The following required courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
PSCI 101	United States Government I .....	.3
PSCI 102	United States Government II .....	.3
PSCI 103	United States Government III .....	.3

Electives in political science to include at least one course from each of the following groups A, B, C, & D*39

Group A -- United States Government		
PSCI 106	Contemporary Political Conflict, Consciousness, and Power in the United States .....	.5
PSCI 200	Legislative Processes .....	.3
PSCI 201	State and Local Government .....	.5
PSCI 202	Legislative Processes II	3-15
PSCI 205	Civil Liberties in the United States .....	.3
PSCI 206	Politics and the Consumer .....	.3
PSCI 207	Politics of Feminism .....	.3
PSCI 300	Public Opinion and Pressure Groups .....	.4
PSCI 301	Problems in United States Government .....	.3
PSCI 302	The President and the Bureaucracy .....	.3
PSCI 303	The Administration of Justice .....	.4
PSCI 305	The Politics of Bureaucracy .....	.4
PSCI 340	Field Research and Study in Political Science	3-15
PSCI 343	Politics and the Environment .....	.4
PSCI 400	Political Parties .....	.3
PSCI 401	Minority Politics .....	.3
PSCI 402	Urban Politics .....	.4
**PSCI 500	Constitutional Law .....	.5
Group B -- International Relations		
PSCI 220	International Relations .....	.4
PSCI 320	American Foreign Policy .....	.4
PSCI 325	Politics and Conflict in the Middle East .....	.4
PSCI 420	Foundations of International Politics .....	.4
PSCI 421	The United Nations .....	.3
PSCI 423	Regional and Supranational Political Organizations .....	.4
PSCI 425	Soviet Foreign Policy .....	.4
PSCI 426	Foreign Policies in Asia .....	.4
**PSCI 520	Seminar in International Politics .....	.3
Group C -- Political Theory		
PSCI 330	Natural Law, Divine Law, and Human Virtue .....	.3
PSCI 331	Consent, Freedom, and Political Obligation .....	.3
PSCI 332	Equality, Democracy, and Revolution .....	.3
PSCI 430	Majority Rule and Minority Rights .....	.3
PSCI 435	Problems in Political Philosophy .....	.3
Group D-- Comparative Government		
PSCI 210	European Political Systems .....	.4
PSCI 310	East European Government and Politics .....	.4

PSCI	410	Government and Politics of Asia	4
PSCI	411	Government and Politics of Latin America	4
PSCI	412	The Politics of the Developing Areas	4
PSCI	413	Political Systems of Sub-Saharan Africa	4
PSCI	414	Government and Politics of the Soviet Union	4
**PSCI	510	Seminar in Comparative Politics	3
Group E -- General			
*PSCI	250	Introduction to Research in Political Science	3
**PSCI	550	Research and Inquiry in Political Science	3
			48

*It is recommended that majors take PSCI 250, especially those intending to do graduate work in political science.

**Qualified juniors and seniors may be admitted to 500 level courses by special permission.

4. One minor of at least 27 quarter hours.
5. Electives to complete 180 quarter hours of academic credit.

Political Science Minor

PSCI	101	United States Government I	3
PSCI	102	United States Government II	3
PSCI	103	United States Government III	3
Electives in political science selected with the approval of the Department of Political Science			18
			27

Students interested in being certified for teaching of Political Science must take a major in Social Sciences rather than in Political Science.

Preschool Education

Administered by the Department of Elementary Education and Reading

1. Meet all General Education requirements as specified earlier in this catalog.
2. Complete the professional education courses.
3. The following courses are required for the major and are listed according to recommended sequence.

Freshman Year

Course No.	Course Title	Hours	Credit
CD	136	Introduction to Preschool	2
SP	130	Voice and Speech Improvement	3
EDSE	160	Introduction to Speech Correction	3
PSY	255	Psychology of Emotional Adjustment	3
			11

Sophomore Year

HEC	221	Family Relationships	3
HEC	251	Nutrition I	3
HEC	340	Basic Food Preparation and Service (preschool section)	4
SOC	415	The Sociology of Child Development	3
			13

Junior Year

CD	331	Development of the Infant and Toddler	3
CD	333	Development and Guidance of the Preschool Child	4
*CD	334	Preschool Curriculum and Methods	3

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CD	335	Observation and Participation in Preschool3
EDSE	306	Identification of Learning Disabilities in Early Childhood3
HEC	456	Infant and Child Nutrition .....	.3
HPER	291	Rhythms for the Elementary School .....	.2
		or	
THEA	280	Creative Dramatics .....	.3
			21 or 22

Senior Year

EDEC	460	Nursing-Kindergarten Education .....	.3
CD	437	Administration of Programs for Young Children .....	.3
*CD	438	Practicum in Preschool Teaching .....	.3
CD	439	Parent Education .....	.3
HPER	282	Standard First Aid and Personal Safety .....	.2
			14

*Must be taken at University of Northern Colorado.

4. CD 438 must be completed prior to student teaching.

5. The University offers many areas and courses complementary to the preparation in Preschool Education. To complete 180 quarter hours of academic credit, the student with guidance of the adviser will select from courses in various departments to supplement major requirements and to meet individual needs and interests.

Preschool Minor

Minors in Preschool need an adviser to plan course sequence.

CD	136	Introduction to Preschool .....	.2
CD	331	Development of the Infant and Toddler .....	.3
CD	333	Development and Guidance of the Preschool Child .....	.4
CD	334	Preschool Curriculum and Methods .....	.3
CD	335	Observation and Participation in Preschool .....	.3
CD	437	Administration of Programs for Young Children .....	.3
CD	438	Practicum in Preschool Teaching .....	.3
HEC	251	Nutrition I .....	.3
		Electives .....	.3
			27

Recommended Electives for Preschool Minor:

COMM	130	Voice and Speech Improvement .....	.3
CD	332	Sequences of Conceptual Learning .....	.3
CD	439	Parent Education .....	.3
EDEC	460	Nursery-Kindergarten Education .....	.3
HEC	221	Family Relationships .....	.3
HEC	234	Montessori and Young Children .....	.3

Psychology Major

Administered by the Department of Psychology

Students pursuing the B.A. degree with a major in Psychology must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified in this catalog.
2. A second major is highly recommended.
3. The following required courses in the major (60 hours.)

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
PSY 121	Introduction to Psychology I	4
PSY 122	Introduction to Psychology II	4
RSM 203	Introductory Statistical Methods	3
PSY 275	Experimental Psychology	5
PSY 491	Field Experiences	Minimum 5
One course from the following: PSY 240, PSY 241, PSY 265, PSY 343, PSY 443, PSY 480, PSY 481		3
One course from the following: PSY 250, PSY 251, PSY 341, PSY 345		3
One course from the following: BLS 101, BLS 240, BLS 340, BLS 350, BLS 380, BLS 495, MAS 105, MAS 106, MAS 304, MAS 306		3
Approved Electives		<u>30</u> Minimum 60

Psychology Minor (Liberal Arts)

Required courses for the undergraduate minor in psychology are:

PSY 121	Introduction to Psychology I	4
PSY 122	Introduction to Psychology II	4
One course from the following: PSY 240, PSY 241, PSY 265, PSY 343, PSY 443, PSY 480, PSY 481		3
One course from the following: PSY 250, PSY 251, PSY 341, PSY 345		3
Approved Electives		<u>13</u> Minimum 27

Psychology Minor (PTE)

Required courses for the undergraduate minor in psychology are:

PSY 120	General Psychology	3
PSY 140	Human Learning and Cognition	3
PSY 230	Human Growth and Development <i>or</i>	
PSY 431	Infancy and Childhood <i>or</i>	
PSY 432	Preadolescence and Adolescence	3-5
Electives (choose from RSM 312, and PSY courses other than 121, 122, 161, and 222		<u>16-18</u> Minimum 27

Recreation Major

Administered by the Department of Recreation

Students pursuing the B.S. degree with a non-teaching major in Recreation must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. The following courses in the major:

Course No.	Course Title	Hours	Credit
HPER	200	Introduction to Recreation	.3
HPER	252	Social Recreation	.2
HPER	253	Camp Counseling	.3
HPER	262	Standard First Aid and Personal Safety	.2
HPER	265	Recreation Skills in Sports and Games	.3
HPER	266	Outdoor Recreation Skills	.2
HPER	267	Recreation Skills in the Recreation Center and on the Playground	.3
HPER	290	Analysis and Movements of Folk and Square Dance	.2
HPER	337	Socio-Psychological Concepts of Leisure	.3
HPER	368	Programs in Recreation	.4
HPER	369	Therapeutic Recreation	.3
HPER	451	Administration of Community Parks and Recreation	.5
HPER	471	Safety Education	.3
HPER	472	Recreation Leadership	.4
FA	550	Art In Recreation	.3
MUS	315	Music and Recreation	.2
PSY	230	Child and Adolescent Psychology	.5
THEA	280	Creative Dramatics	.3
			55

*3. One minor of 30 quarter hours, or 30 quarter hours of supporting courses selected with the approval of the major adviser.

4. Senior recreation majors will complete HPER 452, Internship in Recreation, 18 hours. Courses HPER 368, 369, 451, and 472 and a GPA of 2.3 in the required courses, as well as a 2.3 cumulative are prerequisites for HPER 452.

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

Russian Minor

Administered by the Department of Foreign Languages

This minor requires 30 hours of Russian to be selected from the following courses with the approval of the minor adviser. It is designed for Liberal Arts students and students interested in teaching.

Course No.	Course Title	Hours	Credit
RUS	101	Elementary Russian I	.5
RUS	102	Elementary Russian II	.5
RUS	103	Elementary Russian III	.5
RUS	201	Intermediate Russian	.4
RUS	202	Intermediate Russian Composition and Conversation I	.4
RUS	203	Intermediate Russian Composition and Conversation II	.4
RUS	305	Survey of Russian Literature I	.3
RUS	306	Survey of Russian Literature II	.3
RUS	307	Survey of Russian Literature III	.3
RUS	335	Russian Conversation	.3
RUS	336	Advanced Russian Composition	.3
RUS	337	Advanced Russian Grammar	.3
RUS	341	Pushkin	.3
			30

Russian-Soviet Studies Minor

Dean A. Arnold, Coordinator

Requirements:

1. Twenty-three hours of study selected from the following:

ECON	250	History of Economic Systems: Socialism, Communism, Capitalism, Fascism	.3
ECON	320	Russia's Soviet Economy	.3

GEOG	365	The Soviet Union	5
GEOG	392	Field Course in Geography (Russian Study Tour)	5
GEOG	490	Problems in Geography (Russian-Soviet Topic)	3
HIST	378	Russian History from the Beginning to Alexander I, 860-1801	4
HIST	379	Imperial Russia: 1801-1917	4
HIST	478	History of Soviet Union	4
HIST	492	History of Modern World Communism	4
PSCI	414	Government and Politics of the Soviet Union	4
PSCI	425	Soviet Foreign Policy	4
RUS	101	Elementary Russian I	5
RUS	102	Elementary Russian II	5
RUS	103	Elementary Russian III	5
RUS	201	Intermediate Russian	4
RUS	202	Intermediate Russian Composition and Conversation I	4
RUS	203	Intermediate Russian Composition and Conversation II	4 15
RUS	305	Survey of Russian Literature I	5
RUS	306	Survey of Russian Literature II	5
RUS	307	Survey of Russian Literature III	5
RUS	335	Russian Conversation	3
RUS	336	Advanced Russian Composition	3
RUS	337	Advanced Russian Grammar	3
RUS	341	Pushkin	3
SOC	337	Soviet Society Today	4

2. IS 422. A four-hour individual study on a topic selected by the student at the culmination of the course work. The study is to cut across disciplinary boundaries with the purpose of integrating and synthesizing knowledge.

3. No specific courses are required other than IS 422. However, Russian language is strongly recommended and a maximum of 15 hours may be applied toward the minor.

4. Planning of the program by the student with the coordinator.

5. Hours in the minor will not apply toward the student's major field or another minor.

SCHOOL OF EDUCATIONAL CHANGE AND DEVELOPMENT

Donald M. Luketich, Program Director

Bachelor of Arts
Bachelor of Science

The School is an approved administrative unit of the university. The major purpose of the school is to cooperate with and facilitate innovative programs and ideas anywhere within the university.

Students who wish to pursue innovative programs leading to a degree may submit a proposal to the school. The school does not duplicate any academic program of the university, but exists as an option for those students who wish to pursue programs that require the use of the total resources of the university. Admission will be by invitation and based on the program the student submits that has been approved by the Advisory Board and the Resource Board. In general, the program will be of an interdisciplinary nature and will use the total resources of the university, and may use the resources of the community, state and nation.

A Student Manual is available in the University Bookstore. It contains information about the school, the procedures the students are to follow, and the forms

the student uses as he pursues his program.

Programs and projects submitted to the school that do not involve a degree are administered by the Program Director. Departments, schools, and colleges within the university may request the services of the Program Director. Public schools, institutions, and other colleges and universities who desire the services of the school may work with the Program Director to develop programs and projects.

Social Science

David Lonsdale, Coordinator

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

Social Science Major (Non-teaching)

Students pursuing the B.A. degree with a major in Social Science must plan their programs to fulfill the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog.
2. Courses in the major as specified below:

Hours Credit

a. Introductory courses in five social science fields (GEOG 100, ANT 100, ECON 100, PSCI 100, SOC 100). Since two of these courses are counted toward the General Education requirements, only 16 hours of credit from this group will apply toward the major16

b. Advanced electives in one, two, or three social science areas. For the areas selected, the following courses must be taken: ANT 381 or 382, ECON 200, GEOG 148, PSCI 220 or 421, SOC 450 or 31035
(Six hours of Minority Studies may be included in the 35 hours advanced Social Science requirement.)

*c. HIST 170, 171, 172 (U.S. History)9

*d. HIST 130, 131, 132 (World History)12

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*These are the only history courses which are acceptable for a Social Science major.

3. No minor required for a Social Science major.
4. Electives sufficient to complete requirements for the Bachelor of Arts degree.

Social Science Major (Teaching)

Students majoring in Social Science who plan to teach in the public schools should include the following courses in their programs:

1. Meet all General Education requirements as specified earlier in this catalog.
2. Courses in the major as specified below:

a. Professional Teacher Education (PTE), 31 hours, plus EDFE 373, 2 hours, and SSED 341, 3 hours.

b. No Social Science major may apply for admission to Professional Teacher Education (PTE) until he has passed at least 21 quarter hours of courses in the major, at least eight hours of which must have been taken at the University of Northern Colorado.

c. To be admitted to PTE, the student must have at least a 2.3 average in

those courses counting toward his major which were taken at the University of Northern Colorado, and must have taken all the courses in 2a and 2b above.

d. Before taking EDFE 373 and SSED 341, the student must have completed EDF 365, and PSY 302 to 326 (five 2-week units).

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

HONORS. Social Science majors may participate in the Honors Program. See page 23.

Sociology Major
Administered by the Department of Sociology

Students pursuing the B.A. with a major in Sociology must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog. The student should consult his assigned adviser.

2. Courses selected from each of the following areas:

	<i>Hours Credit</i>
I. Principles of Sociology .....	.5
SOC 100	
II. Social Theory .....	.12
SOC 450*, 451*, 452*, 454, 550**, 551**, 554**	
III. Methodology and Research .....	.8
SOC 460*, 461*, 563**	
One course from each of the following areas: .....	.15-20
IV. Social Psychology	
Selected from SOC 310, 312, 410, 415, 515**	
V. Social Institutions	
Selected from SOC 120, 221, 321, 323, 325, 420, 421, 424, 427, 520**	
VI. Social Organization and Process	
Selected from SOC 333, 334, 337, 432, 435, 454, 537**	
VII. Social Problems	
Selected from SOC 145, 240, 340, 341, 345, 447	
VIII. Demography and Ecology	
Selected from SOC 270, 272, 478, 479, 574**	
IX. Advanced Electives	
Electives include any Sociology course above 100	
Total hours including advanced electives .....	.56

*Required courses for majors.

**Courses numbered 500 and above -- seniors with 3.00 GPA and permission of instructor.

3. In addition, a minor of 33 quarter hours.

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

Following are the requirements for the minor:

1. All General Education requirements as specified earlier in this catalog. The student should consult his assigned adviser.

2. Courses selected from each of the following areas:

	<i>Hours Credit</i>
I. Principles of Sociology .....	.5
SOC 100	
One courses from each of the following areas: .....	.15-20
IV. Social Psychology	
Selected from SOC 310, 311, 312, 410, 415, 515.	
V. Social Institutions	
Selected from SOC 120, 221, 321, 323, 325, 420, 421, 424, 427, 520.	

VI. Social Organization and Process	
Selected from SOC 333, 334, 337, 432, 435, 454, 537.	
VII. Social Problems	
Selected from SOC 145, 240, 340, 341, 345, 447.	
VIII. Demography and Ecology	
Selected from SOC 270, 272, 478, 479, 574.	
IX. Advanced Electives	
Electives include any Sociology course above 100.	
Total hours including advanced electives	33

Students interested in being certified for teaching of Sociology must take a major in Social Sciences rather than in Sociology.

Spanish Major
Administered by the Department of Foreign Languages

Students pursuing the B.A. with a major in Spanish must plan their programs to fulfill the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog. (Foreign Language majors are urged to take ANT 100 or SOC 100 or HIST 130, 131, 132.) Student should consult his assigned adviser.
2. The following courses or their equivalents are required for the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
SPAN 201	Intermediate Spanish I	4
SPAN 202	Intermediate Spanish II	4
SPAN 203	Intermediate Spanish III	4

In addition, one of the following series:

- a. For students who plan to teach in the public schools.

SPAN 310	Advanced Spanish Grammar	4
SPAN 325	Advanced Spanish Composition	3
SPAN 335	Spanish Conversation	4
SPAN 345	Spanish Pronunciation	4
SPAN 400	Problems in Oral Spanish	3
	Six Spanish literature courses, 3 in Peninsular literature and 3 in Latin American literature, to be chosen from the departmental offerings	18
		<u>48</u>

Students who desire teaching certification will also take 31 credit hours in Professional Teacher Education, plus EDFE 366 (2 hours credit) and FL 341 (3 hours credit). Before being permitted to apply for student teaching, a Foreign Language major must have successfully passed the department oral proficiency examination in the language where application is made.

- b. For students wishing a Liberal Arts major:

SPAN 310	Advanced Spanish Grammar	4
	Six Spanish literature courses, 3 in Peninsular literature and 3 in Latin American literature, to be chosen from the departmental offerings	18
	*Electives in Spanish to be chosen with the consent of the adviser	14
		<u>48</u>

*Three hours of FL 131, Foreign Language House and FL 410, Linguistics are the only FL prefix courses which may be applied toward the major.

3. NOTE: All work to be counted toward the B.A. degree in Spanish must be beyond the first-year level.
4. In addition, a minor of at least 27 quarter hours approved by the Department.
5. Electives sufficient to complete the requirements for the B.A. degree.

Spanish Minor

Requirements for a Spanish Minor are as follows:

SPAN	201	Intermediate Spanish I	4
SPAN	202	Intermediate Spanish II	4
SPAN	203	Intermediate Spanish III	4

In addition, one of the following series:

- a. For students who plan to teach in the public schools:

SPAN	310	Advanced Spanish Grammar	4
SPAN	325	Advanced Spanish Composition	3
SPAN	335	Spanish Conversation	4
SPAN	345	Spanish Pronunciation	4
		Electives in Spanish to be chosen with the consent of the adviser	3
			30

- b. For students wishing a Liberal Arts minor:

SPAN	310	Advanced Spanish Grammar	4
		Three Spanish literature courses chosen from the departmental offerings	9
		Electives in Spanish to be chosen with the consent of the adviser	5
			30

Special Education Majors Administered by the School of Special Education

The School of Special Education and Rehabilitation offers several majors at the undergraduate level and affords students the opportunity to qualify for a Colorado Teacher Certificate in the area of the acoustically handicapped or mental retardation, both educable and trainable. A pre-professional program leading to the Bachelor of Arts degree in speech pathology and audiology is offered, as well as a program leading to the Bachelor of Science degree in Rehabilitation and Related Services. Junior and senior students may take course work in the areas of teaching the visually handicapped, physically handicapped, emotionally disturbed, and in speech correction. This course work may be used for certification in the special areas of teaching when all requirements for certification are met.

The campus Special Education school, a cooperative project of the Greeley Public Schools and University of Northern Colorado, provides a laboratory for observation and student teaching. At the present time, this laboratory school enrolls mentally retarded, physically handicapped, acoustically handicapped, emotionally disturbed, learning disabilities, and visually handicapped children. The Special Education facility also includes a speech and hearing service and complete audiometric evaluations; an apartment classroom; and provides for testing and measuring exceptional children.

Students pursuing the B.A. with a major in Special Education must plan their programs to meet the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. Professional Teacher Education Program (PTE). Exceptions: (1) Students concentrating in audiology are exempt from the PTE requirements. (2) Students

concentrating in Speech Pathology have the option of choosing a program with or without the PTE courses.

PTE Requirements for Special Education Majors:

Course No.	Course Title	Hours	Credit
EDF 365	Basic Concepts of Education	.....	.5
EDF 485	Philosophy of Education	.....	.3
PSY 301, 302, 303, and any two others from 304-326		.....	.5
EDGE 309	Introduction to Special Education Student Teaching	.....	.2
EDFE 420	Special Education Student Teaching: Elementary	.....	.18
	or		
EDFE 430	Special Education Student Teaching: Secondary	.....	.18
			<hr/> 33

3. Core requirements as listed below.

4. Adviser approved electives to complete the 180 quarter hours of academic credit required for graduation.

Mental Retardation Emphasis

Because of limited training facilities, admission to the program is dependent upon a departmental decision as the student begins the Junior year. All Freshmen are accepted as tentative candidates. The Junior year acceptance is based on: (1) documented experience working with handicapped children (at least 50 clock hours of contact is expected); (2) grade point average; (3) 16 PF Test Profile. (The PTE application is used to provide information upon which the acceptance decision is based.) Only students who receive departmental acceptance will be given student teaching assignments.

Within the Special Education: Mental Retardation major there are three options from which the student may choose his teaching specialty: Elementary EMR, Secondary EMR, and Trainable Mentally Retarded.

All students are required to take:

EDGE 100	Education of Exceptional Children	.....	.3
EDGE 160	Introduction to Speech Correction	.....	.3
EDGE 304	Introduction to Measurement of the Handicapped	.....	.3
EDGE 305	Educational Prescription and Programming for Exceptional Children	.....	.4
EDGE 310	Introduction to Mental Retardation	.....	.4
EDGE 412	Curriculum Development and Methodology for Mentally Retarded: Elementary Level	.....	.4
EDGE 421	Behavior Management in the Classroom	.....	.3
EDRD 310	Improvement of Instruction in Reading	.....	.3
FA 229	Art for Exceptional Children	.....	.3
	or		
IA 359	Construction Activities in Elementary Classrooms	.....	.3
PSY 230	Human Growth and Development	.....	.5
			<hr/> 35

Plus Electives to total 48 hours.

Students specializing in teaching EMR students at the secondary level must take:

EDGE 411	Vocational Preparation of the Mentally Retarded	.....	.3
EDGE 413	Curriculum Development and Methods for Mentally Retarded: Secondary Level	.....	.4

Six hours from the following:

VE 290	Directed Occupational Experiences, or the equivalent in Work Experiences	.....	.3
VE 310-311	Foundations of Vocational and Technical Education - History of Vocational Education - A Laboratory Approach	.....	.3

VE	412	Cooperative Education & Coordination Techniques	3
VE	424	Occupational Analysis	3
VE	430	Vocational Education for Special Populations	3
			<u>13</u>

Students specializing in teaching the trainable must take:

EDSE	311	Education of the Trainable Mentally Retarded	4
EDSE	312	Seminar: Teaching Trainable Children	2
EDSE	414	Problems in Teaching TMR Children	4
EDSE	415	Vocational Training of the TMR	4
			<u>14</u>

To complete endorsement requirements, Student Teaching must be done in an education facility for the Trainable.

Electives in Special Education to total 48 hours may be selected with the advice and consent of the adviser.

Recommended Electives:

EDSE	302	Counseling Parents of Exceptional Children	3
EDSE	330	Care and Pathology of the Physically Handicapped	3
EDSE	320	Introduction to the Education of Socially and Emotionally Disturbed Children	3
EDSE	326	Introduction to Teaching Learning Disabled Children	3
EDSE	350	Pathology and Introduction to the Hearing Impaired	3
EDSE	440	Survey of Education of Visually Handicapped	3
EDRD	411	Approaches to Reading Instruction	3
EDEL	320	Improvement of Instruction in Mathematics in the Elementary School	3
MUS	206	Music Methods and Materials for the Elementary Teacher	2
MUS	326	The School Music Program for the Handicapped	3

Acoustically Handicapped Emphasis

(Core Requirements):

EDSE	100	Education of Exceptional Children	3
EDSE	250	The Structure of Language	3
EDSE	260	Introduction to Phonetics	3
EDSE	265	Acoustics of Speech	3
EDSE	270	Pathologies of the Auditory Mechanism	3
		<i>or</i>	
ZOO	156	Elements of Human Physiology-Anatomy	5
EDSE	304	Introduction to Measurement of the Handicapped	3
ENG	320	The English Language	4
ENG	321	Generative-Transformational Grammar	4
EDSE	350	Pathology and Introduction to the Hearing Impaired	3
EDSE	357	Speech Reading	3
EDSE	356	Manual Communication Skills: S.E.E.	2
EDSE	358	Auditory Training and Hearing Aids	3
EDSE	370	Basic Audiology	3
EDSE	451	Speech Development for the Hearing Impaired	6
EDSE	452	Language Development for the Hearing Impaired	6
EDSE	453	Curriculum and Content for the Acoustically Handicapped	4
EDSE	455	Methods of Teaching Reading to the Hearing Impaired	3
EDSE	456	Manual Communication Skills: A.S.L.	2
EDRD	310	Improvement in Instruction in Reading	3
		<i>or</i>	
EDRD	420	Reading in the Secondary Schools	3
EDEM	410	Introduction to Educational Resources	5

NOTE: Students must also complete the course work necessary for certification in Pre-School, or Elementary, or a specific area of Secondary Education.

All or parts of EDSE 350, EDSE 356 and EDSE 456 may be challenged for credit.

NOTE: Teacher education for visually handicapped children as a degree program is *not* offered on the undergraduate level, though it is available on the graduate level. However, the following courses are offered on the undergraduate level by the faculty in the area of the visually handicapped:

EDSE	440	Survey of Education of the Visually Handicapped	3
EDSE	441	Listening Skills for Learning	3
EDSE	442	Principles of Education of Partially Seeing	3

Speech Pathology Emphasis

(Core Requirements):

The Bachelor of Arts degree is pre-professional and does not lead to certification of any type. The Master of Arts degree is the professional degree and enables the student to meet the academic and practicum requirements for certification by the American Speech and Hearing Association (ASHA).

If the student desires educational certification in addition to the certification of ASHA, he must take Professional Teacher Education (PTE) and methods courses (EDSE 460) as well as student teaching. The student teaching requirement should be postponed until the graduate level.

A minor is not required.

Course requirements:

EDSE	100	Education of Exceptional Children	3
EDSE	160	Introduction to Speech Correction	3
EDSE	260	Introduction to Phonetics	3
EDSE	265	Acoustics of Speech	3
EDSE	266	Speech and Language Development	3
EDSE	267	The Auditory and Speech Mechanisms	5
EDSE	301	Behavioral Objectives and Educational Programming for Exceptional Children	1
EDSE	357	Speech Reading	3
		<i>or</i>	
EDSE	358	Auditory Training and Hearing Aids	3
EDSE	360	Articulation Disorders I	4
EDSE	361	Voice Disorders I	3
EDSE	362	Stuttering I	3
EDSE	363	Introduction to Organic Disorders	3
EDSE	364	Clinical Principles	4
EDSE	365	Language Disorders in Children I	3
EDSE	369	Neurological Basis for Speech and Hearing	4
EDSE	370	Basic Audiology	3
EDSE	371	Speech Audiometry I	3
EDSE	464	Clinical Practicum in Speech Pathology	6
EDSE	467	Diagnosis in Speech Pathology	3

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Recommended electives are EDSE 250, 302, 304, 306, 310, 320, 326, 330, 331, 356, 372, 421, 452, 456, 575, PSY 201, 230, 240, 255, 306, 307, 309, 315, 341, 343, 431, 432, 433, 443, 444, 445, 457, 458, ENG 100, 101, 102, 321, COMM 110, 111, 130, 220, 302, 400, 420, 423, 424, 425, ANT 361, ZOO 156, BLS 192, MAS 304, 310, HEC 136, 331, 332, 333, 335, 439.

Audiology Emphasis

(Core Requirements):

The Bachelor of Arts degree is pre-professional and does not lead to certification of any type. The Master of Arts degree is the professional degree and enables the student to meet the academic and practicum requirements for certification in Audiology by the American Speech and Hearing Association. No educational certification is granted.

A minor is not required but the student must elect a minimum of 14 hours in courses dealing with the normal use, growth, and development of speech, hearing and language.

The following is the required program:

EDSE	100	Education of Exceptional Children	3
EDSE	160	Introduction to Speech Correction	3
EDSE	260	Introduction to Phonetics	3
EDSE	265	Acoustics of Speech	3
EDSE	266	Speech and Language Development	3
EDSE	267	The Auditory and Speech Mechanisms	5
EDSE	270	Pathologies of the Auditory Mechanism	3
EDSE	274	Clinical Principles in Audiology	Max. 6
EDSE	350	Pathology and Introduction to Education of the Hearing Impaired	3
EDSE	357	Speechreading	3
EDSE	358	Auditory Training and Hearing Aids	3
EDSE	360	Articulation Disorders I	4
EDSE	369	Neurological Disorders for Speech and Hearing	4
EDSE	370	Basic Audiology	3
EDSE	371	Speech Audiometry I	3
EDSE	372	Advanced Audiometry	3
EDSE	474	Practicum in Audiology	6
ZOO	156	Elements of Human Physiology and Anatomy	5
			<hr/> 66

Recommended electives are IA 180, 383, 384, ZOO 121, 250, PSY 341, PHYS 460, EDSE 150, 350, 304, 357, 451, 456, 369, PSY 330.

Rehabilitation and Related Services Major Administered by the School of Special Education

Students pursuing the B.S. degree with a major in Rehabilitation and Related Services must plan their programs to meet the following requirements:

1. Meet all General Education requirements as specified earlier in this catalog.
2. Core requirements as listed below.
3. An adviser approved non-teaching minor consisting of at least 27 quarter hours of course work.
4. 27 quarter hours of adviser approved electives to complete the 180 quarter hours of academic credit required for graduation.

(Core Requirements):

EDSE	100	Education of Exceptional Children	3
EDSE	290	Orientation to Rehabilitation and Related Services	3
EDSE	302	Counseling Parents of Exceptional Children	3
EDSE	304	Introduction to Measurement of Handicapped	3
EDSE	390	Introduction to Social and Rehabilitation Services	3
EDSE	391	Seminar: Problems in Social and Rehabilitation and Related Services	3
EDSE	394	Practicum in Social and Rehabilitation Services	2-8
EDSE	491	Interviewing Techniques in Social Rehabilitation Services	3

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EDGE	492	Casework Techniques in Social and Rehabilitation Services	3
EDGE	494	Supervised Field Practice in Rehabilitation and Related Services	15

Anthropology: At least three (3) hours selected from the following courses:

ANT	320	Ethnology of Mexico and Central America	4
ANT	326	Indians of the Southwest	3
ANT	381	Enculturation	4
ANT	382	Acculturation	4

Black Studies: At least three (3) hours selected from the following courses:

BLS	101	Crisis of Identity	3
BLS	201	Crisis of Identity II	3
BLS	240	Dynamics of Racism	3
BLS	340	The Black Family	3
BLS	380	Education in the Black Community	3

Mexican American Studies: At least three (3) hours selected from the following courses:

MAS	105	The Contemporary Mexican American I	3
MAS	106	The Contemporary Mexican American II	3
MAS	302	Social Stratification in the Mexican American Community	3
MAS	304	Bicultural Systems	3

Sociology: At least nine (9) hours selected from the following courses:

SOC	145	Social Problems	3
SOC	210	Social Movements	3
SOC	240	Criminology	4
SOC	245	Problems of Intergroup Relations	4
SOC	310	Social Psychology	3
SOC	340	Juvenile Delinquency	4
SOC	445	Social Conflict	4

Political Science:

PSCI	300	Public Opinion and Pressure Groups	4
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Psychology:

PSY	255	The Psychology of Emotional Adjustment	3
			66-72

Theatre Arts Major (Non-teaching)
Administered by the Department of Theatre Arts

Students pursuing the B.A. with a major in Theatre Arts must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. The following courses in the major:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
THEA	110	Introduction to Stagecraft	3
THEA	160	Acting I (Internals)	3
THEA	240	Beginning Play Direction	3
		Individual Performance in Theatre	10
		Electives (at least 21 quarter hours in Theatre Arts and dramatic literature)	39
			58

It is possible, but not required, for the student major to specialize in such fields of theatre arts as acting, play direction, or technical theatre; or to generalize in theatre arts; or to arrange, with advisement and with the prior approval of the department, an interdisciplinary program of study in such fields as dance theatre, art and technical theatre, or a combination of theatre arts and other disciplines to fit the needs of the student. At least 21 quarter hours of electives in the major must consist of courses in theatre arts (THEA prefix) and in dramatic literature.

Students contemplating graduate work in theatre arts are strongly urged to seek advisement from a member of the Theatre Arts staff and to pursue a strong theatre arts course of study with a liberal arts minor, with extensive course work in dramatic literature, and with at least two years' study in one or more foreign languages.

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

Theatre Arts Major (Teaching)

Students majoring in Theatre Arts who plan to teach Drama in the public schools should include the following courses in their programs:

1. All General Education requirements as specified earlier in this catalog.
2. Professional Teacher Education, 31 hours, plus EDFE 364, two hours credit, and EDCI 341, three hours credit.
3. The following courses in the major:

THEA	110	Introduction to Stagecraft	3
THEA	160	Acting I (Internals)	3
THEA	210	Stagecraft	3
THEA	220	Beginning State Costuming	3
THEA	240	Beginning Play Direction	3
THEA	260	Acting II (Externals)	3
THEA	261	Stage Make-Up	2
THEA	280	Creative Dramatics	3
THEA	310	Beginning Scene Design	3

Two of the following:

THEA	340	Directing Period Plays	3
THEA	341	Directing Experimental Plays	3 6
THEA	342	Directing Musical Theatre	3
THEA	380	Children's Theatre Production	3
THEA	411	Stage Lighting	2
THEA	430	History of the Theatre I	3
THEA	431	History of the Theatre II	3
THEA	432	History of the Theatre III	3
THEA	440	Directing the One-Act Play	2
		Individual Performance in Theatre	10
		Electives in dramatic literature	6
			64

4. One minor of 27 or more quarter hours. The student desiring to teach in the minor should check page 144 regarding general requirements.

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

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

Theatre Arts Minor (Non-teaching)

Following are the requirements for the minor:

THEA	110	Introduction to Stagecraft	3
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THEA	160	Acting I (Internals)	3
THEA	230	Introduction to the Theatre	3
		Individual Performance in Theatre	2
		Electives in Theatre Arts	18
			<u>29</u>

Theatre Arts Minor (Teaching)

For the student desiring to teach drama, the Department of Theatre Arts requires the following teacher education program in the minor:

1. An adviser from the Theatre Arts staff.
2. The following courses in the minor:

THEA	110	Introduction to Stagecraft	3
THEA	160	Acting I (Internals)	3
THEA	210	Stagecraft	3
THEA	230	Introduction to the Theatre	3
THEA	240	Beginning Play Direction	3
THEA	260	Acting II (Externals)	3
THEA	261	Stage Make-Up	2
THEA	310	Beginning Scene Design	3
		Individual Performance in Theatre	2
		Electives in Theatre Arts, Speech and English	11
			<u>36</u>

3. EDFE 364, two hours credit, and EDCI 341, three hours credit, in Theatre Arts.

4. Meet the minimum requirements set up by the North Central Association for teachers of Drama. Consult your Theatre Arts adviser.

HONORS. The Department of Theatre Arts participates in the Honors Program. See page 23.

Vocational Teacher Education

Professor: Keller

Associate Professors: Palmer, Robins, Walters, Wirick.

Assistant Professors: Beall, Bennett, Dierks, Nick, Peiffer, Sorenson, Van Hook, Ward.

Instructor: Johnson, Welch.

Vocational Teacher Education is a multi-disciplinary program. Students should refer to:

1. School of Business, Department of Business Teaching Education for Business and Office Education and Distributive Education requirements.
2. School of the Arts, Department of Home Economics for Consumer and Homemaking and Occupational Homemaking requirements.
3. Graduate Bulletin -- Vocational Teacher Education for Health Occupations Requirements.

Vocational Teacher Education Courses

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
VE	210 Career Opportunities and Explorations	3

VE	290	Directed Field Experiences	Max. 12
VE	310	Vocational Education Foundation -- Seminar	3
VE	412	Cooperative Education and Coordination Techniques	3
VE	414	Vocational Youth Organizations	3
VE	416	Adult Vocational Education	3
VE	422	Individual Studies in Vocational Education	Max. 4
VE	430	Vocational Education for Learners with Special Needs	3
VE	488	Seminars in Vocational Education	Max. 6

Women's Studies Minor

Marcia L. Willcoxon, Coordinator

The 27-hour Women's Studies minor is an interdisciplinary program administered by a faculty coordinator and a Committee composed of five faculty members appointed by the University administration and five students elected by and from among students minoring in the program.

In all cases, the minor program will be developed individually with each student by the coordinator and Committee. Each minor in Women's Studies should register with the coordinator to develop her or his program and to receive information about new developments and general meetings and programs scheduled.

Courses in Women's Studies are also designed for students taking a core-course general education program in the area.

The basic goals of the Women's Studies minor and core-course offering are to explicate, understand, and overcome social myths about women in order to enhance the dignity of all human beings and to provide unique opportunities for knowledge and understanding for students going into teaching and school administration and into a wide variety of other professional careers.

For further information on the program and on new courses included since the publication of this catalog, students should contact the Coordinator.

Requirements:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
ID	148	Introductory Seminar in Women's Studies: Women in Crisis	3
ID	448	Women's Studies: Senior Seminar	3

Electives totaling at least 21 hours from among the following and other courses subsequently approved by the Women's Studies Committee:

ANT	220	Seminar in Modern Ethnology (Women in Cross-Cultural Perspective)	3
BLS	102	Crisis in Identity II	3
EDF	380	Women in Education	3
HEC	321	Role Behavior in the Intimate Environment	4
ICU	205	Human Sexuality (Malumphy and Malumphy-Plakke)	3
ICU	208	Liberation: Myth to Ms	5
ICU	314	Images of Women in Literature	4
ICU	319	Sexism in Management	3
PHIL	380	Problems and Methods of Philosophy (Conceptual Analysis of Feminism)	3
PSCI	207	Politics of Feminism	3
PSY	468	Psychology of Women	3
SOC	221	Sociology of Sex Roles	3

A student also may, upon the approval of the Committee, include among her or his electives other pertinent courses offered throughout the University.

Zoology Major

Administered by the Department of Biological Sciences

Students pursuing the B.A. degree with a major in Zoology must plan their programs to fulfill the following requirements:

1. All General Education requirements as specified earlier in this catalog.
2. Take the following:

<i>Course No.</i>	<i>Course Title</i>	<i>Hours Credit</i>
BIO 101	Principles of Biology .....	.5
BIO 102	Principles of Botany .....	.5
BIO 103	Principles of Zoology .....	.5
BIO 231	Genetics .....	.5
BIO 361	Microbiology .....	.5
BIO 391	Seminar in Research I .....	.1
BIO 392	Seminar in Research II .....	.1
ZOO 350	Cell Physiology .....	.5
ZOO 316	Entomology .....	.5
	<i>or</i>	
ZOO 412	General Parasitology .....	.5
ZOO 325	Comparative Morphogenesis of the Vertebrates I .....	.4
ZOO 326	Comparative Morphogenesis of the Vertebrates II .....	.4
ZOO 340	Animal Ecology .....	.5
	Electives to be selected with approval of major adviser .....	.10
		<u>60</u>

3. It is recommended that one minor of 27 or more quarter hours in chemistry, physics, or mathematics be included.

4. It is recommended that a minimum of 15 quarter hours in each of the above fields (chemistry, physics, or mathematics) not selected as a minor be included.

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

6. Electives to complete 180 hours required for graduation.

COURSE DESCRIPTIONS

ANTHROPOLOGY

Numbers preceding prefix and course number refer to General Education requirements on page 22.

3-ANT 100. GENERAL ANTHROPOLOGY. *Five hours credit.*

The nature and scope of anthropology, organic man, and the nature of culture.

3-ANT 110. INTRODUCTION TO CULTURAL AND SOCIAL ANTHROPOLOGY. *Four hours credit.*

A general introduction into the principles and concepts of the field of cultural and social anthropology.

3-ANT 120. WORLD ETHNOLOGY. *Three hours credit.*

Ethnologies are selected from various culture areas throughout the world. Emphasis is upon strategies for analysis of ethnographic data.

3-ANT 121. ABORIGINAL CULTURES OF NORTH AMERICA. *Three hours credit.*

Ethnographic study of North American Indian cultures between the time of contact and prior to massive acculturational influences.

3-ANT 122. SOUTH AMERICAN INDIANS. *Three hours credit.*

Study of aboriginal peoples of South America.

3-ANT 140. INTRODUCTION TO ARCHAEOLOGY. *Four hours credit.*

An introduction to archaeological procedures. The course will focus upon archaeological sites (how they are formed, and various methods of excavation), analytical methods (dating, analysis of plant and animal remains, etc.) and the goals of archaeology. A broad coverage, from many areas, will give a background for more advanced courses. Some laboratory experience will be available.

5-ANT 170. PHYSICAL ANTHROPOLOGY. *Four hours credit.*

A general survey of the subfields of physical anthropology: primatology; human paleontology, variation and adaptation. The course will include an introduction to evolutionary theory and population genetics as they apply to problems of human origins and present day racial variation.

3-ANT 220. SEMINAR IN MODERN ETHNOLOGY. *Three to nine hours credit.*

A study and analysis of selected modern ethnographies to present up-to-date materials and problems in various culture areas.

3-ANT 221. FOLK CULTURES. *Four hours credit.*

Concentration upon the rural communities of peasant farmers. Communities analyzed from the point of view of the social, religious, economic and political organization, as well as value orientation.

3-ANT 222. CULTURAL ADAPTATIONS OF NOMADISM. *Four hours credit.*

A study of the adaptations made by nomadic peoples to the variety of environments they encounter and to the semipermanent nature of their locations.

3-ANT 240. ARCHAEOLOGY OF NORTH AMERICA. *Four hours credit.*

Ancient man in North America, north of Mexico. The development of prehistoric

American Indian cultures; a thorough study of the archaeology of the Mississippi Valley, Great Plains, and other pre-Columbian cultures; historical development and interrelations of archaeological horizons.

3-ANT 241. ARCHAEOLOGY -- FIELD METHODS. *Two to eight hours credit.*
Techniques of archaeological investigation; field surveying and recording of excavated materials; proper handling and preservation of specimens in the field and laboratory; etc. Course involves off-campus archaeological research.

3-ANT 242. ARCHAEOLOGY OF SOUTH AMERICA. *Four hours credit.*
Ancient man, and the development of prehistoric Indian cultures in South America. Discussion of archaeological centers, with analysis of ceramics, stonework, art styles, etc. Particular emphasis will be devoted to the Andean Highlands and its influence on cultures elsewhere.

3-ANT 280. PRIMITIVE RELIGIONS. *Three hours credit.*
The religions of the peoples not involved in the Indic complex of Hindu-Buddhist or the Judaic tradition of the Mid-East.

3-ANT 281. PRINCIPLES OF SOCIAL ORGANIZATION. *Four hours credit.*
Basic principles of social structure, with emphasis on kinship.

3-ANT 300. NORTH AMERICAN INDIANS IN CONTEMPORARY SOCIETY.
Four hours credit.

Study of North American Indian Cultures in present day American society. Relationships between U.S. Government policy, reservation living, competition in a money economy, and acculturation patterns in selected Indian cultures will be explored.

3-ANT 320. ETHNOLOGY OF MIDDLE AMERICA. *Four hours credit.*
Indian, mestizo, and urban cultures of Middle America; interethnic relationships; acculturation trends.

3-ANT 321. NORTH AFRICA AND THE MIDDLE EAST. *Three hours credit.*
The culture complex of the Mid-East and North Africa. The background of peasant nomad and feudal societies which have helped to produce the present society.

3-ANT 322. OCEANIA. *Four hours credit.*
Peoples of Polynesia, Melanesia and Micronesia.

3-ANT 323. INDIA AND PAKISTAN. *Three hours credit.*
A study of modern ethnic populations of India, Pakistan and Ceylon, as well as a review of their ancient cultural heritage and religion.

3-ANT 324. SOUTHEAST ASIA. *Three hours credit.*
A study of modern ethnic populations and primitive peoples inhabiting Burma, Thailand, Laos, Cambodia and Vietnam, as well as the Philippine Islands and Indonesia.

3-ANT 325. SPANISH AND MEXICAN AMERICAN CULTURES IN AMERICAN SOUTHWEST. *Three hours credit.*
Historical development of Spanish Colonial and Mexican American Cultures including patterns of family structure, health practices and folk medicine, religious patterns, value systems, etc. Patterns are examined in light of current problems.

3-ANT 326. INDIANS OF THE SOUTHWEST. *Four hours credit.*
Ethnology of the Pueblo, Navajo, Apache, Yuman tribes and the Pima-Papago groups.

3-ANT 327. ARCTIC CULTURES. *Three hours credit.*

A descriptive survey of the native cultures of the Arctic forests (tiaga) and tundra of Siberia; the Eskimo, Aleut and sub-Arctic cultures of North America; and the Lapps of Scandinavia.

3-ANT 328. EASTERN ASIA. *Four hours credit.*

A study of societies and cultures in Eastern Asia -- with special emphasis on the ethnic populations of Tibet, Sinkiang, Mongolia and Korea, and an archaeological-ethnological review of China and Japan.

3-ANT 331. URBAN ETHNOLOGY. *Four hours credit.*

An in-depth study of the concept of urbanization which will include an investigation of existing conceptual frameworks dealing with urbanization, a review of current cross-cultural research and an investigation of the direction of urbanization within the structure of national and international systems.

3-ANT 335. ECONOMIC ANTHROPOLOGY. *Four hours credit.*

A general survey of the field of economic anthropology. Topics covered include typologies of economics, the applicability of formal Western economics to non-Western, non-industrial economics, principles or organization of hunting and gathering band economics, tribal economics, chiefdoms, traditional agrarian economics, pastoral economics, and modern peasant economics, and modernization of economic systems under capitalist and socialist systems. Emphasis is on the inter-relationships between economy and the other aspects of culture.

3-ANT 337. POLITICAL ANTHROPOLOGY. *Four hours credit.*

A general survey of the field of political anthropology. Topics covered include the concept of power; institutional vs. processual approaches to the study of political systems; typologies of political systems; and political change as part of overall modernization in modern Third World countries. General orientation is to the inter-relationships of political, economic, social, and cultural variables in the operation of societies of all types.

3-ANT 340. ARCHAEOLOGY OF THE SOUTHWEST. *Four hours credit.*

A study of ancient cultural horizons in the Southwest, up to the Conquest; emphasis on chronology, culture change, and classification. Thorough review of Early Man; the Mogollon, Hohokam, and Pueblo (Anasazi) archaeological cultures.

3-ANT 341. OLD WORLD ARCHAEOLOGY I. *Four hours credit.*

The development of Paleolithic, Mesolithic, Neolithic, and The Age of Metal, Cultures of Europe, Africa, and Asia, emphasizing the interpretation of archaeological data, Pleistocene geology, and chronology.

3-ANT 342. OLD WORLD ARCHAEOLOGY II. *Four hours credit.*

A survey of the prehistoric foundations and cultural development of civilizations in Egypt, the Near East, and the Indus Valley, as revealed by major archaeological discoveries; theories of cultural evolution and diffusion.

3-ANT 344. ARCHAEOLOGY OF AFRICA. *Three hours credit.*

The antiquity of man in Africa -- a thorough review of archaeological development from the Australopithecines, through the Paleolithic, Mesolithic and Neolithic stages up through the 18th Century A.D. (This course does not include Egypt; cf., ANT 342).

3-ANT 345. ARCHAEOLOGY OF MEXICO I. *Four hours credit.*

A comparative study of cultural development in ancient Mexico and Central America with emphasis upon agricultural beginnings, settlement patterns and urbanization, hieroglyphics, calendrical systems, and religious activities. A thorough examination of Archaic, Toltec, and Aztec cultures.

3-ANT 346. ARCHAEOLOGY OF MEXICO II. *Four hours credit.*

A thorough study of Maya civilization of Mesoamerica: its origins, development, chronology, and archaeological manifestations. A review of other archaeological cultures in southern Mexico and Central America.

3-ANT 360. ANTHROPOLOGICAL LINGUISTICS. *Four hours credit.*

The study of speech and language within the context of anthropology. Cognitive categories formed through language, the nature of language, cultural focus in language, linguistic change.

1-ANT 361. DESCRIPTIVE LINGUISTICS. *Three hours credit.*

A critical examination of language theory, communications theory, and linguistic theories with particular emphasis on the basic linguistic elements of phonology, morphology, grammar and syntax.

3-ANT 370. HUMAN EVOLUTION. *Four hours credit.*

A study of evolutionary theory and the various types of evidence for human evolution. Major emphasis will be on interpretation of the fossil record from the emergence of primates to the appearance of Modern Man. Summation of present-day variation in human populations.

5-ANT 371. HUMAN VARIATION. *Four hours credit.*

Prerequisite, ANT 170 or equivalent. An in-depth study of relationships between culture and the biology and genetics of human populations. Assessment of current trends in physical anthropology.

3-ANT 372. PRIMATE BEHAVIOR. *Three hours credit.*

A study of theories of animal behavior, and their application to the behavior of primates. In-depth examination of the adaptive advantages of social living in its various forms.

5-ANT 373. HUMAN OSTEOLOGY. *Three hours credit. (Two hours lecture, two hours laboratory.)*

A descriptive and analytical study of the gross anatomy of the human skeletal system. Identification, description, and analysis of human bones from archaeological sites will be emphasized.

3-ANT 380. GREAT IDEAS IN ANTHROPOLOGY-SEMINAR. *Three to nine hours credit.*

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

3-ANT 381. ENCULTURATION. *Three hours credit.*

A study of the patterned interactions by which an individual becomes oriented to his culture, and through which he is prepared to perform adequately as an adult member of his society. Comparison of the enculturation process in selected nonliterate societies.

3-ANT 382. ACCULTURATION. *Four hours credit.*

The study of cultures in contact and the influences they have one upon the other.

3-ANT 383. CULTURE AND PERSONALITY. *Three hours credit.*

A study of the social development of the individual and of the influence of the cultural environment on the development of the human personality, in relation to social stimulus situations. Examples utilized from primitive societies.

3-ANT 384. QUANTITATIVE METHODS IN ANTHROPOLOGY. *Four hours credit.*

An introduction to basic formal techniques as they relate to problems in anthropology. Treatment of problems unique to the various subfields will provide a format for investigating quantitative applications. Problem formulation, statistical description, probability distributions, and significance testing will be covered.

3-ANT 420. AFRICA SOUTH OF THE SAHARA I: EAST AND SOUTH AFRICA. *Four hours credit.*

Emphasis will be placed on tribal backgrounds and acculturation that is taking place between European and African systems in East and South Africa.

3-ANT 421. AFRICA SOUTH OF THE SAHARA II: NIGER-CONGO AREA. *Four hours credit.*

Emphasis will be placed on tribal backgrounds and acculturation that is taking place between European and African systems in the Niger-Congo drainage systems in Africa.

3-ANT 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

3-ANT 431. URBAN POOR. *Four hours credit.*

An investigation of the life styles of the poor in urban areas. This course will approach the study of the urban poor as an ethnographic unit -- including economic, political and social structure.

3-ANT 440. TECHNIQUES OF ARCHAEOLOGY. *Three hours credit.*

A review of field methods and laboratory techniques, utilized in prehistoric archaeology. Special attention paid to stratigraphy, typological analysis, dating techniques, and research publication.

3-ANT 442. ARCHAEOLOGICAL THEORY. *Three hours credit.*

Examination of the increasingly growing body of theory in archaeology. Throughout, the emphasis will concern the integration of archaeology and the other fields of anthropology, and in the use of archaeological theory to formulate laws of cultural evolution. The course will be conducted on a seminar basis.

3-ANT 450. ARCHAEOLOGY FIELD SCHOOL. *One to twelve hours credit.*

Prerequisite, permission of instructor. Techniques taught will include site mapping, controlled surface collection, recording, flotation, and a variety of excavation techniques. The latter will range from random test excavation samples to the excavation of large horizontal areas. Students will be under the direction of instructor and graduate students in ANT 650.

3-ANT 470. THE NATURE OF MAN. *Three hours credit.*

Prerequisite, permission of instructor. A study of man as a biosocial being. Analysis of the functional requirements of social living and how these have been met in various species including man. A delineation of the distinctive characteristics of man's social existence and how these affect the ecosystem.

3-ANT 471. CULTURE AND HUMAN GENETIC VARIATION. *Four hours credit.*

A review of the interaction between culture and genetic variation in human populations. Emphasis will be on the unique evolutionary processes in man resulting from his cultural heritage. Specific examples of current anthropological research will supplement general treatment of the subject.

3-ANT 472. MEDICAL ANTHROPOLOGY. *Four hours credit.*

An anthropological analysis of health and disease in a sample of human populations and cultural systems. The course will consist of an introduction to the ecology of some infectious and noninfectious human diseases; an examination of the relations between cultural processes and health and disease; and an investigation of ethnomedicine, including diagnostic and curative methods.

3-ANT 480. SURVEY OF ANTHROPOLOGICAL THEORY. *Three hours credit.*

Seminar on the development of anthropological theory from Tylor to the present. Includes cultural evolution, diffusion and historical reconstruction, functionalism, and psychologically oriented theories.

3-ANT 481. ANTHROPOLOGICAL THEORY I. *Three hours credit.*

A seminar on the theories of cultural analysis and development of skills for gathering cultural data. Examination of observational and analytical procedures. Recording and analysis of formal and informal behavioral sequences. Formulation of problems of relationships between culture patterns.

AEROSPACE STUDIES

2-AS 100. U.S. MILITARY FORCES IN THE CONTEMPORARY WORLD I. *Two hours credit.*

An introductory course presenting the doctrine, mission and organization of the U.S. Air Force and an introduction to strategic offensive forces employed by the U.S. Corps Training is included as a laboratory portion of the course.

2-AS 101. U.S. MILITARY FORCES IN THE CONTEMPORARY WORLD II. *Two hours credit.*

A continuing study of doctrine, mission and organization of the U.S. Air Force and an introduction to strategic defensive forces and General Purpose Forces employed by the U.S. Corps Training is conducted as the laboratory portion of the course.

2-AS 102. U.S. MILITARY FORCES IN THE CONTEMPORARY WORLD III. *Two hours credit.*

A continuing study of the employment of General Purpose Forces plus an introduction to the employment of Aerospace Support Forces. Corps Training is conducted as the laboratory portion of the course.

2-AS 200. THE DEVELOPMENTAL GROWTH OF AIR POWER I. *Two hours credit.*

An introductory course encompassing the development of Air Power in the United States from the beginning of manned flight through the period between WWI and WWII.

2-AS 201. THE DEVELOPMENTAL GROWTH OF AIR POWER II. *Two hours credit.*

An introductory course encompassing the development of Air Power in the United States from World War II through the Korean War years.

2-AS 202. THE DEVELOPMENTAL GROWTH OF AIR POWER III. *Two hours credit.*

An introductory course encompassing the development of Air Power in the United States in the Post-Korean War years.

2-AS 300. SECURITY FORCES IN AMERICA I. *Three hours credit.*

A study of the role of the professional military leader in today's society; social attitudes toward armed forces and political, social and economic constraints on the

defense structure. Development of communicative skill is a major goal of this course.

2-AS 301. SECURITY FORCES IN AMERICA II. *Three hours credit.*

A continuing study of the role of the professional military leader in today's society: social attitudes toward armed forces; and political, social and economic constraints on the defense structure. Development of communicative skill is a major goal of this course.

2-AS 302. SECURITY FORCES IN AMERICA III. *Three hours credit.*

A continuing study of the role of the professional military leader in today's society: social attitudes toward armed forces; and political, social and economic constraints on the defense structure. Development of communicative skill is a major goal of this course.

2-AS 400. CONCEPTS OF AIR FORCE LEADERSHIP. *Three hours credit.*

An introduction to AF teaching methods by way of student participation. A study of human behavior and human relations as they affect AF leadership. The need for discipline and the study of non-judicial punishment and the courts-martial system.

2-AS 401. CONCEPTS OF AIR FORCE LEADERSHIP AND MANAGEMENT I.
Three hours credit.

A study of the variables affecting leadership including the trait, situational and interactional approaches. The study of military management. Discusses planning, organizing, coordinating, directing and controlling.

2-AS 402. CONCEPTS OF AIR FORCE LEADERSHIP AND MANAGEMENT II.
Three hours credit.

Continuation of the study of military management with the emphasis on the directing and controlling functions. An overview of some of the aspects of management evaluation and information sciences. Course concludes with a pre-commissioning briefing for active duty in the USAF.

2-AS 403. FLIGHT INSTRUCTION. *Three hours credit.*

This course is designed to meet the ground school requirements for a private pilot license. Includes the study of Federal Aviation regulations, meteorology, Airman's Information Manual, aerial navigation, radio procedures, flight computer and flying safety practices.

ASTRONOMY

Courses in astronomy are administered by the Department of Earth Sciences.

5-AST 100. GENERAL ASTRONOMY. *Four hours credit. (Three hours lecture, two hours laboratory.)*

The development of man's understanding of the universe and his place in it. No mathematics background required.

5-AST 301. PRINCIPLES OF ASTRONOMY I. *Four hours credit. (Three hours lecture, two hours laboratory.)*

The solar system: A survey of the dynamics and physical properties of its members.

5-AST 302. PRINCIPLES OF ASTRONOMY II. *Three hours credit.*

Prerequisite, AST 100 or 301. The Universe beyond the solar system: stars and stellar systems.

5-AST 310. OBSERVATIONAL ASTRONOMY. *Four hours credit. (Two hours lecture, six hours laboratory. Maximum twelve hours credit.)*

Prerequisite, AST 100 or 301. Equipment, materials, and techniques used in astronomical research. Students will conceive and carry out observational projects.

5-AST 420. LUNAR AND PLANETARY ASTRONOMY. *Three hours credit.*

Prerequisite, AST 100 or 301. Techniques and results of space exploration. Students will select topics for intensive individual study.

5-AST 499. SEMINAR IN ASTRONOMY. *Three hours credit.*

Prerequisite, consent of instructor. An opportunity for students to explore areas of astronomy which are beyond the scope of existing departmental offerings. Specific topics to be treated will be determined by the interests of the students and the instructor.

BUSINESS TEACHER EDUCATION

BEVE 340. INTRODUCTION TO BUSINESS TEACHER EDUCATION. (PTE)
Two hours credit.

Prerequisite, EDF 365 (or concurrently). A beginning course for future business teachers designed to acquaint students with problems of teaching the business curriculum, philosophy of business education, and professional organizations.

BEVE 341. METHODS AND MATERIALS OF TEACHING TYPEWRITING.
(PTE) *One hour credit.*

Prerequisites, BUS 112, and BEVE 340 (or concurrently). A beginning course in the teaching of typewriting with special emphasis on various methods and techniques that have been shown to be useful by research. Materials will also be examined in the course. A laboratory period will be scheduled.

BEVE 342. METHODS AND MATERIALS OF TEACHING SHORTHAND. (PTE)
One hour credit.

Prerequisites, BUS 219, and BEVE 340 (or concurrently). An introduction to the teaching of shorthand for business teachers with emphasis on devices, techniques, and materials. A laboratory period will be scheduled.

BEVE 343. METHODS AND MATERIALS OF TEACHING BOOKKEEPING.
(PTE) *One hour credit.*

Prerequisites, BUS 221, and BEVE 340 (or concurrently). An introduction to the teaching of bookkeeping. Major emphasis in the course will be on techniques and methods of aiding students in high school. Materials will be examined and evaluated in the class. A laboratory period will be scheduled.

BEVE 344. METHODS AND MATERIALS OF TEACHING BASIC BUSINESS SUBJECTS. (PTE) *One hour credit.*

Prerequisites, BUS 100, BEVE 340 (or concurrently), and ECON 100. A course designed to aid beginning business teachers in the teaching of basic business subjects of general business, business law, economics, consumer economics, etc. Materials available for such classes will be examined by the class. A laboratory period will be scheduled.

BEVE 345. ORGANIZATION AND ADMINISTRATION OF DISTRIBUTIVE EDUCATION. (PTE) *Three hours credit.*

Prerequisite, BEVE 340 (or concurrently). A study of the organization, supervision, and coordination of secondary school, post secondary school, and adult distributive education programs.

BEVE 347. INSTRUCTIONAL METHODS IN DISTRIBUTIVE EDUCATION.*Four hours credit.*

Prerequisites, BEVE 340 and BEVE 345. A course devoted to the specific methods and techniques relating to the teaching of distributive education. Major emphasis will be placed upon individual instruction and sources of instructional materials.

BEVE 348. METHODS AND MATERIALS OF TEACHING OFFICE PRACTICE.*(PTE) One hour credit.*

Prerequisites, BUS 109, 211, 214, and BEVE 340 (or concurrently). An introduction to the teaching of office practice with emphasis on classroom organization plans, teaching methods, development or selection of materials and equipment.

BEVE 360. TEACHING RETAIL STORE OPERATIONS. *One hour credit.*

Prerequisite, BUS 361 (or concurrently). A study of store operations and store security. Particular attention will be paid to the retail employee's responsibility in these areas. The study will develop entry level skills in receiving and marking merchandise and in store security. Representative forms will be utilized in this course. Primary emphasis on this course will be placed upon the teaching of these skills to distributive education students.

BEVE 361. TEACHING RETAIL MERCHANDISING. *One hour credit.*

Prerequisite, BUS 361 (or concurrently). A study of the buying function in retailing and the merchandising mathematics associated with this function.

BEVE 362. TEACHING RETAIL PROMOTION. *One hour credit.*

Prerequisites, BUS 361, BUS 362 (or concurrently). A study of the retail employee's responsibility to the advertising, display, and sales promotion functions in the retail store. The retail promotional planning calendar will be the primary point of reference in this course. Primary emphasis will be placed on teaching retail promotion to distributive education students.

BEVE 363. TEACHING MARKETING INFORMATION SYSTEMS. *One hour credit.*

Prerequisite, BUS 360 (or concurrently). A study of the retail employee's responsibility in gathering and disseminating market information.

BEVE 364. TEACHING MARKETING PERSONNEL. *One hour credit.*

Prerequisite, BUS 360 (or concurrently). A study of the human and customer relations responsibilities of the retail employee.

BEVE 365. TEACHING THE WHOLESALING AND SERVICE OCCUPATIONS.*Three hours credit.*

Prerequisite, BUS 360. A study of the various occupations in the wholesaling and service industries for which a distributive education student might prepare. Special attention will be paid to the competencies needed by people employed in these occupations.

BEVE 371. EVALUATION IN BUSINESS SUBJECTS. (PTE) *Three 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.

BEVE 430. ECONOMIC EDUCATION SEMINAR. (PTE) *Three hours credit.*

Prerequisite, ECON 100. A study of the conceptual framework of economic education for potential teachers, administrators, curriculum specialists, and guidance personnel.

BEVE 451. PREPARATION FOR TEACHING VOCATIONAL BUSINESS AND OFFICE EDUCATION -- "Taken prior to student teaching." Three hours credit.

Prerequisite, PTE approval. BEVE 340 and methods may be taken concurrently with BEVE 451. This course substitutes for EDCI 341 and is required for students seeking a state vocational teaching credential. The course **MUST** be taken prior to student teaching in business and office education. The student will be placed with a state-approved vocational business/office education program. The course will cover such topics as: the vocational business and office education curricula in Colorado; preparation for student teaching; terminology; instructional content and learning experiences; review of methods, media, teaching strategies; evaluation; professional involvement; FBLA review. Following the student teaching experience, the student will be involved in BEVE 481 -- a teaching improvement seminar, and job placement activities.

BEVE 460. CURRICULUM DEVELOPMENT IN DISTRIBUTIVE EDUCATION. Three hours credit.

Prerequisite, BEVE 345. A study of the basic principles of curriculum development, content organization, and criteria for evaluation; the analysis of Distributive Education curriculums in high school, junior colleges, and adult education programs; the construction of courses of study and preparation of units of instruction in Distributive Education.

BEVE 461. DIRECTION OF DISTRIBUTIVE EDUCATION CLUB ACTIVITIES. Two hours credit.

Prerequisite, BEVE 345. A course designed to give the aims and objectives of the D.E. clubs and to relate its position to the total overall Distributive Education Program. An emphasis will be placed on the development of program activities and direction of activities.

BEVE 471. STUDENT TEACHING IMPROVEMENT SEMINAR IN DISTRIBUTIVE EDUCATION. Two hours credit.

Prerequisite, EDFE 470. This seminar follows the student teaching experience and is required of all DE students planning to obtain a vocational credential and assistance from the department in obtaining employment. The seminar is designed to provide group and individual instruction. The topics covered are: (a) evaluation of student teaching experience and work experience; (b) diagnosis of knowledge/skill competencies for teaching distributive education; (c) prescriptive learning experiences; (d) completion of forms for vocational endorsement; (e) preparation of UNC placement forms; (f) employment procedures and techniques; (g) the department's in-service program and services. **PLEASE NOTE -- STUDENTS SHOULD NOT PLAN TO DO THEIR STUDENT TEACHING THE LAST QUARTER ON CAMPUS.**

BEVE 481. TEACHING IMPROVEMENT SEMINAR IN VOCATIONAL BUSINESS AND OFFICE EDUCATION. Two hours credit.

Prerequisite, EDFE 470. This seminar follows the student teaching experience and is required of all vocational business/office education students planning to obtain a vocational credential. The seminar is designed to provide group and individual instruction. The topics covered are: (a) evaluation of student teaching experience and work experience; (b) diagnosis of knowledge/skill competencies for teaching business/office education; (c) prescriptive learning experiences; (d) completion of forms for state vocational credential; (e) preparation of UNC placement forms; (f) employment procedures and techniques; (g) actual job interviews; (h) the department's in-service program and services.

BIOLOGY

~~C~~ourses in biology are administered by the Department of Biological Sciences.

5-BIO 101. PRINCIPLES OF BIOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

A study of biological principles from the biosphere to the ultrastructures of the cell. Aspects of ecology, reproduction, genetics, evolution, the structural and functional basis of life, and the coordination of the organism to be studied.

5-BIO 102. PRINCIPLES OF BOTANY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, BIO 101. A study of plant diversity concerned with morphology, habitats, structure, function, and economic relationships of the plant kingdom.

5-BIO 103. PRINCIPLES OF ZOOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, BIO 101. A survey of animal diversity, including principles of structure and function, phylogeny, life cycles and systematics. The relationship of the animal kingdom to man is stressed.

5-BIO 131. HEREDITY AND YOUR LIFE. *Three hours credit.*

A course dealing with the principles of heredity as they apply to man, presented on an elementary level which requires no background in science. Topics included are superstitions and facts about human heredity, method of inheritance of common human traits, heredity and race, heredity and environment, effects of radiation on future generations, and eugenic and population problems. Especially appropriate for non-science majors. Credit not allowed toward major or minor in Biological Sciences.

5-BIO 170. LABORATORY IN BIOLOGICAL SCIENCES. *One hour credit. (Two hours laboratory.)*

Co-requisite, SCI 104. A course designed to give the student laboratory experience with plant and animal structure, function, diversity, and ecological relationships.

5-BIO 231. GENETICS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 101, 102, 103. A study of the fundamental laws of heredity and their application to plants and animals, with emphasis on the heredity of man.

5-BIO 234. POPULATION GENETICS. *Three hours credit.*

A study of genes in human populations together with a consideration of the influence of various environmental factors on the distribution of these genes. Credit not allowed for major in Biological Sciences.

5-BIO 240. GENERAL ECOLOGY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

A general study of plant and animal communities and their relationships with the environment. Laboratory activities will include field trips to various biotic communities for analysis. Man's role in nature is considered throughout the course. Credit not allowed for major in Biological Sciences.

5-BIO 241. MODIFICATION OF THE HUMAN ENVIRONMENT. *Three hours credit.*

Discussions regarding the alteration of the earth's surface due to man's planned and unplanned activities and developments. Effects of man-made changes on the world ecosystem. Social implications of environmental change.

5-BIO 242. ENVIRONMENTAL POLLUTION. *Three hours credit. (Two hours lecture, three hours laboratory.)*

A study of the various types of pollutants and their effect on man and his environment. Laboratory will include the identification of different pollutants, their source and their effects on the biological systems.

5-BIO 261. MEDICAL AND PUBLIC HEALTH MICROBIOLOGY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Recommended, CHEM 281, ZOO 121. This course places emphasis on the microorganisms of public health significance, their detection, the diseases they cause and treatment of these diseases. The course is primarily designed for students in dietetics, nursing, pre-medicine, pre-dentistry, and pre-veterinary medicine.

5-BIO 262. COMMON INFECTIONS OF MAN. *Three hours credit.*

Common Infections of Man is designed to provide a relevant background for the interested student to understand the infections of mankind, how they affect him, how they are transmitted and how they are treated.

5-BIO 336. EVOLUTION. *Three hours credit.*

This course is designed as a study of the processes of change of living organisms through time, and to show how genetic variations are related to natural selection and formation of species. Some time is devoted to consideration of the impact of the theory of evolution on the biological sciences since Darwin's time.

5-BIO 346. AQUATIC BIOLOGY. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, BIO 101, 102, 103. A course in the study of fresh water plants and animals of the Rocky Mountain Region. Emphasis will be upon methods of collecting, classification, ecological relations, and economic importance of the fresh water biota. Field trips arranged. *Collecting permits are needed.*

5-BIO 350. CELL PHYSIOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 101, 102, 103, CHEM 130 or 332, recommended CHEM 281. A course in general biological principles relating cell structure to function. The topics discussed include genetic control of cell activity, the molecular basis of cell metabolism, energy transformations within the cell, cell division, and homeostatic regulation of the cell environment.

5-BIO 351. DRUGS AND HUMAN BEHAVIOR. *Three hours credit.*

Drugs and Human Behavior is a multidisciplinary course which puts information about drugs, drug use, and drug users into a sociohistorical context. The course covers the pharmacology of drugs, the historical context of drug use, the actions of drugs and the social issues that surround drug use.

5-BIO 360. BIOLOGY OF MICROORGANISMS. *Four hours credit. (Three hours lecture, two hours laboratory.)*

A survey of microorganisms with emphasis on basic principles and techniques of microbiology as well as the role of microorganisms in nature, industry, and disease. Credit not allowed for biology major.

5-BIO 361. MICROBIOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, CHEM 130 or 332, recommended BIO 103 or ZOO 105. A basic course in microbiology (bacteriology, mycology, virology, rickettsiology, and protozoology) with emphasis on the structure, function, physiology, and identification of microorganisms and their relationships to other organisms. The course is recommended for biological sciences and medical technology students.

5-BIO 371. TECHNIQUES OF BIOLOGICAL PREPARATION. *One hour credit.*
(*Three hours laboratory.*)

This is a course designed to acquaint the student with the techniques of laboratory preparation and biological investigation. Emphasis is placed on instrumentation and methods of preparing culture media, experimental solutions, and living material. Required of all senior biology majors.

5-BIO 380. PUBLIC SCHOOLS AND VENEREAL DISEASE EDUCATION.
Three hours credit.

An introduction to the history, epidemiology, control and medical aspects of common venereal diseases with emphasis on counseling, teaching and curriculum development and implementation in secondary schools. The course is designed for secondary school teachers, administrators, and others involved in activities concerning teenage youths.

5-BIO 381. TOPICS IN BIRTH CONTROL AND CONTRACEPTION. *One hour credit.*

Prerequisites, permission of director of Birth Control Center and instructor; must be taken concurrently with BIO 382. An interdisciplinary study of basic biological, medical and guidance principles used in birth control and abortion counseling.

5-BIO 382. COUNSELING IN BIRTH CONTROL AND CONTRACEPTION. *One to four hours credit.*

Prerequisites, BIO 381, permission of director of Birth Control Center and instructor. Practical experience in birth control and abortion counseling at the UNC Birth Control Center. Emphasis is placed upon effective referral of clients to sources of professional help and information. Limit of one credit hour per enrollment.

5-BIO 391. SEMINAR IN RESEARCH I. *One hour credit.*

Prerequisite, junior classification. A course designed to acquaint the student with the preliminary procedures in scientific research. Techniques of problem delineation, literature survey and synthesis of data are stressed. Credit not allowed for graduate students. This course is a prerequisite for BIO 392.

5-BIO 392. SEMINAR IN RESEARCH II. *One hour credit.*

Prerequisites, BIO 391 and junior classification. This is a course designed to acquaint the student with the values and techniques of research in biology. An original research project is required. Credit not allowed for graduate students. (A continuation of the research initiated in BIO 391.)

5-BIO 399. UNDERGRADUATE RESEARCH. *Maximum ten hours credit.*

Prerequisite, consent of instructor. An introduction to the theories and practice of research in the biological sciences. A problem will be selected in one of the following fields: animal ecology, aquatic biology, embryology, bacteriology, mycology, genetics, animal physiology, plant physiology, plant ecology, ornithology, invertebrate zoology, vertebrate zoology, parasitology, vertebrate anatomy, upon consultation with the professor who specializes in that area. Original research will be conducted by the student and final report will be submitted by him to the supervising instructor.

5-BIO 401. CONSERVATION OF NATURAL RESOURCES. *Four hours credit.*

A study of the relation of natural resources to the development of man and his culture. Units of study are organized on soil, water, forest and forest products. Range management, wildlife, and mineral resources are also covered. The emphasis throughout is on their relation to man. Field trips required. Credit will not be allowed for students who have taken BIO 501.

5-BIO 430. BEHAVIORAL GENETICS. *Three hours credit.*

Prerequisites, BIO 131 or BIO 231, also PSY 120 or PSY 121. This course will deal

with the genetic basis of behavior in man and animals, and contemporary issues in this expanding area, including: genetic counseling, eugenics, intelligence and genetic correlates of psychopathology.

5-BIO 471. BIOLOGICAL MICROTECHNIQUE. *Three hours credit. (One hour lecture, six hours laboratory.)*

Prerequisites, BIO 101, 102, 103. The skills of killing, staining and preparing plant and animal tissues for microscopic study.

5-BIO 475. BIOLOGICAL PHOTOGRAPHY. *Three hours credit. (Two hours lecture, three hours laboratory.)*

A study of the skills and techniques of photomicrography, macrophotography, general nature photography, slide production, etc., as used for audiovisual aids and scientific publication.

5-BIO 490. TOPICS IN FIELD BIOLOGY. *One to fifteen hours credit.*

Field studies in biology on a national or international basis. In-depth field investigation will be emphasized but some preparatory work will be done on campus. Subheadings will indicate the nature of the topic each time offered.

5-BIO 491. UNDERGRADUATE SEMINAR. *One hour credit.*

A study of the current research and literature on selected biological topics.

BLACK STUDIES

4-BLS 101. CRISIS OF IDENTITY. *Three hours credit.*

An analysis of the identity formation and self-concept processes from the Black perspective, as related to the Black experience. Explores identity formation as a function of societal attitudes.

4-BLS 102. CRISIS OF IDENTITY II. *Three hours credit.*

Psychodynamic and sociological analysis of the formation of self-concept and processes of identification as related to the Black woman.

4-BLS 230. BLACK COMMUNITY DEVELOPMENT. *Three hours credit.*

An historical analysis of the origins and development of institutions in the Black community, including the migrations of Black people from the rural South to the effects of urban life in the Black community.

4-BLS 240. DYNAMICS OF RACISM. *Three hours credit.*

The exploration of the socio-psychological variables involved in the production and maintenance of attitudes of bigotry and racism.

4-BLS 260. THEMES IN AFRO-AMERICAN LITERATURE. *Three hours credit.*

The purposes of this course are to acquaint the student with literary genres of Black writing, i.e., the novel, poetry, drama, essay, short story, and autobiography; to study the development of and to recognize the similarities and differences in Black thought and writings from slavery to contemporary Black Power movements.

BLS 306. WORKSHOP IN BLACK STUDIES. *One to five hours credit.*

This course is concerned with the total educational problems of the participants and provides interactive opportunities for socio-cultural-economic exploration in its total complexity.

4-BLS 320. THE BLACK ECONOMY. *Three hours credit.*

An introduction to economic capitalism, its historical effect on Black communities, and its relationship to Black capitalism. An examination of the economic programs and policies of Federal and local government and labor unions.

4-BLS 322. BLACK NATIONALISM. *Three hours credit.*

An analysis of the development of Black social movements: nationalism, integration, and separation, including Vesey, Garvey, Malcolm X, and Pan-Africanist movements.

3-BLS 340. THE BLACK FAMILY. *Three hours credit.*

A social systems approach to the study of the Afro-American family, the dynamics of family relationships and the effects of social, political, and economic institutions on Black family life.

3-BLS 350. BLACK PSYCHOLOGY. *Three hours credit.*

An analysis of various schools of psychological thought and their application to the Black experience in America. Also included is the study of the environment of Blacks and its effect on the application of these various psychological theories to Black people.

4-BLS 360. RHYTHM AND THE BLACK EXPERIENCE. *Three hours credit.*

A study of the historical, thematic, and stylistic development of Black music from ancient Africa to the present.

4-BLS 370. BLACK CULTURAL DEVELOPMENT. *Three hours credit.*

A survey of contemporary Black musicians, artists, playwrights, and writers. Emphasis will be placed on listening to and reading the works of Bullins, Baraka, Coltrane, Pharoah, Sanders, Gordone, Angelou and Baldwin.

4-BLS 380. EDUCATION IN THE BLACK COMMUNITY. *Three hours credit.*

An analysis of the economic, sociological, and political foundations of education in the Black community. Aims, methods, and leaders of Black education with special emphasis upon the interrelationship between the Black school, the Black values, and the Black community.

1-BLS 392. LINGUISTIC STYLES OF BLACK AMERICA. *Three hours credit.*

A study of the historical development of Black dialect from West Africa to the present. Examination and analysis of research on Black language from social, economic, and political perspectives.

4-BLS 399. COMMUNITY STUDY PROJECT. *One to four hours credit.*

A field work course which will require a community-based project in housing, education, or social services.

3-BLS 420. BLACK URBAN POLITICS. *Three hours credit.*

An examination of American government and laws; an analysis of the concept of Black power, and their combined influence on the development of leadership and acquisition of power within the Black community.

4-BLS 430. LAW IN THE BLACK COMMUNITY. *Three hours credit.*

A social systems approach to the study of law enforcement and legal processes occurring within the Black community; an examination of the relationship between poverty and justice and the effects of institutional racism on the legal agencies in the Black community.

4-BLS 432. PAN AFRICAN WORLD. *Three hours credit.*

A comparative study of the politics and government of selected states and colonies in Africa, the Caribbean, South Africa, and the United States.

4-BLS 460. BLACK RELIGION. *Three hours credit.*

An explorative analysis of historical and social forces in the formation of Black religious institutions in the United States.

4-BLS 462. THEATRE OF BLACK AMERICA. *Three hours credit.*

A survey of dramatic forms of expression of Afro-Americans from the minstrel through early 20th Century to current theatrical forms such as Black repertory workshops and theatres in the street.

4-BLS 463. THE BLACK MAN IN AMERICAN DRAMA II: 1945 TO THE PRESENT. *Three hours credit.*

This course will be an examination, study, and discussion of the image of the Black Man as he appears in contemporary dramas. Special emphasis will be placed on Black Characters and Black Playwrights. The course will be conducted as a lecture-discussion.

4-BLS 464. SEMINAR IN BLACK THEATRE. *Four hours credit.*

The course will be conducted as a special discussion and production seminar. In addition to writing six papers on selected articles, students are also required to participate in the production of a play that will be presented at the end of the quarter.

1-BLS 465. BLACK MEDIA. *Three hours credit.*

An analysis of the relationship of Blacks and mass communications -- journalism, broadcasting, and creative writing. A study of those areas of visual communication -- motion pictures, television -- which contribute to the image of Blacks in the United States.

4-BLS 490. BLACK CURRICULUM DEVELOPMENT. *Three hours credit.*

An examination of educational curricular development as it relates to minorities and affects sociological perspectives. The student will also gain practical experience in developing curriculum.

1-BLS 495. INTERPERSONAL COMMUNICATION. *Three hours credit.*

A course designed to help students understand attitudes and styles of different socioeconomic groups and to improve communication between cultures.

BOTANY

Courses in botany are administered by the Department of Biological Sciences.

5-BOT 306. ECONOMIC BOTANY. *Three hours credit.*

A study of the plants that directly affect the welfare of man including plants that supply our food, drugs, fibers, naval stores, wood, dyes, insecticides and other useful products. Each plant source is briefly considered as to its classification, structure and ecological requirements.

5-BOT 310. PLANT TAXONOMY. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, BIO 101, 102. An introductory course concerned with recognition and identification of plants at the species and family levels. Use of keys, manuals, and collecting techniques.

5-BOT 312. IDENTIFICATION OF TREES AND SHRUBS. *Three hours credit. (Two hours lecture, three hours laboratory.)*

Prerequisites, BIO 101, 102. Identification of native and cultivated trees and shrubs, their distribution and economic importance. Use of keys.

5-BOT 323. MORPHOGENESIS OF THE NONVASCULAR PLANTS. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, BIO 101, 102, 103. Structure, morphogenesis and phylogenetic relationships of the algae, fungi, bryophytes and mosses.

5-BOT 324. MORPHOGENESIS OF THE VASCULAR PLANTS. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, BIO 101, 102, 103. Structure, morphogenesis and phylogenetic relationships of the ferns, gymnosperms and angiosperms.

5-BOT 340. PLANT ECOLOGY. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, BIO 101, 102. A study of plant ecosystems and the interrelationships of the organisms therein as they are affected by the factors of the environment. Field studies are made on the plains and in the mountains.

5-BOT 350. GENERAL PLANT PHYSIOLOGY. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, BIO 101, 102, CHEM 130 or 332. A course dealing with the fundamental principles of growth and development, absorption and utilization of water and minerals, photosynthesis, translocation, respiration, and chemical composition of plants.

5-BOT 424. MYCOLOGY. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, BIO 101, 102. A survey of the groups of fungi including taxonomy, phylogeny, physiology, reproductive patterns and cultural techniques.

5-BOT 471. PRINCIPLES OF PLANT CULTURE. *Five hours credit. (Three hours lecture, six hours laboratory.)*

A study of greenhouse and garden culture of the higher plants. Emphasis will be on the recognition and control of plant diseases, soil preparation, propagation techniques, and the control of insects.

BUSINESS

All business courses ending in the ten numbers as designated in the categories below belong to that business area of study:

- 1- 9 General courses
- 10-19 Secretarial courses
- 20-29 Accounting courses
- 30-39 Business Law courses
- 40-49 Insurance courses
- 50-59 Management courses
- 60-69 Marketing courses
- 70-79 Finance courses
- 80-89 Data Processing & Computer courses
- 90-99 Quantitative (mathematical) courses

2-BUS 100. THE AMERICAN BUSINESS SYSTEM. *Three hours credit.*

A general course designed to provide an understanding of how the American business system operates and its place in the economy. The course provides background for more effective use of business services in personal affairs as well as foundation for future business courses.

2-BUS 101. CONSUMER BUSINESS PROBLEMS. *Three hours credit.*

A course designed to acquaint the student with business as it affects him personally. Some of the topics to be considered will be the use of credit, insurance needs, banking, buying guides, consumer protection, and other problems of the individual.

2-BUS 109. CALCULATING MACHINES AND BUSINESS ARITHMETIC. *Three hours credit. (Two hours lecture, two hours laboratory.)*

An office machines course emphasizing the operation and use of printing, elec-

tronic, and rotary calculators. Business arithmetic is studied in its applications to the routine business calculations in retail and wholesale businesses.

2-BUS 110. TYPEWRITING I. *Three hours credit.*

A beginning course in typewriting. Emphasis will be given to both personal and vocational use. Students who have had one year of typewriting may not take this course for credit.

2-BUS 111. TYPEWRITING II. *Three hours credit.*

Prerequisite, BUS 110 completed satisfactorily, or a speed of at least 30 w.p.m. The second course in typewriting. Emphasis will be strictly on vocational use. Students who have had two years of high school typewriting or the equivalent may not take this course for credit.

2-BUS 112. TYPEWRITING III. *Three hours credit.*

Prerequisite, BUS 111 with a grade of "C" or better, or a speed of at least 45 w.p.m. The third course in typewriting. Emphasis will be on speed and accuracy building and advanced production procedures.

2-BUS 114. ALPHABETIC SHORTHAND I. *Three hours credit.*

Prerequisite, BUS 111. An introductory course designed to provide students the necessary skills to meet vocational objectives for stenographers, secretaries, and other office professionals. The alphabetic system uses the letters of the alphabet and familiar punctuation marks to represent sounds, resulting in an acceleration of the ability to take notes and transcribe.

2-BUS 115. ALPHABETIC SHORTHAND II. *Three hours credit.*

Prerequisite, BUS 114 with a grade of "C" or better. A continuation of Alphabetic Shorthand I. This course is devoted to the improvement of dictation and transcription skills.

2-BUS 116. BEGINNING GREGG SHORTHAND. *Four hours credit.*

Prerequisite, BUS 111. Course comprises complete theory of Gregg shorthand. Students who have one year of high school shorthand or the equivalent cannot take this course for credit, but should take BUS 117.

2-BUS 117. INTERMEDIATE GREGG SHORTHAND. *Four hours credit.*

Prerequisite, BUS 116 with a grade of "C" or better, or take dictation at 60 w.p.m. Course comprises intensive review of Gregg shorthand theory. Students who have had two years of high school shorthand or the equivalent may not take this course for credit.

2-BUS 118. ADVANCED SHORTHAND. *Four hours credit.*

Prerequisite, BUS 117 and the ability to take dictation of at least 80 w.p.m., and typing speed of 45 w.p.m. This course is devoted primarily to improvement of dictation and transcription.

2-BUS 150. PRINCIPLES OF MANAGEMENT. *Four hours credit.*

A study of concepts, principles, theories, and operational problems of organization and management. The functional areas of management -- planning, controlling, organizing, decision making and others will be examined as well as contributions to management of other disciplines.

2-BUS 170. FINANCIAL INSTITUTIONS. *Three hours credit.*

This course is designed to provide factual knowledge of the financial institutions in our economy. Course emphasis will be placed upon the integration of the short-term money market, the long-term capital market, and monetary and fiscal management, particularly as these relate to business practices.

2-BUS 180. INTRODUCTION TO BUSINESS DATA PROCESSING. *Three hours credit. (Laboratory arranged.)*

This course is designed to familiarize students with the basic concepts and procedures of data processing. The student is introduced to manual, mechanical, and computer processing methods. Emphasis is placed on hardware, software, and applications.

2-BUS 205. BUSINESS COMMUNICATIONS. *Three hours credit.*

An introductory course in business communications. Basic principles and practices of business letters, reports, and oral communications are studied and applied.

2-BUS 206. FUNCTIONAL BUSINESS WRITING. *Three hours credit.*

Prerequisite, BUS 205. A study and application of the principles used in effective letter writing for business and industry.

2-BUS 211. OFFICE PRACTICUM I. *Five hours credit.*

Prerequisite, consent of instructor. This course is designed as an office situation using real office tasks as the basis for learning experiences. Production typing, transcription (shorthand and/or machine), filing, mailing procedures, inventory, payroll procedures, duplicating and copying services are all included in a world-of-work environment.

2-BUS 212. OFFICE PRACTICUM II. *Five hours credit.*

Prerequisite, BUS 211. This course offers the student the opportunity to refine his office skills. Emphasis is also placed upon the organizational structure and operations in today's office, supervisory responsibilities, decision-making, grooming, and human relations.

2-BUS 213. OFFICE PRACTICUM III. *Five hours credit.*

Prerequisites, BUS 211 and 212 and consent of coordinator. A practical experience course providing on-the-job application of secretarial and/or office skills.

2-BUS 214. RECORDS MANAGEMENT. *Two hours credit.*

Prerequisite, BUS 110 completed satisfactorily. An introduction to various records systems used in the business world. Practice will be provided in the various filing systems also.

2-BUS 219. SHORTHAND TRANSCRIPTION. *Four hours credit.*

Prerequisites, BUS 112 and 118, and the ability to take dictation of at least 100 w.p.m. Emphasis is upon rapid and accurate transcription, speed dictation, punctuation, and other office skills.

2-BUS 220. PRINCIPLES OF ACCOUNTING I. *Four hours credit.*

A beginning course in accounting. Students who have previously studied bookkeeping or accounting may be exempt from this course with the approval of their adviser. Common business transactions are recorded in various journals, summarized in general and subsidiary ledgers, and the effect of these transactions is reported on classified financial statements.

2-BUS 221. PRINCIPLES OF ACCOUNTING II. *Four hours credit.*

Prerequisite, BUS 220. The emphasis in this course is on principles of accounting as they apply to the measurement and reporting of assets, liabilities, ownership equities, periodic revenues, and periodic expenses.

2-BUS 231. BUSINESS LAW I. *Three hours credit.*

The first part of this course is designed to give the student a foundation for the study of law. It is concerned with the nature of the law, social forces, law enforcement, and certain aspects of tort and criminal law. The second part consists of the law of contracts and agency and employment.

2-BUS 232. BUSINESS LAW II. *Three hours credit.*

Prerequisite, BUS 231. Using the framework of the Uniform Commercial Code, the discussions will center around the following topics: commercial paper, personal property, bailments, sales, security devices, and insurance.

BUS 233. BUSINESS LAW III. *Three hours credit.*

Prerequisite, BUS 232. This course continues the study of business law dealing especially with the topics of partnerships, corporations, real property and the environment, estates, bankruptcy, government and business, consumer protection and special interest topics.

2-BUS 260. MARKETING. *Four hours credit.*

Prerequisite, ECON 100. Marketing is studied as a total system of integrated business activities as they relate to the business world, the individual firm, and the consumer. Marketing concepts are shown in theoretical as well as practical application. Particular attention is paid to the basic problems and practices of the marketing manager.

2-BUS 261. SALESMANSHIP. *Three hours credit.*

An introductory course in the principles and practices of salesmanship. Emphasis is placed on both "in store" and "outside" selling. Selling demonstrations are conducted.

2-BUS 281. ELECTRONIC DATA PROCESSING -- FORTRAN. *Three hours credit. (Laboratory arranged.)*

Prerequisite, BUS 180 or equivalent. This course includes an introduction to electronic computer operation and to FORTRAN programming. The student will develop and analyze programs for business applications and the use of existing programs for general applications.

2-BUS 291. BUSINESS STATISTICS I. *Five hours credit.*

Prerequisite, MATH 115. A course designed to orient the business student to statistics and its uses in business affairs. Students will be exposed to techniques useful in description of statistical data, sampling distribution, statistical estimation, hypothesis testing, simple regression and correlation analysis and selected nonparametric statistical techniques.

2-BUS 292. BUSINESS STATISTICS II. *Three hours credit. (Laboratory arranged.)*

Prerequisite, BUS 291 or equivalent. This course is designed to build on the foundations laid in BUS 291. Major emphasis will be on sampling techniques, quality control, and multiple regression and correlation analysis. Students will also learn to use standard statistical computer software packages.

2-BUS 295. INTRODUCTION TO OPERATIONS RESEARCH. *Three hours credit. (Laboratory arranged.)*

Prerequisite, MATH 115 or second year of high school algebra. A course of business-oriented mathematical concepts applicable to analysis and control in business. Control of variables in operations, as used in decision making, in the establishment of standards and limits for performance, to maximize operational efficiency. New mathematical techniques related to statistical measurement of economic activity.

2-BUS 307. ADMINISTRATIVE BUSINESS REPORTS. *Three hours credit.*

Prerequisite, BUS 205. Organization, preparation, and analysis of business and technical reports with emphasis on techniques of collecting, interpreting, and presenting information.

2-BUS 320. INTERMEDIATE ACCOUNTING I. *Four hours credit.*

Prerequisite, BUS 221 and minimum grade point average of 2.00 in BUS 220 and 221. An advanced course in accounting principles stressing statement presentation and valuation problems in presenting current assets and liabilities on the statements.

2-BUS 321. INTERMEDIATE ACCOUNTING II. *Four hours credit.*

Prerequisite, BUS 320. A continuation of BUS 320. Emphasizes problems encountered in valuing investments, plant and equipment, and stockholder's equity for statement presentation.

2-BUS 322. INTERMEDIATE ACCOUNTING III. *Four hours credit.*

Prerequisite, BUS 321. A continuation of BUS 320 and 321. Emphasizes analysis of financial statements, effects of errors on statements, preparing funds flow statements and price level adjustments.

2-BUS 323. COST AND MANAGERIAL ACCOUNTING I. *Four hours credit.*

Prerequisite, BUS 221. The emphasis in this course is on the accumulation and analysis of financial data for management purposes.

2-BUS 324. COST AND MANAGERIAL ACCOUNTING II. *Four hours credit.*

Prerequisite, BUS 323. This course gives emphasis to both costing for inventory valuation and income determination and costing for planning and control.

2-BUS 326. GOVERNMENTAL AND INSTITUTIONAL ACCOUNTING. *Four hours credit.*

Prerequisite, BUS 221. Accounting principles and procedures relating to schools, hospitals, and other non-profit institutions and to cities, counties and other governmental units.

2-BUS 333. REAL ESTATE LAW. *Two hours credit.*

This course is concerned with basic terminology, concepts, and relationships involving purchaser, seller, broker, builders, lending agencies, administrative groups, and landlord and tenant. Practical aspects of title, building contracts, loans, deeds, liens, restrictions, zoning, eminent domain, escrow, and statutory requirements will be included.

2-BUS 334. LIFE INSURANCE LAW AND COMPANY OPERATION. *Three hours credit.*

In this course the following legal topics as applied to life insurance will be discussed and studied: law of contract and agency, the life insurance contract, policy provisions, the contract in operation, settlement options, and beneficiary designations. Company organization, operation, investments will be studied. (CLU Course 2)

2-BUS 339. PROPERTY INSURANCE LAW. *Three hours credit.*

This course provides a review of basic principles of business law and applies them specifically to property and casualty insurance practices and problems. Special attention is given to the law of contracts as applied to insurance contracts, agency insurance, and the law of liability as resulting from negligence. (C.P.C.U. Part IV)

2-BUS 340. INTRODUCTION TO INSURANCE. *Three hours credit.*

This course deals with the basic principles of insurance and risk. Various kinds of insurance are discussed; the primary objective of the course is an orientation to the many kinds of insurance and their purposes.

2-BUS 341. LIFE AND HEALTH INSURANCE. *Three hours credit.*

Prerequisite, BUS 340. This course is designed to provide the student with a firm foundation in the many details of life and health insurance. Topics considered will include: individual life contracts, special and annuity contracts, disability income,

medical expense insurance, probability in life insurance, reserves, nonforfeiture values, and dividends. (CLU Course 1)

2-BUS 342. SOCIAL AND GROUP INSURANCE. *Three hours credit.*

Prerequisite, BUS 340. This course provides a background in the large area of social insurance and also group insurance. Various kinds of group policies are discussed, including life, health, etc.

2-BUS 343. PENSION PLANNING. *Three hours credit.*

Prerequisite, BUS 340. As part of a comprehensive insurance program, the following topics are discussed concerning pension planning: basic features of a pension plan, tax considerations, cost considerations, allocated funding instruments, profit sharing, and tax sheltered annuities. (CLU Course 4)

2-BUS 344. INSURANCE AND TAXATION. *Three hours credit.*

Prerequisite, BUS 340. The effect of income, estate, and gift taxation on an insurance program are discussed in this course. These taxes are considered for the individual and the business enterprise also.

2-BUS 349. INSURANCE MANAGEMENT. *Six hours credit. (Two per quarter.)*

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

2-BUS 352. PROCUREMENT. *Three hours credit.*

Prerequisite, BUS 150. The course deals primarily with the procurement of proper equipment, materials, and supplies for the business firm. Topics discussed include: automation, budgets, procedures, quality, sources of supply, price policies, forward buying, and the legal status of the procurement officer.

2-BUS 354. HUMAN AND ORGANIZATIONAL BEHAVIOR. *Four hours credit.*

Prerequisite, BUS 150 or consent of instructor. This course treats the human aspects of business and how they influence efficiency, moral, and management in the organization. It is designed to acquaint the student with the psychological and sociological approaches to human behavior.

2-BUS 361. RETAIL MANAGEMENT. *Four hours credit.*

Prerequisite, BUS 260. A study of the basic principles and techniques of retail merchandising and store operation.

2-BUS 362. ADVERTISING. *Three hours credit.*

Prerequisite, BUS 260 or consent of instructor. An introductory course in advertising principles including a study of advertising terminology, the communication process, advertising agencies, media, and ad copy and layout elements. The course looks at advertising from the business viewpoint but shows its importance to the consumer, business and the economy.

2-BUS 363. SALES MANAGEMENT. *Three hours credit.*

Prerequisite, BUS 261. A study of sales management, the major problems involved, and the relationship of sales management to the total business operation.

2-BUS 364. DISTRIBUTION MANAGEMENT. *Three hours credit.*

Prerequisite, BUS 260. A systems approach to the marketers' problems of physical distribution including inventories, transportation, warehousing, packaging, order processing. Also study of channels of distribution with emphasis on problems of industrial distribution.

2-BUS 365. MARKETING STRATEGY. *Four hours credit.*

Prerequisite, BUS 260. 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.

2-BUS 366. CONSUMER BEHAVIOR. *Four hours credit.*

Prerequisite, BUS 365 or consent of instructor. A course exploring the consumer and his behavior as it affects the marketing function. A synthesis of empirical findings on consumer behavior as well as models for analyzing it. The course also features application of theoretical generalizations to practical marketing problems.

2-BUS 370. BUSINESS FINANCE. *Four hours credit.*

Prerequisite, BUS 221. This course emphasizes the sources of short-term, intermediate-term, and long-term funds for a business. Principles and motives of financial management are stressed.

2-BUS 371. PERSONAL FINANCE. *Three hours credit.*

Prerequisite, BUS 100. The course is designed to help those students interested in the problems of allocating income and managing personal finances.

2-BUS 372. PRINCIPLES OF REAL ESTATE. *Three hours credit.*

The course is designed to be a beginning course in the real estate area. Theories and practices that have a significant influence on the real estate market both locally and nationally are discussed. The course will be useful to the consumer, the practitioner in real estate, and the general employee in business.

2-BUS 376. CREDIT MANAGEMENT. *Three hours credit.*

This course provides information and understanding of the credit operations of business for both students of business and practicing businessmen. The various kinds of credit (consumer and commercial) are discussed, and the management of credit by business firms is given emphasis in the course.

2-BUS 383. ELECTRONIC DATA PROCESSING -- COBOL. *Three hours credit.*
(Laboratory arranged.)

Prerequisite, BUS 180 or equivalent. This course includes an introduction to electronic computer operation and to **Cobol** programming. The student will develop and analyze programs for business applications and the use of existing programs for general applications.

2-BUS 385. ELECTRONIC DATA PROCESSING -- DATA MANAGEMENT.
Three hours credit. (Laboratory arranged.)

Prerequisite, BUS 383 or equivalent. Advanced computer programming techniques with special reference to **COBOL** for business applications. Advanced topics include sequential processing with tape and disk devices, **ISAM** processing and data management techniques.

2-BUS 388. SYSTEMS AND PROCEDURES I. *Three hours credit.*

Prerequisite, a course in computer programming or consent of instructor. The relationship of systems and procedures to policies and needs of management, job characteristics, management audit, and flow charting will be examined. Also an analysis of operations by a study of work simplification, work measurement, work sampling will be made which will include current developments in human engineering, job design, forms control, records management, and company manuals.

2-BUS 389. SYSTEMS AND PROCEDURES II. *Three hours credit.*

Prerequisite, BUS 388 or equivalent. The integration of systems for all major functional modules of an organization. Topics include management systems, in-

formation requirements, determining system economics, current issues, and case studies and applications of management information systems.

2-BUS 396. MANAGEMENT SCIENCE -- DETERMINISTIC MODELS. *Three hours credit.*

Prerequisites, BUS 291 and 295. Managerial decision making based upon optimal-ity analysis, linear programming, microanalytic methods including inventory control, games and strategies, queuing theory and Markov Analysis.

2-BUS 397. MANAGEMENT SCIENCE -- PROBABLISTIC MODELS. *Three hours credit.*

Prerequisites, BUS 292 and 295. Decision making in uncertain environments. Application of modern statistical techniques, with particular emphasis on probabil-ity models, including Bayesian methods of analysis.

2-BUS 406. INTERNSHIP IN BUSINESS. *Twelve hours credit.*

Prerequisite, consent of Faculty Coordinator. A practical experience course provid-ing opportunities to utilize the theory of academic business administration courses in accounting, marketing, finance, insurance, general business, and office man-agement situations.

2-BUS 420. ADVANCED ACCOUNTING I. *Four hours credit.*

Prerequisite, BUS 320. This course includes a study of partnerships, installment sales, consignment sales, home and branch office relationships, business combina-tions, and an introduction to consolidations.

2-BUS 421. ADVANCED ACCOUNTING II. *Four hours credit.*

Prerequisites, BUS 321 and 420. An advanced course dealing with special problems of consolidations, foreign subsidiaries and branches, and fiduciary accounting.

2-BUS 427. AUDITING. *Four hours credit.*

Prerequisites, BUS 291 and 321. This course involves a study of professional ethics and legal responsibility for public accountants, generally accepted accounting principles, and auditing procedures.

2-BUS 428. INCOME TAX ACCOUNTING I. *Three hours credit.*

Prerequisite, BUS 221 or consent of the instructor. A study of the basic rules and regulations of Federal income taxation of individuals. Includes as an integral part of the subject matter, tax planning for individuals in such areas as standard vs. itemized deductions, joint vs. separate returns, importance of distinguishing between deductions for adjusted gross income and deductions from adjusted gross income, and capital gain income vs. ordinary income.

2-BUS 429. INCOME TAX ACCOUNTING II. *Three hours credit.*

Prerequisite, BUS 428. A continuation of BUS 428, with emphasis on federal income tax rules applicable to partnerships and corporations.

2-BUS 440. BUSINESS INSURANCE. *Three hours credit.*

Prerequisites, BUS 340 and BUS 341. Various kinds of insurance for the business firm are studied. The special needs of the individual proprietor, partnerships, and corporations receive attention. Special disability insurance, life insurance on key men, and split dollar plans are discussed. (CLU Course 9)

2-BUS 441. ESTATE PLANNING AND LIFE INSURANCE. *Three hours credit.*

Prerequisite, BUS 340. Topics studied include: disposition of property in estates and trusts, administration of estates, federal estate taxation, federal gift taxation, planning through trusts and wills, and the place of life insurance in estate plan-ning. (CLU Course 10)

2-BUS 442. ANALYSIS OF INSURANCE FUNCTIONS I. *Three hours credit.*

This course covers in detail an analysis of the various insurance functions especially applicable to property and casualty insurance. Some of the topics covered will be underwriting practices, loss prevention, rate making, regulation of insurance, types of insurers, reserves necessary, human motivation, professional ethics, and risk management. (C.P.C.U. Part II)

2-BUS 443. ANALYSIS OF INSURANCE FUNCTIONS II. *Three hours credit.*

A continuation of BUS 442. (Second part of C.P.C.U. Part II)

2-BUS 444. PROPERTY INSURANCE. *Three hours credit.*

Prerequisite, BUS 340 or consent of instructor. This course covers in detail an analysis of insurance principles and practices applicable to property insurance. Some of the topics covered will be fire insurance, indirect loss insurance, and modern multi-peril policies. (C.P.C.U. Part I and I.I.A. 22)

2-BUS 445. CASUALTY INSURANCE. *Three hours credit.*

Prerequisite, BUS 340 or consent of instructor. This course covers in detail an analysis of insurance principles and practices applicable to casualty insurance. Some of the topics covered will be general liability insurance, malpractice insurance, and bonding. (C.P.C.U. Part I continued and I.I.A. 23)

2-BUS 452. OFFICE MANAGEMENT. *Three hours credit.*

Prerequisite, Bus Core or consent of instructor. 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.

2-BUS 453. PERSONNEL MANAGEMENT. *Four hours credit.*

Prerequisite, Bus Core or consent of instructor. A study of the principles and techniques of personnel management with attention given to their psychological foundations.

2-BUS 454. DEVELOPMENT OF THE LABOR MOVEMENT. *Two hours credit.*

This course traces the development of the labor movement, the basic philosophies of the different labor unions, labor legislation, and decisions of courts and labor boards which affect management's relations with its employees.

2-BUS 455. COLLECTIVE BARGAINING. *Three hours credit.*

Prerequisite, BUS 454 or consent of instructor. This course deals with contract negotiations and contract administration, grievances and labor disputes. These problems are approached primarily from the viewpoint of the management of the company in terms of its long-run and short-run policies.

2-BUS 456. BUSINESS POLICIES AND MANAGEMENT. *Three hours credit.*

Prerequisite, Bus Core and senior standing. A course for the senior student designed to integrate the various functional areas of business in terms of policy level decision making. Cases are emphasized.

2-BUS 460. MARKET ANALYSIS AND RESEARCH. *Four hours credit.*

Prerequisites, BUS 260 and 292. 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.

2-BUS 461. ADVERTISING CAMPAIGNS. *Three hours credit.*

Prerequisite, BUS 362. This senior-level course is designed to give students realis-

tic experience in campaign planning. Students will assume the identity of an advertising agency and will be responsible for the preparation of a complete advertising program. The program will include a background analysis, market definition, objectives, media selection, scheduling, budgeting, creative elements and evaluation criteria.

2-BUS 462. MARKETING PROBLEMS. *Four hours credit.*

Prerequisites, BUS 365 and senior standing or consent of the instructor. A course dealing with the problems of marketing managers. This senior level course is designed to acquaint the student with current marketing problems. Included will be a study of business cases and/or business games and a current reading of related materials.

2-BUS 464. INTERNATIONAL MARKETING. *Three hours credit.*

Prerequisite, BUS 260. A seminar designed to consider the global or multinational aspect of business enterprise and its effect on marketing problems and management. The functional areas of international marketing will be considered through the study of marketing systems of various countries and multinational market groups.

2-BUS 465. SEMINAR IN RETAILING. *Three hours credit.*

Prerequisite, BUS 361. A study of the recent developments in retailing. Special emphasis will be given to the tools which aid in the decision making process in retail management.

2-BUS 470. FINANCIAL MANAGEMENT. *Three hours credit.*

Prerequisite, BUS 370. 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.

2-BUS 471. INVESTMENTS. *Three hours credit.*

Prerequisite, BUS 370. 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.

2-BUS 472. INVESTMENT ANALYSIS. *Three hours credit.*

Prerequisite, BUS 471. An analysis of various types of securities and the management of investment portfolios.

2-BUS 473. COMMERCIAL BANK POLICIES AND MANAGEMENT. *Three hours credit.*

Prerequisites, BUS 170, 370, and ECON 202. The internal operations of commercial banks, including managerial problems.

2-BUS 482. SPECIAL TOPICS IN MANAGEMENT INFORMATION SYSTEMS. *Three hours credit.*

This course is an in-depth study of topics in the student's field of interest to include both primary and secondary research in management information systems.

2-BUS 489. COMPUTER SIMULATION MODELS. *Three hours credit. (Laboratory arranged.)*

Prerequisites, BUS 291 and 295 and a course in computer programming or consent of instructor. This course introduces the student to the methodology of systems analysis by the use of models and computer simulation. The primary emphasis will be on decision making with special attention devoted to automated application and the GPSS programming language.

PRESCHOOL

CD 136. INTRODUCTION TO PRESCHOOL. *Two hours credit.*

The philosophies, goals, and purposes of the preschool are introduced. The role of the teacher, the curriculum and the physical facilities of the UNC preschool are studied. Then a variety of preschool program models are visited, evaluated, and compared.

CD 331. DEVELOPMENT OF THE INFANT AND TODDLER. *Three hours credit.*

A study of growth patterns from conception through infancy and the third year. Includes prenatal and postnatal factors influencing early development, guidance and provision for care, and the responsibilities of adults for providing a favorable home environment. Opportunities for observation of infants and toddlers and experiences in constructing home-made toys.

CD 332. SEQUENCES OF CONCEPTUAL LEARNING. *Three hours credit.*

This course studies children's learning processes and their learning patterns. Individual differences will be considered in examining how children learn and what teachers can do to help.

CD 333. DEVELOPMENT AND GUIDANCE OF THE PRESCHOOL CHILD.

Four hours credit. (Three hours lecture, two hours laboratory.)

The physical, intellectual, social, and emotional development of the preschool child are approached from the developmental point of view. Appropriate guidance procedures are discussed as they pertain to these and related areas. Developmental theory is compared to alternative approaches to child study.

CD 334. PRESCHOOL CURRICULUM AND METHODS. (PTE) *Three hours credit.*

Taken in conjunction with CD 335 -- Prerequisite, 333 or consent of instructor. A study of curriculum, including the selection of Art, Literature, Music and Science for the individual child's development. Experience in planning curriculum programs. A study of specific methods and techniques in teaching Preschool.

CD 335. OBSERVATION AND PARTICIPATION IN PRESCHOOL. *Three hours credit. (One hour seminar, six hours laboratory.)*

Taken in conjunction with CD 334 -- Prerequisite, 333 or consent of instructor. Observation of specific methods and techniques relating to the teaching of Preschool. Practical laboratory observation and experience with preschool age children.

CD 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. A copy of a well-written paper must be filed with the instructor before credit is given.

CD 437. ADMINISTRATION OF PROGRAMS FOR YOUNG CHILDREN. *Three hours credit.*

Prerequisite, consent of instructor. The organization and management of various types of Child Care Centers. Specific emphasis is given to program planning, selecting and organizing equipment, and learning administrative procedures.

CD 438. PRACTICUM IN PRESCHOOL TEACHING. *Three hours credit. (One hour seminar, six hours laboratory.)*

Prerequisite, CD 333, 334, 335, or consent of instructor. The laboratory experience gives the students an introduction to student teaching through observation, demonstration and participation with preschool children under an experienced preschool teacher.

CD 439. PARENT EDUCATION. *Three hours credit.*

This course deals with relationships between parents, children and teachers. Emphasis is on resources for meeting problems through cooperative interaction.

CHEMISTRY

5-CHEM 100. INTRODUCTORY CHEMISTRY. *Three hours credit.*

This course introduces the student to basic concepts in chemistry. It is specifically designed to prepare students majoring in nursing, who have no high school chemistry, to enroll in CHEM 108, General Chemistry. Credit will not be allowed toward a chemistry major or minor.

5-CHEM 101. FOUNDATIONS OF CHEMISTRY I. *Three hours credit.*

Chemistry as it relates to man and his society is presented. Topics such as the chemistry of polymers (including textiles), foods, drugs, and other timely topics will be presented. It is assumed that the student has no previous background in chemistry. Any chemical principles needed to understand the above topics as presented will be covered in class. Credit will not be allowed toward a chemistry major or minor.

5-CHEM 102. FOUNDATIONS OF CHEMISTRY II. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, CHEM 101. This course is a continuation of CHEM 101 and will treat additional topics of interest based upon a knowledge of acids and bases, quantitative relationships in chemical reactions and radiochemistry.

5-CHEM 103. APPLIED ORGANIC CHEMISTRY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, CHEM 102 or 104. An introduction to the chemistry of common organic compounds will be presented. The chemistry of fuels, polymers (including textiles), compounds associated with living systems, foods and food additives, and drugs will be stressed. Enrollment restrictions: This course may not be counted for credit toward a major or minor in chemistry.

5-CHEM 104. PRINCIPLES OF CHEMISTRY I. *Five hours credit. (Four hours lecture, three hours laboratory.)*

This course introduces the student to the principles of chemistry together with some descriptive chemistry to illustrate these principles. It is designed for science majors and minors, as well as for pre-medical, pre-dental, pre-veterinary, pre-engineering, and home economics students.

5-CHEM 105. PRINCIPLES OF CHEMISTRY II. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 104 or 106. This course is a continuation of the principles of chemistry together with the descriptive chemistry necessary to illustrate these principles. It is designed for the same group of students as CHEM 104 and is necessary to provide a reasonably complete understanding of the basic concepts of chemistry.

5-CHEM 106. PRINCIPLES OF CHEMISTRY IA. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, one year high school chemistry, three years high school mathematics or MATH 123. The course presents the principles of chemistry rigorously to those students who have a strong background in high school chemistry and mathematics.

Descriptive chemistry will be used to illustrate the theoretical basis of modern chemistry. Laboratory work will emphasize quantitative aspects of chemistry.

5-CHEM 107. PRINCIPLES OF CHEMISTRY IIA. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 104 or 106. This course is a continuation of the principles of chemistry together with the descriptive chemistry necessary to illustrate these principles. It is designed for the same group of students as CHEM 106 and is necessary to provide a reasonably complete understanding of the basic concepts of chemistry. Laboratory work will emphasize the quantitative aspects of chemistry.

5-CHEM 108. GENERAL CHEMISTRY. *Five hours credit. (Four hours lecture, three hours laboratory.)*

High school chemistry is strongly recommended. Principles of chemistry will be studied and some application will be made to inorganic chemistry. Those topics and laboratory techniques will be stressed which will prepare the student for those chemistry courses required of nursing students. Credit will not be allowed toward a chemistry major or minor.

5-CHEM 109. GENERAL CHEMISTRY-ORGANIC. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 105 or 108. Basic concepts in organic chemistry will be introduced. Emphasis will be placed on those topics which relate to an understanding of living systems. Courses such as physiology, biochemistry, and pharmacology build on these basic concepts. Credit will not be allowed toward a chemistry major or minor.

5-CHEM 110. ELEMENTS OF CHEMISTRY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

This course introduces the student to basic concepts in chemistry. It is specifically designed to prepare students having no high school chemistry to enroll in CHEM 108, General Chemistry. Credit will not be allowed toward a chemistry major or minor. This course is for Special Services students only.

5-CHEM 111. QUALITATIVE ANALYSIS. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, CHEM 105 or 107 and MATH 123 or one year of high school algebra. 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.

5-CHEM 130. INTRODUCTORY ORGANIC CHEMISTRY. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 105 or 107 or 108. This course provides an elementary introduction to organic chemistry, including some of the many applications in such fields as food, drug, plastic, dye, and vitamin chemistry. A student cannot receive credit for both CHEM 130 and 332.

5-CHEM 281. HUMAN BIOCHEMISTRY. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, CHEM 109 or 130 or 333. An introduction to the biochemistry of the human system. The chemistry of cellular and body processes, foods and nutrition, and of diseases related to metabolism will be considered.

5-CHEM 301. INORGANIC CHEMISTRY I. *Three hours credit.*

Prerequisite, CHEM 311. This course is an introduction to inorganic chemistry. Literature, atomic structure and chemical bonding will be presented.

5-CHEM 311. QUANTITATIVE ANALYSIS I. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, CHEM 111. This course provides a discussion of quantitative analytical procedures and emphasizes analytical theory. Gravimetric, volumetric, colorimetric and electrodeposition methods are applied to common substances in the laboratory.

5-CHEM 312. QUANTITATIVE ANALYSIS II. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, CHEM 311. Corequisite, CHEM 452. Special attention is given to the analysis of complex mixtures, and the use of certain analytical instruments.

5-CHEM 314. INSTRUMENTAL ANALYSIS. *Three hours credit. (Two hours lecture, three hours laboratory.)*

Prerequisites, CHEM 311 and either CHEM 130 or 332. Lectures and laboratory sessions centered around colorimetry, spectrophotometry, fluorimetry, flame spectrophotometry, infrared spectrophotometry and other selected methods of analysis. For medical technology, biology and earth science majors, as well as others not qualified to take CHEM 414.

5-CHEM 315. FOOD ANALYSIS. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, CHEM 130. This course deals with some of the techniques of qualitative and quantitative analysis of foods for certain inorganic and organic constituents.

5-CHEM 332. ORGANIC CHEMISTRY I. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 105 or 107. 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. A student cannot receive credit for both CHEM 130 and 332.

5-CHEM 333. ORGANIC CHEMISTRY II. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 332. 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.

5-CHEM 334. ORGANIC CHEMISTRY III. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, CHEM 333 or 530. This course is the last of the series which covers the nomenclature, reactions and electronic theory of the various classes of organic compounds. Aliphatic and aromatic compounds are integrated in this series. Chemistry majors (Arts and Sciences) may also register for CHEM 335 (one hour) concurrently.

5-CHEM 335. ADVANCED LABORATORY IN ORGANIC CHEMISTRY. *One hour credit. (Three hours laboratory.)*

Prerequisite, CHEM 334 or taken concurrently. This is a laboratory course dealing with organic preparations, analysis, and structure determination using the more advanced research tools of nmr, gpc, ir, and uv.

5-CHEM 350. COMPUTER PROGRAMMING IN CHEMISTRY. *One hour credit.*
Prerequisites, MATH 125, CHEM 105 or 107. An introduction to programming in the BASIC language and its application to problems in chemistry.

5-CHEM 360. ENVIRONMENTAL CHEMISTRY. *Four hours credit.*

Prerequisites, CHEM 130 or 332. The involvement of chemistry in the understanding and solution of environmental problems will be explored. Areas such as pesticides, fossil and nuclear fuels and detergents as well as topics related to air, water and soil pollution will be discussed.

5-CHEM 381. ENZYME CHEMISTRY. *Two hours credit.*

Prerequisite, CHEM 281. A study of the structure and function of enzymes with an emphasis on the kinetics and mechanisms of enzyme-catalyzed reactions.

5-CHEM 390. CHEMICAL LITERATURE. *One hour credit.*

Prerequisite, CHEM 334. This course covers the use of the library and the function of chemical literature. Problems in the use of the library are assigned.

5-CHEM 401. INORGANIC CHEMISTRY II. *Three hours credit.*

Prerequisites, CHEM 301, 452. Corequisite, CHEM 453. The chemistry of typical inorganic compounds will be presented. Emphasis will be placed on the relationship of bonding and structure to chemical properties.

5-CHEM 402. LABORATORY IN INORGANIC CHEMISTRY. *One hour credit. (Three hours laboratory.)*

Prerequisite, CHEM 301. The student will perform experiments which will explore the structure, bonding and chemical properties of inorganic substances.

5-CHEM 411. QUANTITATIVE ANALYSIS. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, MATH 123 and CHEM 105 or 107. Lectures treat the equilibria existing in solutions of acids, bases, and slightly soluble salts, and the application of such equilibria to gravimetric and acid-base and volumetric precipitation analysis. Laboratory work consists of illustrating these three types of analyses. Students having credit in any quantitative analysis course must obtain permission of instructor before enrolling in this course.

5-CHEM 414. INSTRUMENTAL METHODS OF ANALYSIS. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, CHEM 311. Corequisite, CHEM 453. Lectures will consider the theory and techniques of the analysis of chemical systems by various optical, X-ray and electrical methods of analysis. In the laboratory the student will perform analyses using the colorimeter, spectrophotometer, flame photometer, fluorimeter, infrared spectrophotometer and polarograph.

5-CHEM 421. ELEMENTS OF GLASS BLOWING. *One hour credit. (Three hours laboratory.)*

Demonstrations and practice in the elementary operations of glass blowing; the construction and repair of borosilicate glass laboratory equipment. This course is for science majors only.

5-CHEM 431. ORGANIC QUALITATIVE ANALYSIS. *Three hours credit. (One hour lecture, six hours laboratory.)*

Prerequisite, CHEM 334. This course is an advanced laboratory course in organic chemistry. The identification of organic compounds by classical and modern spectral methods constitutes the laboratory work. Lecture will consider theory and technique of analysis.

5-CHEM 451. PHYSICAL CHEMISTRY I. *Four hours credit.*

Prerequisites, CHEM 333, MATH 133, PHYS 267. Corequisites, CHEM 311, 454. 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.

5-CHEM 452. PHYSICAL CHEMISTRY II. *Four hours credit.*

Prerequisite, CHEM 451. Corequisite, CHEM 455. This course is a continuation of CHEM 451. It introduces the student to the fundamental concepts of entropy, chemical bonding, molecular structure and chemical kinetics.

5-CHEM 453. PHYSICAL CHEMISTRY III. *Four hours credit.*

Prerequisite, CHEM 452. Corequisite, CHEM 456. This course is a continuation of CHEM 452. It introduces the student to the fundamental concepts of liquid theory, phase equilibrium, solutions and electrochemistry.

5-CHEM 454. PHYSICAL CHEMISTRY I LABORATORY. *One hour credit.*

Corequisite, CHEM 451. This course will cover the mathematical tools normally utilized in experimental physical chemistry with emphasis on the treatment of data by manual and computer methods. A basic understanding of these tools will be developed and practice in their application will be provided.

5-CHEM 455. PHYSICAL CHEMISTRY II LABORATORY. *One hour credit.*

Corequisite, CHEM 452. This course will provide experimental contact with the concepts covered in CHEM 451 and CHEM 452. Emphasis will be placed on the application of the mathematical tools discussed in CHEM 454.

5-CHEM 456. PHYSICAL CHEMISTRY III LABORATORY. *One hour credit.*

Corequisite, CHEM 453. This course is a continuation of CHEM 455 and will deal principally with the concepts covered in CHEM 453.

5-CHEM 457. SELECTED TOPICS IN PHYSICAL CHEMISTRY. *Two hours credit.*

Prerequisite, CHEM 453. Some of the topics covered in this course will have been introduced in the first year of physical chemistry but will now be treated in greater depth, others will be new to the physical chemistry student. All topics covered will be selected from the following areas of physical chemistry: molecular spectra, crystals, electrical and magnetic properties of molecules, surface chemistry, catalysis, and chemical bonding.

5-CHEM 481. PHYSICAL BIOCHEMISTRY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, CHEM 334, 453 (or taken concurrently). The physical and organic bases of modern biochemistry will be studied. Enzyme chemistry, the physical chemistry of macromolecules, and the molecular organization of the cell will be emphasized.

5-CHEM 482. GENERAL BIOCHEMISTRY I -- THE CHEMISTRY OF BIOLOGICAL COMPOUNDS. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, one year of organic chemistry or its equivalent. An introduction to the chemistry of biologically important compounds. The chemistry of the organic compounds in the living system will be stressed, but bioinorganic chemistry will be included.

5-CHEM 483. GENERAL BIOCHEMISTRY II -- INTERMEDIARY METABOLISM. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, CHEM 482 or its equivalent. A detailed study of the chemistry of living processes. The regulation of intermediary metabolism will be considered.

5-CHEM 490. SENIOR RESEARCH. *Two hours credit. (Minimum four hours credit, maximum six hours credit.)*

Prerequisites, CHEM 334, 453. An introduction to research in chemistry. The student will initiate and pursue an independent original investigation. A paper and oral presentation of his work are required. Weekly conferences with instructor are required. The student may earn a maximum of six hours credit.

5-CHEM 495. SEMINAR IN TEACHING CHEMISTRY. *Two hours credit.*

This course is designed for seniors, graduates and inexperienced teachers to prepare them for the task of setting up, organizing, and running a high school chemistry laboratory and classroom.

COMMUNICATION

1-COMM 110. COMMUNICATION: PUBLIC FORUM. *Three hours credit.*

An introduction to the principles and practices of platform speaking.

1-COMM 111. COMMUNICATION: INTERPERSONAL. *Three hours credit.*

An introduction to the theoretical foundations of effective communication with a special emphasis on the unique challenges and characteristics of interpersonal and intrapersonal communication.

1-COMM 120. LOGIC IN PRACTICE. *Three hours credit.*

A practical study of the uses of deductive and inductive logic, including consideration of the nature of concepts, propositions, and arguments as instruments of knowledge; the concept of superstition; development of logos.

1-COMM 130. VOICE AND SPEECH IMPROVEMENT. *Three hours credit.*

A study of the speech mechanism through frequent instructor and peer evaluations of class readings. The International Phonetic Alphabet is employed as a method for recording speech sounds.

1-COMM 140. PRINCIPLES OF MASS COMMUNICATION. *Three hours credit.*

An introductory study of the techniques and theories of mass communication, including electronic media, film and print, and its significance in contemporary society.

1-COMM 170. ORAL INTERPRETATION. *Three hours credit. (Two hours lecture, two hours laboratory.)*

A study in the oral communication of literature, especially prose and poetry. Laboratory experience includes substantial student performance in individual and group presentations.

1-COMM 210. LABORATORY FORENSICS. *Maximum three hours credit.*

The course provides laboratory experience in intercollegiate forensics. Students registering for more than one hour of credit must have permission of director of forensics and must devote at least fifteen hours a week to the program. No student may earn more than a total of eight hours in COMM 210.

1-COMM 212. REASON IN CONTROVERSY. *Three hours credit.*

This lecture-discussion course focuses on the nature of argument, the reasoning process, and evidence-claim relationships. Theories of argumentation shall be examined as they apply to courtroom advocacy, political debate, general public debate, and academic intercollegiate and interscholastic debate.

1-COMM 220. NONVERBAL COMMUNICATION. *Three hours credit.*

A study of nonverbal communication precepts associated with human communication. One focus is the relationship between nonverbal and verbal communication associated with communication accuracy, attraction, or influence. A second focus is

the investigation of nonverbal cues associated with a specific minority group, nation/state, or professional group.

1-COMM 250. ADVANCED PUBLIC FORUM. *Three hours credit. (Maximum nine hours credit.)*

A public forum series, each three credits, offering practical speaking experience. **Speech Composition** focuses on the elements which influence speech construction and delivery and culminates in one delivered speech. **Public Speaking** course content is similar to Speech Composition but culminates in three to five delivered speeches.

1-COMM 270. READERS THEATRE. *Three hours credit.*

Prerequisite, COMM 170, Oral Interpretation, or the permission of the instructor. A course in the theory and practice of group performances of orally interpreted literature. Content will include selection and adaption of scripts, theories and techniques of performance, and practical experience in performing Readers Theatre.

1-COMM 302. SMALL GROUP COMMUNICATION. *Four hours credit.*

A study in the principles and practice of organizing, conducting, and participating in all forms of discussion. Emphasis is placed on small group concepts such as leadership, roles, norms, task functions.

1-COMM 312. PRACTICAL DEBATE. *Three hours credit.*

Prerequisite, COMM 212. This course is designed primarily to provide students with a better understanding of the intricacies of intercollegiate academic debating and the opportunity for practical experience in team debating.

1-COMM 323. INTERPERSONAL COMMUNICATION. *Four hours credit. (Maximum twelve hours credit.)*

Prerequisite, theory for Communicative Situations or Practical Applications. A series of courses designed to facilitate a perspective on the readings, theories, and research associated with interpersonal communication. **Interpersonal Theory**, the prerequisite course, focuses on concepts associated with interpersonal communication. **Communicative Situations** focuses on the social context of interpersonal communication. **Practical Applications** focuses on empathy and alternative communication modes.

1-COMM 330. ORGANIZATIONAL COMMUNICATION. *Three hours credit. (Maximum nine hours credit.)*

A series of courses designed to acquaint students with issues and concepts applicable to an organizational context. The course can be repeated for credit under different subtitles; for example: Conference Leadership, Information Systems, Decision Theory, Management Communication Strategies and Styles etc.

1-COMM 340. RADIO PRODUCTION. *Four hours credit. (Maximum eight hours credit.)*

A series of courses designed to help the student acquire basic production vocabulary, working knowledge, and skills in television. The course can be repeated in series for credit under different subtitles; for example: Introduction to Radio, Advanced Radio, etc.

COMM 341. METHODS OF TEACHING IN THE SECONDARY SCHOOL -- COMMUNICATION. *Three hours credit.*

Prerequisite to student teaching. This course is taken in the department in which student teaching is done. It includes curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the subject area to the total secondary program. Teaching techniques are a point of emphasis.

1-COMM 342. TELEVISION PRODUCTION. *Four hours credit. (Maximum twelve hours credit.)*

A series of courses designed to help the student acquire basic production vocabulary, working knowledge, and skills in television. The course can be repeated in series for credit under different subtitles; for example: Introduction to TV, Advanced TV, etc.

1-COMM 345. MEDIA THEORY: MEDIA AND GOVERNMENT, THE ADVERSARY RELATIONSHIP. *Three hours credit.*

A series of courses designed to facilitate a perspective on readings, theories, and research associated with specific media. The course can be repeated for credit under different subtitles; for example: Media and the Government; The Adversary Relationship, etc.

1-COMM 346. MEDIA PRACTICUM: RADIO DRAMA. *Three hours credit.*

A series of courses designed to offer students an opportunity to relate theory and production in practical media application. The course can be repeated for credit under different subtitles; for example: Broadcast Advertising, Radio Drama, etc.

1-COMM 356. COMMUNICATION STRATEGIES. *Three hours credit. (Maximum nine hours credit.)*

Each quarter the class will concentrate on the communication and behavioral strategies used in the rhetoric of one of four areas: Women, Social Protest Groups, Foreign Policy, Free Speech. The course may be repeated under the different subtitles for a maximum of nine credits.

1-COMM 375. ORAL INTERPRETATION OF CHILDREN'S LITERATURE. *Three hours credit. (Two hours lecture, two hours laboratory.)*

A study in the theory and practice of oral interpretation of children's literature, especially poetry and prose. Choral reading and Readers Theatre for children will also be experienced.

1-COMM 400. THEORIES OF GROUP PROCESS. *Three hours credit.*

Prerequisite, COMM 302. A systematic overview of current theory and knowledge of discussion as derived and synthesized from significant empirical investigation.

1-COMM 420. GENERAL SEMANTICS. *Four hours credit.*

An interdisciplinary course designed to show the relationship among language, thought and behavior. The goals of the course will be to learn to think more clearly, to speak and write more effectively, and to listen and read with greater understanding. Emphasis is placed on innovative and effective teaching methods.

COMM 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department. Application for COMM 422 MUST be submitted two weeks prior to pre-registration.

1-COMM 452. SEMINAR IN AMERICAN PUBLIC ADDRESS. *Three hours credit. (Maximum nine hours credit.)*

A historical and critical study of representative American speakers and speeches of a specific period. The course can be repeated for credit under different subtitles; for example: American Public Address to 1865, American Public Address 1865-1945, American Public Address 1945 to Present.

1-COMM 460. PERSUASION. *Three hours credit.*

A study of advocacy with special emphasis on the techniques used in communication and the implications for the listener and reader.

1-COMM 486. SEMINAR IN DIRECTING COMMUNICATION ACTIVITIES.

Three hours credit.

A study of philosophy, principles, methods, and problems of directing debate, individual events, and mass communication activities at the secondary school level.

1-COMM 490. WORKSHOP IN COMMUNICATION. *Three hours credit. (Maximum nine hours credit.)*

A study of the problems involved in communication. The subject matter for the workshop will be announced prior to each quarter.

COLLEGE STUDENT PERSONNEL WORK

CSPW 423. SUICIDOLOGY: CRISIS INTERVENTION. *Three hours credit.*

The course is an examination of scientific principles related to suicidology and crisis intervention and includes a 60 hour practicum working on the hot line telephone. Students enrolled in the course are expected to read scientific materials related to the concepts of suicidology, drug abuse and community resources. S-U final mark.

ECONOMICS

3-ECON 100. 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.

3-ECON 102. CONTEMPORARY ECONOMIC PROBLEMS. *Three hours credit.*

Prerequisite, ECON 100. Some principles of economic analysis will be treated in greater depth than in the introductory course. Application will be made of these principles to current problems of our society.

3-ECON 145. URBAN ECONOMICS. *Three hours credit.*

Prerequisite, ECON 100. A study of the economic interrelationships of individuals, firms, and government within urban area confines with attention given to analysis of various urban markets, socio-economic problems, government policy, and economic growth.

3-ECON 200. THE PRICE SYSTEM. *Four hours credit.*

Prerequisite, ECON 100 or equivalent. An introduction to the theory of the firm as it relates to the prices of goods and services in the context of resource allocation.

3-ECON 202. MONEY AND BANKING. *Five hours credit.*

Prerequisite, ECON 100. A study of the origins and present roles of our monetary system, commercial banking and Federal Reserve System.

3-ECON 205. LABOR ECONOMICS. *Three hours credit.*

Prerequisite, ECON 100. This course will first examine the labor market, wages, and employment, and will then give major attention to collective bargaining goals, conflicts, and to current public policy and labor legislation.

3-ECON 241. PUBLIC FINANCE. *Five hours credit.*

Prerequisite, ECON 100. 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 solution of public debt.

3-ECON 242. STATE AND LOCAL FINANCE. *Three hours credit.*

The purpose of this course will be to focus attention upon the mechanisms and the goals of public finance as employed by governments on the state and local level in the U.S. economy.

3-ECON 250. HISTORY OF ECONOMIC SYSTEMS: SOCIALISM, COMMUNISM, CAPITALISM, FASCISM. *Three hours credit.*

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

3-ECON 260. RADICAL ECONOMICS. *Three hours credit.*

Prerequisite, ECON 100. An exploration of economic concepts that have tended to threaten the status quo of established economic thought and theory.

3-ECON 300. INTERNATIONAL TRADE. *Three hours credit.*

Prerequisite, ECON 100. An examination of the theory of trade, commercial policy, and practices and institutions that effect the international economy.

3-ECON 302. INTERNATIONAL FINANCE. *Three hours credit.*

Prerequisites, ECON 100, 210, or the consent of the instructor. A study of the financial instruments, institutions and organizations which comprise international finance and which assist international trade.

3-ECON 305. LABOR-MANAGEMENT RELATIONS. *Three hours credit.*

A study into the origins of the labor movement and an examination of the impact of trade unionism on contemporary industrial organization.

3-ECON 320. 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.

3-ECON 350. INCOME AND EMPLOYMENT ANALYSIS. *Four hours credit.*

Prerequisite, ECON 100. The essential theoretical tools used in macroeconomic analysis at the undergraduate level are considered. These topics include the multiplier, consumption, investment, supply and demand for money, and the ISLM model.

3-ECON 360. ECONOMICS OF GROWTH AND DEVELOPMENT. *Three hours credit.*

Prerequisites, ECON 100, 200, or consent of the instructor. An analysis of the theory, processes, and history of economic growth and development, with attention given to resource use and productivity increases in less developed areas.

3-ECON 377. GOVERNMENT AND BUSINESS. *Three hours credit.*

Prerequisite, ECON 100. A study of the relation of American public policy to the challenge of industry, labor, agriculture and inflation-depression periods.

3-ECON 390. EUROPEAN ECONOMIC HISTORY. *Three hours credit.*

Prerequisite, ECON 100. A study of the historical origins of the economic institutions of Europe as related to the development of present European economic life.

3-ECON 400. MANAGERIAL ECONOMICS. *Three hours credit.*

Prerequisites, ECON 100, 200. Primarily an introduction to the economics of

decision making as it affects the manager. Special attention will be given to certain "optimization techniques", cost and demand analysis. Capital Budgeting will also be discussed.

3-ECON 401. NATURAL RESOURCE ECONOMICS. *Three hours credit.*

Prerequisite, ECON 100. Considers the relationship of population to land or natural resources. Land utilization takes place within a physical, institutional economic framework.

3-ECON 402. WELFARE ECONOMICS. *Three hours credit.*

Prerequisites, ECON 100, 200. This course will include the history of welfare theory from the start of the marginal conditions school to the present-day theories of welfare maximization. Attention will be given to the effects of monopoly power, inflation, compensation debate, and the theory of the second best.

3-ECON 451. INTRODUCTION TO QUANTITATIVE ECONOMICS. *Three hours credit.*

Prerequisites, ECON 100, 200, or the consent of the instructor. An introductory course in the use of mathematical techniques in economics. High school algebra and a good background in economic theory would be sufficient preparation.

3-ECON 453. ENGINEERING MANAGEMENT AND ECONOMIC ANALYSIS. *Three hours credit.*

Prerequisite, ECON 100. An introduction to the techniques used for project evaluation and cost optimization. Special emphasis will be given to multiple project alternatives, annual cash flow, present-worth values, benefit-cost analysis, replacement vs. repair analysis.

3-ECON 460. ECONOMIC COLONIALISM AND IMPERIALISM. *Three hours credit.*

Prerequisites, ECON 100, 390, or the consent of the instructor. A study of the part played by economic doctrines, theories and practices in the expansionary drives to colonialism and imperialism, with primary emphasis given to modern history.

3-ECON 462. ECONOMIC HISTORY OF THE UNITED STATES. *Three hours credit.*

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

3-ECON 470. HISTORY OF ECONOMIC THOUGHT. *Three hours credit.*

Prerequisite, ECON 100. This course will trace the evolution of economic thinking from the period of the Old Testament up to the present-day. Particular attention will be given the roles played by particular "schools" of economic thinkers, the genesis of their ideas and their contributions.

EDUCATIONAL CURRICULUM AND INSTRUCTION

EDCI 101. ORIENTATION TO EDUCATION. *Two hours credit.*

Designed to familiarize students with teaching at several educational levels, the course provides presentations by teachers and other personnel from pre-schools, elementary schools, middle and junior high schools, high schools, and schools of higher education. Students assume responsibility for discussion of these presentations and of their readings on problems in education.

EDCI 102. ORIENTATION TO MIDDLE SCHOOLS. *Two hours credit.*

This is an introduction to the history, philosophy and current curriculum of middle

schools. The course emphasizes the organizational plans of the middle schools, skills required of the teachers, nature of the curriculum and the problems of articulation with other schools in a system.

EDCI 340. INTRODUCTION TO STUDENT TEACHING IN THE SECONDARY SCHOOL. (PTE) *Two hours credit.*

Student is assigned to a specific class in his major or minor area under supervision in the Laboratory School. He will meet with the class and the supervising teacher five days per week and arrange for one additional conference hour.

EDCI 341. METHODS OF TEACHING IN THE SECONDARY SCHOOL. (PTE) *Three hours credit.*

Prerequisite to student teaching. Taken in the department in which student teaching is done. Includes curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the subject area to the total secondary program. Teaching techniques are a point of emphasis.

EDCI 351. TEACHING PROBLEMS LABORATORY. *Three hours credit.*

Designed to assist the preservice teacher in dealing appropriately with problems common to classroom teaching, such as the disruptive student, parent conferences, adapting teaching materials, etc., through the use of simulation, role-playing, films, videotape and other techniques.

EDCI 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with instructor and one with the chairman of the department.

EDCI 481. HISTORY AND PHILOSOPHY OF BILINGUAL EDUCATION. *Three hours credit.*

Designed to provide an understanding of how a language other than English may be used as an instructional tool in teaching children of a culturally different background. Specific emphasis will be given to the Renaissance Movement of bilingualism in southwest U.S. since the passage of the Bilingual Education Act.

EDCI 551. PROBLEMS IN TEACHING MINORITY GROUPS. *Three hours credit.*

An in-depth study of minority groups -- with special emphasis on the psychological, educational and social needs of the Mexican American school child of the Southwest. An attempt will also be made to acquaint educators with teaching methods and techniques that seem to work with minority children.

EDCI 560. PROFESSIONAL RESPONSIBILITIES OF TEACHERS. (PTE) *Maximum three hours credit.*

Designed to provide a basic understanding of the roles and responsibilities within the education profession. Includes consideration of professional organizations, teacher rights and responsibilities, personnel policies and working conditions. *Enrollment limited to beginning teachers.*

EARLY CHILDHOOD EDUCATION

EDEC 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. A copy of a well-written paper must be filed with the instructor before credit is given.

EDEC 460. NURSERY -- KINDERGARTEN EDUCATION. (PTE) *Three hours credit.*

This course is designed to acquaint the student with theories and practices for the education of nursery-kindergarten aged children with an emphasis on curriculum, organization, and scheduling.

EDEC 461. COMPENSATORY PROGRAMS IN EARLY CHILDHOOD. *Three hours credit.*

This course is concerned with the origin, purpose, and nature of individual model programs recommended for disadvantaged children at preschool level.

EDEC 462. CLASSROOM MANAGEMENT IN EARLY CHILDHOOD. *Three hours credit.*

This course is concerned with problems involved in working with young children, paraprofessionals, and parents.

EDEC 463. DIAGNOSTIC TEACHING IN EARLY CHILDHOOD. *Three hours credit.*

This course is concerned with tools appropriate for measuring a young child's progress in learning and with techniques of individualizing instruction.

EDEC 464. INTRODUCTION TO EARLY CHILDHOOD EDUCATION. *Three hours credit.*

This course is designed to provide the student with the background in child development from birth through eight years of age.

ELEMENTARY EDUCATION

EDEL 320. IMPROVEMENT OF INSTRUCTION IN MATHEMATICS IN THE ELEMENTARY SCHOOL. (PTE) *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.

EDEL 330. TEACHING HANDWRITING AND SPELLING IN THE ELEMENTARY SCHOOL. (PTE) *Two hours credit.*

A detailed consideration of content, methods, instructional material and evaluation in the fields of handwriting and spelling. The student demonstrates competency in spelling and in manuscript and cursive handwriting.

EDEL 340. IMPROVEMENT OF INSTRUCTION IN ENGLISH IN THE ELEMENTARY SCHOOL. (PTE) *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.

EDEL 350. IMPROVEMENT OF INSTRUCTION IN SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. (PTE) *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.

EDEL 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. A copy of a well-written paper must be filed with the instructor before credit is given.

EDEL/MAS 472. EVALUATION AND SELECTION OF BILINGUAL AND BICULTURAL MATERIALS. (PTE) *Two hours credit.*

The discussion of material selection principles. Evaluation of bilingual and bicultural materials for the elementary school. Course covers learning level and interests of bilingual children in the elementary school.

EDEL/MAS 474. TEACHING IN A SECOND LANGUAGE IN THE ELEMENTARY BILINGUAL AND BICULTURAL SCHOOL. (PTE) *Three hours credit.*

Prerequisite, MAS 300 or permission of instructor. This course is designed to prepare the elementary bilingual and bicultural teacher to teach Spanish as a second language or English as a second language. Special consideration is given to methods of instruction, selection of materials, and student evaluation.

EDUCATIONAL MEDIA

EDEM 195. LIBRARY RESOURCES, ORGANIZATION AND USAGE. *Three hours credit.*

A practical study emphasizing the efficient use of library resources in academic work and in current and ongoing personal educational experiences. Library organization and services and a basic approach to the planning and methodology of research are covered.

4-EDEM 330. INSTRUCTIONAL MATERIALS -- PROBLEMS OF ORGANIZATION, STORAGE AND RETRIEVAL. *Three hours credit.*

A basic knowledge of the philosophy, terminology and practices used in the preparation, storage and retrieval of instructional materials is important to Media Center personnel. This information is also valuable to classroom teachers, particularly those who are using many materials to individualize instruction.

EDEM 410. INTRODUCTION TO EDUCATIONAL RESOURCES. *Three or five hours credit.*

Introduces students to most of the materials, both print and nonprint, available for instruction; each is demonstrated, and psychological basis for use is discussed as well as its characteristics, advantages and disadvantages; designed to be of value to all interested in education.

4-EDEM 420. DESIGN AND CONSTRUCTION OF AUDIO-VISUAL MATERIALS. *Three hours credit.*

Provides experience in the production of teaching materials using equipment and facilities available to most teachers. Includes preparation and mounting of pictures and the production of graphic materials, slides and recordings.

EDEM 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. One copy of a well-written paper must be filed with the instructor before credit is given.

EDEM 434. REFERENCE MATERIALS: BASIC SCHOOL REFERENCE SERVICE. *Three hours credit.*

A discussion of suitable reference materials for elementary and secondary school

resource centers. Covers selection principles and use of reference materials.

EDEM 460. TELEVISION IN EDUCATION. *Four hours credit.*

Educators are exposed to the use of television as an effective educational tool at all grade levels, and are provided basic instruction in ETV equipment, methods, and administration. Involvement in actual ETV development on the UNC campus will be encouraged to give practical experience in a working situation.

FOUNDATIONS OF EDUCATION

EDF 308. WORKSHOP IN FOUNDATIONS OF EDUCATION. *One to six hours credit.*

An opportunity for undergraduate students to study problems in foundations of education. The area to be covered in any one workshop will be determined by the workshop subtitle. No subtitle may be repeated for credit.

EDF 365. BASIC CONCEPTS OF EDUCATION. (PTE) *Five hours credit.*

A conceptual approach to the problems and issues facing educators in contemporary American Society, designed to create an environment in which the student can select and evaluate concepts and information from the many disciplines related to the educational enterprise. Special emphasis is placed upon the sociological, anthropological, historical and structural foundations of American Education. Problems and issues are analyzed as they relate to the classroom teacher at each level. Instructors take different approaches to this course. Notify the Department of Foundations of Education for information.

EDF 390. WOMEN IN EDUCATION. *Three hours credit.*

A course designed to increase awareness and understandings relative to the role and status of women involved in all areas of American Education. Emphasis will be on how women educators "see" themselves, how they are perceived by others, and how are such perceptions related to the materials, methods and purposes of schooling.

EDF 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

4-EDF 445. COMPARATIVE STUDIES IN INTERNATIONAL EDUCATION. *Twelve or fifteen hours credit.*

A comparison will be made of selected countries in Asia and the Pacific which will be studied on the campus and in home study and will be followed by travel to the selected countries. Schools and universities will be visited and an opportunity will be provided to make comparison of the countries visited with education in the United States.

4-EDF 475. 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.

EDF 485. PHILOSOPHY OF EDUCATION. (PTE) *Three hours credit.*

Prerequisite, EDF 365. 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.

EDUCATIONAL FIELD EXPERIENCES

EDFE 270. SCHOOL AND COMMUNITY AIDE. *One to four hours credit. May be repeated.*

Open to students at any level who are considering a career in education or a related field. One hour of credit granted for every twenty hours of aide work. Aide experiences depend on the school or organization where the student is assigned, and upon the interests and competencies of the student. Emphasis is on the human relations involved in working with adults and/or young people in an instructional setting. Offered all four quarters, including a "September Experience" option which permits students to be assigned as aides in schools during the period between the start of public schools and the beginning of the UNC fall quarter. S-U final mark.

EDFE 360. INTRODUCTION TO TEACHING: PRIMARY CONTINUUM. (PTE) *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. S-U final mark.

EDFE 361. INTRODUCTION TO TEACHING: INTERMEDIATE CONTINUUM. (PTE) *Two hours credit.*

Course description same as EDFE 360.

EDFE 362. INTRODUCTION TO TEACHING: MIDDLE SCHOOL. (PTE) *Two hours credit.*

The course is designed for secondary and/or elementary education majors interested in working with the middle school aged child in grades 6, 7, and 8. You will have the opportunity to interact with students on an individual, small group, and large group basis. Each student will spend four hours a week in the classroom plus one seminar. S-U final mark.

EDFE 363. INTRODUCTION TO TEACHING: BUSINESS. (PTE) *Two hours credit.*

Student is assigned to a specific class in his major or minor area under supervision of a Laboratory School instructor. Student will meet with the class and supervising teacher five hours a week. Student will have opportunities for planning, executing, and evaluating learning activities for students. S-U final mark.

EDFE 364. INTRODUCTION TO TEACHING: COMMUNICATION. (PTE) *Two hours credit.*

The student gains firsthand experience in typical classroom responsibilities: roll-taking/record-keeping; tutoring individuals; directing teacher-pupil conferences; preparing materials and teaching a lesson; evaluating student progress. As a junior member of the department team, he attends class daily and has a conference once a week with his supervising teacher. S-U final mark.

EDFE 365. INTRODUCTION TO TEACHING: FINE ARTS. (PTE) *Two hours credit.*

Student is assigned to a specific class in his major or minor area under supervision. He will meet with the class and the supervising teacher five days per week. S-U final mark.

EDFE 366. INTRODUCTION TO TEACHING: FOREIGN LANGUAGE. (PTE) *Two hours credit.*

To be taken concurrently with FL 341, either fall or winter quarter. Students will participate in teaching throughout the quarter making visual aids and plans for various lessons. Students will be video taped. Meets four times per week plus one conference with the master teacher. S-U final mark.

EDFE 367. INTRODUCTION TO TEACHING: HEALTH, PHYSICAL EDUCATION AND RECREATION. (PTE) *Two hours credit.*

Course description same as EDFE 363.

EDFE 368. INTRODUCTION TO TEACHING: HOME ECONOMICS. (PTE) *Two hours credit.*

This course is designed to give the student experience of actually working with and presenting lessons to laboratory school students. The student is required to spend four hours a week in the classroom plus one conference period a week with the instructor. S-U final mark.

EDFE 369. INTRODUCTION TO TEACHING: INDUSTRIAL ARTS. (PTE) *Two hours credit.*

Student is assigned to a specific teaching situation in the public schools in his major area. The student is also required to visit selected schools in reorganized districts and large urban areas. S-U final mark.

EDFE 370. INTRODUCTION TO TEACHING: MATHEMATICS. (PTE) *Two hours credit.*

Here the prospective teacher observes and actively participates in the practice of teaching methods. An opportunity is provided to become acquainted with the personalities, learning abilities, and limitations of pupils, as well as to have guided classroom experiences. Students will meet with the class and supervising teacher daily and arrange one additional conference period weekly. S-U final mark.

EDFE 371. INTRODUCTION TO TEACHING: MUSIC. (PTE) *Two hours credit.*
Course description same as EDFE 363.

EDFE 372. INTRODUCTION TO TEACHING: SCIENCE. (PTE) *Two hours credit.*

Participation as teaching assistant in one Laboratory School science class meeting five periods per week. One to two hours outside preparation per week and conferences as arranged. Experiences with individualized, small group, and whole class instruction and other duties assigned by supervisor. Enroll in SCED 441 same quarter. S-U final mark.

EDFE 373. INTRODUCTION TO TEACHING: SOCIAL SCIENCES. (PTE) *Two hours credit.*

To be taken concurrently with EDCI 341. The student is assigned to a specific secondary school class in the Laboratory School where through a series of clinical experiences he or she participates in activities that illustrate and demonstrate principals of teaching practice and involve the application and testing of learning theory, methods, and techniques. Five days per week plus one seminar hour. S-U final mark.

EDFE 379. INTRODUCTION TO TEACHING: INNER CITY. (PTE) *Two hours credit.*

Student engages in directed participation in a teaching situation four hours a week under the supervision of a master teacher in an inner city school. One additional hour of conference each week is arranged with the instructor. S-U final mark.

EDFE 380. SIMULATION EXPERIENCES IN THE HUMAN RELATIONS OF TEACHING. (PTE) *Three hours credit.*

Open to all students interested in a career in education or related fields. Emphasis in teacher-pupil, teacher-parent, and teacher-administrator relationships through a variety of simulation activities. Participants are encouraged to enroll concurrently for at least one hour of credit in EDFE 270: School and Community Aide. S-U final mark.

EDFE 420. SUPERVISED TEACHING: SPECIAL EDUCATION -- ELEMENTARY LEVEL. (PTE) *Eighteen hours credit.*

Meets the "student teaching" requirement for teacher certification. Designed to allow students the opportunity to bridge the gap between theory and practice in the teaching of handicapped children on the elementary level. Opportunity is provided for the student to use special methods, materials and techniques, and to progressively assume the responsibilities related to teaching. S-U final mark.

EDFE 422. INDIVIDUAL STUDY IN STUDENT FIELD EXPERIENCE. *One to four hours credit. May be repeated.*

Qualified undergraduate students may pursue a special study related to the real school classroom under the direction of an Education Field Experience Area Coordinator. S-U final mark.

EDFE 430. SUPERVISED TEACHING: SPECIAL EDUCATION -- SECONDARY LEVEL. (PTE) *Eighteen hours credit.*

Meets the "student teaching" requirement for teacher certification. Designed to allow students the opportunity to bridge the gap between theory and practice in the teaching of handicapped children on the secondary level. Opportunity is provided for the students to use special methods, materials and techniques, and to progressively assume the responsibilities related to teaching. S-U final mark.

EDFE 440. SUPERVISED TEACHING: PRE-SCHOOL LEVEL. (PTE) *Eighteen hours credit.*

Meets the "student teaching" requirement for teacher certification. Provides for the practical application, under supervision, of the principles of learning and the techniques of instruction in the classroom. Specifically designed for pre-school level experience. S-U final mark.

EDFE 450. SUPERVISED TEACHING: ELEMENTARY LEVEL. (PTE) *Eighteen hours credit.*

Meets the "student teaching" requirement for teacher certification at the elementary level. Includes the regular one-quarter 18 credit hour student teaching as well as a variety of paid and unpaid extended field experiences. S-U final mark.

EDFE 460. SUPERVISED TEACHING: SECONDARY LEVEL. (PTE) *Eighteen hours credit.*

Meets the "student teaching" requirement for teacher certification at the secondary level. Includes the regular one-quarter 18 credit hour student teaching as well as a variety of paid and unpaid extended field experiences. S-U final mark.

EDFE 470. SUPERVISED TEACHING: VOCATIONAL EDUCATION. (PTE) *Eighteen hours credit.*

Designed for student who will apply for a vocational credential to teach vocational programs in Colorado. Students will be placed with state approved vocational supervising teachers. Program limited to approved teaching subject areas. S-U final mark.

EDFE 480. ADVANCED SUPERVISED TEACHING: ELEMENTARY LEVEL. (PTE) *Three to eighteen hours credit.*

Designed for experienced teachers who need additional student teaching for elementary certification, and for students who have completed regular elementary student teaching but who want or need additional field experience work in an elementary school. Could be a partial term classroom experience during any of four university quarters. S-U final mark.

EDFE 490. ADVANCED SUPERVISED TEACHING: SECONDARY LEVEL. (PTE) *Three to eighteen hours credit.*

Designed for experienced teachers who need additional student teaching for second-

dary certification in a particular subject area, and for students who have completed regular secondary student teaching but who want or need additional field experiences in the same subject area. Could be a partial term classroom experience during any of four university quarters. S-U final mark.

READING COURSES

4-EDRD 130. COLLEGE READING STUDY SKILLS. *Two hours credit.*

A course designed to enable college students to develop proficiency in the reading study skills required of them in regular college courses. As differentiated from a remedial course, the course develops skills, which will include flexibility in reading and promote vocational growth and reading skills.

4-EDRD 131. SPEED READING. *Two hours credit.*

A course designed for college students and mature readers to increase their rate of reading and to develop flexibility in reading rates through completion of various reading exercises.

EDRD 310. IMPROVEMENT OF INSTRUCTION IN READING IN THE ELEMENTARY SCHOOL. (PTE) *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.

EDRD 314. IMPROVEMENT OF INSTRUCTION IN LITERATURE IN THE ELEMENTARY SCHOOL. (PTE) *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.

EDRD 411. APPROACHES TO READING INSTRUCTION. (PTE) *Three hours credit.*

Prerequisite, EDRD 310 and EDFE 450 or permission of instructor. This course is designed to acquaint students with various approaches to reading instruction in the elementary school, including basal readers, language experience, individualized, augmented alphabet, phonic, linguistic, and programmed approaches. Objective observation and evaluation will be incorporated among course activities.

EDRD 420. READING IN THE SECONDARY SCHOOL. *Three hours credit.*

Suggested for English majors, undergraduates preparing to be secondary content area teachers, and graduate students with no background in reading instruction. Course content: Reading theory, concept of reading level, reading as skills development, detection of individual differences in reading ability, scope and sequence of skills development, reinforcement of reading skills.

EDRD 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. A copy of a well-written paper must be filed with the instructor before credit is given.

EDRD 440. PRACTICUM IN DIAGNOSTIC ORAL READING. *One hour credit.*

Prerequisite, enrollment in or completion of EDRD 411 or 420. A practicum designed to develop sensitivity to the use of oral readings for diagnostic purposes. A student will spend 20 hours listening to taped readings on electronic notebooks of an entire class or on remedial students.

SPECIAL EDUCATION AND REHABILITATION

4-EDSE 100. EDUCATION OF EXCEPTIONAL CHILDREN. *Three hours credit.*
A survey of the characteristics and educational needs of impaired and gifted children. Designed as an overview of the field for undergraduate students in special education, general education, nursing, counseling and other related personnel.

EDSE 160. INTRODUCTION TO SPEECH CORRECTION. *Three hours credit.*
A survey of identifying characteristics, causes, diagnosis and treatment pertaining to the common speech disorders.

EDSE 250. THE STRUCTURE OF LANGUAGE. *Three hours credit.*
A syntactical and morphological approach to language as it applies to the child. Stress will be placed on the understanding of the structure of the English language, as well as an understanding of how language is learned.

4-EDSE 260. INTRODUCTION TO PHONETICS. *Three hours credit.*
The formation and characteristics of American English speech sounds and the phonetic symbols used to represent these sounds. Application of this knowledge is made to pronunciation and articulation.

4-EDSE 265. ACOUSTICS OF SPEECH. *Three hours credit.*
The physics of sound as it relates to speech and hearing; the transmission of sound; instrumentation used in the analysis of sound.

EDSE 266. SPEECH AND LANGUAGE DEVELOPMENT. *Three hours credit.*
Normal language development (articulation development emphasized) together with aspects of genetic and linguistic bases of speech.

EDSE 267. THE AUDITORY AND SPEECH MECHANISMS. *Five hours credit.*
The speech and hearing mechanisms in terms of development, structure and physiology.

EDSE 270. PATHOLOGIES OF THE AUDITORY MECHANISM. *Three hours credit.*

Prerequisite, EDSE 267. Concentrated study of abnormalities and diseases of the auditory mechanism including the outer ear, middle ear, inner ear and central auditory system. Special lectures by medical personnel will be included.

EDSE 274. CLINICAL PRINCIPLES IN AUDIOLOGY. *Maximum six hours credit.*

Observation of supervised diagnosis and therapy in the audiology clinic.

EDSE 290. ORIENTATION TO REHABILITATION AND RELATED SERVICES. *Three hours credit.*

A course which provides the basic introduction to rehabilitation, social welfare, employment service, corrections, and related services. An orientation to the field experience and the position of the Rehabilitation and Related Service major in current society; a study of the impact of past, current, and pending legislation upon this profession.

EDSE 301. BEHAVIORAL OBJECTIVES AND EDUCATIONAL PROGRAMMING FOR EXCEPTIONAL CHILDREN. *One hour credit.*

Complete self-instructional learning module requiring no class attendance except scheduled testing period. Competency assessed through a series of criterion measures. Content focuses on writing, classifying and evaluating goals and learning objectives and the relationship to educational programming.

EDSE 302. COUNSELING PARENTS OF EXCEPTIONAL CHILDREN. *Three hours credit.*

This course is designed to present the techniques of working with parents of special education, general education, nursing, counseling and other related personnel.

EDSE 304. INTRODUCTION TO MEASUREMENT OF THE HANDICAPPED. *Three hours credit.*

This course is designed to develop an understanding of the results of educational tests. Emphasis is on understanding problems encountered in testing children who are visually, acoustically, orthopedically, mentally handicapped or speech defective, and interpretation of test results in light of the various handicaps.

EDSE 305. EDUCATIONAL PRESCRIPTION AND PROGRAMMING FOR EXCEPTIONAL CHILDREN. *Four hours credit.*

Prerequisites, EDSE 304, EDRD 310. Techniques of educational evaluation and program planning which can be used by classroom teachers for the individualization of instruction.

EDSE 306. IDENTIFICATION OF LEARNING DISABILITIES IN EARLY CHILDHOOD. *Three hours credit.*

Course designed to introduce the student to the learning disabilities of early childhood which are highly resistant to modification by conventional remedial techniques.

EDSE 308. WORKSHOP IN SPECIAL EDUCATION. *Maximum four hours credit.*

A workshop for beginning teachers and clinicians. Topics will be introduced such as: observation techniques, programming for the handicapped, community relations, child development as related to exceptional children, evaluation of children for placement. Materials prescribed by specific workshop as offered.

EDSE 309. INTRODUCTION TO SPECIAL EDUCATION STUDENT TEACHING. (PTE) *Two hours credit.*

Prerequisite, EDSE 100. A course designed to provide the special education student with direct participation in classrooms for the handicapped under the supervision of a master teacher. The experience will consist of four hours per week in the special education laboratory school and one additional hour per week in arranged conference.

EDSE 310. INTRODUCTION TO MENTAL RETARDATION. *Four hours credit.*

Prerequisite, EDSE 100 or 602. 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.

EDSE 311. EDUCATION OF THE TRAINABLE MENTALLY RETARDED. *Four hours credit.*

Prerequisite, EDSE 310. Organization of special class and school programs for trainable mentally retarded children. Diagnosis and classification. Development of teaching materials and techniques. Community organizations and parent education.

EDSE 312. SEMINAR: TEACHING THE TMR. *Two hours credit.*

Prerequisites, EDSE 100, 310, 311. A course designed to provide the student with opportunities to participate in educational programs for the TMR before his actual student teaching experience and to relate these field experiences with in-class presentations of materials through a weekly one hour seminar.

EDSE 320. INTRODUCTION TO THE EDUCATION OF SOCIALLY AND EMOTIONALLY DISTURBED CHILDREN. *Three hours credit.*

An introduction to concepts, practices, and trends in education for emotionally disturbed and socially maladjusted children, an orientation to the dynamics, personality characteristics and needs of emotionally handicapped and socially maladjusted children is provided.

EDSE 326. INTRODUCTION TO TEACHING LEARNING DISABLED CHILDREN. *Three hours credit.*

Overview of the field of learning disabilities including concepts, practices, and trends.

EDSE 330. CARE AND PATHOLOGY OF THE PHYSICALLY HANDICAPPED. *Three hours credit.*

Prerequisite, EDSE 100 or 602. A course designed for teachers in special education. Medical and educational problems in the areas of the crippled (cerebral palsy, muscular dystrophy, etc.) and other health impaired (cardiac, epileptic, etc.) will be discussed.

EDSE 331. 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 with adaptations, and aids used in the education of the physically handicapped child.

EDSE 350. PATHOLOGY AND INTRODUCTION TO THE HEARING IMPAIRED. *Three hours credit.*

History and philosophy of education of the deaf. Structure of the ear and causes of deafness. Problems in organization, support and maintenance of programs for deaf and hard of hearing children. Presentation of types of instruction given in various schools, the oral method, the combined method, the Rochester method and the acoustic method.

EDSE 356. MANUAL COMMUNICATION SKILLS: S.E.E. *Two hours credit.*

Course includes introduction and training for use of Seeing Essential English and the manual alphabet.

EDSE 357. SPEECH READING. *Three hours credit.*

Speech reading theory and practice. Some educational problems of the speech reading teacher. Methods used for the instruction of children and adults. Correlation with auditory training, reading, and speech correction. Different approaches used with hard-of-hearing children and the deaf.

EDSE 358. AUDITORY TRAINING AND HEARING AIDS. *Three hours credit.*

Prerequisite, EDSE 370. Emphasis is placed on methods of developing auditory discrimination in hearing impaired children through various techniques aimed to support the speech development program; in addition, a study of individual and group amplification instruments for utilizing all residual hearing will be undertaken.

EDSE 360. ARTICULATION DISORDERS I. *Four hours credit.*

Prerequisites, EDSE 160, 260 or consent of instructor. Causation, diagnosis and treatment of individuals with problems of articulation and delayed speech.

EDSE 361. VOICE DISORDERS I. *Three hours credit.*

Prerequisites, EDSE 160, EDSE 267, or consent of instructor. Causation, diagnosis and treatment of voice disorders, particularly those of children.

EDSE 362. STUTTERING I. *Three hours credit.*

Prerequisite, EDSE 160 or consent of instructor. Causation, diagnosis and treatment of stuttering, especially stuttering in children.

EDSE 363. INTRODUCTION TO ORGANIC DISORDERS. *Three hours credit.*

Prerequisites, EDSE 160, EDSE 267, or consent of instructor. Causation, diagnosis and treatment for the speech disorders associated with cleft palate, cerebral palsy and aphasia in children and adults.

EDSE 364. CLINICAL PRINCIPLES. *Three hours credit. (Customarily one hour of credit being earned for each of three consecutive quarters.)*

Prerequisite, EDSE 264. Clinical principles, procedures, clinical forms and clinical rules. Observation and participation in diagnosis and treatment arranged. S-U final mark.

EDSE 365. LANGUAGE DISORDERS IN CHILDREN I. *Three hours credit.*

Prerequisite, EDSE 266. Analyses of developmental language disorders and the relationship of language development to other developmental phenomena, as well as an introduction to the evaluation and assessment of language disorders.

EDSE 366. NEUROLOGICAL BASES FOR SPEECH AND HEARING. *Four hours credit.*

Prerequisite, EDSE 267, or consent of instructor. Anatomy and physiology of the nervous systems controlling the speech and hearing mechanisms, together with theories of control.

EDSE 370. BASIC AUDIOLOGY. *Three hours credit.*

Prerequisite, EDSE 265. Measurement of hearing with pure tone techniques and interpretation of test results in terms of physical, social, and educational handicap. Public school hearing conservation techniques are discussed.

EDSE 371. SPEECH AUDIOMETRY I. *Three hours credit.*

Prerequisite, EDSE 370. Materials and techniques employed in standard speech audiometry and hearing aid evaluations. Included are techniques and current research: evaluation of S.R.T., auditory discrimination and their relationship to the handicap of hearing impairment.

EDSE 372. ADVANCED AUDIOMETRY. *Three hours credit.*

Prerequisite, EDSE 371. Theory and practice of advanced pure tone and speech testing. A consideration of the instrumentation necessary for such testing, the interpretation of audiometric findings with special emphasis on the effects of hearing loss on communication.

EDSE 390. INTRODUCTION TO SOCIAL AND REHABILITATION SERVICES. *Three hours credit.*

Prerequisite, EDSE 290. A survey of the history plus principles, philosophy, and legislation relating to Social Rehabilitation Services. Emphasis will be placed on rehabilitation and rehabilitation process.

EDSE 391. SEMINAR: PROBLEMS IN SOCIAL AND REHABILITATION SERVICES. *Three hours credit.*

An approach to the major social problems involved in rehabilitating the handicapped and/or disadvantaged individual in our society. The role of the community as it attempts to solve these problems is considered.

EDSE 394. PRACTICUM IN SOCIAL AND REHABILITATION SERVICES. *Up to eight hours credit.*

Individual observation and supervised experience in working with clients of service

agencies. Individual observation and supervised experience in providing services to clients of state and local offices of social service and rehabilitation agencies.

EDSE 401. HANDICAPPED STUDENTS IN REGULAR CLASSROOMS. *Three hours credit.*

Introductory course to acquaint non-special education majors with an overview of handicapping conditions, role of special and general educators, identification and assessment procedures, and delivery systems used in serving the handicapped student. This course should be taken prior to EDSE 402 or 403 and is limited to non-special education majors.

EDSE 402. WORKING WITH HANDICAPPED STUDENTS IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, EDSE 401. This course will overview specific methods and techniques to be used in working with handicapped students in regular elementary schools.

EDSE 403. WORKING WITH HANDICAPPED STUDENTS IN THE SECONDARY SCHOOL. *Three hours credit.*

Prerequisite, EDSE 401. This course will overview specific methods and techniques to be used in working with handicapped students in regular secondary schools.

EDSE 411. VOCATIONAL PREPARATION OF THE MENTALLY RETARDED. *Three hours credit.*

Prerequisites, EDSE 100 or 602. Emphasis will be on discussing techniques in the following areas: (1) evaluating vocational fitness, (2) job placement, (3) working with related disciplines, (4) understanding of the implication of vocational experiences on curriculum, (5) on-the-job supervision, and (6) follow-up services.

EDSE 412. CURRICULUM DEVELOPMENT AND METHODOLOGY FOR MENTALLY RETARDED: ELEMENTARY LEVEL. *Four hours credit.*

Prerequisites, EDSE 100 or 602, 310 and EDRD 310. This course will have as its main purpose the development of integrated experience-units for elementary level mentally retarded youngsters.

EDSE 413. CURRICULUM DEVELOPMENT AND METHODOLOGY FOR THE MENTALLY RETARDED: SECONDARY LEVEL. *Four hours credit.*

Prerequisites, EDSE 100 or 602, 310. Emphasis is placed on content, methods and materials appropriate for teaching junior and senior high school classes for mentally retarded youngsters.

EDSE 414. PROBLEMS IN TEACHING TRAINABLE MENTALLY RETARDED CHILDREN. *Four hours credit.*

Prerequisites, EDSE 310 and EDSE 311. Technique of developing curriculum, strategies for teaching the trainable mentally retarded child from onset of the school program to the vocational level.

EDSE 415. VOCATIONAL TRAINING FOR TMRs. *Four hours credit.*

Prerequisites, EDSE 310, 311, 414 or permission from instructor. Course is designed to acquaint the student with pre-vocational and vocational programs for the trainable mentally retarded in terms of assessment, skill training, job placement, and community living.

EDSE 421. BEHAVIOR MANAGEMENT IN THE CLASSROOM. *Three hours credit.*

Emphasis centers on theoretical methodological, and affective competencies utilized in behavior modification techniques as they apply to exceptional children.

EDSE 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed

before credit is given, one with the instructor and one with the chairman of the department.

EDSE 440. SURVEY OF EDUCATION OF VISUALLY HANDICAPPED. *Three hours credit.*

Educational, social, emotional implications of visual impairment. Overview of history and current practices in educational and rehabilitational planning. Organization and scope of various educational services -- early childhood through college. Review of public and private agencies, their philosophies and programs. Legislative measures.

EDSE 441. AUDITORY COMPREHENSION IN CHILDREN FOR CLASSROOM TEACHERS. *Three hours credit.*

To promote effective listening in and out of the classroom, the course explores theoretical foundations, sequential development, commercially produced and teacher prepared materials, and special techniques. Practice labs are provided.

EDSE 442. EFFICIENT VISUAL DISCRIMINATION IN CHILDREN FOR CLASSROOM TEACHERS. *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 tests presented.

EDSE 451. SPEECH DEVELOPMENT FOR THE HEARING IMPAIRED. *Six hours credit.*

Prerequisites, EDSE 260, 267, 350, and EDRD 310. A study of various methods commonly used in speech development with the hard of hearing. Integration of speech with other language arts, importance of pre-school programs and parent education.

EDSE 452. LANGUAGE DEVELOPMENT FOR THE HEARING IMPAIRED. *Six hours credit.*

Prerequisites, EDSE 250, 266, 350, and EDRD 310. A study of language development techniques commonly used with the hard of hearing, systems of teaching language to deaf, principles of grammar essential to use any system language instruction, development functional language usage, oral and written, meaning and importance of integrated language arts programs.

EDSE 453. CURRICULUM AND CONTENT FOR THE ACOUSTICALLY HANDICAPPED. *Four hours credit.*

Prerequisites, PTE, EDSE 350, EDRD 310. An understanding of the purpose and nature of curriculum and how to plan, implement, and evaluate learning experiences for hearing impaired children, including the ability to design methods of evaluation based upon measurable objectives, select, design, and produce media materials and resources.

EDSE 455. METHODS OF TEACHING READING TO THE HEARING IMPAIRED. *Three hours credit.*

Prerequisites, EDSE 350, EDRD 310, or 420, EDRD 411. Relationships between expressive and receptive communication skills will be premises. Development of teaching reading readiness skills, reading skills and remedial reading skills for hearing impaired children will be used. All reading skills will be directed toward making the hearing impaired child an independent reader.

EDSE 456. MANUAL COMMUNICATION SKILLS: A.S.L. *Two hours credit.*

Training in the use of American Sign Language.

EDSE 459. UNDERGRADUATE SEMINAR IN EDUCATION OF THE HEARING IMPAIRED. *Three hours credit.*

The course is designed to recapitulate problems encountered in the student field experience. Discussions will be centered around the language and speech problems of the hearing impaired child, and upon the student teacher and the classroom dynamics. S-U final mark.

EDSE 460. PUBLIC SCHOOL SPEECH PATHOLOGY. *Three hours credit.*

Prerequisites, EDSE 360, 364, 365, or consent of instructor. Organizational procedures, use of clinical materials, and administrative policies relevant to speech and language programs in public school settings.

EDSE 464. CLINICAL PRACTICUM IN SPEECH PATHOLOGY. *Maximum twelve hours credit with two credit hours customarily earned per quarter.*

Prerequisite, EDSE 364 or consent of instructor. Observation and performance of supervised diagnosis and therapy. S-U final mark.

EDSE 467. DIAGNOSIS IN SPEECH PATHOLOGY. *Three hours credit.*

Prerequisites, EDSE 360, 364, 365. Techniques of clinical diagnosis and evaluation of persons with speech and language disorders.

EDSE 474. CLINICAL PRACTICES IN AUDIOLOGY. *Maximum six hours credit.*

Prerequisite, EDSE 372 or consent of instructor. Observation and performance of supervised diagnosis and the rehabilitation or habilitation of hearing impaired infants, children, adults, and geriatrics.

EDSE 475. CLINICAL PRACTICES IN REHABILITATIVE AUDIOLOGY. *Maximum twelve hours credit.*

Prerequisite, EDSE 372 or consent of instructor. Observation and performance of supervised therapy in the rehabilitation of acoustically handicapped individuals. S-U final mark.

EDSE 480. OUTDOOR EDUCATION FOR THE HANDICAPPED. *Three hours credit.*

This course will provide undergraduate and graduate students preparing for leadership positions with the handicapped opportunities to become acquainted with this approach to instruction. Field experiences following the interdisciplinary approach will give special consideration to the needs of the handicapped.

EDSE 491. INTERVIEWING TECHNIQUES IN SOCIAL AND REHABILITATION SERVICES. *Three hours credit.*

The theory and practice of interviewing as applied in social and rehabilitation services is explored and discussed. Emphasis will be placed on interview techniques that enable the individual to elicit accurate information and getting access to material otherwise unavailable, reduce bias, and not restrict or distort the flow of communication. Demonstration and practice will be an integral part of the instructional process.

EDSE 492. CASEWORK TECHNIQUES IN THE SOCIAL AND REHABILITATION SERVICES. *Three hours credit.*

This course will provide the student with an understanding in-depth of the principles and techniques involved in casework procedures in social and rehabilitation service agencies. It will also develop proficiency in casework techniques and processes.

EDSE 494. SUPERVISED FIELD PRACTICE IN REHABILITATION AND RELATED SERVICES. *Fifteen hours credit.*

A supervised field practice will constitute an integral portion of the total education

and training program for the undergraduate major in Rehabilitation and Related Services. Supervised field practice consists of a minimum of 400 clock hours of work, lasting at least one full term of approximately 10 weeks. It will attempt to integrate the academic knowledge into a practical setting where the student can become totally involved in providing services to persons seeking help from various agencies.

ENGLISH EDUCATION

EED 341. METHODS AND MATERIALS FOR TEACHING LANGUAGE AND COMPOSITION IN THE SECONDARY SCHOOL. (PTE) *Four hours credit.*

Prerequisite to student teaching. Methods and materials for teaching language and composition in the secondary schools. Includes curriculum and classroom organization, evaluation, procedures and materials, relationship of language and composition to the total secondary program. Teaching techniques are a point of emphasis.

EED 401. WORKSHOP IN THE TEACHING OF ENGLISH. (PTE) *Maximum nine hours credit.*

A series of workshops in special problems in the teaching of English, conducted by authorities in the field.

EED 402. METHODS AND MATERIALS FOR TEACHING LITERATURE IN THE SECONDARY SCHOOL. (PTE) *Five hours credit.*

Methods and materials for teaching literature in the secondary schools. Principles for the selection of literature for high school pupils. Use of media in relation to literature. Includes curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of literature to the total secondary program. Teaching techniques are a point of emphasis.

EED 405. THE TEACHING OF LANGUAGE. (PTE) *Four hours credit.*

A study of language learning and teaching, including the philosophy of English and the evaluation of inductive and deductive procedures. An analysis of some of the "new grammars" in current textbooks with implications for the secondary English curriculum.

4-EED 406. LITERATURE FOR ADOLESCENTS. *Four hours credit.*

Study of that reading material which provides a transition from children's literature to literature for adults. Attention concentrated upon junior novels, junior biographies, and their authors, as well as upon trends and evaluative standards.

ENGLISH

4-ENG 100. WRITING CLINIC. *No credit.*

A laboratory designed to help students improve their writing.

1-ENG 101. 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.

1-ENG 102. THE COLLEGE RESEARCH PAPER. *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.

1-ENG 105. COMMUNICATIONS ON A THEME. *Four hours credit.*

Themes for the course will be chosen from ideas of historical influence and/or contemporary problems. Readings and class discussion will serve as background for writing essays and investigating other modes of communicating ideas.

4-ENG 111. INTRODUCTION TO POETRY. *Four hours credit.*

Critical approaches to poetry. Qualified students may be exempted by examination.

4-ENG 112. INTRODUCTION TO FICTION. *Four hours credit.*

Critical approaches to short stories and novels. Qualified students may be exempted by examination.

4-ENG 113. INTRODUCTION TO DRAMA. *Four hours credit.*

A study of selected plays, ancient and modern, to develop the student's skills in dealing with drama as literature.

4-ENG 211. MEDIEVAL LITERATURE. *Four hours credit.*

A study of selected works from the Old English and Middle English periods.

4-ENG 212. RENAISSANCE LITERATURE. *Four hours credit.*

A study of English poetry and prose of the Renaissance. Emphasis is placed on the work of Spenser, Jonson, Marlowe, Bacon, the Metaphysical poets, and Milton.

4-ENG 213. THE RESTORATION AND EIGHTEENTH CENTURY. *Four hours credit.*

A study of major writers of the period with attention to their influence on subsequent ideas and literary forms.

4-ENG 214. THE ROMANTIC MOVEMENT. *Four hours credit.*

The development of English Romanticism; its social and philosophical backgrounds. Wordsworth, Coleridge, Byron, Shelley, and Keats; with some consideration of the essayists and minor poets.

4-ENG 216. AMERICAN LITERATURE TO THE CIVIL WAR. *Four hours credit.*

A study of American literature during the formative years of the colonial period and during the early years of the republic, emphasizing the religious and political traditions from which the literature sprang. Emphasis is given to the works of Edwards, Franklin, Paine, Bryant, Emerson, Poe, Hawthorne, and Melville.

4-ENG 217. AMERICAN LITERATURE: THE CIVIL WAR TO 1914. *Four hours credit.*

A study of selected American writers and/or themes from the years 1865 to 1914.

4-ENG 218. EARLY VICTORIAN PROSE AND POETRY. *Four hours credit.*

A survey course covering a number of early Victorian writers and the themes running through their writings. Special emphasis upon major intellectual currents of the age, such as Utilitarianism, Transcendentalism, Medievalism, and attitudes toward science and technology.

4-ENG 219. LATER VICTORIAN PROSE AND POETRY. *Four hours credit.*

A survey course covering a number of later Victorian writers and the themes running through their writings. Special emphasis upon intellectual currents of the age, such as the dilemmas raised by industrialism, the increasing impact of science, the new aestheticism, and higher criticism.

4-ENG 290. ENGLISH LITERATURE: 1900 TO 1939. *Four hours credit.*

A study of English literature from approximately 1900 to the beginning of World War II, as selected by the instructor.

4-ENG 291. ENGLISH LITERATURE: 1940 TO THE PRESENT. *Four hours credit.*

A study of English literature from approximately 1940 to the present, as selected by the instructor.

4-ENG 295. AMERICAN LITERATURE: 1914-1939. *Four hours credit.*

An intensive study of selected American writers and/or themes of the years 1914-1939.

4-ENG 296. AMERICAN LITERATURE: 1940 TO THE PRESENT. *Four hours credit.*

An intensive study of selected American writers and/or themes of the years 1940 to the present.

4-ENG 290. LECTURES ON LITERARY THEMES. *Two hours credit. (Maximum eight hours credit.)*

The study of several works of literature centered around a specific theme. Topics will be designated by subtitle. No subtitle may be taken more than once for credit.

1-ENG 240. CREATIVE WRITING: INTRODUCTION TO POETRY. *Four hours credit.*

An introduction to the techniques involved in writing.

1-ENG 241. CREATIVE WRITING: INTRODUCTION TO FICTION. *Four hours credit.*

An introduction to the techniques involved in writing fiction.

4-ENG 301. SHAKESPEARE: EARLY PLAYS. *Four hours credit.*

The reading and understanding of the early plays of Shakespeare.

4-ENG 302. SHAKESPEARE: LATER PLAYS. *Four hours credit.*

The reading and understanding of the later plays of Shakespeare.

1-ENG 319. ADVANCED EXPOSITORY WRITING. *Four hours credit.*

Prerequisites, ENG 101, 102. 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.

1-ENG 320. THE ENGLISH LANGUAGE. *Four hours credit.*

A history of the development of the English language, the historical basis of usage and grammar and the sources of the English vocabulary.

1-ENG 321. GENERATIVE-TRANSFORMATIONAL GRAMMAR. *Four hours credit.*

Prerequisite, ENG 320. A study of the generation of English sentences: blocks, kernels (phrase-structure rules), transformations (single and double base); conceptual postulates, operations, and processes underlying a generative-transformational grammar.

1-ENG 322. DISCOURSE STRUCTURE. *Four hours credit.*

Prerequisite, one previous language course or permission. An introduction to the principles of tagmemics as applied to both language and behavior; the grammatical structure of units of discourse, with especial emphasis on narratives and the expository paragraph. Students especially proficient in writing may substitute this course for Advanced Expository Writing.

4-ENG 325. STUDIES IN SCIENCE FICTION. *Four hours credit.*

Reading and discussion of works of science fiction and a view of science fiction's history and relevance.

1-ENG 340. CREATIVE WRITING: ADVANCED POETRY. *Four hours credit.*

Prerequisite, ENG 240 or permission of instructor. A course for students to improve their writing of poetry.

1-ENG 341. CREATIVE WRITING: ADVANCED FICTION. *Four hours credit.*

Prerequisite, ENG 241 or permission of instructor. A course for students to improve their writing of fiction.

4-ENG 360. CHAUCER. *Four hours credit.*

An introduction to the language and literature of Geoffrey Chaucer.

4-ENG 401. GREEK AND COMPARATIVE MYTHOLOGY. *Four hours credit.*

A study of Greek myths as one of the important sources of literary allusion and imagery and a comparison of Greek myths with those of other cultures to show what is common to all mythologies.

4-ENG 402. THE SHORT STORY. *Four 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.

4-ENG 403. 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.

4-ENG 404. MODERN LITERATURE ABOUT CHILDHOOD AND ADOLESCENCE. *Four hours credit.*

A study of the concept of childhood and adolescence in the writing of twentieth-century British and American authors, with emphasis on the ideas of innocence and initiation.

4-ENG 405. CONTEMPORARY AMERICAN DRAMA. *Four hours credit.*

A comprehensive view of the best dramatic literature of the modern American theater.

4-ENG 406. MODERN DRAMA SINCE IBSEN. *Four 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.

4-ENG 407. ADVANCED STUDIES IN 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.

4-ENG 408. 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.

4-ENG 409. LITERARY CRITICISM. *Four hours credit.*

A study of the theory and history of literary criticism from Plato to Wayne C. Booth, with some application of critical theory.

4-ENG 410. HISTORY OF IDEAS IN LITERATURE. *Four hours credit.*

An intensive chronological study of various of the significant themes in literature.

4-ENG 411. BIOGRAPHY AND AUTOBIOGRAPHY. *Four hours credit.*

A selection of critical essays concerning the genre of biography and autobiography followed by the reading of 7 or 8 widely varied examples. Particular interests of individual students in the class will be considered.

4-ENG 415. LITERATURE OF THE OLD TESTAMENT. *Four 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.

4-ENG 416. LITERATURE OF THE NEW TESTAMENT. *Four 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.

1-ENG 418. GRAMMATICAL ANALYSIS. *Four hours credit.*

A study and comparison of grammatical systems that have been devised for the description of the English language. Approximately equal time will be given to the theoretical formulations and assumptions underlying structural, and traditional grammars. Some time will be spent surveying the tests that advocate each system.

1-ENG 419. ADVANCED TOPICS IN SYNTAX. *Four hours credit.*

Prerequisite, ENG 321. A study of selected topics of concern to current linguistic theory. Topics selected will be studied from two currently opposed generative-transformational positions.

1-ENG 420. STYLISTICS. *Four hours credit.*

Prerequisite, ENG 321. A study of the linguistic bases of stylistics, with special attention to the properties of literature and literary texts. The three major twentieth century theoretical stances will be considered.

4-ENG 430. STUDIES IN WORLD LITERATURE. *Four to twelve hours credit.*

The study of a particular theme, form or problem that cuts across periods and national boundaries. Topic will be designated by subtitle. No subtitle may be taken more than once for credit.

4-ENG 440. LITERATURE AND THE DEATH OF THE GODS. *Four hours credit.*

A consideration of what has been called "the death of God," especially as has been attested to by late 19th-century and 20th-century writers.

4-ENG 441. COLLOQUIUM IN LITERATURE. *Four to twelve hours credit.*

The study of one great work of 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 students and the interest of the instructor. Particular studies will be designated by subtitles. No subtitle may be taken more than once for credit.

4-ENG 450. STUDIES IN RUSSIAN LITERATURE. *Four hours credit.*

A study of selected Russian writers to acquaint students with Russia's unique culture and social milieu.

ENVIRONMENTAL STUDIES

4-ENST 110. INTRODUCTION TO ENVIRONMENTAL STUDIES. *Three hours credit.*

This course is designed to introduce beginning students to the environmental

problems. It will provide the student with an overall understanding of the complexity of these problems. The interdisciplinary approach will provide a broad foundation for group discussions and student-faculty interchange.

3-ENST 120. MAN'S ATTITUDE TOWARD HIS PHYSICAL AND SOCIAL ENVIRONMENTS. *Three hours credit.*

Prerequisite, ENST 110 recommended. This course will study the nature of attitude formation and change with particular reference to the development and relationship of western man's "unecological" attitudes to current environmental problems. The practicality and morality of inculcating "ecologically fit" attitudes in the young and of modifying "unecological" attitudes in adults will be explored.

5-ENST 210. SCIENCE OF THE ENVIRONMENT. *Three hours credit.*

A study of the chemical and physical aspects of pollution and the environment, and the basis for improvement, limited by chemical and physical laws.

5-ENST 220. POPULATION DYNAMICS AND GENETIC PROBABILITIES. *Three hours credit.*

Methods of animal population analysis with particular reference to human populations. Includes consideration of population size, its regulation and factors influencing changes in size; statistical methods applicable to population studies; genetic variation within populations and between different populations, and lateration of the gene pool with its implications for the future of man.

3-ENST 230. ECONOMICS OF NATURAL RESOURCES. *Three hours credit.*

Concepts, theories and institutions relating to both public and private resource use and policy; analytical methods for evaluating alternative resource use patterns in both the public and private sector.

3-ENST 240. POLITICS AND THE ENVIRONMENT. *Three hours credit.*

An intensive study of environmental destruction which has emerged as one of the most salient political issues for policy-makers in this era. Policies, laws, and their consequences are investigated as well as the local, state, and national political processes and institutions insofar as they affect the environment.

5-ENST 250. MAN'S ATMOSPHERIC AND GEOLOGICAL ENVIRONMENT.

Three hours credit.

The structure and nature of the atmosphere as it relates to man and his varied activities; climate modification; water and mineral resources and their management; geological considerations in urban planning, including hazards such as earthquakes, landslides and flood control.

5-ENST 260. ECOLOGICAL INTERPRETATIONS. *Three hours credit.*

This course is based on recognition of the existence of functional and structural ecosystems. The interpretation of these systems in relation to man's survival is the main aim of this course.

3-ENST 270. SOCIAL IMPLICATIONS OF ECOLOGY. *Three hours credit.*

A view of ecology as it applies to human groups, particularly in the urban setting, and the value system associated with present ecological practices: consumership, materialism, alienation. Galbraith's social balance and the tactics of community organization and change agents.

5-ENST 280. NATURAL RESOURCES AND TECHNOLOGY. *Three hours credit.*

This course is a study of the rise of agricultural, industrial, domestic, transportation and environmental technologies and their impact on natural resources and the environment.

5-ENST 300. THE GENERAL SYSTEMS APPROACH. *Four hours credit. (Three hours lecture, two hours laboratory.)*

The course is designed to introduce the student to General Systems Theory. The systems approach and the IBM 370 computer will be employed to solve selected environmental problems. Emphasis will be placed on the general systems approach as an analysis and management tool to serve as a basis for making decisions pertinent to a sanative coexistence between man and the natural environment.

5-ENST 310. FUTURE ENVIRONMENTS AND ECOSYSTEM MODIFICATION. *One hour credit.*

Prerequisites, all 100 and 200 ENST courses. This course will be concerned with man's place in future environments, which result from ecosystem modification. Topics to be included are: Crisis in the city, organism adaptability, economic and social pattern and environmental impact planning and development.

5-ENST 350. ENVIRONMENTAL POLLUTION AND MAN'S HEALTH. *Three hours credit.*

This course is designed to acquaint the student with many of the current environmental problems and relate how these problems directly or indirectly affect the health of man.

4-ENST 361. ART AND THE ENVIRONMENT. *Three hours credit.*

An in-depth identification with the process of art as it relates to the different environments of human existence.

EARTH SCIENCE

5-ESCI 100. INTRODUCTION TO EARTH SCIENCE TEACHING. *Three hours credit.*

This course is designed to introduce beginning students in the teacher education programs to the broad aspects of the field of Earth Science, to present unifying concepts and principles of the total program, and to introduce students to the teaching of Earth Science.

5-ESCI 105. EARTH SCIENCE. *Three hours credit.*

The purpose of this course is to help students gain a basic understanding of some aspects of Planet Earth and its place in the Universe. Various topics, such as the Solar System, our weather, the origin of landscapes, oceans, space travel, air pollution, and continental drift, will be treated.

5-ESCI 111. EARTH SCIENCE MINI-COURSE. *One hour credit.*

A variety of specific Earth Science topics will be scheduled each quarter under this heading, and students will receive credit for as many different ones as they take. Most of the mini-course will be three weeks long.

5-ESCI 484. EARTH SCIENCES FIELD EXPERIENCES. *Maximum fifteen hours credit.*

Prerequisite, consent of instructor. In-depth field studies in astronomy, geology, meteorology, and/or oceanography in regions both within and outside the United States. Field work will be preceded by preparatory work on the UNC campus. Specific areas and topics to be investigated will be indicated in the Schedule of Classes each time the course is offered.

5-ESCI 490. SEMINAR IN EARTH SCIENCE. *Two hours credit.*

Prerequisite, consent of instructor. The unifying concepts and principles of the

earth sciences and various aspects of teaching earth science in secondary schools will be discussed in seminar format.

FINE ARTS

2-FA 100. DRAWING. *Three hours credit.*

The basic principles of drawing with emphasis on visual perception and technical procedures.

2-FA 102. FIGURE DRAWING. *Three hours credit.*

Prerequisite, FA 100. The principles of drawing applied to the human figure. Study from life emphasizing essential anatomy and aesthetic relationships.

2-FA 105. DESIGN THEORY. *Three hours credit.*

Introduction into philosophy of visual arts; development of basic understanding of purposes behind visual communication with some studio experiments using formal elements of design.

2-FA 106. DESIGN APPLICATION. *Three hours credit.*

Prerequisite, FA 105. Studio experiences with emphasis on process of designing and the use of materials and tools.

2-FA 108. DRAWING FOR NON-MAJORS. *Three hours credit.*

Specifically designed for students who have little or no experiences in art. Course will consist of studio work, field trips and discussion of works from slides, books and periodicals.

2-FA 110. ART HISTORY I. *Three hours credit.*

A survey course from pre-historic times through the exciting ancient civilizations up to the Holy Roman Empire.

2-FA 111. ART HISTORY II. *Three hours credit.*

A survey of man's artistic activity from the Roman Empire into the drama of the Renaissance and through the flowering of Rococo Art.

2-FA 112. ART HISTORY III. *Three hours credit.*

A study of art which occurred after Rococo, including the upheaval of the industrial revolution and bringing the survey to the present-day.

2-FA 113. LETTERING. *Two hours credit.*

A study of basic letter forms and their variants, layout and design, manuscript writing, showcards and posters.

2-FA 114. ELEMENTARY CRAFTS DESIGN. *Two hours credit.*

Various approaches and uses of simple paper construction suitable for use in the elementary art program.

2-FA 115. ELEMENTARY EARTHENWARE. *Two hours credit.*

A primitive approach to the making of objects in clay. The course will cover clay prospecting and preparation, clay forming methods, and firing without a kiln.

2-FA 203. INTRODUCTION TO WATERCOLOR PAINTING. *Three hours credit.*

Prerequisites, FA 100, 102, 105. Purposes and experience in painting with watercolor.

2-FA 207. PROBLEMS IN DESIGN. *Three hours credit.*

Prerequisites, FA 105, 106. Problems associated with form and function in design with emphasis on physical space.

2-FA 215. CRAFTS: DESIGN ON FABRICS. *Three hours credit.*

Prerequisites, FA 100, 102, 105. A study involving the process of silk screen, batik, hooking, stitchery, and weaving-without-a-loom with their relationship to textile design application.

2-FA 216. CRAFT EXPRESSION IN CONSTRUCTION. *Three hours credit.*

Prerequisites, FA 100, 102, 105. An experimental approach to the problems of working with contemporary materials in: mosaics, copper enameling, woodcraft, paper mache, modeling and carving.

2-FA 217. INTRODUCTION TO POTTERY. *Three hours credit.*

Prerequisites, FA 100, 102, 105, or permission of the instructor. The design and construction of pottery in coil and slab techniques with emphasis on form and texture. General background in clays, glazes, and firing.

2-FA 218. HANDLOOM WEAVING TECHNIQUES. *Three hours credit.*

A study of the basic fundamentals of threading and weaving on four harness looms: emphasis on the basic weaves.

2-FA 230. INTRODUCTION TO PAINTING. *Three hours credit.*

Prerequisites, FA 100, 102, 105, or permission of the instructor. A study of the basic principles and techniques of painting.

FA 224. ELEMENTARY ART. *Three hours credit.*

Practical creative experience in a wide variety of media. To be taken concurrently with FA 225. (Art majors and minors see FA 244-245.)

FA 225. METHODS OF TEACHING ART IN THE ELEMENTARY SCHOOL. *Two hours credit.*

Includes philosophy, teaching techniques, procedures, materials and evaluation. A brief experience in an elementary classroom provided where possible. To be taken concurrently with FA 224. (Art majors and minors see FA 244-245.)

2-FA 237. CERAMIC DESIGN. *Three hours credit.*

Prerequisite, FA 217 or permission of the instructor. An exploration of various methods of constructing large handbuilt forms with an emphasis on sculptural considerations.

FA 239. ART FOR THE EXCEPTIONAL CHILD. *Three hours credit.*

Experiences with materials and techniques in the arts are integrated with considerations of the aesthetic therapeutic values of creative activities for the exceptional child.

FA 244. ELEMENTARY ART FOR ART MAJORS AND MINORS. *Three hours credit.*

Practical experience in adapting the basic media and techniques of the artist to art activities for the elementary child. Restricted to art majors and minors. To be taken concurrently with FA 245.

FA 245. METHODS OF TEACHING AND COORDINATING ART IN THE ELEMENTARY SCHOOL. *Two hours credit.*

Includes philosophy, teaching techniques, procedures, materials and evaluation. A brief experience in an elementary classroom provided where possible. Restricted to art majors and minors. To be taken concurrently with FA 244.

2-FA 258. INTRODUCTION TO SCULPTURE. *Three hours credit.*

Prerequisites, FA 100, 102, 105, or permission of the instructor. Basic technology of sculpture, clay and plaster modeling, and simple mold-making. Elements of three-dimensional design related to sculpture problems.

2-FA 259. PRINTMAKING. *Three hours credit.*

Prerequisites, FA 100, 102, 105, or permission of the instructor. Technical instruction in traditional intaglio methods: Drypoint, Etching, Engraving, Mezzotint, Bitten lines, Soft ground, Lift ground, Aquatint.

2-FA 270. INTRODUCTION TO JEWELRY AND SILVERSMITHING. *Three hours credit.*

Prerequisites, FA 100, 102, 105, or permission of instructor. Basic forming forging, soldering, casting techniques and finishing incorporated in creative jewelry techniques.

2-FA 302. LIFE DRAWING. *Three hours credit.*

Prerequisites, FA 100, 102. Study from life emphasizing individual interpretation, pictorial composition, inventive media.

2-FA 303. WATERCOLOR PAINTING. *Three hours credit.*

Prerequisite, FA 203. Watercolor painting with special emphasis on composition and design.

2-FA 305. PROBLEMS IN ADVANCED DESIGN. *Three hours credit.*

Prerequisites, FA 105, 106, 207. Practical application of design theories with emphasis on individual student experiences.

2-FA 307. SCULPTURE: METHODS AND MATERIALS. *Three hours credit.*

Prerequisite, FA 258. Theoretical and practical experience in traditional and experimental approaches to making sculpture.

2-FA 308. SCULPTURE STUDIO. *Three hours credit.*

Prerequisite, FA 258. Individual application of design and technical skills in making sculpture.

2-FA 309. INTERMEDIATE PRINTMAKING. *Three hours credit.*

Prerequisites, FA 100, 102, 105, 259, or permission of the instructor. Creative intaglio methods: etching, drypoint, soft ground, lift ground, stenciling, touche, glue and light sensitive methods.

2-FA 310. ADVANCED INTAGLIO AND RELIEF PRINTMAKING. *Three hours credit.*

Prerequisites, FA 100, 102, 105, 259. Individual development in creative color printmaking. Color etching, mixed media mono and dry point.

2-FA 317. POTTERY. *Three hours credit.*

Prerequisite, FA 217. Introduction to throwing on the potter's wheel. Emphasis will be placed on techniques of centering, opening and raising clay into basic pottery forms.

2-FA 319. SILK SCREEN PRINTING PROCESS. *Three hours credit.*

Prerequisites, FA 100, 102, 105, 259. A study of various methods and techniques in the graphic process of silk screening, with applied problems in all the processes.

2-FA 320. OIL PAINTING STUDIO. *Three hours credit.*

Prerequisite, FA 220. Advanced study in oil painting to provide the student with more time to develop individual expression and mastery of the medium.

2-FA 331. INTERPRETIVE DRAWING. *Three hours credit.*

Prerequisites, FA 100, 102. Study from nature, still-life, imagination. Emphasis on individual interpretation, pictorial composition, inventive media.

2-FA 337. CERAMIC DESIGN. *Three hours credit.*

A study involving the application of various ceramic decorative processes to hand built and wheel thrown clay forms.

2-FA 331. WORKSHOP IN FINE ARTS. *Three hours credit.*

Workshops in specialized areas of Fine Arts conducted by specialists in the field. The subject to be completed in any one workshop will be determined by subtitle. No subtitle may be repeated for credit.

2-FA 337. GLAZE FORMULATION. *Three hours credit.*

Prerequisite, FA 217. An exploration of ceramic glazes as related to their use in pottery studio.

FA 339. LEADING IDEAS IN ART FOR TEACHERS. (Elem/Sec.) *Two hours credit.*

Prerequisite, two hours of EDFE 270. FA 339 must be completed prior to EDFE 365, Introduction to Student Teaching in the Secondary School, Fine Arts; FA 341, Methods of Teaching in the Secondary School, Fine Arts; and/or FA 244, Elementary Art for Art Majors and Minors; FA 245, Methods of Teaching and Coordinating Art in the Elementary School. The study of the philosophy of art education in American schools as an integral part of the education of the citizens of a democracy.

2-FA 340. CRAFT STUDIO. *Three hours credit.*

An in-depth workshop in one specific craft technique; developing skills and individual expression. Will be listed under separate sub-heading each session.

FA 341. METHODS OF TEACHING IN THE SECONDARY SCHOOL, FINE ARTS. *Three hours credit.*

Prerequisite, FA 339. This course is a prerequisite to student teaching. Includes curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the subject area to the total secondary program. Teaching techniques are a point of emphasis. Must be taken concurrently with EDFE 365.

2-FA 359. INTAGLIO AND RELIEF PRINTMAKING. *Three hours credit.*

Prerequisites, FA 100, 102, 105, 259. Problems in intaglio printmaking including technical process, etching and monoprints.

2-FA 360. ANCIENT NEAR EASTERN ART. *Three hours credit.*

A survey of ancient civilizations of the Near East that attempts to understand more clearly the arts and history of these people. From Pre-Historic to Alexander the Great.

2-FA 361. ISLAMIC ART. *Three hours credit.*

A survey of the art of the Islam which will establish the vastly important influences of Islamic Art and their relationships to the West.

2-FA 362. FAR EASTERN ART. *Three hours credit.*

The exploration of the important cultures of the East and their visual manifestations.

2-FA 363. PRE-COLUMBIAN ART. *Three hours credit.*

A study of the ancient civilizations of the American continents in order to expose the student to a rich heritage of art.

2-FA 364. MEDIEVAL ART. *Three hours credit.*

A detailed study of the 12th, 13th and 14th century art as it relates to Medieval philosophy.

2-FA 365. CLASSICAL ART. *Three hours credit.*

An in-depth study of classical art.

2-FA 366. RENAISSANCE ART. *Three hours credit.*

A detailed study of Renaissance Art with emphasis on the humanistic aspects.

2-FA 367. BAROQUE ART. *Three hours credit.*

An in-depth study of the Art of Mannerism and Baroque.

2-FA 368. PRIMITIVE ART. *Three hours credit.*

An in-depth study of the concepts and cultures of primitive art.

2-FA 370. JEWELRY DESIGN AND SILVERSMITHING. *Three hours credit.*

Prerequisite, FA 270. Basic casting design and techniques including charcoal, sand and centrifugal casting together with methods of stone setting.

2-FA 380. NINETEENTH CENTURY ART. *Three hours credit.*

The development of the art of the western world through the nineteenth century from the revivalist styles to the brink of modern art.

2-FA 381. MODERN ART 1905-1945. *Three hours credit.*

An in-depth survey of the major art movements of the first half of the twentieth century from the development of Matisse and Picasso through Surrealism.

2-FA 382. MODERN ART 1945 TO PRESENT. *Three hours credit.*

An in-depth survey of the major avant-garde art movements in the United States and Europe since 1945.

2-FA 390. CONTEMPORARY IMAGERY AND IDEAS. *Three hours credit.*

A study of current imagery and ideas prevalent in the main stream of contemporary aesthetic practice.

2-FA 402. LIFE DRAWING. *Three hours credit.*

Prerequisite, FA 302. Study from life emphasizing individual interpretation, pictorial composition, inventive media.

2-FA 403. WATERCOLOR PAINTING. *Three hours credit.*

Prerequisite, FA 303. Individual problems in water mediums with special emphasis on specific techniques, materials, and design objectives suitable for developing personal expression.

2-FA 405. PROBLEMS IN ADVANCED DESIGN. *Three hours credit.*

Prerequisite, FA 305. Practical application of design theories with emphasis on individual student experiences.

FA 406. SPECIAL PROBLEMS IN ART EDUCATION. *Three hours credit.*

Supervised research and reporting of student design and originated problems in art education.

2-FA 407. SCULPTURE: METHODS AND MATERIALS. *Three hours credit.*

Prerequisites, FA 258, 307. Theoretical and practical experience in traditional and experimental approaches to making sculpture.

2-FA 408. SCULPTURE STUDIO. *Three hours credit.*

Prerequisites, FA 258, 308. Individual application of design and technical skills in making sculpture.

2-FA 409. INTERMEDIATE PRINTMAKING. *Three hours credit.*

Prerequisite, FA 309. Advanced creative intaglio methods; etching, drypoint, sugarlift ground, mixed media with monoprint, photo engraving.

2-FA 410. ADVANCED INTAGLIO AND RELIEF PRINTMAKING. *Three hours credit.*

Prerequisite, FA 310. Advanced color intaglio and relief printmaking. Woodcut, etching and monoprint mixed media.

2-FA 415. CRAFTS: DESIGN ON FABRICS. *Three hours credit.*

Prerequisite, FA 215. Exploring old and new techniques of fabric decoration.

2-FA 416. CRAFT EXPRESSION IN CONSTRUCTION. *Three hours credit.*

Prerequisite, FA 216. Experimental approach to the problems of working with contemporary materials in mosaics, copper enameling, wood craft, paper mache, modeling and carving.

2-FA 417. POTTERY. *Three hours credit.*

Prerequisite, FA 317. Intermediate throwing on the potter's wheel. The forming of bowls, vases, pitchers, lidded pots and related forms with experience in stacking and firing combustible fuel kilns.

2-FA 418. HAND LOOM WEAVING TECHNIQUES. *Three hours credit.*

Prerequisite, FA 218. Investigation and exploration of the various techniques suitable for present-day weaving.

2-FA 419. SILK SCREEN PRINTING PROCESS. *Three hours credit.*

Prerequisite, FA 319. Laboratory problems in practical advertising design with emphasis on mass media with silk screen print.

2-FA 420. OIL PAINTING STUDIO. *Three hours credit.*

Prerequisite, FA 320. Advanced study in oil painting to provide the student with more time to develop individual expression and mastery of the medium.

2-FA 421. INTERPRETIVE DRAWING. *Three hours credit.*

Prerequisite, FA 321. Study from nature, still-life, imagination. Emphasis on individual interpretation, pictorial composition, inventive media.

FA 422. INDIVIDUAL STUDIES, FINE ARTS. *One to four hours credit.*

Individual studies in fine arts.

2-FA 425. FIGURE PAINTING STUDIO. *Three hours credit.*

Prerequisites, FA 220, 302. Painting from the human figure.

2-FA 427. CERAMIC DESIGN. *Three hours credit.*

A study of mold making techniques. Plaster, wood, cardboard and related materials will be used in the forming of clay objects.

FA 430. SEMINAR IN ART EDUCATION (Elem/Sec.). *Two hours credit.*

Prerequisite, EDFE 460. Research of philosophical issues in contemporary elementary and secondary art education.

FA 432. THE CURRICULUM IN ART EDUCATION. *Three hours credit.*

Prerequisite, EDFE 460. A course designed to help the student understand the preparation of curriculums for use at the level of his educational emphasis.

2-FA 433. MIXED MEDIA PAINTING STUDIO. *Three hours credit.*

Prerequisite, FA 220. Experimental approaches to problems in painting emphasizing a variety of media and techniques.

2-FA 437. GLAZE FORMULATION. *Three hours credit.*

Prerequisite, FA 337. A study of clay and clay bodies for studio use. Emphasis will be combining clays to suit the various needs of the individual potter and general classroom needs.

2-FA 459. INTAGLIO AND RELIEF PRINTMAKING. *Three hours credit.*

Prerequisite, FA 359. Advanced creative intaglio printmaking including advanced technical process and monoprint mixed media, photo engraving.

2-FA 470. JEWELRY DESIGN AND SILVERSMITHING. *Three hours credit.*

Prerequisite, FA 370. An experimental approach to the problem of contemporary silver jewelry, including the exploration of combining wood, bone, and stones.

**UNC PROGRAM IN COMPARATIVE
ARTS/FINE ARTS**

FA 308. SCULPTURE STUDIO-IN FLORENCE. *Three hours credit.*

Individual application of design and technical skill in making sculpture. Emphasis is on significant form and expression.

FA 320. OIL PAINTING STUDIO-IN FLORENCE. *Three hours credit.*

Advanced study in oil painting to provide the student with more time to develop individual expression and mastery of the medium.

**FA 331. WORKSHOP IN FINE ARTS: MOSAICS, INTAGLIO, AND INTARSIO-
IN FLORENCE.** *Three hours credit.*

Will meet for six hours a week to study the technical application and historical background of these techniques.

**FA 331. WORKSHOP IN FINE ARTS: FILMMAKING AND PHOTOGRAPHY
TECHNIQUES-IN FLORENCE.** *Three hours credit.*

Will meet for six hours a week and give the basic techniques of filmmaking and photographic processes. Stress will be on the observation of those artistic patterns that go beyond normal photography.

FA 340. CRAFT STUDIO-IN FLORENCE. *Three hours credit.*

An in-depth workshop in one specific craft technique; developing skills and individual expression. The course will be listed under separate sub-heading each session.

FA 359. INTAGLIO AND RELIEF PRINTMAKING-IN FLORENCE.

Three hours credit.

Problems in intaglio printmaking including technical process, etching and monoprints.

FA 365. CLASSICAL ART-IN FLORENCE. *Three hours credit.*

An in-depth study of classical art.

FA 367. BAROQUE ARTS-IN FLORENCE. *Three hours credit.*

An in-depth study of the Art of Mannerism and Baroque styles.

FA 396. DANTE, GIOTTO, AND GIOVANNI PISANO-IN FLORENCE. *Three hours credit.*

A study of similarities found in different artistic media, and the search for an environment common to all the artists of the Middle Ages.

FA 396. SEMINAR IN THE ARTS-IN FLORENCE. *Three hours credit.*

Intercultural team-teaching seminar in which all artistic problems will be analyzed and discussed.

FA 396. WORKSHOP IN CRAFTS-IN FLORENCE. *Three hours credit.*

Designed for advanced students only with techniques of various crafts of the area being introduced.

FA 396. MONOGRAPHS ON LIVING FLORENTINE ARTISTS-IN FLORENCE.

Three hours credit.

Limited to advanced students; worked on an individual one-to-one basis; each study will reflect the fruits of the collaboration between the artist and the student.

FA 396. MUSEUM SCIENCE AND RESTORATION OF WORKS OF ART-IN FLORENCE. *Three hours credit.*

A behind-the-scene study of museum organization, architectonic design, illumination problems, logistics of movement, selection problems, and advantage of the expertise of one of the world's foremost laboratories for restoration of art.

FA 396. CONTEMPORARY ART-IN FLORENCE. *Three hours credit.*

A look at modern works connecting the past and the present.

FA 396. HISTORY OF ARCHITECTURE-IN FLORENCE. *Three hours credit.*

Study of Italian architecture from Classical and Etruscan to modern architecture.

FA 396. RENAISSANCE SCULPTURE-IN FLORENCE. *Three hours credit.*

A study of the culture at that particular period of time and how it is manifest through the sculptures studied, conducted in class as well as in related museums. A critical and philosophical analysis is made, connecting the past and the present.

FA 396. RENAISSANCE PAINTING-IN FLORENCE. *Three hours credit.*

A study of the culture at that particular period of time and how it is manifest through the painting studied, conducted in class as well as in related museums, etc. A critical and philosophical analysis is made, connecting the past and the present.

FA 396. MEDIEVAL TUSCAN ART-IN FLORENCE. *Three hours credit.*

A study of the art of the Middle Ages as compared to the writings and philosophies of the time. Classes will often be held in churches and museums.

FA 396. COMPARATIVE URBANISTICS-IN FLORENCE. *Three hours credit.*

A study of the science of urbanistics as it relates to the different cultural patterns; the class is conducted so that urbanistics can be read as an artistic language.

FA 396. MUSEUM AND STUDIO EXPERIENCES-IN FLORENCE. *Three hours credit.*

An opportunity to absorb unhurriedly and privately the communications offered by the works of museums; in smaller groups, students will be able to learn firsthand various aspects, problems, techniques and philosophies of practicing artisans, artists and craftsmen and their work through visits to their studios.

FA 406. SCULPTURE STUDIO-IN FLORENCE. *Three hours credit.*

Individual application of design and technical skills in making sculpture. Emphasis is on significant form and expression.

FA 420. OIL PAINTING STUDIO-IN FLORENCE. *Three hours credit.*

Advanced study in oil painting to provide the student with more time to develop individual expression and mastery of the medium.

FA 430. SEMINAR IN ART EDUCATION-IN FLORENCE. *Two hours credit.*

Research and philosophical issues in contemporary elementary and secondary art education.

FA 459. INTAGLIO AND RELIEF PRINTMAKING-IN FLORENCE. *Three hours credit.*

Advanced creative intaglio printmaking including advanced technical process and monoprint mixed media.

FOREIGN LANGUAGES

1-FL 131. FOREIGN LANGUAGE HOUSE. *One hour credit.*

Prerequisite, permission of the department. This course is designed to give students a practical experience in the use of their foreign language. Students speak their language at all times and participate in various activities sponsored by the Language House. Opportunities to learn about the culture of the countries, as well as to develop a fluency in the language, are provided. Course may be repeated for a total of three hours credit.

FL 331. TEACHING FOREIGN LANGUAGE IN THE ELEMENTARY SCHOOL.

One to three hours credit.

Prerequisite, intermediate standing or permission. Students will cooperate in planning, creating and presenting foreign language materials in a clinic capacity at the elementary level. The emphasis will be oral.

FL 341. METHODS OF TEACHING IN THE SECONDARY SCHOOL. (PTE)

Three hours credit.

Prerequisite to student teaching. Taken in the department in which student teaching is done. Includes curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the subject area to the total secondary program. Teaching techniques are a point of emphasis.

1-FL 410. LINGUISTICS. *Three hours credit.*

A brief survey of the world's chief languages, their geographical distribution, main cultural features and appearance. In more detail, classification of the Indo-European languages, with particular stress on historical development, basic grammatical structure, resemblances, differences and relationships of English, French, German and Spanish.

FL 431. THE TEACHING OF FOREIGN LANGUAGES. *Four hours credit.*

Prerequisite, two years of foreign language. A study of problems in the teaching of foreign languages at the secondary and elementary school levels. Includes development of content for course of study, organization of learning materials, procedures in teaching, testing and evaluating.

FL 432. TEACHING FOREIGN LANGUAGE IN THE ELEMENTARY SCHOOL.

Three hours credit.

Especially for teachers of the elementary school level, but including all levels of instruction. A study of today's practical values, aims, methods, approaches, procedures, and means and materials for attaining success in teaching modern foreign languages.

FRENCH

1-FR 101. ELEMENTARY FRENCH I. *Five hours credit.*

Summer Quarter: Must enroll for FR 102 and 103. 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.

1-FR 102. ELEMENTARY FRENCH II. *Five hours credit.*

Summer Quarter: Must enroll for FR 101 and 103. A continuation of FR 101.

1-FR 103. ELEMENTARY FRENCH III. *Five hours credit.*

Summer Quarter: Must enroll for FR 101 and 102. A continuation of FR 102.

1-FR 201. INTERMEDIATE FRENCH I. *Four hours credit.*

Prerequisite, two years of high school French or one year of college French. Grammar review, study of idioms, imitative composition. Drill in use of the phonetic alphabet.

1-FR 202. INTERMEDIATE FRENCH II. *Four hours credit.*

Prerequisite, two years of high school French or one year of college French. This course aims at developing the student's ability to express himself in correct and idiomatic French. (This course may be taken without having had FR 201.)

1-FR 203. INTERMEDIATE FRENCH III. *Four hours credit.*

Prerequisite, two years of high school French or one year of college French. Reading of one play and several short stories, with exercises and discussion in French based on the reading. (This course may be taken without having had FR 201 and 202.)

FR 280. SEMINAR IN FRENCH DRAMA. *Three hours credit.*

To give students an opportunity to study the various dramatic forms found in French literature. Students will stage scenes from the works studied both in class and publicly as an evening performance. Material will be selected from the seventeenth, eighteenth and nineteenth centuries.

1-FR 310. INTERMEDIATE FRENCH CONVERSATION. *Three hours credit.*

Prerequisite, two years of college French. A course designed to increase the ability of each student to use spoken French in everyday situations. A study of some of the principles of French diction will be included. The course will be conducted in French.

1-FR 311. INTERMEDIATE FRENCH COMPOSITION. *Three hours credit.*

Prerequisite, two years of college French. A course designed to perfect the student's ability to express himself in French, through the use of translation passages and free compositions, and to provide an active review of certain grammatical problems. The class will be conducted in French.

1-FR 312. INTERMEDIATE FRENCH SYNTAX AND STYLISTICS. *Three hours credit.*

Prerequisite, two years of college French. A study of the more complex elements of French syntax and the common difficulties incurred in sentence structure. A study of styles employed in French literature, and the methods of studying them. The class will be conducted in French.

4-FR 318. LITERATURE OF THE MIDDLE AGES AND THE RENAISSANCE.
Three hours credit.

Prerequisite, two years of college French. FR 415 recommended previous to this course. A study of French literature from its beginnings in the Middle Ages through its development during the Renaissance. The selected readings will be examined within their historical and cultural context. The class will be conducted in French.

4-FR 319. SEVENTEENTH AND EIGHTEENTH CENTURY MORALISTS.
Three hours credit.

Recommended prerequisite, FR 415. This course treats the predominant literary trends of the 17th and 18th centuries that were represented by the moralists. The major dramatists and essayists who represent this trend, such as Moliere, Pascal, La Rochefoucauld, La Fontaine, Montesquieu, Diderot and Voltaire will be studied. The course will be conducted in French.

4-FR 320. NINETEENTH CENTURY FRENCH PROSE. *Three hours credit.*

Prerequisite, two years of college French or equivalent. The rise of French prose in the form of the novel, the short story and the theatre from post-revolutionary France to the beginning of the twentieth century. The course will be conducted in French.

4-FR 325. THE ROMANTIC MOVEMENT. *Three hours credit.*

Prerequisite, two years of college French. FR 415 recommended previous to this course. This course deals with the French romantic movement from its beginnings in the 18th century to its rise and fall in the 19th century. The course will be conducted in French.

1-FR 400. PROBLEMS IN ORAL FRENCH. *Three hours credit.*

Prerequisite, two years of college French, or equivalent. To enable the student to reach a high level of accuracy and fluency in oral French. Time will be spent working on individual problems so that each student will be able to correct and strengthen his particular shortcomings. French phonetics will also be studied.

FR 401. STUDY ABROAD PROGRAM: COURSEWORK. *Eight hours credit.*

Prerequisite, two years college French or permission of the department. This course is designed to give students a practical experience in the use of French. Study will include formal instruction in conversation, composition, and culture at the foreign study center. To be taken with FR 402.

FR 402. STUDY ABROAD PROGRAM: PROJECT. *Four hours credit.*

Prerequisite, two years college French or permission of the department. This course is designed to give students an opportunity to research the contemporary and historical cultural phenomena of France through the completion of an area studies project in the region of the study center. This course is to be taken with FR 401.

4-FR 410. FRENCH CIVILIZATION. *Three hours credit.*

Prerequisite, two years of college French. The study of French civilization and culture, including the historical, economic, political, and artistic development of the country from prehistoric times to the present. The class will be conducted in French.

3-FR 411. CONTEMPORARY FRANCE. *Three hours credit.*

Prerequisite, two years college French. The study of the customs and institutions of modern France, including the investigation of social customs, the educational political and economic systems, and the activities which make up the life style of the contemporary Frenchman. The course will be conducted in French.

4-FR 415. EXPLICATION DE TEXTES. *Three hours credit.*

Prerequisite, two years of college French. The study of the French method of

studying literature called "explication de textes," which includes a discussion of the different literary genres and the analysis of the individual literary selections representing these genres. The class will be conducted in French.

1-FR 430. ADVANCED CONVERSATION. *Three hours credit.*

Prerequisite, FR 310 or permission of instructor. A course designed to promote fluency in conversation beyond the level of the everyday situation. Topics of current interest will be discussed and additional vocabulary and idiomatic expressions studied. The course will be conducted in French.

1-FR 421. ADVANCED GRAMMAR. *Three hours credit.*

Prerequisite, FR 312 or permission of instructor. A course designed to help the student understand the more difficult grammatical structures of the language and their use in basic sentence patterns. Special emphasis will be placed on structures which present special difficulties in the teaching of the language. The course is conducted in French.

FR 422. INDIVIDUAL STUDIES. *One to four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

4-FR 450. TWENTIETH CENTURY FRENCH THEATER. *Three hours credit.*

Prerequisite, two years of college French. The main currents of French theater in the twentieth century; including the Avant-Garde movement. Emphasis will be placed on Cocteau, Giraudoux, Montherlant, Anouilh, Sartre, Camus and Ionesco. The class will be conducted in French.

4-FR 451. TWENTIETH CENTURY FRENCH PROSE. *Three hours credit.*

Prerequisite, two years of college French. The main currents of French prose in the twentieth century. Emphasis will be placed on Gide, Proust, Mauriac, Malraux, St-Exupery, Sartre, Camus, and the "nouveau roman" novelists. The class will be conducted in French.

4-FR 459. TRENDS IN FRENCH POETRY. *Three hours credit.*

Prerequisite, permission of instructor. The study of the major poetic movements from the sixteenth to the twentieth century including the Pleiade, the Romantic movement, symbolism and contemporary poetry. The class is conducted in French.

FR 490. FRENCH FOR READING KNOWLEDGE I. *No credit.*

Prerequisite, none. The course will be conducted to help graduate students prepare for the Ph.D. language reading examination in French. The basic grammatical structures of the language will be introduced from a traditional viewpoint.

GEOGRAPHY

3-GEOG 100. WORLD GEOGRAPHY. *Five hours credit.*

World survey of the interrelationships of man and his culture to the climates, animal life, minerals, soils and surface features of the earth.

3-GEOG 120. PHYSICAL GEOGRAPHY I. *Three hours credit.*

The study of the relationship between man and his physical environment, with an emphasis on the climatic and edaphic qualities of the earth.

3-GEOG 121. PHYSICAL GEOGRAPHY II. *Three hours credit.*

The study of the relationship between man and his physical environment, with an emphasis on landforms -- their characteristics, distribution, and effects upon human settlement.

3-GEOG 122. CULTURAL GEOGRAPHY I. *Three hours credit.*

Cultural Geography directs its attention to the origin, distribution, and influence of those elements of culture which give characteristic expression to an area; literally, man's role of adapting to and modifying his natural environment through his varying cultural means to suit his own needs and desires. "Relating habits to habitats."

3-GEOG 123. CULTURAL GEOGRAPHY II. *Three hours credit.*

The study of man's economic basis as found in the development and utilization of those natural resources at his disposal. Emphasis will be given to man's use of commodities derived from the sea and forest, agriculture, mining and manufacturing. A basic approach to studying human response to the provisions of nature as it relates to cultural development.

3-GEOG 148. ANGLO-AMERICA. *Five hours credit.*

A study of regions and their interdependence. Land use, social and economic problems emphasized.

3-GEOG 310. STATISTICAL METHODS IN GEOGRAPHY. *Three hours credit.*

An introductory course in basic statistical methods, developed and applied in terms of geographical problems.

3-GEOG 312. ECONOMIC GEOGRAPHY. *Five hours credit.*

Geographic and economic conditions affecting the products, industries, commerce and resources of the world. Special emphasis on the United States.

3-GEOG 318. 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.

3-GEOG 326. AFRICA. *Five hours credit.*

Relationships between the physical and cultural patterns. Land use, resource development, social and political problems.

3-GEOG 336. GEOGRAPHY OF MEXICO AND THE CARIBBEAN. *Three hours credit.*

An analysis and comparison of Mestizo Mexico and the highly varied islands of the Caribbean with their strong European-African heritage. Emphasis is placed on social and economic problems of Mexico as well as her role as a leading Latin American country.

3-GEOG 337. GEOGRAPHY OF CENTRAL AMERICA. *Three hours credit.*

A study of the physical and cultural conditions of the Central American countries. Attention will be given to current economic and social problems facing these populations.

3-GEOG 338. SOUTH AMERICA. *Three hours credit.*

A study of the countries of the South American continent. Physical features and patterns will be analyzed but the major emphasis in the course will be upon such cultural characteristics as land utilization, agriculture, resource development, settlement and migration patterns and processes of industrialization.

3-GEOG 343. EUROPE. *Three hours credit.*

Physical and cultural patterns. The nations of Europe, their regions, cultures, social and economic organizations with resulting conflicts.

3-GEOG 344. ASIA. *Three hours credit.*

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

3-GEOG 348. PHYSICAL GEOGRAPHY OF THE UNITED STATES. *Four hours credit.*

Prerequisites, GEOG 120 and 121 or permission of instructor. The study of the major climatic, edaphic, vegetational, and landform patterns of the United States, with an emphasis on Colorado. Weekend field trip.

3-GEOG 350. GEOGRAPHY OF COLORADO. *Three hours credit.*

A study of the geographical and human resources of Colorado. The course is concerned with the physical features, climate, landform regions and natural resources of the state and their utilization and conservation; agricultural, mining, manufacturing, water supply, transportation, commerce and industry; population problems, state government and current problems in the growth and development of Colorado.

3-GEOG 353. GEOGRAPHY OF THE GREAT PLAINS. *Two hours credit.*

A study of the physical and cultural landscapes of the great plains. Emphasis will be placed on the unifying character of the physical environment and those aspects of culture that have contributed in making this a distinct geographic region.

3-GEOG 355. POPULATION GEOGRAPHY. *Three hours credit.*

Investigates the distribution of world population through the related topics of migration, settlement, urbanization and utilization of natural resources.

3-GEOG 356. AGRICULTURAL GEOGRAPHY. *Two hours credit.*

An analysis of numerous agricultural systems, including subsistence and commercial, tropical and mid-latitude examples. Students will investigate the relationship of agricultural systems to physical and cultural conditions.

3-GEOG 357. TRANSPORTATION GEOGRAPHY. *Three hours credit.*

A study of the mechanism of areal exchange, emphasizing modes and networks of transportation and their effect on the spatial distribution of human activities.

3-GEOG 360. POLITICAL GEOGRAPHY. *Three hours credit.*

The study of political phenomena as it relates to a particular geographic setting. Considerable attention will be given to answering the question of "what politico-geographic factors contribute to the strength or weakness of states?" Topics of study will include: concept of territorial expansion, global overpopulation, national resources, territorial sea, and warfare. Adequate time will be devoted to class discussion.

3-GEOG 364. MAPS AND THEIR USES. *Two hours credit.*

The course presents the basis for an effective use of maps and globes. It is designed to develop the skill of map reading and map interpretation.

3-GEOG 365. THE SOVIET UNION. *Five hours credit.*

A regional analysis of the geographic conditions, their historical importance, and their relation to economic, social, and political problems in the Soviet Union and to its position in world affairs.

3-GEOG 370. URBAN GEOGRAPHY: HISTORICAL. *Three hours credit.*

A study of the origin of cities and an analysis of the structure of preindustrial societies.

3-GEOG 371. URBAN GEOGRAPHY: SYSTEMATIC. *Three hours credit.*

A study of the theories of urban structure, urban society and urban form.

3-GEOG 372. URBAN GEOGRAPHY: COMPARATIVE. *Three hours credit.*

Prerequisites, GEOG 370 and 371. A course designed to compare and contrast cities in various culture areas of the world, with particular emphasis on the West European city, the Socialist city, the preindustrial city, and the city in newly developing countries.

3-GEOG 392. FIELD COURSE IN GEOGRAPHY. *Three to fifteen hours credit.*

(Undergraduate and Graduate). Study and application of the techniques used in solving of geographic problems in the field, together with the effective presentation of the results of such studies.

3-GEOG 402. CARTOGRAPHY. *Four hours credit.*

A fundamental course on the theory and practice of maps and graphic representation. Two one-hour lectures and two credit hours for arranged laboratory work.

3-GEOG 490. PROBLEMS IN GEOGRAPHY. *Maximum nine hours credit.*

A series (three) of advanced undergraduate research seminars. Each seminar will be conducted by an instructor who specializes in the regional or systematic study upon which the seminar is based (e.g., Latin America, Africa, Urban, Economic).

GEOLOGY

Courses in geology are administered by the Department of Earth Sciences.

5-GEOL 100. GENERAL GEOLOGY. *Four hours credit. (Three hours lecture, two hours laboratory.)*

This course presents an introduction to the minerals and rocks that make up the Earth's crust, the building-up processes of vulcanism and diastrophism, the counter processes of weathering and erosion, the interior of the Earth, and Earth history. Field trips required. Not open to earth sciences majors.

5-GEOL 201. PRINCIPLES OF GEOLOGY I. *Four hours credit. (Three hours lecture, three hours laboratory.)*

One of the three basic geology courses designed for Earth Science majors. Earth materials, the process of vulcanism, metamorphism, and diastrophism, geologic structures, earthquakes, and the nature of solid earth and its interior will be thoroughly investigated. Field trips required. Students cannot receive credit for both GEOL 100 and 201.

5-GEOL 202. PRINCIPLES OF GEOLOGY II. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, GEOL 201. One of the three basic geology courses designed for Earth Science majors. The processes of weathering, mass movements, and erosion by the agents of streams, glaciers, wind, waves and currents, and groundwater will be thoroughly investigated, along with the resulting landforms. Some attention will be given to the development of soils and to interpretation of topographic maps and aerial photographs. Field trips required. Students cannot receive credit for both GEOL 100 and 202.

5-GEOL 203. PRINCIPLES OF GEOLOGY III. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, GEOL 100 or 202. One of the three basic geology courses designed for Earth Science majors. Geologic time, the origin and development of the earth's hydrosphere and atmosphere, the origin of life, the geosynclinal theory, and basic stratigraphic principles will be investigated. Earth history and the evolution of life on earth will be developed through studies of regional stratigraphy and fossils. Field trips required.

5-GEOL 320. MINERALOGY. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, GEOL 100 or 202. This course includes introductory work in crystallography, optical crystallography, descriptive and determinative mineralogy, and the study of mineral occurrences and associations. The laboratory stresses identification of minerals by means of physical and chemical techniques. One Saturday field trip required.

5-GEOL 330. INTRODUCTORY PETROLOGY. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, GEOL 100 or 201. A study of igneous, sedimentary, and metamorphic rocks: their origins, descriptions, and bases for classifications.

5-GEOL 340. PALEONTOLOGY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, GEOL 100 or 203 or consent of instructor. This course is a study of fossil animals and plants -- their morphologies, classifications, life histories, trends of evolution, ecologies, and their uses as stratigraphic tools.

5-GEOL 370. STRUCTURAL GEOLOGY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, GEOL 100 or 202. This course deals with the mechanics of rock deformation, and the geologic structures of the Earth's crust -- their description and classification, theories and facts regarding their origins, and methods of investigating them.

5-GEOL 410. ENVIRONMENTAL GEOLOGY. *Three hours credit.*

Prerequisites, GEOL 100 or 202. The role of geology in man's interaction with his environment. Geological aspects of urban growth, land-use planning, and natural hazards; problems of water resource management, waste disposal, and pollution; exploitation of mineral resources and related environmental implications.

5-GEOL 420. OPTICAL CRYSTALLOGRAPHY AND PETROGRAPHY. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisite, GEOL 320. In the classroom theories and methods of optical crystallography are investigated, and the optical properties of minerals are discussed. In the laboratory various petrographic techniques are learned including use of the petrographic microscope for identifying mineral grains in immersion media and in rock thin sections.

5-GEOL 425. ECONOMIC GEOLOGY. *Three hours credit.*

Prerequisite, GEOL 320. In this course the origins, geologic occurrences, uses, and conservation of the Earth's metallic and non-metallic mineral deposits will be investigated.

5-GEOL 450. SEDIMENTOLOGY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, GEOL 203 or consent of instructor. A study of processes of sedimentation, environments of deposition, and genesis, classification, and analysis of sedimentary rocks.

5-GEOL 455. STRATIGRAPHY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, GEOL 203 or consent of instructor. Principles and techniques of analyzing and interpreting sedimentary rock strata to build the geologic story of the earth. Regional stratigraphy of northeastern Colorado will be investigated.

5-GEOL 460. GEOMORPHOLOGY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, GEOL 100 or 202. Origin and evolution of landforms with emphasis on fluvial processes -- hydraulic and dynamic characteristics of streams; morphology of drainage basins; landscape evolution by stream sculpture and deposition; lithologic, climatic, and structural controls.

5-GEOL 464. GLACIAL AND QUATERNARY GEOLOGY. *Three hours credit.*

Prerequisite, GEOL 100 or 202. A survey of geologic phenomena which characterized the Quaternary Period with emphasis on the behavior of glaciers -- their dynamics, growth and recession, associated landforms and sediments, and climatic implications.

5-GEOL 468. INTRODUCTION TO SOILS. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, GEOL 100 or 202, and CHEM 105 or equivalent. Physical, chemical, and biological properties of soils, soil-forming processes and controls description and classification of soils, and applications of soils to Quaternary stratigraphy. Emphasis will be placed on field and laboratory experience.

5-GEOL 480. GEOLOGIC FIELD METHODS. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, GEOL 203. An introduction to the techniques employed by the field geologist to obtain and record information from rocks in the field. Using standard geological field equipment each student will conduct investigations and prepare a geologic map of an area of moderately complex structure in the foothills west of Loveland.

5-GEOL 490. ROCKY MOUNTAIN GEOLOGY. *Three hours credit.*

Prerequisite, GEOL 203. This course seeks to apply the student's geologic knowledge to regional problems in the Rocky Mountains. Emphasis is placed on the use of an extensive geological literature dealing with the Rocky Mountain area, particularly Colorado. Two-day field trip required.

5-GEOL 495. MARINE GEOLOGY. *Three hours credit.*

Prerequisite, GEOL 203 or consent of instructor. A study of marine geological processes and forms, including continental margin and oceanic basin structure and geomorphology, marine sedimentation, nearshore processes and coastal landforms.

GERMAN

1-GER 101. ELEMENTARY GERMAN I. *Five hours credit.*

To develop four lingual skills (listening, speaking, reading, writing) with stress on the first two. Emphasis on developing accurate pronunciation and ability to use German actively with minimum translation, using controlled drills, dialogs, and free conversation. Supplementary work in the language laboratory is required. Language structure is cover inductively.

1-GER 102. ELEMENTARY GERMAN II. *Five hours credit.*

A continuation of GER 101.

1-GER 103. ELEMENTARY GERMAN III. *Five hours credit.*

A continuation of GER 102.

GER 105. TIROLEAN FOLK DANCE. *One hour credit.*

The course is designed to teach Tirolean Folk Dance in the German language with student participation also in German. The academic goal is the advancement of

proficiency in German and to familiarize students with the folk dances so that they will know how to teach the dances if they teach German in public schools.

1-GER 201. INTERMEDIATE GERMAN I. *Four hours credit.*

Prerequisite, one year college German or placement by examination. A continuation of GER 103. While stress is placed on oral skills, language structure is analyzed in detail. Reading and writing increase to balance proficiency in all four skills. Well-chosen reading materials and intermediate text with conversational approach used with continued drill in the language laboratory.

1-GER 202. INTERMEDIATE GERMAN II. *Four hours credit.*

Prerequisite, GER 201. A continuation of GER 201.

1-GER 203. INTERMEDIATE GERMAN III. *Four hours credit.*

Prerequisite, GER 202. A continuation of GER 202.

4-GER 318. 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.

4-GER 319. 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.

4-GER 320. 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.

4-GER 325. POST WAR LITERATURE SINCE 1945. *Three hours credit.*

Prerequisite, two years of college German. The course will deal with the re-emergence of the short story and the "Horspiel," two predominant forms used by German writers since 1945. The course will be conducted in German.

1-GER 335. INTERMEDIATE GERMAN CONVERSATION. *Four hours credit.*

Prerequisite, two years of college German. A course designed to increase the ability of each student to use spoken German in practical, everyday situations. The class will be conducted in German.

1-GER 336. ADVANCED GERMAN COMPOSITION. *Four hours credit.*

Prerequisite, two years of college German. The course aims at helping the student to become familiar with a large number of idioms and to acquire flexibility of expression in written composition.

1-GER 337. ADVANCED GERMAN GRAMMAR. *Four hours credit.*

Prerequisite, two years of college German. The course is intended for students who have mastered the elements of German grammar and have gone through at least one full grammar review. A study of the more complex elements of German syntax and the common difficulties incurred in sentence structure.

4-GER 343. FAUST. *Three hours credit.*

Prerequisite, two years of college German. To enable students to become acquainted with the greatest masterpiece of German literature. The work will be read

and analyzed as it reflects Goethe's life and time and the conditions of Eighteenth Century Germany. While stress will be placed on *Faust*, Part I, Part II will also be discussed. The course will be conducted in German.

1-GER 345. PHONETICS OF THE GERMAN LANGUAGE. *Three hours credit.*
Prerequisite, three years of college German or permission of instructor. An analytical survey of the German language. Regional and historical variations along with the high German sound shift will be examined. The course will also attempt to help students correct and perfect their pronunciation.

1-GER 400. PROBLEMS IN ORAL GERMAN. *Three hours credit.*
Prerequisite, three years of college German or permission of instructor. To provide advanced oral training. Stress will be on sharpening the pronunciation, comprehension, and fluency of conversational ability of the student. Individual problems will be discussed and aided by means of drills, tape work in the language laboratory and outside help. Course may be taken twice with departmental consent.

GER 401. STUDY ABROAD PROGRAM: COURSEWORK. *Eight hours credit.*
Prerequisite, two years college German or permission of the department. This course is designed to give students a practical experience in the use of German. Study will include formal instruction in conversation, composition, and culture at the foreign study center. To be taken with GER 402.

GER 402. STUDY ABROAD PROGRAM: PROJECT. *Four hours credit.*
Prerequisite, two years of college German or permission of the department. This course is designed to give students an opportunity to research the contemporary and historical cultural phenomena of Germany through the completion of an area studies project in the region of the study center. To be taken with GER 401.

4-GER 410. GERMAN CIVILIZATION. *Three hours credit.*
Prerequisite, two years college German. The study of German civilization and culture, including the historical, economic, political, and artistic development of the country from prehistoric times to the present. The class will be conducted in German.

GER 422. INDIVIDUAL STUDIES. *One to four hours credit.*
Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

4-GER 430. GERMAN POETRY. *Three hours credit.*
Prerequisite, three years college German or permission of the instructor. A survey of German lyrical poetry from the *Minnesang* to the present. Selections will include a representative sampling from the 17th, 18th, 19th and 20th Century and will be analyzed according to form, style and content.

4-GER 431. DIE NOVELLE. *Three hours credit.*
Prerequisite, two years of college German. The course will deal with the genre of Novelle from Kleist to those contemporary authors making use of this form. The form Novelle will be considered primarily as an art form. The course will be conducted in German.

4-GER 440. MEDIEVAL LITERATURE. *Three hours credit.*
Prerequisite, two years of college German. The main emphasis will be placed on writings produced during the humanistic and reformation periods. Consideration will also be given to the fold epic, the courtly epic and the courtly lyric of the 12th and 13th centuries. The course will be conducted in German.

4-GER 441. GOETHE. *Three hours credit.*

Prerequisite, two years of college German. This course is designed as an introduction to the life and work of Germany's greatest classic. Special emphasis is placed upon developing understanding of Goethe's *Weltanschauung* and his contributions to *Sturm und Drang*. Classicism and Romanticism. The course will be conducted in German.

HOME ECONOMICS

3-HEC 101. SELF IDENTIFICATION. *Two hours credit.*

Course designed to assist in observing self awareness through the use of critical thought, problem solving, and exploration of feelings and expression.

2-HEC 106. INVESTIGATING THE HOME ECONOMICS PROFESSION. *Two hours credit. (One hour lecture, two hours laboratory.)*

Prerequisite, HEC 101. Course designed to provide career awareness opportunities. Student will have the opportunity to focus on the roles and responsibilities, professional and personal outcomes from each major occupational area within home economics.

2-HEC 171. DESIGN IN LIVING. *Three hours credit.*

Introduction to basic design concepts applying these to a variety of uses. Consideration will be given to the development of aesthetic preferences.

2-HEC 181. BASIC TEXTILES. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Basic study of the fundamentals of fibers, yarns, fabric construction methods and the selection, use and care of textiles.

2-HEC 190. FUNDAMENTALS OF CLOTHING CONSTRUCTION. *Three hours credit. (One hour lecture, four hours laboratory.)*

Course emphasizes up-to-date techniques in handling natural and man-made fabrics. Individual pattern alteration and fitting will be considered.

2-HEC 193. CREATIVE CLOTHING CONSTRUCTION. *Three hours credit. (One hour lecture, four hours laboratory.)*

Prerequisites, HEC 171, 190 or satisfactory performance on competency exam. Construction of garments of special fabric using methods appropriate to the pattern and fabric. Speed techniques of tailoring are included.

3-HEC 211. MANAGEMENT FOR EFFECTIVE LIVING. *Three hours credit.*

Prerequisite, minimum sophomore level. Analysis of needs, values, attitudes, goals, standards, resources and decision making basic to managing individual roles.

3-HEC 212. MANAGEMENT DYNAMICS. *Three hours credit.*

Prerequisite, HEC 211. Designed to analyze the concepts underlying the management process, and to establish guidelines basic to the judicious use of family resources in goal attainment.

3-HEC 231. FAMILY RELATIONSHIPS. *Three hours credit.*

Focuses attention on the total person, emphasizing the influence of attitudes, needs, beliefs, values and goals and how these affect personal and family living.

3-HEC 233. THE CHILD WITHIN THE FAMILY. *Three hours credit.*

A study of the major concepts and theories of child development based on empirical

findings and applied to the child in the family setting. Skills of interacting with children will be developed through observation and role play of various approaches.

2-HEC 241. TECHNIQUES OF FOOD PREPARATION. *Four hours credit. (Two hours lecture, four hours laboratory.)*

A basic study of food selection, preparation, storage, preservation and service. Simple meals will be planned, prepared and served.

2-HEC 242. PRINCIPLES OF FOOD PREPARATION. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, HEC 241 or successful completion of competency exam; HEC 250 or 251. A study of the physical and chemical changes which occur during processing, storage and preparation of proteins, sugars, starches, fats, fruits and vegetables.

2-HEC 249. FOOD MODULES. *One to three hours credit.*

The modules will comprise a variety of subjects, methods and techniques related to foods. No one subject may be repeated for credit.

2-HEC 250. PRINCIPLES OF HUMAN NUTRITION. *Three hours credit.*

Prerequisite, basic knowledge of chemistry. Study of essential nutrients and their function in promoting total well-being of the individual. Necessary food requirements are evaluated, and ways of satisfying these requirements are studied. For students who are not dietetic, nutrition, or nursing majors.

HEC 251. NUTRITION I. *Three hours credit.*

Prerequisite, CHEM 130. Study of essential nutrients and their metabolic function in promoting total well-being of the individual. Nutrient requirements during different stages of the life cycle are evaluated and the role of food in supplying these requirements is studied.

2-HEC 308. WORKSHOPS IN HOME ECONOMICS. *One to four hours credit.*

The workshops provide opportunities to investigate a variety of issues in Home Economics, and to meet specific needs of students. Each workshop will have a subtitle and no subtitle may be repeated for credit.

3-HEC 321. ROLE BEHAVIOR IN THE INTIMATE ENVIRONMENT. *Four hours credit.*

An examination of various factors which underlie individual and situational role expectations and behaviors as well as changing role patterns.

2-HEC 325. HOME NURSING. *Two hours credit.*

Principles of home nursing procedures are demonstrated and opportunities are provided for laboratory experience.

HEC 340. BASIC FOOD PREPARATION AND SERVICE. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, HEC 250 or 251; CD 333. A basic study in food selection and preparation. Simple meals will be planned, prepared and served. Preschool majors only.

2-HEC 349. FOOD MODULES. *One to three hours credit.*

Prerequisite, HEC 241 or 242. The modules will comprise a variety of subjects, methods and techniques related to foods. No one subject may be repeated for credit.

3-HEC 351. GERIATRIC NUTRITION. *Three hours credit.*

Nutrition principles will be applied to changed needs of the elderly, keeping in mind socio-economic, psychological and physiological factors influencing food intake. Emphasis in economic food purchasing, storage and preparation; change in physical abilities (dentition, metabolism, senses) self concept and worth.

2-HEC 353. DIET THERAPY. *Three hours credit.*

Prerequisites, HEC 251, ZOO 250. A study of the fundamental principles involved in the treatment of disease through diet. Emphasis is given to modification of normal diet.

HEC 362. DEMONSTRATION TECHNIQUES. *Two hours credit. (One hour lecture, three hours laboratory.)*

Prerequisites, HEC 242, 193. Theory and practice in conducting educational and commercial demonstrations of equipment and principles used in all areas of home economics.

HEC 363. INTRODUCTION TO CURRICULUM IN HOME ECONOMICS EDUCATION. *Three hours credit.*

A study of purpose, content, and organization of curriculum. An emphasis will be placed on social, psychological and economical influences on program development. Students will be involved in developing a topical outline.

HEC 367. PRINCIPLES AND PRACTICES OF EVALUATION IN HOME ECONOMICS EDUCATION. *Three hours credit.*

Prerequisites, EDFE 368, HEC 363. Emphasis is upon the development of formal and informal evaluation devices for use in evaluating student growth and development in the home economics classroom. Each evaluation instrument is examined as to purpose and need within the educational setting. Consideration is also given to the interpretation of test scores.

HEC 369. LABORATORY MANAGEMENT AND MAINTENANCE. *One hour credit.*

Prerequisites, HEC 181, 193, 211, 242 and 363. Designed to provide the student with techniques for the management of resources in the educational setting. Organization and management of the department's budgeting and accounting procedures, acquisition of supplies and equipment are included.

2-HEC 371. DESIGN FOR SHELTER. *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisite, HEC 171. Basic planning concepts will be applied to the design of living space appropriate to a variety of situational needs. Content will include construction techniques, systems for temperature control, electrical requirements, as well as financing fundamentals.

2-HEC 372. DESIGN FOR INTERIORS. *Three hours credit.*

Prerequisites, HEC 171, 371. Planning principles related to furnishing shelter will be applied to a variety of situational needs. Materials, construction techniques, processes and quality features will be investigated in order to provide criteria for satisfactory decision making.

2-HEC 374. CONSUMER ASPECTS OF HOUSEHOLD EQUIPMENT. *Four hours credit.*

Principles are studied and techniques developed in selection, methods of operation and care of household equipment.

3-HEC 381. LEISURE TIME ACTIVITIES. *Four hours credit.*

Course designed to study how leisure time activities lead to psychological, sociological and physical benefits, enhance self-esteem, and promote continued interest in a productive life.

2-HEC 382. CONSUMER TEXTILES. *Three hours credit.*

The student will be able to demonstrate skill in the selection of household and clothing textiles, to indicate awareness of new textile items, demonstrate the

correct care required, identify consumer practices relating to textile purchases, demonstrate rights, privileges and responsibilities of the consumer of textiles.

2-HEC 384. SEMINAR IN TEXTILES AND CLOTHING. *Three to five hours credit.*
Prerequisites, HEC 181, 193 or permission of instructor. Students will research, report and discuss topics of current interest in the fields of textiles and clothing.

3-HEC 393. FIELD EXPERIENCES IN CULTURAL AWARENESS. *Up to fifteen hours credit.*

A study affording an opportunity to develop an appreciation of the cultural and historical backgrounds and contributions of ethnical and population groups in the USA or foreign countries.

2-HEC 395. FASHION DESIGN -- FLAT PATTERN DRAFTING. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, HEC 193. An introduction to the principles of fashion design through the application of flat pattern methods. A personal master pattern will be developed by each student and used in creating an original design.

3-HEC 415. CONSUMER EDUCATION. *Three hours credit.*

Course provides background of information relevant to analyzing and resolving consumer problems and relating social and psychological factors to consumer behavior.

HEC 419. HOME MANAGEMENT PRACTICUM. *Three hours credit.*

Prerequisites, HEC 242, 249 (Meal Planning & Service), 250 or 251, and 343. Application must be made one quarter in advance. Opportunities are provided for students to make decisions in managing the resources of the group as they practice desirable standards of home living in the Home Management Residence.

2-HEC 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. A well-written paper must be filed with the instructor and chairman before credit is given.

HECV 432. TEACHING CHILD DEVELOPMENT AND FAMILY LIVING IN SECONDARY SCHOOLS. *Four hours credit.*

A course to develop the particular skills needed in planning and teaching child development and family living in the secondary schools. Special emphasis is given to the program planning techniques necessary in Child Care Occupations and the organization of a playschool.

2-CD 439. PARENT EDUCATION. *Three hours credit.*

This course deals with relationships between parents, children and teachers. Emphasis is on resources for meeting problems through cooperative interaction.

3-HEC 444. FOOD FOR A SMALL PLANET. *Four hours credit.*

World food supply, ecological problems and nutritional effects of traditional American diets will be investigated with emphasis on alternative diets and foods.

2-HEC 445. EXPERIMENTAL FOOD STUDIES. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, HEC 242, 251. An opportunity to determine the effects of temperature, time, and different manipulations on foods. Commercial products are tested and compared with home methods of preparation.

HEC 446. FOOD SERVICE ADMINISTRATION. *Three hours credit.*

Prerequisites, HEC 242, 251. Principles of operation of food systems, emphasizing

financial and production controls; menu planning and evaluation, recipe standardization and technical operations.

2-HEC 447. QUANTITY FOOD PURCHASING AND PREPARATION. *Four hours credit. (One hour lecture, six hours laboratory.)*

Prerequisite, HEC 446. Meal planning, techniques of food purchasing and application of food preparation principles to large quantity food service. The facilities of student dining halls, university center, and the school lunch program are used as practice laboratories.

HEC 448. ORGANIZATION AND MANAGEMENT OF FOOD SERVICE. *Three hours credit.*

Prerequisites, HEC 447, BUS 180. Principles of organization, personnel management and financial control; layout, selection of design; equipment selection; use of work measurement and data processing. Field trips.

2-HEC 449. FOODS MODULES. *One to three hours credit.*

The modules will comprise a variety of subjects, methods and techniques related to foods. No one subject may be repeated for credit.

3-HEC 451. NUTRITION II. *Three hours credit.*

Prerequisites, HEC 251, CHEM 281. An in-depth study of human and animal nutrition. Community resources will be utilized.

3-HEC 456. INFANT AND CHILD NUTRITION. *Three hours credit.*

Prerequisites, HEC 250 or 251, CD 331. A study of the principles in nutrition for maternal, infant, and child health.

HEC 460. OCCUPATIONAL HOME ECONOMICS EDUCATION. *Three hours credit.*

Prerequisites, HEC 363, EDFE 368. Designed to provide an overview of the occupational home economics program at the secondary, post secondary and college levels and to prepare a student for the role as teacher coordinator in home economics occupational programs.

HECV 462. PREPARATION FOR TEACHING VOCATIONAL HOME ECONOMICS. *Three hours credit.*

Prerequisite, HEC 363. Course includes strategies for successful student teaching experience. Take concurrently with EDFE 368. S-U Grading.

HEC 464. HOME ECONOMICS YOUTH ORGANIZATION. *Two hours credit.*

This course is designed to provide knowledge and background for organizing and implementing a Future Homemakers of America Chapter as part of the home economics program.

HEC 465. HOME ECONOMICS PROGRAMS FOR SPECIAL NEEDS. *Three hours credit.*

Prerequisite, HEC 363. A study of the philosophy, procedures, and techniques used in organizing programs for teaching adults and students with special needs, including rehabilitation. Students participate in observation and teaching experiences.

HECV 462. SEMINAR IN THE IMPROVEMENT OF TEACHING VOCATIONAL HOME ECONOMICS. *Two hours credit.*

Prerequisite, EDFE 470. Course designed to evaluate student teaching preparation for employment.

2-HEC 494. TAILORING. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, HEC 193 or permission of instructor. Course designed to develop skill in the construction of tailored garments (for men or women).

HISTORY

4-HIST 125. WESTERN CIVILIZATION I. *Three hours credit.*

The course will cover the most significant aspects of European civilization from about 1492 to 1815. Emphasis will be on the cultural, intellectual and religious developments which have had an enduring value. Not open to history majors or minors.

4-HIST 126. WESTERN CIVILIZATION II. *Three hours credit.*

The emphasis of this course will be on the principal developments of Western civilizations between 1815 and 1914, the rise of nationalism, liberalism, constitutionalism and industrialism, and the impact of these on life and culture in the nineteenth century. Not open to history majors or minors.

4-HIST 127. WESTERN CIVILIZATION III. *Three hours credit.*

The course will cover the period from 1914 to the present. The emphasis will be on the two great wars, the rise of dictatorships, and the quest for peace and security. Not open to history majors or minors.

4-HIST 130. WORLD HISTORY I. *Four hours credit.*

A survey of World History with a focus on the development of the Near East, the Aegean World, Rome, and her successor kingdoms, through Charlemagne.

4-HIST 131. WORLD HISTORY II. *Four hours credit.*

A survey of World History emphasizing the development of the medieval monarchies, the rise of the state, and the assertion of the Christian Commonwealth. From Charlemagne through the collapse of the Napoleonic Empire.

4-HIST 132. WORLD HISTORY III. *Four hours credit.*

The interaction of world politics during the nineteenth and twentieth centuries. Nationalism, romanticism, and totalitarianism are among topics discussed.

4-HIST 170. 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.

4-HIST 171. 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.

4-HIST 172. UNITED STATES HISTORY III. *Three hours credit.*

United States history, 1912 to the present. The New Freedom, World War I, prosperity and depression, the New Deal, the long armistice, World War II, post-war problems since 1945.

4-HIST 175. 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. Not open to history majors or minors.

4-HIST 210. INTELLECTUAL AND CULTURAL HISTORY OF MEDIEVAL EUROPE, 4TH-16TH CENTURIES. *Three hours credit.*

A survey of history from the end of ancient times to the beginnings of Modern Europe. Open to sophomores.

4-HIST 220. INTELLECTUAL AND CULTURAL HISTORY OF EARLY MODERN EUROPE, 1600 to 1800. *Three hours credit.*

A survey of intellectual and cultural developments of the period 1600-1800, emphasizing the Age of Science, Age of Reason, and the Enlightenment. Open to sophomores.

4-HIST 230. INTELLECTUAL AND CULTURAL HISTORY OF MODERN EUROPE, 1800 TO THE PRESENT. *Three hours credit.*

A survey of intellectual and cultural developments from the Romantic period to the present. Open to sophomores.

4-HIST 240. SURVEY OF ASIAN HISTORY. *Four hours credit.*

A survey of the historical and cultural transformations occurring within the Great Traditions of East and Southeast Asia. Among topics discussed will be the Asian response to the West.

4-HIST 250. GEOGRAPHIC INFLUENCES IN UNITED STATES HISTORY. *Two hours credit.*

Relationship of geography to the discovery, exploration, settlement, and development of the United States.

4-HIST 254. HISTORY OF THE EARLY WEST. *Four hours credit.*

The westward movement beginning with the settlement of Jamestown in 1607 and dealing with the development of the colonial west, organization of the Northwest Territory, the land laws, Indian wars, fur trappers' frontier, the Cumberland Road, coming of the steamboat-canal era, and the early settlement of Texas.

4-HIST 256. HISTORY OF COLORADO. *Three hours credit.*

A study of the growth and development of Colorado: Indian influence; Spanish, French, and American explorations; historical development; early settlements; gold and silver rushes; pioneer life; territorial problems; the growth of agriculture, industry, livestock production; economic, social and cultural progress; political progress; governmental organization; problems of recent and present-day Colorado.

4-HIST 256. THE HISPANO IN THE AMERICAN SOUTHWEST. *Three hours credit.*

Examination of the historical heritage of the Hispano in the southwestern states of New Mexico, Arizona, California, and Texas, plus southern Colorado, will be made in this course from the coming of Coronado in 1540 to the present. Hispano movements and contributions during the Spanish, Mexican, territorial, and modern periods will be stressed. Although political and economic developments will be emphasized, social and cultural movements also will be covered.

4-HIST 265. AMERICAN SOCIAL AND INDUSTRIAL HISTORY. *Four hours credit.*

A study of the major social, industrial, and cultural forces shaping American attitudes and values, especially those of the White Anglo-Saxon Protestant majority in regard to its relationships with Indians, Blacks, and Chicanos.

4-HIST 277. HISTORY OF THE BLACK MAN IN AMERICA I. *Three hours credit.*

An introduction to the Black African heritage. The course will analyze the following: the slave system in the United States; Black resistance to slavery and involve-

ment in the American Revolution; the role of the free Black man prior to the Civil War.

4-HIST 278. HISTORY OF THE BLACK MAN IN AMERICA II. *Three hours credit.*

A study of the Black man's role during the Civil War and the significance of the Reconstruction period. Black opposition to the growth of Jim Crow practices in the United States, their relationship to the labor movement, the plight of the Southern tenant farmer, and the philosophies of Black thinkers, particularly Booker T. Washington and W.E.B. DuBois.

4-HIST 279. HISTORY OF THE BLACK MAN IN AMERICA III. *Three hours credit.*

A survey of twentieth-century developments, including the migration of Blacks to the north, the growth of the Black urban ghetto, the Garvey movement and the Harlem Renaissance, life under the New Deal and during World War II, the "Civil Rights" movement of the late 1950's and early 1960's and the Black Power movement.

4-HIST 285. THE QUEST FOR SECURITY: THE UNITED STATES AND ITS MILITARY FROM 1770-1970. *Three hours credit.*

The courses will survey the development of American military and naval policy from its inception before the American Revolution to the rise of the modern military-industrial complex.

4-HIST 286. DISSENT IN AMERICA: AN HISTORICAL SURVEY. *Three hours credit.*

The course will survey the thought and actions of selected Americans who have dissented from the prevailing ideological consensus of their day.

4-HIST 300. THE EARLY COLONIAL PERIOD: 1492-1689. *Four hours credit.*

This course will investigate in-depth the background of European colonization, the Age of Discovery and Exploration, the founding of the first British Colonial empire, and the history of that Empire until 1689.

4-HIST 301. EIGHTEENTH CENTURY AMERICA: 1689-1763. *Four hours credit.*

An investigation in-depth of the development of the North American British colonies in the 18th Century. Emphasis is placed on the origin of the Empire and on the colonial economy, political structure, and society.

4-HIST 302. EMERGENCE OF A NEW NATION: 1763-1789. *Four hours credit.*

An examination of the background of the American Revolution, Declaration of Independence, the Articles of Confederation, and the framing of the United States Constitution as well as of the changing social, economic, and political patterns discernible in the revolutionary generations.

4-HIST 306. CONSTITUTIONAL HISTORY OF THE UNITED STATES TO 1865. *Four hours credit.*

The study of the origins of the Constitution from the colonial background; political philosophy of the eighteenth century; the drafting and ratification of the Constitution; and the subsequent molding of its terms by executive, legislative, and judicial pressure up to 1865.

4-HIST 308. AMERICAN INTELLECTUAL HISTORY TO 1865. *Four hours credit.*

The course deals with the individuals, works, and schools of thought in the history of ideas in American culture from the Puritanism of the colonial period to the Romanticism of ante-bellum America.

4-HIST 310. 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.

4-HIST 316. HISTORY OF THE TRANS-MISSISSIPPI WEST: 1821-1890. *Four hours credit.*

Examination of the Westward movement from the settlement of Texas to the end of the frontier. Major topics are: frontier monetary problems, relation of Mormons to the westward movement; pre-emption and homestead acts; forty-niners and fifty-niners, transcontinental railroads; and, the range-cattle industry.

4-HIST 321. THE FOUNDATIONS OF AMERICAN FOREIGN POLICY: 1775-1889. *Four hours credit.*

A survey of American diplomatic history from the war for independence to 1889, emphasizing the problems of expansion and relations with major European, Latin American, and Far Eastern countries.

4-HIST 327. CULTURAL BACKGROUND OF WESTERN-SOVIET RUSSIAN RELATIONS. *Fifteen hours credit.*

The background of Soviet Russia's relations with the West is studied on campus for five weeks followed by a study tour of selected Western European capitols, Leningrad and Moscow. Excursions are made to Oxford, Versailles, Peterhof and Zagorsk or other places of historical importance.

4-HIST 330. HISTORY OF LATIN AMERICA: COLONIAL PERIOD. *Four hours credit.*

A survey of Spanish America and Brazil from their discovery, conquest and colonization through the Bourbon and Braganza reforms.

4-HIST 331. HISTORY OF LATIN AMERICA: NATIONAL PERIOD. *Four hours credit.*

A survey of the Latin American countries from their wars of independence through the Cuban Revolution.

4-HIST 340. HISTORY OF AFRICA TO 1800. *Four hours credit.*

A general history of the African continent from earliest times to the beginning of the 19th century.

4-HIST 341. HISTORY OF AFRICA, 1800-1885. *Four hours credit.*

A survey of 19th century Africa prior to colonial rule emphasizing the spread of Islam, the end of the slave trade, the creation of new empires, and the first modern contact with the Europeans.

4-HIST 350. ANCIENT HISTORY. *Four hours credit.*

The life and institutions of the Ancient Near East and Greece, cultural development, living conditions, and recent archaeological discoveries.

4-HIST 358. HISTORY OF MEDIEVAL EUROPE. *Four hours credit.*

An examination of the basic political, social, and economic facts and interpretations of medieval Europe from the fall of the Roman Empire to the Renaissance.

4-HIST 360. HISTORY OF MEDIEVAL THOUGHT. *Four hours credit.*

An advanced study of medieval life and civilization from the beginning of the Middle Ages to about 1300. The course will emphasize medieval philosophy, theology, literature, art and culture from Augustine to Dante.

4-HIST 363. THE OLD REGIME: 1648-1789. *Five hours credit.*

A study of the political, social, economic, intellectual, and cultural developments, beginning with the Thirty Years' War and ending with the French Revolution.

4-HIST 370. CONSTITUTIONAL HISTORY OF MEDIEVAL ENGLAND. *Four hours credit.*

The development of English, legal, constitutional and administrative institutions from the Anglo-Saxon period to 1485. Emphasis will be placed on the development of the common law, the system of courts, juries, and representative institutions. The course is especially recommended for pre-law students.

4-HIST 371. HISTORY OF ENGLAND, 1471-1660. *Four hours credit.*

The course will emphasize the political and constitutional stability reached in England during the two centuries following the Hundred Years' War. Constitutional, social, and economic development will be stressed.

4-HIST 372. HISTORY OF ENGLAND, 1660-1832. *Four hours credit.*

The course will trace the developments in English constitutional, political, economic, and social life from the restoration to the great reform bill. Emphasis will be placed on the growth of aristocratic power and the beginning of the Industrial Revolution.

4-HIST 375. FOUNDATIONS OF THE 2ND REICH. *Four hours credit.*

A survey of German history stressing the foundations of the second Reich under Bismarck to the outbreak of World War I. Special emphasis will be laid on Bismarck, his diplomacy, Germany's social and economic developments, and the German role in the outbreak of World War I.

4-HIST 378. RUSSIAN HISTORY FROM THE BEGINNING TO ALEXANDER I, 860-1801. *Four hours credit.*

A survey of the main political, economic, social and cultural developments from the establishment of Kievan Russia through the rise of Muscovy and the reigns of Peter the Great and Catherine the Great.

4-HIST 379. IMPERIAL RUSSIA: 1801-1917. *Four hours credit.*

To provide a comprehensive overview of the salient characteristics of Russian civilization from the turn of the nineteenth century to the February Revolution of 1917. Emphasis will be placed on the movement toward more representative government and the effort to overcome economic backwardness.

4-HIST 382. HISTORY OF SPAIN AND PORTUGAL, 1469-1808. *Four hours credit.*

A study of the emergence and decline of Spain and Portugal as European and world powers. Demographic, economic, and social developments will be emphasized.

4-HIST 385. EUROPE: 1815-1870. *Five hours credit.*

A study of the period from the Congress of Vienna through the unification of Germany. Includes the history of ideas, development of political history, and socio-economic changes.

4-HIST 386. DIPLOMATIC HISTORY OF MODERN EUROPE: 1914-1939. *Four hours credit.*

A specialized course in the study of European diplomacy, its methods and accomplishments, utilizing lectures and analyses of basic documents and treaties.

4-HIST 390. HISTORY OF CHINA TO 1840. *Four hours credit.*

The history of China to 1840 will be considered from the point of view of political and cultural development.

4-HIST 394. HISTORY OF JAPAN TO 1868. *Four hours credit.*

The history of Japan up to 1868 will be considered from a cultural and political aspect. Emphasis also is placed upon social development.

4-HIST 395. THE UNITED STATES AND ASIA. *Four hours credit.*

An historical analysis of the American role in Asia, concentrating in particular on the American impulses towards China, Japan, Vietnam and the Philippines, and the American impact on these societies since the 1890's.

4-HIST 404. THE EARLY REPUBLIC, 1789-1815. *Four hours credit.*

The study of the establishment of a new federal government, the administrations of Washington, Adams, Jefferson and Madison, the emergence of a national economy, the rise of political parties, the growth of American nationalism, and the War of 1812.

4-HIST 405. NATIONALISM AND SECTIONALISM IN AMERICA, 1815-1848. *Four hours credit.*

A detailed survey of the period 1815-1848 in American history. Major topics examined include post-1815 nationalism, political trends of the Jacksonian Era, the development of sectionalism, religion and reform, expansion and the Mexican War.

4-HIST 406. THE CIVIL WAR AND RECONSTRUCTION, 1848-1877. *Four hours credit.*

A detailed survey of the period 1848-1877 in American history. Major topics examined include political upheavals of the 1850's, growth of southern nationalism, Civil War years, and problems of the Reconstruction Era.

4-HIST 407. THE GILDED AGE: 1868-1892. *Four hours credit.*

Examination of the political, economic, social, and cultural developments in the United States during the Gilded Age from Grant's inauguration to the defeat of President Harrison in 1892. Industrial expansion and the low tone of political morality will be stressed.

4-HIST 408. ERA OF REFORM: 1892-1917. *Four hours credit.*

A study of the reform movements that were a response to America's great industrial transformation of the late nineteenth century. Agrarian agitation, Populism and Free Silver, Progressivism, and Wilson's New Freedom will be stressed.

4-HIST 411. RECENT UNITED STATES HISTORY, FROM 1918 TO THE PRESENT. *Four hours credit.*

A cultural, political, and economic history of the United States from the "Red Scare" of 1919-1920, the "roaring twenties," and the Great Depression to the present, emphasizing the New Deal, world war and "police actions," and such aspects of the social rebellion as Black Power and other minority "power" movements.

4-HIST 415. THE EMERGENCE OF THE UNITED STATES AS A GREAT WORLD POWER, 1889-1945. *Four hours credit.*

A survey of American diplomatic history from 1889 to 1945, emphasizing the problems of peace and war and the internationalist-isolationist conflict in the first half of the twentieth century.

4-HIST 416. THE DIPLOMACY OF WORLD POWER: 1945 TO THE PRESENT. *Three hours credit.*

An analysis of the theory and practice of American foreign policy since World War II, emphasizing the origins, history, and significance of the Cold War.

4-HIST 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter on a problem. A well-written paper must be filed with the instructor and chairman before credit is given.

4-HIST 423. CONSTITUTIONAL HISTORY OF THE UNITED STATES SINCE 1865. *Four hours credit.*

The development of Constitutional interpretation from the post Civil War era. A study of Supreme Court decisions tracing changing interpretation during the eras of Laissez Faire, Populist-Progressivism, the New Deal, through the present.

4-HIST 425. AMERICAN INTELLECTUAL HISTORY SINCE 1865. *Four hours credit.*

The course deals with the individuals, works, and schools of thought in the history of ideas in American culture from the Naturalism of the post-Civil War period to the New Conservatism.

4-HIST 427. HISTORY OF AMERICAN LABOR. *Four hours credit.*

A survey of the organized labor movement in the United States from colonial times to the present, emphasizing the post-Civil War.

4-HIST 430. HISTORY OF MEXICO, 1519 TO THE PRESENT. *Four hours credit.*

An in-depth study of Mexico from the conquest of the Aztecs and the Mayas through the Revolution of 1910 and its aftermath.

4-HIST 435. HISTORY OF ARGENTINA, BRAZIL AND CHILE, 1500 TO THE PRESENT. *Four hours credit.*

An in-depth study of the ABC countries from the discovery of Brazil through the *justicialismo* of Peron, the *Estado Novo* of Vargas, and the flirtations with socialism in Chile. To be offered every other year.

4-HIST 437. HISTORY OF THE ANDEAN REPUBLICS, 1532 TO THE PRESENT. *Four hours credit.*

An in-depth study of the Andean Republics from the conquest of the Incas through contemporary movements for social reform. To be offered every other year.

4-HIST 440. HISTORY OF AFRICA, 1885 TO THE PRESENT. *Four hours credit.*

A study of the impact of imperialism and colonialism upon Africa, the growth of nationalism and the independence movements, with emphasis on the development of the African states, their politics, economics, and society.

4-HIST 451. HISTORY OF GREECE. *Four hours credit.*

An advanced course in the history of Ancient Greece placed in the context of the river valley civilizations of the Near East. Emphasis is placed on the various aspects of Hellenic and Hellenistic life and culture in the light of recent archaeological and historical discoveries.

4-HIST 452. ROMAN HISTORY. *Five hours credit.*

An advanced study of Roman Civilization from the founding of the Republic to the decline of the Empire. Roman life, institutions and cultural heritage are emphasized.

4-HIST 458. HISTORY OF THE RENAISSANCE. *Four hours credit.*

A study of political, social, economic, religious and cultural development from 1300-1500.

4-HIST 459. HISTORY OF THE REFORMATION. *Four hours credit.*

This course in Reformation history will provide the advanced student with the basic

political, religious, social and economic facts and interpretations from about 1517 to about 1648.

4-HIST 460. HISTORY OF ENGLAND, 1832 TO THE PRESENT. *Four hours credit.*

A study of the development of political liberalism in England and of the role which she has played in the modern world. The rise of the British empire will also be studied.

4-HIST 465. FRENCH REVOLUTION AND NAPOLEON. *Five hours credit.*

A study of the causes of the Revolution, its classical pattern, the rise of nationalism, and the significance of Napoleon in France and abroad.

4-HIST 468. HISTORY OF MODERN FRANCE: 1815 TO THE PRESENT. *Four hours credit.*

The course will examine significant political and constitutional issues in French history from the fall of Napoleon I to the present-day. It will focus on the Restoration regimes, the Second Empire, and the Third, Fourth, and Fifth Republics.

4-HIST 470. HISTORY OF MODERN GERMANY. *Four hours credit.*

A survey of German history from World War I, including analysis of events from the outbreak of World War I to the present, through the reading of original sources and documents.

4-HIST 478. HISTORY OF THE SOVIET UNION. *Four hours credit.*

Surveys the political, social, economic, cultural history of the Soviet Union from 1917 to the present. Continuity with pre-Soviet Russia is emphasized as well as change.

4-HIST 482. HISTORY OF SPAIN AND PORTUGAL: 1808 TO THE PRESENT. *Four hours credit.*

A survey of Spanish and Portuguese history from 1808 to the present, with emphasis on those factors which resulted in the loss of empire, the fall of monarchy, the failure of democracy, the outbreak of Civil War, and the emergence of dictatorship.

4-HIST 485. EUROPE: 1870-1914. *Five hours credit.*

A study of the political, social, economic, intellectual, and diplomatic developments from the Franco-Prussian War to the beginning of World War I.

4-HIST 486. CONTEMPORARY WORLD HISTORY. *Five hours credit.*

An advanced study of world developments in recent times which will investigate the period from about 1900 to the present. The course will discuss the ideologies of communism, socialism, fascism, and democracy in their world setting.

4-HIST 487. RECENT DIPLOMATIC HISTORY OF MODERN EUROPE: 1939 TO THE PRESENT. *Four hours credit.*

A specialized course in the study of recent European diplomacy, its methods and accomplishments, utilizing lectures and analyses of basic documents and treaties.

4-HIST 490. REVOLUTIONS IN MODERN TIMES. *Four hours credit.*

The four great revolutions of the Western world, namely, the English, American, French, and Russian revolutions are compared in a search for causes and possible patterns of revolution. Post-World War II revolutions are analyzed to find economic, social, and intellectual causes of the revolutionary period of today.

4-HIST 492. HISTORY OF MODERN WORLD COMMUNISM. *Four hours credit.*

An examination of Communist thought and doctrine since the mid-nineteenth century to the present, leads to a comparison of the theory with the reality of

Communist practices. The course concludes with an analysis of the disintegration of the world communist movement.

4-HIST 493. EUROPE AND THE AGE OF COLONIAL EXPANSION, 1870-1970. *Four hours credit.*

The course will survey the development of European colonialism and imperialism from its inception in the late 19th century to the end of the colonial period.

4-HIST 494. WORLD POPULATION HISTORY: 1348 TO THE PRESENT. *Four hours credit.*

A survey of world population movements from the eve of the Black Death through the latest censuses with emphasis on the interrelationships between demographic trends on the one hand and ecological and historical developments on the other.

4-HIST 495. MODERN SOUTHEAST ASIA. *Four hours credit.*

An historical analysis of those areas of Southeast Asia which have been recently thrust into collision with the modern world. Included will be a study of Thailand, Burma, Indonesia, Vietnam and the Philippines.

4-HIST 496. HISTORY OF MODERN CHINA AND JAPAN. *Four hours credit.*

An advanced study of China and Japan in modern times, beginning with the impact of western powers in the mid-nineteenth century to the present-day. Emphasis will be on internal changes in political, social, economic and cultural aspects of the nations studied.

4-HIST 497. HISTORY OF INDIA AND PAKISTAN. *Five hours credit.*

A brief history of the peoples of the Indian subcontinent from early times to the present. Emphasis will be placed on the rise and decline of various cultures, Indo-Islamic culture, the advent of the English and their contribution to the birth of nationalism and the organization of India and Pakistan as independent states.

4-HIST 499. INTRODUCTION TO HISTORICAL RESEARCH. *Three hours credit.*

This course introduces the student to the tools and methodology of the professional historian and examines the current function and status of the teacher-historian in our society today.

HEALTH, PHYSICAL EDUCATION AND RECREATION GENERAL EDUCATION COURSES

These courses are numbered from 101-191 inclusive with courses numbered from 101 to 190 counting towards the completion of the electives in the General Education Program. These activity courses are graded on an individualized option basis with the student electing either satisfactory-unsatisfactory or a letter grade for the course on a non-revocable basis. These courses may be repeated for credit upon recommendation of an HPER instructor. When an activity is offered at more than one level of skill it will be noted in the printed class schedule. Skill standards are posted on school bulletin boards.

2-HPER 101. FIELD SPORTS. *One hour credit.*

2-HPER 102. WINTER SPORTS. *One hour credit.*

2-HPER 103. BADMINTON. *One hour credit.*

2-HPER 104. ARCHERY. *One hour credit.*

2-HPER 105. MOVEMENT FUNDAMENTALS. *One hour credit.*

- 2-HPER 106. TUMBLING.** *One hour credit.*
- 2-HPER 108. GYMNASTICS.** *Two hours credit.*
- 2-HPER 109. PHYSICAL FITNESS AND CONDITIONING.** *One hour credit.*
- 2-HPER 110. ORIENTEERING.** *One hour credit.*
- 2-HPER 111. SOFTBALL.** *One hour credit.*
- 2-HPER 112. TENNIS.** *Two hours credit.*
- 2-HPER 113. SOCCER.** *One hour credit.*
- 2-HPER 114. WRESTLING.** *One hour credit.*
- 2-HPER 115. VOLLEYBALL.** *Two hours credit.*
- 2-HPER 116. GOLF.** *Two hours credit.*
- 2-HPER 118. BASKETBALL.** *One hour credit.*
- 2-HPER 120. BOWLING.** *One hour credit.*
- 2-HPER 122. FENCING.** *Two hours credit.*
- 2-HPER 125. SWIMMING.** *One hour credit.*
- 2-HPER 126. SKIING.** *One hour credit.*
- 2-HPER 127. HORSEMANSHIP.** *One hour credit.*
- 2-HPER 128. ROLLER SKATING.** *One hour credit.*
- 2-HPER 129. BASIC MOUNTAINEERING.** *One hour credit.*
- 2-HPER 130. MODERN DANCE.** *One hour credit.*
- 2-HPER 131. DANCE PERFORMANCE.** *One hour credit.*
- Prerequisite, consent of instructor.
- 2-HPER 132. JAZZ DANCE.** *One hour credit.*
- 2-HPER 133. SOCIAL DANCE.** *One hour credit.*
- 2-HPER 134. FOLK DANCE.** *One hour credit.*
- 2-HPER 135. AMERICAN SQUARE AND COUPLE DANCE.** *One hour credit.*
- 2-HPER 136. BALLET.** *One hour credit.*
- 2-HPER 138. SENIOR LIFE SAVING.** *Two hours credit.*
- 2-HPER 139. WATER SAFETY INSTRUCTORS COURSE.** *Two hours credit.*
- Prerequisite, HPER 138.
- 2-HPER 140. FRESHMAN FOOTBALL.** *One hour credit.*
- 2-HPER 141. VARSITY FOOTBALL.** *One hour credit.*
- 2-HPER 142. FRESHMAN BASKETBALL.** *One hour credit.*
- 2-HPER 143. VARSITY BASKETBALL.** *One hour credit.*
- 2-HPER 144. FRESHMAN WRESTLING.** *One hour credit.*
- 2-HPER 145. VARSITY WRESTLING.** *One hour credit.*
- 2-HPER 147. VARSITY GYMNASTICS.** *One hour credit.*
- 2-HPER 149. VARSITY SWIMMING.** *One hour credit.*
- 2-HPER 150. FRESHMAN BASEBALL.** *One hour credit.*
- 2-HPER 151. VARSITY BASEBALL.** *One hour credit.*
- 2-HPER 153. VARSITY TRACK.** *One hour credit.*
- 2-HPER 155. VARSITY TENNIS.** *One hour credit.*
- 2-HPER 157. VARSITY GOLF.** *One hour credit.*
- 2-HPER 160. INTERCOLLEGIATE BASKETBALL (WOMEN).** *One hour credit.*
- 2-HPER 161. INTERCOLLEGIATE GYMNASTICS (WOMEN).** *One hour credit.*
- 2-HPER 162. INTERCOLLEGIATE SWIMMING (WOMEN).** *One hour credit.*
- 2-HPER 163. INTERCOLLEGIATE TRACK (WOMEN).** *One hour credit.*
- 2-HPER 164. INTERCOLLEGIATE TENNIS (WOMEN).** *One hour credit.*
- 2-HPER 165. INTERCOLLEGIATE GOLF (WOMEN).** *One hour credit.*
- 2-HPER 166. INTERCOLLEGIATE VOLLEYBALL (WOMEN).** *One hour credit.*
- 2-HPER 167. INTERCOLLEGIATE FIELD HOCKEY (WOMEN).** *One hour credit.*
- 2-HPER 168. INTERCOLLEGIATE SOFTBALL (WOMEN).** *One hour credit.*
- 2-HPER 191. PERSONAL AND FAMILY HEALTH.** *Three hours credit.*

Designed to provide very practical and useable information and discussions concerning health problems or health concerns of the college student. Such topics as medical aspects of pollution, drug usage, sexuality, family planning, venereal disease, and consumer health will be discussed as well as other critical health problems confronting the U.S. today.

SPECIAL CERTIFICATION COURSES

Water Safety: HPER 138, 139.

First Aid: HPER 262, 263, 264, 269.

Driver and Traffic Safety Education: Teachers assigned to teach the subjects of driver education, traffic safety, and related courses in Colorado must have successfully completed 18 quarter hours of college level courses as follows: Required, HPER 471, Safety Education, 3 hours; HPER 474, Driver and Traffic Safety Education I, 3 hours; and HPER 475, Driver and Traffic Safety Education II, 3 hours for a total of 9 hours. The remaining 9 hours may be elected from a variety of elective courses designed to improve teaching competency in this area of specialization. All teachers assigned to teach the subject of Motorcycle Safety Education must meet all of the above requirements plus completion of the course Motorcycle Safety Education. Students may secure complete information from the Department of Health and Safety Education.

PROFESSIONAL COURSES FOR SCHOOL MAJORS AND MINORS

Courses numbered 200 and higher are intended primarily for the professional preparation of degree candidates completing a major or a minor in the school.

HPER 200. INTRODUCTION TO HEALTH EDUCATION OR PHYSICAL EDUCATION OR RECREATION. *Two to three hours credit.*

Designed to orient freshman majors with the breadth, scope, and nature of the professional program in health education or physical education or recreation.

GERO 205. INTRODUCTION TO GERONTOLOGY. *Four hours credit.*

A survey of the characteristics and special needs of older adults in contemporary society. Designed as an overview of the field of gerontology with emphasis on problems, services, and the need and opportunities for professional educated workers in the field.

2-HPER 205. ISSUES IN HEALTH. *Three hours credit.*

A comprehensive and intensive study of the major contemporary individual and social health problems relating to family life, sex education, the use of stimulants, narcotics, hallucinogens, alcohol, tobacco, and other crucial health problems.

5-HPER 220. ANATOMICAL KINESIOLOGY. *Three hours credit. (One hour laboratory to be arranged.)*

A study of the structural components of human movement with special attention being given to the analysis of movement problems.

2-HPER 221. MECHANICAL KINESIOLOGY. *Three hours credit. (One hour laboratory to be arranged.)*

Prerequisite, HPER 220, PHYS 160. A study of the mechanical components of human movement with special attention being given to the analysis of movement problems.

5-HPER 222. PHYSIOLOGICAL KINESIOLOGY. *Three hours credit. (One hour laboratory to be arranged.)*

A study of the physiological components of human movement with special attention being given to the analysis of movement problems.

3-HPER 223. PSYCHOLOGICAL KINESIOLOGY. *Three hours credit. (One hour laboratory to be arranged.)*

A study of the neuropsychological components of human movement with special attention being given to the analysis of movement problems.

2-HPER 224. MATURATIONAL KINESIOLOGY. *Three hours credit. (One hour laboratory to be arranged.)*

Prerequisites, HPER 222 and 223. A study of the maturational components of human movement with special attention being given to the analysis of movement problems.

HPER 227. COACHING AND OFFICIATING OF GYMNASTICS. *Two hours credit.*

Prerequisite, HPER 285. Designed to prepare the student in the techniques and strategies of coaching competitive gymnastics, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

HPER 228. COACHING AND OFFICIATING OF TRACK AND FIELD. (WOMEN). *Two hours credit.*

Prerequisite, HPER 277. Designed to prepare the student in the techniques and strategies of coaching competitive track and field events, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

HPER 229. COACHING AND OFFICIATING OF FIELD SPORTS. *Two hours credit.*

Prerequisite, HPER 271, 272. Designed to prepare the student in the techniques and strategies of coaching competitive field sports, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

HPER 230. COACHING AND OFFICIATING OF VOLLEYBALL. *Two hours credit.*

Prerequisite, HPER 274. Designed to prepare the student in the techniques and strategies of coaching competitive volleyball, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

HPER 231. COACHING AND OFFICIATING OF BASKETBALL (WOMEN). *Two hours credit.*

Prerequisite, HPER 273. Designed to prepare the student in the techniques and strategies of coaching competitive basketball, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

HPER 232. COACHING AND OFFICIATING OF TENNIS. *Two hours credit.*

Prerequisite, HPER 284. Designed to prepare the student in the techniques and strategies of coaching competitive tennis, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

HPER 233. COACHING AND OFFICIATING OF SWIMMING. *Two hours credit.*

Prerequisite, HPER 139. Designed to prepare the student in the techniques and strategies of coaching competitive swimming, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

HPER 234. COACHING AND OFFICIATING OF SOFTBALL. *Two hours credit.*
Prerequisite, HPER 278. Designed to prepare the student in the techniques and strategies of coaching competitive softball, to provide a background and understanding of the rules and techniques of officiating, and to give practical experience in officiating.

HPER 235. TEACHING EXPERIENCE SEMINAR. *One hour credit.*
To provide early teaching experience prior to taking the Methods course. To give opportunity for discussion and group reaction of problems. To provide experienced leadership to assist in solving problems of teaching.

HPER 236. INTRODUCTION TO HEALTH ASPECTS OF GERONTOLOGY.
Three hours credit.
This course is designed to introduce the student to current basic aspects of health factors influencing aging. A brief introduction to current theories and scientific research regarding the aging process will be presented.

HPER 237. HUMAN SEXUALITY. *Three hours credit.*
This course is designed to acquaint the student with current issues and trends in human sexuality concepts. Controversial issues regarding sexuality and sex education will be presented to provide learning experiences to enhance related physiological, psychological and sociological knowledge to form a philosophical basis for individual and public education.

HPER 238. CONTEMPORARY ISSUES IN DRUG ABUSE. *Three hours credit.*
This course is designed to provide the student with current information concerning the physiological, psychological, and sociological aspects of drug use, misuse, and abuse. The availability and function of drug abuse programs and agencies dealing with prevention and rehabilitation will also be presented as will current research and effective teaching methods and materials.

HPER 245. TUMBLING, APPARATUS AND SELF-TESTING ACTIVITIES FOR THE ELEMENTARY SCHOOL CHILD. *Two hours credit.*
To aid the student in planning and teaching developmental activities for the elementary school age child through the use of tumbling, apparatus and self-testing activities.

2-HPER 252. SOCIAL RECREATION. *Two hours credit.*
Designed to prepare the student for effective planning and leadership in the area of social recreation activities. Special attention is given to programs for church and school groups as well as to activities appropriate for family groups within the homes.

HPER 253. CAMP COUNSELING. *Three hours credit.*
An introductory course to acquaint the student with methods of leadership in camping activities. Special attention is given to the development and application of outdoor skills to the camping situation.

HPER 255. MODERN DANCE TECHNIQUES AND COMPOSITION. *Four hours credit.*
Prerequisites, HPER 256, 293, 294. Basic techniques, movement analysis and composition for the advanced dance student.

2-HPER 256. IMPROVISATION AND COMPOSITION FORMS. *Two hours credit.*
Prerequisites, HPER 293, 294. This course provides instruction in the improvisational approach to creative dance and the sequential and contrapuntal compositional forms. Emphasis is placed on form and structure of composition.

2-HPER 262. STANDARD FIRST AID AND PERSONAL SAFETY. *Two hours credit.*

2-HPER 263. ADVANCED FIRST AID AND EMERGENCY CARE. *Three hours credit.*

Prerequisite, HPER 262.

HPER 264. INSTRUCTOR'S COURSE IN STANDARD FIRST AID AND PERSONAL SAFETY. *One hour credit.*

Prerequisite, HPER 262, 263.

HPER 265. RECREATION SKILLS IN SPORTS AND GAMES. *Three hours credit.*

An introductory course, designed to acquaint the undergraduate Recreation major with the skills necessary to organize and conduct activities in the area of individual, dual, and team sports and games, with emphasis on the lifetime approach.

HPER 266. OUTDOOR RECREATION SKILLS. *Two hours credit.*

This course is designed to acquaint the student with experiences whereby he or she may acquire knowledge and skill in the many outdoor activities.

HPER 267. RECREATION SKILLS IN THE RECREATION CENTER, AND ON THE PLAYGROUND. *Three hours credit.*

An introductory course designed to acquaint the undergraduate Recreation major with the skills necessary to organize and conduct the numerous kinds of activities which are included in the modern center and playground program.

HPER 269. INSTRUCTOR'S COURSE IN ADVANCED FIRST AID AND EMERGENCY CARE. *One hour credit.*

HPER 270. ANALYSIS AND MOVEMENTS OF WEIGHT TRAINING AND CONDITIONING. *One hour credit.*

Principles, methods, and techniques of weight training for athletics.

HPER 271. ANALYSIS AND MOVEMENTS OF SOCCER OR SPEEDBALL. *One hour credit.*

Movement skills, rules, and strategies.

HPER 272. ANALYSIS AND MOVEMENTS OF FIELD HOCKEY. *One hour credit.*

Movement skills, rules, and strategies.

HPER 273. ANALYSIS AND MOVEMENTS OF BASKETBALL. *Two hours credit.*

Movement skills, rules, and strategies.

HPER 274. ANALYSIS AND MOVEMENTS OF VOLLEYBALL. *One hour credit.*

Movement skills, rules, and strategies.

HPER 275. ANALYSIS AND MOVEMENTS OF WRESTLING. *Two hours credit.*

Movement skills, rules, and strategies.

HPER 276. ANALYSIS AND MOVEMENTS OF FOOTBALL OR FLAG FOOTBALL. *Two hours credit.*

Movement skills, rules, and strategies.

HPER 277. ANALYSIS AND MOVEMENTS OF TRACK. *Two hours credit.*

Movement skills, rules, and strategies.

HPER 278. ANALYSIS AND MOVEMENTS OF BASEBALL OR SOFTBALL.

Two hours credit.

Movement skills, rules, and strategies.

HPER 279. ANALYSIS AND MOVEMENTS OF SELF DEFENSE. One hour credit.

The purpose of this course is to provide students with the necessary skills to protect themselves in all situations.

HPER 280. ANALYSIS AND MOVEMENTS OF BADMINTON. One hour credit.

Movement skills, rules, and strategies.

HPER 281. ANALYSIS AND MOVEMENTS OF FENCING. One hour credit.

Movement skills, rules, and strategies.

HPER 282. ANALYSIS AND MOVEMENTS OF BOWLING. One hour credit.

Movement skills, rules, and strategies.

HPER 283. ANALYSIS AND MOVEMENTS OF SWIMMING. Two hours credit.

Movement skills, rules, and strategies.

HPER 284. ANALYSIS AND MOVEMENTS OF TENNIS. One hour credit.

Movement skills, rules, and strategies.

HPER 285. ANALYSIS AND MOVEMENTS OF TUMBLING AND GYMNASTICS. Two hours credit.

Movement skills, rules, and strategies.

HPER 286. ANALYSIS AND MOVEMENTS OF ARCHERY. One hour credit.

Movement skills, rules, and strategies.

HPER 287. ANALYSIS AND MOVEMENTS OF GOLF. One hour credit.

Movement skills, rules, and strategies.

HPER 288. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL. Two hours credit.

Designed for, required of, and restricted to majors and minors in elementary education. Content deals with basic principles and activities included in a well-rounded program of physical education for the elementary school.

HPER 289. ANALYSIS AND MOVEMENTS OF SKIING. One hour credit.

Movement skills and methods of teaching skiing.

HPER 290. ANALYSIS AND MOVEMENTS OF FOLK AND SQUARE DANCE.

Two hours credit.

Fundamental and advanced skills of folk and square dance.

HPER 291. RHYTHMIC EDUCATION IN THE ELEMENTARY SCHOOL. Two hours credit.

Methods and materials of creative dance, singing games and folk dances including the movement exploration approach.

HPER 293. ANALYSIS AND MOVEMENTS OF MODERN DANCE. Two hours credit.

The analysis and techniques of movement in relation to the aspects of time, space and force.

HPER 294. PROBLEMS IN DANCE COMPOSITION. Two hours credit.

Prerequisite, HPER 293. Problems in dance composition include rhythmic analysis

and accompaniment for dance.

HPER 296. RHYTHMIC ANALYSIS AND DANCE ACCOMPANIMENT. *Two hours credit.*

A course designed to present the fundamental principles of rhythm and dance accompaniment through practical dance application.

HPER 297. ANALYSIS OF SWIMMING TECHNIQUES (WOMEN). *One hour credit.*

Prerequisite, HPER 283. Analysis of swimming and diving and synchronized swimming techniques.

HPER 298. INSTRUCTIONAL MEDIA IN HEALTH, PHYSICAL EDUCATION AND RECREATION. *Two hours credit.*

To help the student to learn the techniques of constructing teaching aids and improvised equipment and to develop resourcefulness, initiative, and creativity in the use of materials at hand to implement learning.

2-HPER 299. COMMUNITY HEALTH. *Three hours credit.*

Designed to introduce the student to major health problems and various community health programs, agencies, and services which relate to solutions of community based problems. It is structured to include discussions of methods used to control community health problems in today's society.

HPER 301. HEALTH EDUCATION IN THE ELEMENTARY SCHOOL. (PTE) *Two hours credit.*

Designed to give the prospective elementary teacher a foundation in school health education, including health services, healthful school living, and health instruction. In addition, opportunity to develop skills in organizing and presenting learning experiences in a comprehensive and sequential health curriculum, including standard and controversial topics, will be provided.

HPER 325. TEACHING OF SPORTS. (PTE) *Two hours credit.*

Prerequisites, HPER 271, 272, 273, 274, 277, 278, 280, 284, 285, and 295. A consideration of the basic techniques of sports including skills, rules and strategies, emphasizing teaching procedures.

HPER 326. TEACHING OF DANCE. (PTE) *Two hours credit.*

Prerequisites, HPER 290, 292, 293, 294. Teaching procedures of dance activities for the physical education major student.

3-HPER 337. SOCIO-PSYCHOLOGICAL CONCEPTS OF LEISURE. *Three hours credit.*

It is the purpose of this course to familiarize the student with basic sociological and psychological concepts of leisure.

HPER 340. HEALTH AND PHYSICAL EDUCATION FOR THE HANDICAPPED. *Three hours credit.*

Discussion of basic characteristics of the handicapped as related to participation in physical education, recreation, and outdoor education. Emphasis is placed on interests, needs, limitations, and potentialities of the handicapped. Special consideration is given to types of activity programs, modification of activities, and approach to teaching the mentally and physically handicapped.

2-HPER 342. MODERN CONCEPTS OF HEALTH AND DISEASE. *Three hours credit.*

Designed to discuss in-depth the mechanism of disease and its effect on the human body. Discussions will include current theories of and defenses against disease and analysis of the major diseases which affect the various systems of the body.

HPER 343. METHODS AND OBSERVATION OF HEALTH EDUCATION. (PTE)*Five hours credit.*

This course is designed for the purpose of demonstrating effective presentation of health information through the utilization of various educational media, qualified resource persons, special exhibits, experiments and presentations, and community resources available beyond the classroom. Observation and direct exposure to first hand learning experiences will be provided whenever possible. Various instructional procedures, techniques, and methods will be utilized.

HPER 344. METHODS AND OBSERVATION OF TEACHING PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL. (PTE) *Three hours credit.*

A study of mental, emotional, physical and social needs of children of elementary school age levels, and the planning of a program, selection of materials and methods of teaching physical education at these levels.

HPER 345. METHODS AND OBSERVATIONS OF TEACHING PHYSICAL EDUCATION IN THE SECONDARY SCHOOL. (PTE) *Two hours credit.*

A study of planning, materials, and methods in physical education for the secondary school based on mental, physical, and social needs of the student at various age levels.

HPER 346. ASSISTANT TEACHING. One hour credit.

Prerequisite, 345 or may be taken concurrently with HPER 345. Designed to afford undergraduate students an opportunity to teach under close supervision with immediate feedback and discussion with the supervising teacher.

5-HPER 350. INTRODUCTION TO ENVIRONMENTAL HEALTH. Three hours credit.

This course is designed for the undergraduate student of all disciplines within the University. An interdisciplinary approach involving the relationships of environmental pollution to the ecosystem in which we live and man's health will be emphasized. The major areas of environmental pollution; i.e., water pollution, air pollution, solid wastes, pesticides, radioactive wastes, and population pressures will be analyzed.

HPER 361. COACHING OF FOOTBALL. (PTE) *Two hours credit.*

Prerequisite, HPER 276. The techniques and strategy of coaching football, with emphasis upon type of formations, defense, play series, rules, and football coaching in general.

HPER 362. COACHING OF BASKETBALL. (MEN). (PTE) *Two hours credit.*

Prerequisite, HPER 273. Theory and practice in scouting, charting, scoring, timing, and officiating. Principles of successful modern offensive and defensive play. Procedures in developing and utilizing playing personnel.

HPER 363. COACHING OF TRACK AND FIELD. (MEN). (PTE) *Two hours credit.*

Prerequisite, HPER 277. A study of the techniques of coaching the various events in track and field, the rules, and the methods of conducting track events.

HPER 364. COACHING OF BASEBALL. (PTE) *Two hours credit.*

Prerequisite, HPER 278. Techniques and procedures in developing individual and team play. Defensive baseball: pitching, catching, infielding, outfielding, strategy. Offensive baseball: batting, base-running, strategy.

HPER 365. COACHING AND OFFICIATING OF WRESTLING. Two hours credit.

A study of the techniques and strategy of coaching competitive wrestling with

theory and practice provided in officiating, scoring, timing, and scouting of wrestling meets.

HPER 308. PROGRAMS IN RECREATION. *Four hours credit.*

Prerequisite, HPER 200. Designed to prepare the student for effective planning of varied types of recreation programs. Special attention is given to programs for public playgrounds, community centers, and such special groups as the aging, teenagers, young adults, and the handicapped.

HPER 309. THERAPEUTIC RECREATION. *Three hours credit.*

Adaptation of recreation activities to meet the varying needs of handicapped individuals in hospitals, schools, homes, recreation and rehabilitation centers. Reports, discussions, observations, and visitations.

HPER 390. PREVENTION AND CARE OF SPORTS INJURIES. *Two hour credit.*

Prerequisites, HPER 220, 221. 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.

HPER 361. PRACTICAL EXPERIENCES IN CARE OF ATHLETIC INJURIES.
One hour credit. May be repeated for total of four hours credit.

Prerequisite, HPER 380. Practical application and experience in the prevention, management, and rehabilitation of injuries occurring in the school athletic program.

HPER 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

HPER 426. TESTS AND MEASUREMENT IN PHYSICAL EDUCATION. (PTE)
Three hours credit.

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

HPER 432. ADAPTED PHYSICAL EDUCATION. (PTE) *Three hours credit.*

Prerequisites, HPER 220, 221. Developmental, remedial, and corrective programs in physical education. Emphasis is given to adaptations which are designed to meet the needs of individuals requiring special attention above and beyond the regular physical education program.

HPER 435. EDUCATIONAL INTERPRETATIONS OF HEALTH, PHYSICAL EDUCATION AND RECREATION. (PTE) *Three hours credit.*

A foundational approach to interpretations and objectives of physical education, health education, and recreation in general education. Designed to assist the mature professional major in developing a sound philosophic background for continued growth in the professional field.

3-HPER 436. SOCIOLOGICAL DIMENSIONS OF SPORT IN AMERICAN SOCIETY. *Three hours credit.*

It is the main objective of this course to examine and utilize basic sociological concepts and demonstrate their manifestations within the area of sport.

HPER 440. PERCEPTUAL -- MOTOR THEORIES. *Three hours credit.*

Designed to help the student understand the background of the perceptual-motor movement and plan a program of perceptual-motor activities.

HPER 441. ADMINISTRATION OF INTRAMURAL SPORTS AND STUDENT RECREATION PROGRAMS. *Two hours credit. (Laboratory required.)*

The administrative problems confronted by the Intramural Director: organization, supervision, scheduling, facility management, financing, equipment, and evaluation.

HPER 450. ADMINISTRATION OF PHYSICAL EDUCATION. (PTE) *Three hours credit.*

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

HPER 451. ADMINISTRATION OF COMMUNITY, PARK AND RECREATION. *Five hours credit.*

Prerequisite, HPER 368. The course is concerned with the organization and administration of the community recreation program. Eleven essential areas of this subject are studied: fact-finding, survey, legal aspects, municipal organization, department organization, financing, records and reports, publicity, public relations, leadership, and program.

HPER 452. INTERNSHIP IN RECREATION. *Eighteen hours credit.*

Prerequisites, HPER 368, 369, 451, 472. A course designed primarily to help students make the transition from the classroom to the practical situation. Opportunity is provided for students to assume the normal responsibilities involved in the conduct of various kinds of recreation activities. One quarter of full-time activity is required.

GERO 453. INTERNSHIP IN GERONTOLOGY. *Eighteen hours credit.*

A course designed primarily to help the senior student majoring in Gerontology make the transition from the classroom to the practical situation. One quarter of full-time placement is required.

HPER 454. INTERNSHIP IN HEALTH. *Nine to eighteen hours credit.*

This course is designed to give the health major (non-teaching) the opportunity to work with official and/or voluntary health agencies. The experience will provide specific assignments and responsibilities for the intern under the guidance and supervision of the cooperating agency and the staff in the Department of Health and Safety Education. At the conclusion of the internship experience, a written evaluation will be submitted to the department for purposes of evaluation and recording.

HPER 456. WORKSHOP IN MODERN DANCE. *Four hours credit.*

Prerequisites, HPER 255, 256, 293, 294. Problems connected with the staging of dance performances.

4-HPER 457. DANCE HISTORY AND PHILOSOPHY. *Four hours credit.*

History and development of dance as it is culturally determined and the philosophy influencing dance.

HPER 458. DANCE METHODS AND MATERIALS. *Four hours credit.*

Prerequisites, HPER 293, 294. Procedures and materials for teaching contemporary dance. For the dance education major and minor student. This includes dance accompaniment.

HPER 459. DANCE PRODUCTION IN HIGH SCHOOL AND COLLEGE. *Two hours credit.*

Prerequisites, HPER 293, 294, 456. A practical application and principles which serves the presentation of dance. The course deals with a choreographic problem,

the invention, manipulation, direction and production involving theatre application of set, and costume and light design.

2-HPER 460. OUTDOOR RECREATION. *Four hours credit.*

Emphasis will be placed on initiating and developing outdoor recreation programs through multi-disciplinary (team approach), involving state and national professional education associations, governments, organizations, and private agencies.

HPER 464. SPORTS OFFICIATING FOR MEN. *One to four hours credit.*

Designed for coaches, administrators, and officials. Considers general principles and philosophy of officiating as well as study of the mechanics of officiating the sports for men in the school program.

HPER 470. ADMINISTRATION OF ATHLETICS. *Three hours credit.*

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

HPER 471. SAFETY EDUCATION. *Three hours credit.*

A comprehensive course for preparing teachers and school administrators to assume responsibility for safety education and accident prevention programming in school and public service.

HPER 472. RECREATION LEADERSHIP. *Four hours credit.*

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

HPER 474. DRIVER AND TRAFFIC SAFETY EDUCATION I. *Three hours credit.*

Fundamentals, principles, practices and content of high school driver education and traffic safety programs. Primary emphasis is placed on teaching the classroom phase of driver and traffic safety education.

HPER 475. DRIVER AND TRAFFIC SAFETY EDUCATION II. *Three hours credit.*

Study of problems related to administration, instruction, evaluation and research in driver and traffic safety education programs. This course will also include directed laboratory experiences in teaching off-street driving through the use of simulation and multi-vehicle driving range and on-street driving through the use of dual control automobiles.

HPER 490. ADULT FITNESS PRINCIPLES. *Three hours credit.*

A course designed to familiarize the student with the special exercise needs of the adult including the use of exercises as a preventive measure in the degeneration of aging.

HPER 495. SENIOR SEMINAR. *Four hours credit.*

Research, observation, participation, presentation, and discussion of current events by students aimed at developing a personal and professional philosophy for their chosen profession.

HUMANITIES (Administered by English Department)

4-HUM 201. THE CLASSICAL AGES: GREECE AND ROME. *Four hours credit.*

Selected studies in Western culture from its beginnings to the decline of Rome.

4-HUM 202. THE MIDDLE AGES AND THE RENAISSANCE. *Four hours credit.*
Selected studies in Western culture from the decline of Rome to the Seventeenth Century.

4-HUM 203. THE AGE OF REASON TO THE AGE OF ROMANTICISM: 17TH THROUGH 19TH CENTURIES. *Four hours credit.*
Selected studies in Western culture from the Seventeenth through the Nineteenth Century.

4-HUM 204. THE TWENTIETH CENTURY. *Four hours credit.*
Selected studies in Western culture during the Twentieth Century.

4-HUM 205. LITERATURE AND ARTS OF THE ORIENT. *Four hours credit.*
An introduction to the literature, arts, and thought of the Orient.

4-HUM 210. THEMES OR PROBLEMS IN THE HUMANITIES. *Four to twelve hours credit.*
An interdisciplinary study of one of the recurring themes in the development of civilization OR of a great philosophical esthetic, social or political problem as reflected in the arts, music, literature philosophy.

4-HUM 220. MAN, THE MEASURE. *Four hours credit.*
This course begins with a study of the classical Greek idea of levels of being, from its appearance in Plato's *Timaeus* and traces it through literature and art of the Middle Ages, Renaissance, and beyond.

4-HUM 221. THE CHRISTIAN WORLD IN COLLISION. *Four hours credit.*
Religious reaction in the Christian era, studying the development of Christianity and its relation to existing religions, early heretics such as Wyclif, Huss, Jeanne d'Arc and Luther, the impact of science, and the growing interest in Eastern beliefs and their influence on twentieth century Christianity.

4-HUM 222. THE ROMANTIC REVOLT. *Four hours credit.*
A thematic approach to the cyclic process of Romanticism, from the Renaissance to the Twentieth century. The course will involve discussion and analysis of the central themes of Romanticism, such as primitivism, wonder and mystery, transcendentalism, sympathy found in Nature, and the emphasis upon imagination over reason and realism.

4-HUM 223. THE ACADEMY AND THE GARDEN. *Four hours credit.*
Hypothesis: Since the 17th Century, practitioners of the Arts and Sciences have struggled to construct for themselves a semi-sacred place; non-political, non-normative, the groves of academe would flourish in innocence and amorality. Critical examination of this hypothesis will focus on a variety of materials drawn from the 17th through 20th Centuries.

4-HUM 226. THE DIVIDED SELF. *Four hours credit.*
Since simple self is also compound self, and often complex, this course studies perspectives in the divided self from Plato and Augustine to Dostoevsky and Rollo May.

4-HUM 240. CULTURAL AND HISTORICAL ORIGINS OF MYTH. *Four hours credit.*
Primary attention is given to theories explaining the origins of myths. Students will investigate the value and validity of these theories through specifically selected primary sources. The first quarter focuses on language, cultural and historical phenomena.

4-HUM 241. PSYCHOLOGICAL ORIGINS OF MYTH. *Four hours credit.*

Primary attention is given to psychological explanations for the origins of myths. Students will apply these theories to specially selected primary sources. These studies will also point to biological or organic theories of origin. Primary sources will include painting and sculpture as well as literature.

4-HUM 251. THE WISDOM OF INDIA AND CHINA. *Four hours credit.*

Selected readings in the literature and some of the other arts of India and China. Emphasis will be on the concept of man as it is reflected in the art and literature of India and China.

4-HUM 290. THREE SONS OF FLORENCE. *Four hours credit.*

A study of the Italian Renaissance during the 15th and 16th centuries, as centered in three important sons of Florence -- namely, Lorenzo Medici (1449-1492), Machiavelli (1469-1527), and Michelangelo (1475-1564).

4-HUM 301. THE ART OF THE FILM. *Four hours credit.*

An introduction to the major creative filmmakers -- Griffith, Welles, Bergman, Antonioni, etc. -- and to their characteristic technical and thematic concerns.

4-HUM 310. THEMES, TOPICS, OR PROBLEMS IN THE HUMANITIES: FLORENCE. *Four to twelve hours credit.*

An interdisciplinary study of literature, art, philosophy, and music which reflect a recurring theme or topic or problem in the development of civilization, especially that of Italy and its influence on other countries.

4-HUM 311. STUDIES IN WORLD LITERATURE: FLORENCE. *Four to twelve hours credit.*

A study of a particular theme, form, or problem as reflected in Italian and other world literatures.

4-HUM 312. COMPARATIVE STUDIES IN THE HUMANITIES: FLORENCE. *Four to twelve hours credit.*

A comparative study in the art, music, philosophy and literature of Italy and those of other countries.

4-HUM 313. ITALIAN MEDIA: FLORENCE. *Three hours credit.*

Studies in the varieties of Italian media, their methods, means, aesthetic principles and audiences.

4-HUM 314. THE ITALIAN HUMANISTS: FLORENCE. *Three hours credit.*

A study of the rise of humanism in Florence in the 15th century, the major contributors to this movement and their ideals.

4-HUM 315. LEONARDO, MICHELANGELO AND THE NEO-PLATONIC ACADEMY: FLORENCE. *Three hours credit.*

A study of two outstanding artists of the Italian Renaissance and the relationship of their thought and art to the Neo-Platonic Academy.

4-HUM 316. ITALIAN FOLK ARTS: FLORENCE. *Three hours credit.*

A study of how ancient beliefs, customs, and cultural patterns have been transmitted and are manifest in the modern language, art, and the attitudes of Italians today.

4-HUM 317. MEDIEVAL PHILOSOPHY: FLORENCE. *Three hours credit.*

Studies in the philosophy of the Middle Ages, including the Christianization of Greek and Roman thought; Augustine, Anselm, Aquinas, Ockham; the problem of universals; faith and reason.

4-HUM 318. POETRY AND PHOTOGRAPHY: FLORENCE. *Three hours credit.*
Studies of and writing in traditional poetic forms and free verse related to the visual imagery of poetry.

4-HUM 377. ORIGINS OF THE GOSPELS I. *Three hours credit.*
An introduction to the four Gospels of the Bible, in particular an investigation into the sources and texts which make up the present Gospel narratives of the New Testament.

4-HUM 378. ORIGINS OF THE GOSPELS II. *Three hours credit.*
Prerequisite, HUM 377. Investigation into the reason for more than one Gospel and peculiarities of each Gospel and the similarities they share.

4-HUM 411. ADVANCED COURSE IN THE HUMANITIES. *Four to twelve hours credit.*
A study of one or more great literary or artistic works in relation to history, philosophy, and other arts.

INDUSTRIAL ARTS

2-IA 111. BICYCLE MAINTENANCE. *One hour credit.*
A course to acquaint student with general repair and maintenance of modern bicycles, both foreign and domestic. Topics such as purchasing, lubrication, tire care, brakes and transmissions will be studied. S-U final mark.

2-IA 118. GENERAL PLASTICS (SYNTHETIC MATERIALS). *Three hours credit.*
A general introduction to the field of plastics, emphasizing the study of materials and processes of the industry. Content includes the basic processes of casting, reinforcing, lamination, expandable materials, assembling and finishing.

2-IA 141. GRAPHIC ARTS FUNDAMENTALS. *Three hours credit.*
Experience with the fundamental operations used in school graphic arts shops. Information about tools, machines, and materials.

2-IA 150. WOOD PROCESSING. *Three hours credit.*
Development of basic skills and knowledge in planning and layout, lumber and lumbering, purchasing and measuring of wood materials, methods of fastening and adhering, basic upholstery, elementary finishing and joinery with hand and portable electric tools.

2-IA 161. PRINCIPLES OF DRAFTING. *Three hours credit.*
Lettering, freehand sketching, geometric construction, orthographic projection, sectional views, and dimensioning in drafting.

2-IA 164. INDUSTRIAL DESIGN. *Three hours credit.*
The principles of design as related to materials, construction techniques, and their application to industrial arts problems and areas.

2-IA 170. GENERAL METALS. *Three hours credit.*
An introduction to the materials and processes of the metals industry with emphasis on foundry, sheet metal, bench metal, heat treatment of metals and industrial production methods.

2-IA 180. GENERAL ELECTRICITY. *Three hours credit.*
Designed as an introductory course to the basic principles and applications of

electricity/electronics. Emphasis placed on types of electricity/electronic laboratory equipment, soldering, component symbols and terminology, electron theory, magnetism, methods of producing electricity, resistance, current, voltage and Ohm's Law in series, parallel and series-parallel circuits.

2-IA 190. INTRODUCTION TO POWER. *Two hours credit.*

A study of energy sources and the machines that convert energy into useful work. Emphasis given to broad overview of entire field of power and its importance to technology.

IA 210. GENERAL BOOKBINDING. *Three hours credit.*

Development of basic skills in hand bookbinding applicable to elementary or junior high school arts programs.

2-IA 216. LEATHERCRAFT. *Three hours credit.*

Development of the basic skills in leathercraft, including designing, tooling, carving, and constructing leather projects for the industrial arts programs, such as general shop, camp activities, and recreation programs.

IA 219. PLASTICS. *Two hours credit.*

Emphasis on techniques, skills and design in the use of industrial plastics materials, includes the basic processes of molding, thermoforming, foaming materials and machining.

IA 221. TECHNOLOGY: ITS IMPACT ON SOCIETY. *Three hours credit.*

This course will deal with the impacts of industry and technology on our modern day society. Emphasis placed on invention, power and energy, transportation and communication, new materials, agriculture and construction, and socio-economic impacts. Implications to the environment, urban areas, psychology, sociology, politics and human beings will be discussed. An outlook will be presented to view technology as an intellectual discipline.

IA 241. GRAPHIC ARTS. *Two hours credit.*

The relationship of the processes used in school graphic arts shops to industry. Consumer information is developed and occupational opportunities are explored.

2-IA 256. UPHOLSTERY. *Two hours credit.*

Techniques and processes in the various types of upholstery for all grade levels.

2-IA 257. WOODTURNING. *Two hours credit.*

Basic skills and related techniques in faceplate and spindle woodturning.

IA 261. PICTORIAL DRAFTING. *Two hours credit.*

Object description and pictorial drawing. Emphasis is on auxiliary views, isometric, and perspective drawings.

2-IA 272. GAS AND ELECTRIC WELDING. *Three hours credit.*

An introductory course in the area of gas and electric welding, welding technology and non-destructive testing of welds.

IA 281. ELECTRO-MECHANICAL EQUIPMENT AND MEASURING INSTRUMENTS. *Two hours credit.*

An introductory course in alternating current and applications of electro-magnetic principles. Emphasis on AC-DC motors and generators, alternators, meter movements, operation/calibration of oscilloscopes, inductance, capacitance, resonance, wiring and illumination and basic semi-conductor theory.

IA 291. INTERNAL COMBUSTION AND RECIPROCATING ENGINES. *Three hours credit.*

A study of two-cycle and four-cycle reciprocating engines. Emphasis placed on principles of operation, systems of basic engines, such as ignition (spark and compression), cooling, fuel, lubricating, and electrical.

2-IA 299. UNDERSTANDING THE AUTOMOBILE, A COURSE FOR WOMEN. *Three hours credit.*

An introductory study of the mechanical systems of the automobile. Emphasis is on explanation of operational problems and basic maintenance exercises. All presentations and exercises organized for those having little or no knowledge of the technical aspects of the automobile. S-U final mark.

IA 308. WORKSHOP. *One to six hours credit.*

This course is concerned with the instructional problems of the participants; however, the problems attached would vary according to the experts conducting the workshop. Each workshop will have a subtitle and no subtitle may be repeated for credit. Not open to graduate students.

IA 314. UNDERSTANDING HOME MAINTENANCE ACTIVITIES. *Three hours credit.*

Course is designed to provide opportunities for students to study, understand and experience the variety of maintenance, repair and constructional activities that are necessary and commonly performed in and about the home.

2-IA 315. GENERAL CRAFTS. *Five hours credit.*

Basic techniques, construction and demonstration in industrial arts crafts with simple tools and inexpensive materials, including laboratory experiences in such areas as blockprinting, bookbinding, braiding, leather, metal crafts, mosaic, plastics, silk screening and woodcrafts.

IA 320. COURSE ORGANIZATION IN INDUSTRIAL ARTS. *Three hours credit.*

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

IA 325. EQUIPMENT MAINTENANCE IN INDUSTRIAL ARTS. *Three hours credit.*

Techniques of maintenance and repair of tools and machines used in industrial arts laboratories. Management and selection of supplies used in the various materials areas are covered.

IA 330. METHODS OF TEACHING IN THE SECONDARY SCHOOL INDUSTRIAL ARTS. (PTE) *Three hours credit.*

Methods of teaching in the junior-senior high school. Includes 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. S-U final mark.

IA 335. HISTORY AND PHILOSOPHY OF INDUSTRIAL ARTS. *Three hours credit.*

A basic understanding of the history of industrial arts, with emphasis on developing an individual philosophy. A study of the conflicts and relationship of philosophy to actual practice in a functional program of industrial arts.

IA 336. PRINCIPLES OF GENERAL SHOP ORGANIZATION. *Five hours credit.*

Introduction to the concepts of organization and administration together with history, philosophy, and development of the general shop. Emphasis will be placed

on objectives, program planning, equipment selection, and methods of teaching. Areas to be included are: bookbinding, leather, ceramics, and art metal.

IA 340. GRAPHIC ARTS DESIGN AND LAYOUT. *Three hours credit.*

A study of the origin, development and application of the principles of design in the field of typography. Special emphasis is on the selection and use of type and illustrations for printing layout.

2-IA 342. BASIC PHOTOGRAPHY. *Three hours credit.*

Fundamentals of camera, lens, photographic materials, and processing. Photography as a means of communication through picture planning and practical photography.

1-IA 345. PUBLICATION PRODUCTION. *Five hours credit.*

A study of printing as it relates to the field of journalism. The basic areas covered will be news photography, layout and design, and production. Time will be spent on practical applications of each of the three areas.

IA 350. WOODWORKING TECHNOLOGY. *Five hours credit.*

The study of woods, materials, and equipment related to the woodworking area. Laboratory emphasis is on woodworking tools and machines.

IA 353. FURNITURE AND CABINET MAKING. *Three hours credit.*

Design and construction of period and modern furniture, study of production methods of industry, upholstery, and woodfinishing.

2-IA 354. WOODFINISHING. *Two hours credit.*

Techniques and processes in woodfinishing. Experience with traditional and new types of materials. A study of the needs of public school shops in this area of work.

IA 357. CAREERS IN THE BUILDING CONSTRUCTION INDUSTRY. *Three hours credit.*

To develop an awareness of construction occupations. Students will experience some tool skills of various trades. The course will be based on the IACP junior high school curriculum.

IA 359. CONSTRUCTION ACTIVITIES IN THE ELEMENTARY CLASSROOM. *Three hours credit.*

This course is designed to acquaint people with the background and methods for teaching constructional activities at the elementary school level. They will become familiar with tools and materials that can supplement the ongoing curriculum. Emphasis will be directed toward an integrated program of activity related to and reinforcing the public school subject matter content and related to recreational and personal purposes.

IA 362. WORKING DRAWINGS. *Three hours credit.*

Deals with detail drawings, assembly drawings, piping drawings, electronic drawings, welding drawings, and simple duplicating processes such as diazo, ozalid, blueprinting, and xerography.

IA 363. GRAPHIC SOLUTIONS. *Two hours credit.*

Orthographic projection principles applied to graphic representation, solution of problems in space and developments and intersections.

2-IA 371. ART METAL AND METAL SPINNING. *Three hours credit.*

Elementary course in art metal work including tooling, etching, forming, piercing, enameling and spinning.

2-IA 373. JEWELRY DESIGN AND CONSTRUCTION. *Three hours credit.*

Basic processes in jewelry construction including soldering, casting, stone cutting, simple silversmithing, and use of appropriate equipment.

IA 374. MACHINE TOOL OPERATION. *Two hours credit.*

An introduction to machine tool operation including engine lathes, shapers, drill presses, surface grinders and precision measurement.

IA 383. ELECTRONIC HARDWARE AND COMPONENTS. *Two hours credit.*

A study of the manufacture, application and function of electronic hardware and components used in industry. Emphasis placed on introduction to electronics communications, semi-conductor theory, transistors, vacuum tubes, cathode ray tubes, crystal fabrication, uni-junction transistors, field-effect transistors, silicon controlled rectifiers, tunnel diodes and integrated circuits.

IA 384. ELECTRONIC CIRCUITRY. *Three hours credit.*

A study of the basic circuits, both semi-conductor and vacuum tube, used in industry. Emphasis placed on power supplies, amplifiers, oscillators, AM transmitters, AM receivers, transmission lines, antennas and printed circuits.

IA 391. EXTERNAL COMBUSTION ENGINES AND NUCLEAR POWER. *Three hours credit.*

A study of reciprocating steam engines and steam turbines and their generating plants. Study will include the principles of operation, design, construction of the various steam engines and generating plants. Emphasis will also be placed on nuclear energy and its application to the generation of steam by means of the nuclear reactors.

IA 392. REACTION ENGINES. *Two hours credit.*

A study of the various continuous combustion engines. Study will include gas turbines, jets, and rocket engines. Emphasis will be placed on their principles of operation, design, and construction as well as their applications.

IA 417. INDUSTRIAL PLASTICS. *Three hours credit.*

Development of skills and knowledge in the use of thermosetting and thermoplastic materials with emphasis on industrial applications including the designing and construction of molds and forms.

IA 418. PLASTICS TECHNOLOGY. *Three hours credit.*

Introduction to the industrial processes of the plastic industry with emphasis on molding, casting, thermoforming processes and fabrication.

IA 422. INDIVIDUAL STUDIES IN INDUSTRIAL ARTS. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

IA 433. INDUSTRIAL MATERIALS. *Three hours credit.*

A study of the origin of the materials used in industrial arts classes and processes involved in the manufacture of each material. Ways of presenting the related information and consumer knowledge of each material are considered.

IA 434. INDUSTRIAL OCCUPATIONS. *Three hours credit.*

A study of industrial occupations as related to vocational, technical, and industrial arts education. It will include types of occupations, entrance requirements, sources of training, and other related information which would be of benefit to the industrial education teacher.

IA 440. ORGANIZATION OF THE GRAPHIC ARTS LABORATORY. *Three hours credit.*

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

2-IA 442. BLACK AND WHITE PHOTOGRAPHY. *Five hours credit.*

Advanced exploration of experimental, interpretive, and communicative photography. Emphasis placed upon the improvement of creative photographic and darkroom techniques.

IA 443. THEORY AND PRACTICE IN OFFSET LITHOGRAPHY. *Three hours credit.*

Includes copy preparation, camera and darkroom work, stripping and opaquing, plate making and offset press operation.

IA 444. PROBLEMS OF DESIGN IN THE GRAPHIC ARTS. *Three hours credit.*

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

IA 452. PROBLEMS IN WOODWORKING. *Three hours credit.*

A study of the problems the specialized teacher of woodworking in secondary schools must meet.

IA 461. ARCHITECTURAL DRAWING. *Three hours credit.*

Deals with the planning and drawing of a complete set of building plans with specifications. Emphasis placed on principles, practices, and techniques of house construction.

IA 462. PROBLEMS IN DRAFTING AND PLANNING. *Three hours credit.*

Objectives, course content, practices and teaching procedures in selected areas of drafting. Problems and assignments are set in terms of individual needs.

IA 463. MACHINE DRAWING. *Three hours credit.*

Principles of designing machines. Materials, processes and procedures will be discussed. Such areas as limit and tolerance dimensions, types of fits, screw threads and fasteners, and cam and gear drawing are included.

IA 471. ADVANCED ART METAL. *Three hours credit.*

An advanced study in art metal including experiences in metal tooling, etching, sinking, raising, enameling and spinning of aluminum, copper and brass.

IA 473. ADVANCED JEWELRY AND LAPIDARY WORK. *Three hours credit.*

Designed to give advanced work in jewelry construction and silversmithing. Student experiences include work in design, lapidary, fabrication, and casting as it applies to jewelry.

IA 480. ELECTRONIC CIRCUIT APPLICATIONS. *Maximum nine hours credit.*

A study of electronic hardware and component applications to common circuits found in electronic equipment. Emphasis placed on control circuits, digital computer logic theory, solid state devices, printed circuits, power supplies, amplifiers, oscillators, transmitters, receivers and fundamentals of tv. Class assignments established on individual needs and interests. Amateur radio and various FCC licenses can also be earned in this course. Course may be repeated for credit.

IA 485. ELECTRONIC COMMUNICATIONS. *Three hours credit.*

A basic study of radio communications. Emphasis placed on FM transmitters, FM

receivers, amateur radio, radio teletype, basic television theory, single sideband and troubleshooting electronic equipment. Opportunity provided to study transistor ignition systems, basic computer circuits and industrial electronic control circuits.

IA 493. DIRECT ENERGY CONVERSION. *Two hours credit.*

A study of the means of direct energy conversion and the possible applications of such devices. Emphasis placed on thermionics, thermodynamics, solar and photo cell operation, fuel cell, nuclear, and other exotic power generating systems.

IA 494. TRANSMISSION OF POWER. *Three hours credit.*

A study of the various methods of converting power into useful work. Study will include mechanical, hydraulic, and pneumatic transmission and the physical laws concerning this transmission. Emphasis will also be placed on mechanical drives, hydraulic and pneumatic circuits, pumps, valves, and other equipment used.

THE INSTRUCTOR-COURSE UNIT

3-ICU 102. SEMINAR ON HUMAN VALUES. *Three hours credit.* Foote.

This course is designed to help individuals identify and critique their own values and to help them learn to cope with the value commitments and expressions of others. S-U final mark.

2-ICU 105. CAREER DEVELOPMENT AND THE UNIVERSITY STUDENT.

Three hours credit. Parks.

An orientation and analysis of the career development process. Includes learning experiences in three areas: career patterns and opportunities and educational planning; the changing American work ethic with implications for leisure and life-style; relation of interests, abilities, and attitudes to the world of work. S-U final mark.

1-ICU 106. PRACTICAL POLICY MAKING. *Three hours credit.* Ross.

A practicum course that will enable students to understand and experience the implementation of policy making in community and state-wide social contexts.

5-ICU 107. INFLUENCE OF SCIENCE ON MODERN MAN. *Three hours credit.*

Sund.

Historical and philosophical development of scientific methods of investigation, their effects on perceptions of modern man and how science affects how we look at life. Modern reactions to the traditional view of science will be emphasized including the Humanistic movement, extra-sensory perception, parapsychology, mystical religions, and their influence on modern scientific endeavor.

1-ICU 108. IMPACT OF COMPUTERS ON SOCIETY. *Three hours credit.*

McNerney.

The study of computers and their influence upon society will be the emphasis of this course. The issues of automation and employment, privacy, individuality, and abuse of power will be stressed. The influence of the computer upon education, science, art and music, business, and law enforcement will also be studied.

5-ICU 109. REACHING BEYOND THE RATIONAL. *Three hours credit.* Fields.

Discusses a present mood of skepticism about the quantifying, objective methods of science; the rise to a state of acceptance of the scientific method; and concepts which lie between scientific and irrational. It will be shown that the concept of rationality is a function of our ability to understand the universe.

1-ICU 110. WORD POWER. *Four hours credit.* Luere.

The acquisition of new words, and the effective use of them through care and taste; includes levels of usage; urges specific rather than general expression, fresh rather than trite diction; stresses conciseness and exactness of diction; encourages a feeling for words.

2-ICU 112. FOLK FURNITURE AND MUSICAL INSTRUMENTS. *Three hours credit.* Cordiner.

A creative approach to the design and building of useful objects, utensils or musical instruments based on the apprehension of personal, cultural, social or other need.

2-ICU 113. CHINESE SUMI-E LETTERING. *Three hours credit.* Shin.

A study of basic Chinese Sumi-e Lettering. Provides a general understanding of the Chinese cultural experience. Handling and care of brushes, preparing the ink and paper. Holding the brush and brush practice with Chinese lettering.

1-ICU 200. SOLVING LEGAL DILEMMAS. *Three hours credit.* Cissna, Janklow.

A course designed to acquaint the student with practical applications of both legal and problem-solving methodology. It will attempt to give students a basic understanding and insight into law as it affects everyday life. The focus will be experiential in nature, rather than strictly content-oriented.

3-ICU 202. TECHNOLOGY: ITS IMPACT ON SOCIETY. *Three hours credit.* Jelden.

This course will deal with the impacts of industry and technology on our modern society. Emphasis placed on invention, power and energy, transportation and communication, new materials, agriculture and construction, and socio-economic impacts; implications and impacts on the natural, physical, psychic, and social environment. Technology will be viewed as an intellectual discipline.

4-ICU 203. THE MANY FACES OF HELL. *Four hours credit.* Lackie.

The changing concept of hell in Western thought will be considered in relationship to the endurance of the idea itself. The course will approach the main idea through the disciplines of art, music, and literature. It will consider such questions as: is the concept of hell actually an attempt to understand the nature of evil? Is sin its own punishment? Must man have free will for the idea of hell to have any poignance? Is the concept of hell more intriguing than that of heaven? And others.

4-ICU 204. ALIENATION IN 20TH CENTURY LITERATURE. *Four hours credit.* Luere.

The course will explore the loss of continuity, direction and identity as themes in literature and preoccupations in life. It will include literature from "Naturalism" through the "Living Theater."

5-ICU 205. HUMAN SEXUALITY. *Three hours credit.* Malumphey.

A study of the physiological, psychological, and sociological aspects of human sexuality. Special emphasis will be given to the role of the parents in developing normal and satisfying responses to sexuality.

5-ICU 205. HUMAN SEXUALITY. *Three hours credit.* Maughan.

This course is designed to acquaint the student with current issues and trends in Human Sexuality concepts. Controversial issues regarding sexuality and sex education will be presented to provide learning experiences to enhance related physiological, psychological, and sociological knowledge to form a philosophical basis for individual and public education.

5-ICU 205. HUMAN SEXUALITY. *Three hours credit.* Plakke.

An interdisciplinary study of the human reproductive process including the struc-

ture and function of the reproductive organs, genetics of sex fertility, contraception, abortion and birth. Sexual behavior including the heterosexuality, homosexuality, masturbation, morality, pornography, and social acceptance of sexuality will be considered in light of the latest information available.

2-ICU 206. CONTEMPORARY SOLUTIONS TO AUTOMOTIVE ENVIRONMENTAL POLLUTION AND ENERGY PROBLEMS. *Three hours credit.* Roy.

A course with emphasis on providing information and developing basic skills which all persons may use to lower emissions from their automobiles and increase engine efficiency. A comprehensive review of private and governmental organizations involved in solving or regulating pollution caused by the automobile. S-U final mark.

2-ICU 207. LEISURE AND THE OUTDOORS. *Four hours credit.* Cyphers, Parks.

A course designed to provide direct experience participation in outdoor pursuits related to the natural environment. Group living experiences in a field campus setting and in an outdoor living situation will be offered. Emphasis will also be given to career opportunities in outdoor related fields.

4-ICU 208. LIBERATION: MYTH TO MS. *Five hours credit.* Willcoxon, Stroud, Schulze.

Interdisciplinary approaches will be used to ascertain how myth has affected the identity, roles and attitudes of the "male world" and of women in relationship to themselves and society. Projects will range from traditional research papers to critical and investigative analyses of current efforts toward perpetuating myth or developing "Ms."

3-ICU 210. DEATH AND DYING. *Three hours credit.* Smart.

Examining current American views of death and dying from various perspectives of psychology, religion, medicine, and sociology, an attempt will be made to help students explore their own attitudes toward death, including their own. Also the course will deal with grief and mourning and reactions of dying persons to imminent death.

4-ICU 211. UTOPIAS, DYSTOPIAS IN LITERATURE. *Four hours credit.* Huff.

An historical and critical view of fictional societies through selected readings of utopian and anti-utopian literature. Selections will include works of More, Butler, Wells, Huxley, Vonnegut, and others.

5-ICU 212. EARTH SCIENCE FOR MOUNTAINEERS. *Three hours credit.* Stanesco.

This class is designed to increase one's understanding of the mountain environment. It will focus on aspects of geology and meteorology of interest to the hiker and climber. Topics will include the development of mountain topography, rock characteristics, glaciers, weather and snow conditions. Several Saturday field trips will be required.

2-ICU 213. THEATRE: A PLACE TO BE SOMEBODY -- ELSE. *Three hours credit.* Norton.

A course designed to aid the student in defining Theatre through the use of his own inner resources, experience and dramatic instinct.

2-ICU 214. LEISURE--YESTERDAY, TODAY, AND TOMORROW. *Two hours credit.* Dixon.

An orientation to concepts of leisure with consideration of the role it plays in society and in an individual's life. Discussion includes a historical and philosophical perspective of leisure, leisure in modern society, leisure services provided in the community, and education for leisure as a multidiscipline concern.

4-ICU 215. HISTORY OF THE SILENT FILM. *Four hours credit.* Bowles.

A study of the birth and childhood of the only major art to have evolved within recorded history; developments of the American, Scandinavian, German, Soviet films from 1895 to 1929.

4-ICU 216. THE SOUND FILM. *Four hours credit.* Bowles.

Course begins with the impact of sound technology on the film. In the U.S., the development of film is followed through the depression and war years, the competition from television in the fifties and recent tendencies toward social realism. The course will also cover important international movements, like the British documentary movement of the thirties, Italian neo-realism after WW II and the French nouvelle vague school of the fifties.

4-ICU 217. MUSIC IN AMERICAN HISTORY AND CULTURE. *Three hours credit.* Lutz.

The purpose of this course is to examine selected areas of American music in a historical and cultural framework. Material to be discussed includes musical traditions of various ethnic groups, music composed as a result of certain events or for particular purposes, and the use of specifically American elements in classical music.

4-ICU 218. ASIAN STUDIES: THE GREAT TRADITIONS OF CHINA. *Three hours credit.* Santos, Ayer, Edgerton.

An interdisciplinary introduction to the cultures of Asia, with special attention to the historical development, socio-economic patterns, political traditions, and religious, philosophical, literary and artistic accomplishments of the Chinese.

4-ICU 219. ASIAN STUDIES: THE GREAT TRADITIONS OF SOUTH ASIA. *Three hours credit.* Edgerton, Ayer, Santos.

An interdisciplinary introduction to the culture of India and South Asia with special attention to the historical development, socio-economic patterns, political traditions, and religious, philosophical, literary and artistic accomplishments of the area.

4-ICU 220. ASIAN STUDIES: THE GREAT TRADITIONS OF SOUTHEAST ASIA. *Three hours credit.* Ayer, Edgerton, Santos.

An interdisciplinary approach to the cultures of Southeast Asia, with special attention to the integration of history, socio-economic patterns, political traditions, religions, literary and artistic accomplishments of various countries in understanding the region today.

4-ICU 221. ZEN IN THE ARTS AND LITERATURE OF JAPAN. *Four hours credit.* Brewer.

A study of the literature and arts of Japan as they reveal characteristics of one of that country's most pervasive systems of thought: Zen Buddhism.

4-ICU 222. INTRODUCTION TO FOLKLORE. *Four hours credit.* Stallings.

An introduction to some of the basic genres of folklore, with an examination of the relationship between folklore and the arts and of that between folklore and society.

2-ICU 301. ETHNO-GORMANDISTICS. *Three hours credit.* Grable.

A study of various cultures -- their histories, customs, and cuisine. Typical foods of each culture studied will be prepared and sampled by the class as an aid to understanding and appreciating the people. S-U final mark.

2-ICU 302. CONTEMPORARY ISSUES IN DRUG ABUSE. *Three hours credit.* Maughan.

A course designed to provide students with current information concerning the

physiological, psychological, and sociological aspects of drug use, misuse, and abuse. Availability and function of drug abuse programs and agencies dealing with prevention and rehabilitation will also be presented as well as current research, effective teaching methods and materials.

4-ICU 304. THE AMERICAN NIGHTMARE: PROTEST AGAINST THE DREAM. *Four hours credit.* Willcoxon, Bowles.

The components of the American Dream will be discussed, with students then determining what areas of protest against the Dream and what areas of protest against the lack of realizations of the Dream should be analyzed.

4-ICU 305. POP! WENT THE DREAM. *Four hours credit.* Bowles, Willcoxon.

An attempt to determine the nature of popular culture and the extent to which its development is related to the American Dream. Such typical manifestations as art, motion pictures, radio, television, music reading matter, and sports will be examined with each student determining his own area of interest.

1-ICU 307. CASINOS, GAMBLING AND GAME SIMULATION. *Three hours credit.* Heiny.

Study of alternative decisions and their probabilities, odds, and payoffs in gambling games. Lotteries, numbers, racetracks, and athletic betting will be covered. The premiums, payoffs, and odds in insurance investing will be investigated. Simulation of games computer will be used for instruction. No math or computer prerequisite. S-U final mark.

4-ICU 308. CONTEMPORARY CHRISTIAN THEOLOGY. *Three hours credit.* Merz.

A survey of the contemporary Christian theologians and their treatment of the fundamental questions of God and Man. The relationships between theology and the disciplines of Science and the Arts will be discussed.

4-ICU 309. ETHICAL VALUES AND CHILDREN'S LITERATURE. *Three hours credit.* Hodapp.

This course will delve into the underlying and explicit moral values found in children's literature. The literature will encompass folk tales to modern children's literature. The course will culminate in the creative effort of the student in creating a children's story.

3-ICU 310. EFFECTIVE PARENTING WITH TRANSACTIONAL ANALYSIS. *Three hours credit.* Sawatsky.

A course in parenting techniques based upon the Transactional Analysis model. Includes basic Transactional Analysis Theory, emotional needs of children through growth and development, and information about effective parenting messages as well as parent messages that are disruptive or destructive to an individual.

5-ICU 311. TWO GREAT DEBATES IN GEOLOGY. *Three hours credit.* Matthews.

This course examines the historical evolution of the Continental Drift Theory and the Glacial Theory. Debate about these ideas ranged over three centuries. The Continental Drift Theory is revolutionizing the Earth Sciences, forming a unifying framework for explaining such diverse phenomena as volcanoes, mountains, earthquakes, ocean basins, and evolution of life.

3-ICU 312. INTEGRATING THE INDIVIDUAL AND THE ORGANIZATION. *Three hours credit.* Ford, Belle Isle, Kuncl.

The course will present specific organizational models of systems analysis designed to foster, in a cognitive and practical way, an individual perspective of organizations in general. Focus will be upon understanding person-environment fit within the UNC housing operation.

4-ICU 314. IMAGES OF WOMEN IN LITERATURE. *Four hours credit. Wilson.*
Open to men and women. Investigation of stereotypes, dreams, roles, and goals of women manifested in creative works by and about women. Poetry, fiction, drama, and happenings of various countries, time-periods, and techniques will be analyzed and compared; secondary examples will be chosen from essays, art, and the popular arts.

1-ICU 315. COPING WITH COMMUNICATIONS CRISES: COMMUNITIES VS. CLASSROOMS. *Three hours credit. White.*

An investigation of the problems which plague teachers, administrators, and members of the community when communication between school and community break down, and a search for ways to apply effective, innovative communication procedures to these problems. A creative approach to designing ongoing community relations programs will be encouraged.

2-ICU 316. CREATIVE UNDERSTANDING THROUGH DRAMA. *Three hours credit. Sturges.*

The purpose of this course is to study the creative aspects of the dramatic process and to examine how they relate to each student and his/her specific area of interest.

4-ICU 317. LATIN AMERICAN MAGICAL REALISM IN SHORT STORY AND NOVEL. *Three hours credit. Hoffman.*

The course is an introduction to the best of the recent Latin American novelists and short story writers. Authors to be studied are Jorge Lues Borges, Julio Cortazar, Carlos Fuentes, Juan Rulfo and Gabriel Garcia Marquez.

4-ICU 318. TERRORISM. *Five hours credit. Morelli.*

Intensive investigation of selected structures, function and effect of public terror as an instrument of historical change, culminating in analysis of selected implicit and explicit justifications for and critiques of terrorism. Utilization of games and simulations as one of analytic components will require some added hours, real and earnest participation, much independent research.

2-ICU 319. SEXISM IN MANAGEMENT: CHANGING ROLES FOR MEN AND WOMEN. *Three hours credit. Holmboe, Saam.*

Ideas, theories and models from various disciplines will be applied to management problems created by recent legislation concerning sex discrimination. Students will be given opportunities to investigate their leadership styles, their behavioral roles in small groups, their reactions under stress and competition, their unique problems, their bargaining behavior, and their relationships and expectations of the sexes under these conditions.

4-ICU 320. THE QUESTION OF LOVE. *Three hours credit. Evans.*

A study of the diverse expressions and imitations of love in the lyrics of Dante, Petrarca and Boccaccio as they relate to our own 20th century questioning of love.

3-ICU 321. THE ENVIRONMENT: STUDENT POLITICAL IMPACT. *Three hours credit. Anders.*

The course will provide 1) personal practical application of existing legal and political means for the protection of the environment, 2) an open forum for the determination of means for gaining a public awareness of environmental problems, 3) possible personal and group solutions to those problems. S-U final mark.

1-ICU 322. THE LORE AND LOGIC OF CHESS. *Four hours credit. Anders.*

This course will explore the philosophical concepts which underlie the evolution of chess; introduce the mechanisms by which computers make chess move decisions; develop judgment, logic and imagination in selecting from an infinite number of chess moves. S-U final mark.

1-ICU 323. FINDING CREATIVE VOICES. *Four hours credit.* Myers.

An experience of involvement in a creative community, with the works of C.S. Lewis, J.R. Tolkien, and Dorothy Sayers providing impetus for personal experimentation in written and oral communication. Emphasis on their philosophy of creativity and appreciation of the living voice.

3-ICU 324. POLITICS, TECHNOLOGY, AND POLITICAL SCIENCE. *Two hours credit.* Mazurana, Watson.

A revolution in the science and technology of knowledge and communication involving computers and electronic media has substantially altered the environment of contemporary politics, public administration, and political science. The purpose of this course is to explore the interconnections between practical politics, the academic discipline of political science, and these revolutionary changes in the contemporary era.

4-ICU 325. THE WRITER: ARTIST OR POLITICAL ANIMAL. *Four hours credit.* Kiefer.

A study of the tension that exists between a writer's personal fidelity to a transcendent inner vision and his political-social responsibility to reshape the world from which he borrows his images. Major authors studied: Alexander Solshenitsyn, Richard Wright, Daniel Berrigan and Samuel Beckett.

4-ICU 326. THE COURT OF LOUIS XIV. *Three hours credit.* Brown.

An examination of the art, music and literature of the court of Louis XIV, and the social and moral values which they reflect. Ideas to be discussed include role-playing, the trend toward the ceremonial, class distinction and ethics as seen through authors such as Racine, Moliere and Pascal.

4-ICU 327. LATIN AMERICAN MUSIC: ITS HISTORICAL AND CULTURAL DEVELOPMENT. *Three hours credit.* Gunderson.

The music of Latin America will be studied within the context of Pre-Columbian, Colonial, Revolutionary, and Contemporary culture with regard to Indian, European, and African influences and specifically nationalistic elements. The function of music within society will be discussed with regard to church music, folk and popular music, and classical music.

3-ICU 400. SOCIOLOGY OF SPORT IN AMERICAN SOCIETY. *Three hours credit.* Sage.

The main objective of this course is to utilize basic sociological concepts and theories for an analysis of sport in American society.

3-ICU 401. THE ECONOMICS OF DEFENSE SPENDING. *Three hours credit.* Keddington.

Designed for people seeking further knowledge of national economics. Focus is on defense spending and the roles in defense played by the Executive and Legislative branches, consumers, fiscal and monetary policy, investment, and trade. The impact of inflation, government controls, unemployment, and changing social priorities on military managers is analyzed.

5-ICU 402. SCIENCE AND CHRISTIANITY. *Three hours credit.* Peeples.

A practical and non-denominational examination into the roles of the natural sciences and the Christian religion in the life of today. Emphasis is placed upon such topics as the origin of life, origin of man, purpose of being, man and his environment, family relations and future of society.

INDIVIDUAL STUDIES

IS 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

INTERDISCIPLINARY COURSES NEW AND EXPERIMENTAL COURSES

198-798 New and Experimental Courses -- Courses using department prefix or ID prefix numbered 198, 298, 398, 498, 598, 698, or 798 are new or experimental courses which have been approved through proper university procedures but in which action was not completed in time for publication in the current catalog. The course will be designated by title and a course description will be published in the subsequent catalog under the appropriate department with a different assigned number. Cross reference may be made by checking identical titles. Distinction of each course will be made by title as is the case for designating workshops.

In the case of the School of Educational Change and Development, the school will maintain files of all course descriptions for SECD courses ending in "98."

ID 100. INDIVIDUAL STUDY SKILLS SEMINAR. *Two hours credit.*

Prerequisite, enrollment in the Special Needs Program. An individualized course designed to meet the specific needs, on any educational level, of each student in one or all of the following areas: reading efficiency, comprehension, writing, spelling, vocabulary, word-attack skills, skimming and scanning, listening techniques, note taking, general or specific content area study skills.

ID 101. INDIVIDUAL STUDY SKILLS LEARNING LAB. *Two hours credit.*

Prerequisites, ID 100, and enrollment in the Special Needs Program. A course designed to attack the specific weaknesses of each individual student and to develop the necessary study techniques essential for academic success. The Learning Lab will utilize the following techniques to attack the learning problems: tutoring, counseling, group discussions, resource lectures, use of instructional materials, reading machines, career development planning and an effective living program. General or specific content area study skills may be repeated.

ID 102. WRITING COMPOSITION/GRAMMAR LABORATORY. *Two hours credit.*

To be taken concurrently with EDRD 130 and enrollment in the Special Services Program. A laboratory class designed to help students develop their written communication abilities.

ID 103. COLLEGE SPEECH COMMUNICATION LABORATORY. *Two hours credit.*

Prerequisites, ID 100, 101, 102, and EDRD 130. A course designed to develop the student's spoken communicative skills. Emphasis will be on the development of interpersonal communication abilities. Students will be taught how to articulate ideas and feelings through practice in discussion groups both as leaders and participants. Also stressed will be the methods necessary to initiate successful research practices through the use of the University library facilities.

4-ID 148. INTRODUCTORY SEMINAR IN WOMEN'S STUDIES: WOMEN IN CRISIS. *Three hours credit.*

An introductory course, designed primarily for student minoring in Women's Studies. Through individual projects and group processes, the student will explore herself/himself in relation to woman's world. Special emphasis will be placed on attitude formation, gender role-learning, self-images, needs, values, fears, and aspirations.

4-ID 176. THE IDEA OF AMERICA. *Five hours credit.*

The American Studies approach will be used to present a survey analysis of how the development of art, architecture, music, literature, and thought influenced and reflected the American experience and used to trace the significance of our past experience to present concerns.

ID 423. MICROTEACHING. *Two hours credit.*

The course endeavors to have teachers improve in their teaching competence by presenting micro teaching episodes, video and/or audio taping them, evaluating the tape, and humanistic questioning and discussion techniques will be stressed.

4-ID 448. WOMEN'S STUDIES: SENIOR SEMINAR. *Three hours credit.*

Designed primarily for students minoring or taking a core-course program in Women's Studies, the senior seminar focuses upon materials students learned in disciplinary areas, using these ideas and techniques to develop interdisciplinary methodologies and concepts for understanding sexism and feminist approaches to combat it.

ITALIAN

1-ITAL 101. ELEMENTARY ITALIAN I. *Five hours 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.

1-ITAL 102. ELEMENTARY ITALIAN II. *Five hours credit.*

A continuation of ITAL 101.

1-ITAL 103. ELEMENTARY ITALIAN III. *Five hours credit.*

A continuation of ITAL 102.

INDIVIDUAL TUTORIAL

ITP 201. INDIVIDUAL TUTORIAL. *Maximum fifteen hours credit.*

Study with a faculty tutor on individualized projects which may involve library, laboratory, or independent field work. The nature and duration of each project will be determined by consultation between student and tutor. One to fifteen hours of ungraded credit.

ITP 401. INDIVIDUAL TUTORIAL. *Maximum fifteen hours credit.*

Study with a faculty tutor on individualized projects which may involve library, laboratory, or independent field work. The nature and duration of each project will be determined by consultation between student and tutor. One to fifteen hours of ungraded credit.

JOURNALISM

1-JOUR 100. INTRODUCTION TO JOURNALISM. *Two hours credit.*

Orientation and analysis of the American mass media of newspapers, radio-television, magazines, and book publishing, as well as the related areas of advertising, public relations, communications research, and teaching.

1-JOUR 101. BEGINNING PHOTOJOURNALISM. *Three hours credit.*

A practical, non-technical study of photography including the mechanics of cameras, dark room equipment, how to tell a picture story, photograph techniques with an emphasis upon composition, and use of the camera for school publications.

1-JOUR 105. NEWSWRITING. *Four hours credit.*

Principles and practice in gathering, writing, and editing news and short feature articles; based both on commercial and educational news sources. Some typing experience is needed.

1-JOUR 115. ADVANCED NEWSWRITING. *Four hours credit.*

Prerequisite, JOUR 105. Principles and practice in writing and editing news from assignment and beats; writing editorials; use of both commercial and educational news sources.

JOUR 200. JOURNALISM INTERNSHIP. *Two hours credit. (Maximum twelve hours credit.)*

Practical experience in at least two of the following areas (prerequisites noted in parentheses): advertising (JOUR 284); newspaper (JOUR 105, 115, 250); news service (JOUR 105, 115); sports writing (JOUR 105, 115); radio (JOUR 105); publications (JOUR 250, 255); photography; sponsorship; consumer affairs writing (JOUR 105, 115, and a background in economics, home economics, and business).

JOUR 201. ADVANCED PHOTOJOURNALISM. *Three hours credit.*

The use of the camera in various picture taking situations; techniques of developing and printing.

1-JOUR 240. GETTING THE MOST OUT OF THE NEWS MEDIA. *Three hours credit.*

Significant facets about newspapers, magazines, television, and radio that relate to the readers', viewers', and listeners' comprehension of their contents. Some attention to propaganda.

JOUR 250. NEWS EDITING. *Three hours credit.*

Principles and practice in editing copy and pictures, writing headlines; use of editorial judgment.

JOUR 255. PUBLICATIONS LAYOUT. *Three hours credit.*

Copy and picture layout for the printed media.

JOUR 264. TECHNIQUES OF ADVERTISING. *Three hours credit.*

Planning copy, layout and illustration of advertisements for printed media and radio. Attention is given to advertising problems encountered by the adviser of secondary school publications. Essential for students planning to teach.

1-JOUR 297. FEATURE WRITING FOR NEWS MEDIA. *Three hours credit.*

Analyzing, researching, and writing the longer feature and interpretive articles, with emphasis on current subjects usable in the local press.

JOUR 300. JOURNALISM INTERNSHIP. *Two hours credit. (Maximum twelve hours credit.)*

Practical experience in at least two of these areas (prerequisites noted in parentheses): advertising (JOUR 284); newspaper (JOUR 105, 115, 250); news service and sportswriting (JOUR 105, 115); publications (JOUR 250, 255); radio (JOUR 105); photography, sponsorship, consumer affairs writing.

JOUR 301. METHODS OF TEACHING JOURNALISM IN THE SECONDARY SCHOOL. (PTE) *Three hours credit.*

Instruction in advising the preparation and publication of school newspapers and in teaching scholastic journalism.

JOUR 350. NEWSPAPER LAB I, II. *Four hours credit.*

Prerequisites, JOUR 105, 115, 250, 255, 297, and permission of department. Writing, editing, layout, and production of articles about this university campus.

JOUR 391. INTERPRETATIVE REPORTING. *Three hours credit.*

Prerequisites, JOUR 105, 115, and 297. Covers wide-range of investigative reporting; studies procedures of getting information; techniques of writing.

JOUR 392. CRITICAL WRITING. *Three hours credit.*

Prerequisites, JOUR 105, 115, and 297. Principles and practices in writing reviews of drama, music, books.

JOUR 395. FUNDAMENTALS OF PUBLIC RELATIONS. *Three hours credit.*

Prerequisites, JOUR 105, 115, and 284. Develops understanding of basic concepts of human relationships in school, business and government communication. Studies technical skills to produce several types of publications, plan various types of public relations programs.

1-JOUR 397. MASTER JOURNALISTS AND THEIR TIMES. *Three hours credit.*

A concentration on the great American and British journalists, emphasizing their writings, standards of journalism, and their contributions to journalism and to society.

1-JOUR 399. PRESS AND CURRENT AFFAIRS. *Three hours credit.*

Examination of criticisms of the American print and broadcasting press, the ways the press covers and comments on current domestic and foreign news, and the influence of the media and top journalists on public affairs.

JOUR 400. JOURNALISM INTERNSHIP. *Two hours credit. (Maximum twelve hours credit.)*

Practical experience in at least two of these areas (prerequisites noted in parentheses): advertising (JOUR 284); newspaper (JOUR 105, 115, 250); news service and sportswriting (JOUR 105, 115); publications (JOUR 250, 255); radio (JOUR 105); photography, sponsorship, consumer affairs writing.

JOUR 408. WORKSHOP: TECHNIQUES OF PRODUCING PUBLICATIONS. *Three hours credit.*

Designed for students to participate in preparation and production of various types of publications.

JOUR 410. NEWSMEN'S WORKSHOP. *Two hours credit.*

The purpose of this workshop is to provide students of journalism and other interested students an opportunity to hear lectures by professional newsmen. These newsmen who will be editors, editorial writers, copy editors, and reporters will discuss news as they handle it in their daily work.

JOUR 445. WRITING FOR RADIO. *Three hours credit.*

Prerequisites, JOUR 100, COMM 140 or equivalent. To acquaint the student with the principles, techniques, and forms of writing for radio.

JOUR 450. JOURNALISM INTERN. *Fifteen hours credit.*

Prerequisites, JOUR 105, 115, 250, 284, and 297. One quarter of full-time work off-campus with a news medium.

1-JOUR 492. ETHICS AND LIBEL. *Three hours credit.*

Study of current ethical and legal problems of the printed and broadcast media; designed for the newsmen, publisher-manager, school administrator, and journalism teacher.

JOUR 493. ADVANCED FEATURE WRITING. *Three hours credit.*

Prerequisites, JOUR 105, 115, and 297. Analyzes what is feature material, drafting an idea into a manuscript, preparation of manuscript, and where to sell feature material.

JOUR 494. WRITING PROFILES. *Three hours credit.*

Prerequisites, JOUR 105, 115, and 297. Considers subjects for profiles, how to do research and interview, and preparation of manuscript; sources for sales.

JOUR 495. WRITING FOR MAGAZINES. *Three hours credit.*

Prerequisites, JOUR 105, 115, 297, 493, and 494. Surveys market for types of material used; how to find a subject and how to write it to fit requirements of a publication; techniques of editing and placing manuscripts.

1-JOUR 496. OPINION FORMATION. *Three hours credit.*

Analysis of opinion and propaganda and the relationship of the media to opinion formation.

JOUR 497. ENRICHING INSTRUCTION THROUGH UNDERSTANDING AND USE OF NEWS MEDIA. *Three hours credit.*

For teachers and prospective teachers to help them use the wealth of material in newspapers, magazines, radio and television, and to adapt it to their teaching. Applicable to teachers in most subject areas and grade levels.

MEXICAN AMERICAN STUDIES

MAS 101. INTRODUCTION OF MEXICAN AMERICAN STUDIES. *Four hours credit.*

A general course designed to provide an understanding of Mexican American Studies. This course provides a background for more effective understanding of the other courses in the MAS department. This course also analyzes the relative position of the Mexican American community in the general Anglo American society.

MAS 102. ORAL, READING, AND WRITTEN SPANISH COMMUNICATION: I. *Three hours credit.*

Prerequisite, comprehension of Spanish. A course in oral and written Spanish designed to treat the particular linguistic problems of the Mexican American student or the student who has mastered the basic skills in the language. Emphasis is on Southwestern culture. Grammar is treated inductively.

MAS 103. ORAL, READING, AND WRITTEN SPANISH COMMUNICATION: II.*Three hours credit.*

Prerequisite, MAS 102. A continuation of MAS 102. Oral and written expression and vocabulary building are intensified. Some grammar analysis is introduced, but emphasis is on usage.

MAS 104. ORAL, READING, AND WRITTEN SPANISH COMMUNICATION:*III. Three hours credit.*

Prerequisite, MAS 103. A continuation of MAS 103. Cultural selections are expanded to include Mexico and other hispanic countries along with current cultural problems of the Southwest. Much emphasis is placed on synonyms idioms, and expressions or a means of perfecting the speaking and writing skills of the student.

2-MAS 260. MEXICAN AMERICAN DANCE PRODUCTION IN THE BILINGUAL BICULTURAL SCHOOL. Two hours credit. (One hour lecture, one hour laboratory.)

History of the origin and development of Spanish, Indian, Mexican and Mexican American dance in a bilingual bicultural school program. Dealt with will be the choreographic, set and costume problems involved in the direction and production of a cultural Mexican American school program.

MAS 270. HISTORY OF MEXICO I. Three hours credit.

This course will cover the significant aspects of Mexican history and civilization from 1500 to 1810. Emphasis will be on the conquest of the Mexican nation by the Spaniards, the growth of New Spain, significant events of the colonial period and the reemergence of the Mexican Nation, which lead to independence.

MAS 280. HISTORY OF MEXICO II. Three hours credit.

A study of historical events from 1810 to 1920. Emphasis will be on the growth of the Mexican Republic; its relations with the United States. The loss of lands to the United States. The Mexican War and American capitalism in Mexico.

MAS 290. ORAL, READING, AND WRITTEN SPANISH COMMUNICATION.*Three hours credit.*

A continuation of MAS 104.

MAS 300. ADVANCED ORAL, READING, AND WRITTEN SPANISH COMMUNICATION. Three hours credit.

This course stresses the use of fluent and functional Spanish-Mexican communication.

3-MAS 302. SOCIAL STRATIFICATION IN THE MEXICAN AMERICAN COMMUNITY. Three hours credit.

Designed to help the student understand the social, economic, political and religious differences in the Mexican American community, this course will investigate the socialization process within the Chicano community. Special emphasis will be given to the study of contrasting differences and similarities between the Chicano, Hispano, Spanish American and the Mexican American.

4-MAS 304. BICULTURAL SYSTEMS. Three hours credit.

This course studies the dominant cultures in the American Southwest, the Spanish-Mexican Culture and the Anglo-American Culture. This is designed to help the student understand the problems facing culturally different people. The effects of cross cultural conflict on family values and individual behavior patterns.

4-MAS 306. HISTORY OF THE CHICANO IN THE SOUTHWEST. Three hours credit.

This course studies the predecessor of the present-day Chicano. The heritage of the

Spaniard, the Indian and the Mestizo are examined. Special emphasis on the contributions made by these people in the development of the Southwest.

4-MAS 308. SURVEY OF MEXICAN LITERATURE. *Three hours credit.*

This course will study the Great Mexican authors and poets, such as Sor Juana Inez, Jose Joaquin De Lizardi, Manuel Alamirano and others that have influenced contemporary literature.

1-MAS 310. LINGUISTICS APPLIED TO CHICANO SPANISH. *Three hours credit.*

A linguistic analysis of the Spanish spoken in the Southwest emphasizing similarities and differences with universal Spanish.

4-MAS 410. SURVEY OF CONTEMPORARY CHICANO LITERATURE. *Three hours credit.*

A survey of present-day literature that deals with social protest. Other literature that has contributed to the rich literary heritage of the present-day Chicanos will also be studied.

4-MAS 412. MEXICAN AMERICAN ART. *Three hours credit.*

A course whose purpose is to familiarize the student with the great Mexican artists and their artistic creations. This course will also explore the rich artistic heritage that has been passed on to the present-day Mexican American.

4-MAS 414. MEXICAN AMERICAN PHILOSOPHICAL THOUGHT. *Three hours credit.*

A study of major philosophical views on problems and of ethics affecting the contemporary Mexican American thought.

MAS 472. EVALUATION AND SELECTION OF BILINGUAL AND BICULTURAL MATERIALS. (PTE). *Two hours credit.*

The discussion of material selection principles. Evaluation of bilingual and bicultural materials for the elementary school. Course covers learning level and interests of bilingual bicultural children in the elementary school. May also be taken as EDCI 472.

MAS 474. TEACHING IN A SECOND LANGUAGE IN THE ELEMENTARY BILINGUAL AND BICULTURAL SCHOOL. (PTE) *Three hours credit.*

This course is designed to prepare the elementary bilingual and bicultural teacher to teach Spanish as a second language or English as a second language. Special consideration is given to methods of instruction, selection of materials and student evaluation. May also be taken as EDEL 474.

MAS 481. HISTORY AND PHILOSOPHY OF BILINGUAL EDUCATION. (PTE) *Three hours credit.*

An introductory course into the history of bilingual education. A consideration of the major educational points of view considering the monolingual and bicultural approach to education. May also be taken as EDCI 481.

MATHEMATICS

1-MATH 100. 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.

1-MATH 110. MATHEMATICS AND THE LIBERAL ARTS. *Three hours credit.*

The purpose of this course is to display several topics from mathematics. These topics are presented in an intuitive manner and in such a way as to help those students who feel they need to know more about mathematics. This course is not open to mathematics majors or minors.

1-MATH 115. ESSENTIALS OF MATHEMATICS I. *Three hours credit.*

The purpose of this course is to present the essential concepts of algebra to students of business, economics, sociology, education and others. Topics include graphing, equations, matrices, logarithms and simple trigonometry and analytic geometry. The course is not open to mathematics majors or minors.

1-MATH 116. ESSENTIALS OF MATHEMATICS II. *Three hours credit.*

Prerequisite, MATH 115 or a recent background in high school algebra. The course continues with further topics in algebra, trigonometry and analytic geometry but especially considers concepts of calculus from an intuitive point of view. The course is not open to mathematics majors or minors.

1-MATH 117. ELEMENTS OF MATHEMATICS. *Three hours credit.*

For the student without an extensive background in high school mathematics. Topics covered: signed numbers, fractions, integer exponents, factoring polynomials, polynomial arithmetic, linear equations, ratios and percentages.

1-MATH 123. INTERMEDIATE ALGEBRA. *Five hours credit.*

Prerequisites, one year of high school algebra and one year of high school geometry. This is a course in algebra covering the elementary concepts of algebra through quadratic equations. Emphasis is placed on the function concept. Systems of linear equations are considered.

1-MATH 124. COLLEGE ALGEBRA. *Five hours credit.*

Prerequisite, MATH 123 or a full year of modern, second-year high school algebra. This course is basically a treatment of quadratic, exponential, and logarithmic functions. The systems of integers, rational numbers, real numbers, and complex numbers are included. Some topics from matrices and the theory of equations are included.

1-MATH 125. PLANE TRIGONOMETRY. *Five hours credit.*

Prerequisite, MATH 124. This is a course in modern plane trigonometry which emphasizes the circular functions and their applications. The inverse trigonometric functions and trigonometric identities are emphasized. Complex numbers are covered through DeMoivre's theorem.

1-MATH 127. ELEMENTARY FUNCTIONS. *Five hours credit.*

For the student who has had a good background in high school mathematics (three years or more) but who needs to review the development of those skills which are required in the calculus. Topics covered include polynomial functions, exponential and logarithmic functions, trigonometric functions, vectors, analytic geometry, and polar coordinates.

1-MATH 131. CALCULUS WITH ANALYTIC GEOMETRY I. *Four hours credit.*

Prerequisite, MATH 125 or 127. 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.

1-MATH 132. CALCULUS WITH ANALYTIC GEOMETRY II. *Four hours credit.*

Prerequisite, MATH 131. A continuation of MATH 131.

1-MATH 123. CALCULUS WITH ANALYTIC GEOMETRY III. *Four hours credit.*
Prerequisite, MATH 132. A continuation of MATH 132.

3-MATH 180. COMPUTERS AND THEIR IMPACT UPON SOCIETY. *Three hours credit.*

The study of computers and their influence upon society will be the emphasis of this course. In addition to the issues concerning the impact of the computer upon society, the BASIC language, flowcharting, and simple computer design will be studied. Opportunity for "hands-on" computer experience will be provided.

1-MATH 191. BASIC MATHEMATICS I. *Three hours credit.*

The first of a two-course sequence which is particularly pertinent for the prospective teacher of arithmetic and presenting arithmetic and algebra from a modern approach. Topics include the natural numbers, integers, rational numbers, real numbers, relations, functions, and equations. Emphasis is placed on understanding mathematical structures.

1-MATH 192. BASIC MATHEMATICS II. *Three hours credit.*

Prerequisite, MATH 191. A continuation of MATH 191.

1-MATH 193. INFORMAL GEOMETRY. *Three hours credit.*

Basic concepts of plane and solid geometry including points, lines, angles, planes, solids, congruence, similarity, parallelism, areas, volumes, polygons, and circles.

1-MATH 201. BASIC MATHEMATICAL LOGIC. *Three hours credit.*

Prerequisite, MATH 193, or MATH 131, or consent of instructor. A course designed to introduce the student to those tools and techniques of logic as applied to mathematics. Introduces terminology and basic forms of logic along with concepts of truth value. Statement calculus and treatment of proof are discussed. The restricted predicate calculus is analyzed and applications to mathematics are discussed.

1-MATH 202. THEORY OF SETS. *Three hours credit.*

Prerequisites, MATH 193, or MATH 131, or consent of instructor. An introduction to the theory of sets from an axiomatic point of view. Topics included are properties of sets, relations, functions, finite and infinite sets, cardinal and ordinal numbers.

1-MATH 234. CALCULUS WITH ANALYTIC GEOMETRY IV. *Four hours credit.*

Prerequisite, MATH 133. A continuation of MATH 133.

1-MATH 250. ELEMENTARY PROBABILITY THEORY. *Four hours credit.*

Prerequisite, MATH 133. Discrete and continuous probability, conditional probability, Bayes theorem; one-dimensional random variables and the expected values of random variables; Bernoulli, binomial, Poisson, geometric, hypergeometric and multinomial probability laws; probability distributions of uniform, normal, exponential, Gamma and Chi-squared type random variables.

1-MATH 260. BEGINNING COMPUTER PROGRAMMING IN BASIC. *Three hours credit. (Two hours lecture, two hours laboratory.)*

This is an elementary computer programming course designed to familiarize the non-math major with the fundamentals of flowcharting and with the writing of computer programs in the BASIC language. The programs which are written will involve nontechnical applications of computer programming and be of a general nature.

1-MATH 305. MATHEMATICS OF FINANCE. *Five hours credit.*

Prerequisite, MATH 123. 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.

1-MATH 321. INTRODUCTION TO MODERN ALGEBRA I. *Four hours credit.*
Prerequisite, MATH 132. This course provides an introduction to the topics and concepts of abstract algebra including basic notions of set theory, elementary mathematical logic, linear algebra and abstract or modern algebra.

1-MATH 322. INTRODUCTION TO MODERN ALGEBRA II. *Four hours credit.*
Prerequisite, MATH 321. A continuation of MATH 321.

1-MATH 323. INTRODUCTION TO MODERN ALGEBRA III. *Four hours credit.*
Prerequisite, MATH 322. A continuation of MATH 322.

1-MATH 325. ELEMENTARY LINEAR ALGEBRA. *Four hours credit.*
Prerequisite, MATH 321. This course presents an introduction to vector spaces and matrix theory including row operations, determinants, independence and linear transformations.

1-MATH 330. MATHEMATICS FOR THE SCIENCES I. *Three hours credit.*
Prerequisite, one year of high school algebra is desirable. Open to all students except mathematics majors, this course emphasizes the applications of algebra and trigonometry for students of earth science, biology, and others. Topics include linear equations, exponents, graphing, systems of equations, trigonometric functions, and quadratic equations.

1-MATH 331. MATHEMATICS FOR THE SCIENCES II. *Three hours credit.*
Prerequisite, MATH 330. This is the second of a three-quarter sequence. Topics include exponential and logarithmic functions, vectors, matrices, polynomial functions, elements of analytic geometry, and curve fitting.

1-MATH 332. MATHEMATICS FOR THE SCIENCES III. *Four hours credit.*
Prerequisite, MATH 331. This is the last in the three-quarter sequence of courses. Topics include limits, the derivative, uses of the derivative, integration, and differential equations. The course is taught from a functional and practical use point of view.

1-MATH 341. INTRODUCTION TO MODERN GEOMETRY I. *Four hours credit.*
Prerequisite, MATH 132. A course designed to prepare the prospective teacher of high school geometry in the way the subject matter will be covered in a modern course. The structure of geometry will be emphasized through the axiomatic approach. The basic ideas of points, lines and planes will be given along with primitive concepts and axioms needed to structure the geometry rigorously. Topics such as separation on curves and surfaces, congruence, measure, and parallelism will be covered.

1-MATH 342. INTRODUCTION TO MODERN GEOMETRY II. *Four hours credit.*
Prerequisite, MATH 341. 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.

1-MATH 351. INTRODUCTION TO STATISTICAL ANALYSIS. *Three hours credit.*
Prerequisite, MATH 123 or consent of instructor. This is a service course in statistical inference and the techniques used in organizing data. Topics include frequency distributions, histograms, measures of central tendency, measures of dispersion, probability, distributions, point estimation, interval estimation and testing hypotheses.

1-MATH 380. COMPUTER PROGRAMMING. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, MATH 124. This course in computer programming is designed for mathematics and science students in the arts and sciences. Programs will be written in the FORTRAN IV and BASIC and run on the IBM 360 and the Hewlett-Packard 2007A system. Programs are chosen for their applicability to the secondary classroom.

1-MATH 395. ACTIVITIES IN ELEMENTARY MATHEMATICS. *Two hours credit.*

Prerequisites, MATH 191, 192. Students explore topics in elementary mathematics in an informal laboratory/discussion environment and develop a packet of materials and equipment suitable for later use in the elementary school, middle school, or early junior high school. S-U final mark.

1-MATH 401. 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.

1-MATH 403. STRUCTURE OF NUMBERS. *Three hours credit.*

Prerequisite, MATH 132. 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.

1-MATH 411. TOPICS IN MATHEMATICS. *One to three hours credit.*

Prerequisite, approval of instructor. Topics from mathematics not available through existing courses and which reflect the specific interest of available instructors or the specific needs of students. Topics from geometry, analysis, algebra, statistics, numerical analysis, topology, number theory or other areas may form the focus of an offering of this course.

1-MATH 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

1-MATH 432. BASIC ANALYSIS I. *Four hours credit.*

Prerequisite, MATH 234. 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.

1-MATH 433. BASIC ANALYSIS II. *Four hours credit.*

Prerequisite, MATH 432. 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.

1-MATH 434. BASIC ANALYSIS III. *Four hours credit.*

Prerequisite, MATH 433. 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.

1-MATH 435. DIFFERENTIAL EQUATIONS I. *Four hours credit.*

Prerequisite, MATH 234 or taken concurrently. A study of the theory and solution of differential equations. Ordinary differential equations are treated along with numerous applications.

1-MATH 436. DIFFERENTIAL EQUATIONS II. *Four hours credit.*

Prerequisite, MATH 435. A continuation of MATH 435. Topics to be covered include series solutions of differential equations, systems of equations, partial differential equations, Fourier series and boundary value problems.

1-MATH 451. MATHEMATICAL STATISTICS AND APPLICATIONS I. *Four hours credit.*

Prerequisite, MATH 132 or MATH 331. A presentation of statistical theory, techniques, and applications. The student should have the basic rudiments of differentiation and integration. Topics to be covered: probability theory, random variables, probability distributions, sampling procedures, point and interval estimations, tests of hypothesis, decision theory, regression, correlation, analysis of variance, time series and nonparametric statistics.

1-MATH 452. MATHEMATICAL STATISTICS AND APPLICATIONS II. *Four hours credit.*

Prerequisite, MATH 451. A continuation of MATH 451.

1-MATH 453. MATHEMATICAL STATISTICS AND APPLICATIONS III. *Four hours credit.*

Prerequisite, MATH 452. A continuation of MATH 452.

1-MATH 464. INTRODUCTION TO THE HISTORY OF MATHEMATICS. *Three hours credit.*

Prerequisite, MATH 133. A survey of the history of mathematics from antiquity to the present with emphasis upon both the development of mathematics concepts and the people involved in this development.

1-MATH 481. COMPUTER MATHEMATICS I. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, MATH 133, MATH 380 or permission of instructor. A continuation of MATH 380. This course consists of advanced FORTRAN and advanced BASIC as they apply to elementary mathematics. The student will program for the IBM 360 and Hewlett-Packard 2007A.

1-MATH 482. COMPUTER MATHEMATICS II. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, MATH 133, MATH 380 (MATH 481 is recommended as a prerequisite). This course deals with two new languages, ALGOL and PL(1) each basic to the field of computer science. Mathematical applications of these languages will include elementary numerical analysis.

1-MATH 483. COMPUTER MATHEMATICS III. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, MATH 133, 380. This course will explore the assembly languages of the Hewlett-Packard 2007A mini-computer system and the IBM 360. Unique mathematical applications of assembly languages will be stressed.

1-MATH 401. THEORY OF EQUATIONS. *Four hours credit.*

The study of properties of polynomials and methods of finding roots of polynomial equations.

MATHEMATICS EDUCATION

MED 341. METHODS OF TEACHING MATHEMATICS. *Three hours credit.*

For prospective teachers of middle school, junior and senior high school mathematics students. Opportunity provided for gaining skill in constructing teaching strategies, understanding curriculum problems, and applying basic theories in teaching and learning mathematics. (Prior early field experiences desirable. Must enroll in EDFE 370 simultaneously. Cannot count toward mathematics major or minor.)

2-MED 370. MATHEMATICAL INSTRUMENTS AND SURVEYING. *Four hours credit.*

Prerequisite, MATH 125. A course designed to show the teacher of mathematics some of the techniques and instruments used in many of the practical problems of measurement. Instruments studied are the slide rule, the sextant, and various instruments used in land surveying.

MED 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

4-MED 471. INSTRUCTIONAL MATERIALS IN SECONDARY SCHOOL MATHEMATICS. *Three hours credit. (Two hours lecture, three hours laboratory.)*

Prerequisite, MATH 131. 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.

METEOROLOGY

Courses in meteorology are administered by the Department of Earth Sciences.

5-MET 100. GENERAL METEOROLOGY. *Four hours credit. (Three hours lecture, two hours laboratory.)*

This is a basic course in meteorology for non-earth science majors. The course deals with general information on weather observation, circulation of the atmosphere, condensation and precipitation, and climate. It is designed to present an overview of the field of meteorology and its relationships to aviation, commerce, and health. The course will fulfill the general education requirement in earth science.

5-MET 201. PRINCIPLES OF METEOROLOGY I. *Four hours credit. (Three hours lecture, two hours laboratory.)*

Structure and composition of the atmosphere. Weather elements of pressure, temperature, humidity and atmospheric motion, both at surface and aloft. Radiation and

processes of cloud formation. Instruments and observations, along with plotting and interpretation of weather charts. Students cannot receive credit for both MET 100 and 201.

5-MET 202. PRINCIPLES OF METEOROLOGY II. *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, MET 201. A continuation of the topics and principles developed in MET 201. The general and secondary circulations of the atmosphere, air masses and their modification, fronts, circulation in the tropics, hurricanes, tornadoes, and some applications of meteorology will be considered.

5-MET 320. CLIMATOLOGY. *Three hours credit.*

Prerequisites, MET 100 or 201 or MET 500. The physical basis of climate will be considered briefly. Main consideration will be given to climatic classification, the regional distribution of climates around the world, with specific attention on the climates of Colorado, and to the relationships of climate to agriculture, housing, water resources, transportation, and other human activities.

5-MET 330. PHYSICAL METEOROLOGY. *Three hours credit.*

Prerequisites, MET 100 or 201 or MET 500. Radiation processes in the atmosphere, meteorological optics, atmospheric effects on radar propagation, physical processes of cloud formation and atmospheric electricity. Weather modification.

5-MET 440. SYNOPTIC METEOROLOGY. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, MET 201 and 202 or MET 500. A study of the fundamental topics of synoptic meteorology, such as air mass development, fronts and frontogenesis, cyclones and anticyclones, long- and short-waves in the atmosphere, the jet stream, and the vertical structure of the atmosphere. Elementary analysis and forecasting exercises in the laboratory will apply these topics to actual weather situations. Maps and charts of the U.S. Weather Bureau will be considered.

5-MET 450. SEVERE WEATHER PHENOMENA. *Three hours credit.*

Prerequisite, MET 202 or 500. A study of the development and structure of thunderstorms, squall lines, tornadoes, and hurricanes.

MEDICAL TECHNOLOGY

This major is administered by the Department of Chemistry.

These courses are open only to majors in Medical Technology.

MTEC 450. 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 clinical tests, pregnancy tests and tests on gastric and duodenal contents are included.

MTEC 452. HEMATOLOGY. *Nine hours credit.*

This course covers the methods of obtaining blood, determination of hemoglobin, red and white blood cell counts, hematocrit, study of blood smears, platelet count, reticulocyte count, coagulation, clot retraction, bleeding and prothrombin time, direct eosinophile count, fragility of erythrocytes, sedimentation rate of erythrocytes and bone marrow smears preparation and study.

MTEC 453. PRETRANSFUSION TESTS AND BLOOD BANK PROCEDURES.

Five hours credit.

This course covers selection and pretesting of donors, copper sulphate method of determining minimum hemoglobin, bleeding of donors, basic theory of blood factors, ABO grouping tests, Rh factor and Rho, (D) typing, cross-matching tests, subgroups A, irregular agglutinins, cold agglutinins, transfusion reactions, emergency transfusions, Rh antibody tests, and Coombs' test.

MTEC 454. CLINICAL CHEMISTRY. *Thirteen hours credit.*

Urine, cerebrospinal fluid, feces and other biological materials are examined. Preparation of reagents and protein-free filtrates are studied. Colorimetry and photometry chemical tests include blood-sugar, nonprotein nitrogen, urea nitrogen, creatinine, creatine, uric acid, albumin, globulin, acid-base balance, carbon dioxide capacity, chloride, phosphorus, phosphatases, calcium, sodium, potassium, liver function.

MTEC 455. SEROLOGY. *Three hours credit.*

Principles of serology and immunology, the Kahn test, other flocculation and precipitation tests, colloidal gold and mastic tests, the complement fixation reaction, agglutination and opsonocytaphagic tests, cold agglutinins are studied.

MTEC 456. MEDICAL MICROBIOLOGY. *Twelve hours credit.*

Culture mediums, sterilization and disinfection, morphology and physiology of bacteria, stains, classification, relation of parasites to disease, techniques for parasitologic examinations, vaccines and filtrates, filtrable viruses, mycology techniques, the superficial fungi, and the deep mycotic infections are studied.

MTEC 457. HISTOLOGIC TECHNIQUE. *Two hours credit.*

Fixation and hardening of tissue, clearing of tissues, paraffin infiltration and blocking of tissue, sharpening of microtome knife, sectioning of tissue and preparation of sections for staining, routine staining technique, decalcification, frozen sections, special or differential staining methods, histochemistry, technique of exfoliative cytology are studied.

MUSIC

MUS 100. RECITALS, CONCERTS AND PRODUCTIONS. *No credit.*

All undergraduate students enrolling in the School of Music as majors are required to attend major recitals and concerts on a regular basis as part of their course program. For specific requirements, see the School of Music *Applied Music and Performance Handbook*.

2-MUS 101. SIGHT-SINGING AND THEORY I. *Four hours credit.*

Sight-reading of standard music materials, pitch and rhythmic dictation, symbols of music notation, staff, clefs, scale construction in major and minor keys, and intervals. Class meets for four days plus a fifth day of keyboard lab.

2-MUS 102. SIGHT-SINGING AND THEORY II. *Four hours credit.*

Prerequisite, MUS 101. Continuation of sight-reading, ear training, and dictation; elementary theory to include study of intervals and inversions, triads and inversions, construction of principal and secondary chords, melody writing, and elementary form study. Class meets for four days plus a fifth day of keyboard lab.

2-MUS 103. SIGHT-SINGING AND THEORY III. *Four hours credit.*

Prerequisite, MUS 102. Continuation of sight-reading, ear training and dictation;

chords of seventh and ninth, cadences, analysis, and ear training of standard harmonic materials. Class meets for four days plus fifth day of keyboard lab.

2-MUS 130. STRING ENSEMBLE. *One hour credit.*

2-MUS 131. BRASS ENSEMBLE. *One hour credit.*

2-MUS 132. WOODWIND ENSEMBLE. *One hour credit.*

2-MUS 133. PERCUSSION ENSEMBLE. *One hour credit.*

2-MUS 134. PIANO ENSEMBLE. *One hour credit.*

2-MUS 135. GUITAR ENSEMBLE. *One hour credit.*

4-MUS 140. 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.

4-MUS 141. MUSIC LITERATURE AND STYLES I. *Two hours credit.*

The two-fold 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.

4-MUS 142. MUSIC LITERATURE AND STYLES II. *Two hours credit.*

The two-fold 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.

4-MUS 143. MUSIC LITERATURE AND STYLES III. *Two hours credit.*

The two-fold purpose of this course is to foster an appreciation for the best in music and to provide the student with basic music information in the fields of media, terminology, chronology, biography, repertoire and stylistic analysis.

MUS 150. BEGINNING JAZZ IMPROVISATION. *Two hours credit.*

Prerequisite, MUS 101, 102. This course will teach the student basic skills necessary to create and perform jazz solos involving rather simple chord progressions, harmonic structures and rhythmic frameworks. Also covered will be effective techniques and materials used in teaching these skills to secondary level students.

2-MUS 160. BEGINNING CLASS PIANO I. *One hour credit.*

This is a course designed to fit the needs of the music major or non-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.

2-MUS 161. BEGINNING CLASS PIANO II. *One hour credit.*

This is a course designed to fit the needs of the music major or non-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.

2-MUS 162. BEGINNING CLASS PIANO III. *One hour credit.*

This is a course designed to fit the needs of the music major or non-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.

2-MUS 163. BEGINNING STRING INSTRUCTION I. *One hour credit.*

A study, through performance, of the problems of string playing and the available literature for teaching in heterogeneous and homogeneous groups so that the student will be able, upon graduation, to establish string classes with full knowledge of the problem of string playing and their solution.

2-MUS 164. BEGINNING STRING INSTRUCTION II. *One hour credit.*

A study, through performance, of the problems of string playing and the available literature for teaching classes in heterogeneous and homogeneous groups so that the student will be able, upon graduation, to establish string classes with full knowledge of the problems of string playing and their solution.

2-MUS 165. 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.

2-MUS 169. INDIVIDUAL PERFORMANCE IN VOICE FOR NON-VOICE MAJOR. *Two hours credit.*

Instruction will concentrate on the fundamental principals of voice production, such as proper breathing for singing, diction, resonance, etc. Development of rhythmic and melodic accuracy will receive primary consideration. Work on the fundamentals of good singing will be carried through the entire program.

2-MUS 170. INDIVIDUAL PERFORMANCE IN VOICE. *Two to four hours credit.*

2-MUS 171. INDIVIDUAL PERFORMANCE IN PIANO. *Two to four hours credit.*

2-MUS 172. INDIVIDUAL PERFORMANCE IN ORGAN. *Two to four hours credit.*

2-MUS 173. INDIVIDUAL PERFORMANCE IN STRINGS. *Two to four hours credit.*

2-MUS 174. INDIVIDUAL PERFORMANCE IN WOODWINDS. *Two to four hours credit.*

2-MUS 175. INDIVIDUAL PERFORMANCE IN BRASS. *Two to four hours credit.*

2-MUS 176. INDIVIDUAL PERFORMANCE IN PERCUSSION. *Two to four hours credit.*

2-MUS 177. INDIVIDUAL INSTRUCTION IN COMPOSITION. *Two to four hours credit.*

2-MUS 178. INDIVIDUAL PERFORMANCE IN HARP. *Two to four hours credit.*

2-MUS 179. INDIVIDUAL PERFORMANCE IN GUITAR. *Two to four hours credit.*

2-MUS 180. MIXED CONCERT CHOIR. *One hour credit.*

Membership in the concert choir is limited to approximately 60 singers. This organization performs a wide-range of choral literature from the classics to the music of contemporary composers. The organization is recognized widely for its excellence as a choral performing group. It is in demand throughout the region for concert appearances.

2-MUS 181. UNIVERSITY CHORUS. *One hour credit.*

Membership to the group of some 70 singers is open to all university students on an

audition basis. The chorus performs concerts of its own on campus as well as joining with the Concert Choir in large works for chorus and orchestra.

2-MUS 182. UNIVERSITY SINGERS. *One hour credit.*

A selected group of approximately 35 voices open by audition only. The repertoire for this group is extremely varied, ranging from motets of the Renaissance to contemporary songs to the Bach b-minor mass.

2-MUS 183. WOMEN'S CONCERT CHOIR. *One hour credit.*

The women's choir is open to all women students who enjoy singing the literature for women's voices. This group performs for many local community and university events. Elementary education majors are especially urged to apply for membership.

2-MUS 184. VARSITY MEN'S GLEE CLUB. *One hour credit.*

Membership is open to the entire male student body. A love of singing is the main requirement for registration. No formal audition is necessary. The Varsity Men's Glee Club affords an opportunity for men from all schools and departments to participate in the great tradition of men's ensemble singing while performing a wide-range of literature before university and community audiences.

2-MUS 185. OPERA WORKSHOP. *One to three hours credit.*

Workshop offering practical experience in production of a musico-dramatic show. Techniques of acting, singing, directing, and other facets necessary for preparation of a show for public performance will be offered.

2-MUS 186. CHORUS AND ORCHESTRA WORKSHOP. *One hour credit.*

Conducted by authorities nationally known in their fields of specialization. The purpose of the workshop is to provide information about current important ideas in each field of knowledge.

2-MUS 189. LABORATORY ORCHESTRA. *One hour credit.*

A laboratory course to provide practice orchestra experience, on stringed instruments. Orchestral materials and the use of them for continued development of string students will be discussed and demonstrated.

2-MUS 190. SYMPHONIC WIND BAND. *One hour credit.*

The Symphonic Wind Band is limited in enrollment to approximately 80 members. This organization performs the best literature available for the band. Over the years this UNC band has become known throughout the region for its excellence as concert organization. The Symphonic Wind Band presents many concerts during the year, and takes an annual tour.

2-MUS 191. CONCERT BAND. *One hour credit.*

The Concert Band is open to all band performers who wish a more limited band experience than is provided by the Symphonic Wind Band. This band studies, rehearses, and presents advanced forms of concert band literature.

2-MUS 192. MARCHING BAND. *One hour credit.*

Open to all students regardless of major field who have had high school band experience. A study and practice of the fundamentals of drill and presentation of marching maneuvers and pageants at athletic events. Required during Fall Quarter for all students on campus in the instrumental music education program who will teach in the secondary schools and wish certification.

2-MUS 193. VARSITY BAND. *One hour credit.*

Open to all students regardless of major who have had high school band experience. To provide music for athletic and university functions. To read material suitable for use by high school band.

2-MUS 194. JAZZ ENSEMBLE. *One hour credit.*

The instrumentation in a Jazz Ensemble is designed for brass, woodwind and rhythm players. This unit is concerned with jazz idiom music: show music, dance music, and concert jazz. The goal of this type of ensemble is to give the student a thorough training in preparation for teaching at both the secondary and college levels. Members of the Jazz Ensemble who are music majors must be enrolled in a major ensemble.

2-MUS 195. UNIVERSITY BRASS CHOIR. *One hour credit.*

A select performing ensemble of 15 to 20 brass students with added percussionists when necessary. Concentration is upon familiarization of literature for the brass instrumental media as well as upon development of musical sensitivity, phrasing, style and intonation.

2-MUS 196. UNIVERSITY SYMPHONY ORCHESTRA. *One hour credit.*

The University Symphony Orchestra is open to all students by audition. The organization performs and reads the standard repertoire of the modern symphony orchestra. Quarterly concerts are given on campus in addition to one tour taken yearly. The orchestra also participates in a Spring Quarter chorus and orchestra event.

2-MUS 197. CHAMBER ORCHESTRA. *One hour credit.*

A select group of approximately 20 string students chosen by audition from the membership of the Symphony Orchestra. The Orchestra performs and reads literature from the Baroque to the present-day, specializing in material specifically designed for chamber orchestra.

2-MUS 201. ADVANCED SIGHT-SINGING AND THEORY I. *Three hours credit.*

Prerequisite, MUS 103. A continuation of MUS 103. Written work will include cadences, inversions, diatonic modulations and all non-harmonic tones. Keyboard labs, harmonic dictation, and written theory will be correlated. Class meets three days a week plus one-half hour keyboard lab.

2-MUS 202. ADVANCED SIGHT-SINGING AND THEORY II. *Three hours credit.*

Prerequisite, MUS 201. A continuation of Music 201 but primary emphasis in the work in seventh chords, altered chords, and chromatic modulation. Class meets three days a week plus one-half hour keyboard lab.

2-MUS 203. ADVANCED SIGHT-SINGING AND THEORY III. *Three hours credit.*

Prerequisite, MUS 202. A continuation of Music 202 but primary emphasis in the written work will be placed upon studies of 20th century techniques, with student compositions performed and evaluated in class. Class meets three days a week plus one-half hour keyboard lab.

2-MUS 204. MUSIC FUNDAMENTALS. *Two hours credit.*

An introduction to music fundamentals for non-music majors with little or no musical background. Basic skills in music will be developed through group singing, rhythmic experience, musical listening, rudimentary piano techniques and other instrumental skills. Class is required for elementary education majors and special education majors. Elementary education majors should arrange to take MUS 204, 205, and 206 in sequence. Offered each quarter. Class may be challenged.

2-MUS 205. EXPERIENCING MUSIC FOR ELEMENTARY TEACHERS. *One hour credit.*

Prerequisite, MUS 101 or MUS 204. Development of song repertoire and performance confidence through singing, conducting small ensembles and playing autoharp, recorder, bells, and rhythm instruments. Required for elementary educa-

tion majors who should take MUS 204, 205, and 206 in sequence. Offered each quarter.

MUS 206. MUSIC METHODS AND MATERIALS FOR ELEMENTARY TEACHERS. *Two hours credit.*

Prerequisites, MUS 101 or 204 and 205. A comprehensive course for the elementary classroom teacher covering the teaching of musical concepts through singing, rhythm activities, listening and playing instruments, including the integration of handicapped children in the music class. Required for elementary education majors. Elementary education majors should arrange to take MUS 204, 205, and 206 in sequence. Offered each quarter.

MUS 210. INTRODUCTION TO MUSIC EDUCATION. *Two hours credit.*

Prerequisite, MUS 103. An introduction course for prospective teachers of music covering the place of music in the school program, recent trends in school music, the qualifications of the music teacher, and a consideration of beginning instructional problems. For music majors only.

2-MUS 230. STRING ENSEMBLE. *One hour credit.*

2-MUS 231. BRASS ENSEMBLE. *One hour credit.*

2-MUS 232. WOODWIND ENSEMBLE. *One hour credit.*

2-MUS 233. PERCUSSION ENSEMBLE. *One hour credit.*

2-MUS 234. PIANO ENSEMBLE. *One hour credit.*

2-MUS 235. GUITAR ENSEMBLE. *One hour credit.*

MUS 237. PIANO LITERATURE I. *Two hours credit.*

Prerequisite, piano performance level II or above. Keyboard music from the earliest beginnings through the English Virginalists and other national schools (French, Italian, and German) up to and including Couperin, Rameau, Scarlatti, and Handel.

MUS 238. PIANO LITERATURE II. *Two hours credit.*

Prerequisite, piano performance level II or above. This portion of the series will be concerned with the keyboard works of Bach, the Bach sons, Haydn, and Mozart. Special attention will be given to the piano concertos of Mozart.

MUS 239. PIANO LITERATURE III. *Two hours credit.*

Prerequisite, piano performance level II or above. This section will deal with the piano works of Beethoven and Schubert. Beethoven's Sonatas will be thoroughly reviewed and their relation to Schubert's work in that form will be explored.

4-MUS 240. HISTORY OF MUSIC I. *Three hours credit.*

Prerequisites, MUS 101, 102, and 103. The historical change in music from earliest times to the end of the sixteenth century with emphasis on the changes in style.

4-MUS 241. HISTORY OF MUSIC II. *Three hours credit.*

Prerequisite, MUS 240. 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.

4-MUS 242. HISTORY OF MUSIC III. *Three hours credit.*

Prerequisite, MUS 241. A study of the musical changes caused by the Romantic, Post-Romantic and Impressionistic periods from 1800 to 1920.

MUS 250. INTERMEDIATE JAZZ IMPROVISATION. *Two hours credit.*

Prerequisite, MUS 101, 102, 103, Beginning Jazz Improvisation or demonstrated equal knowledge and proficiency. This course will further develop the student's ability to create and perform jazz solos involving more complex chord progressions and more complex rhythmic and formal frameworks. Also covered will be effective techniques and materials used in teaching these skills to secondary level students.

2-MUS 260. INTERMEDIATE CLASS PIANO I. *One hour credit.*

This is a course in functional piano designed to fit the needs of the music major or non-major who has a slight background in piano. In this course is included the teaching of reading skills, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

2-MUS 261. INTERMEDIATE CLASS PIANO II. *One hour credit.*

This is a course in functional piano designed to fit the needs of the music major or non-major who has a slight background in piano. In this course is included the teaching of reading skills, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

2-MUS 262. INTERMEDIATE CLASS PIANO III. *One hour credit.*

This is a course in functional piano designed to fit the needs of the music major or non-major who has a slight background in piano. In this course is included the teaching of reading skills, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

2-MUS 269. INDIVIDUAL PERFORMANCE IN VOICE FOR NON-VOICE MAJORS. *Two hours credit.*

See course description MUS 169.

2-MUS 270. INDIVIDUAL PERFORMANCE IN VOICE. *Two to four hours credit.*

2-MUS 271. INDIVIDUAL PERFORMANCE IN PIANO. *Two to four hours credit.*

2-MUS 272. INDIVIDUAL PERFORMANCE IN ORGAN. *Two to four hours credit.*

2-MUS 273. INDIVIDUAL PERFORMANCE IN STRINGS. *Two to four hours credit.*

2-MUS 274. INDIVIDUAL PERFORMANCE IN WOODWINDS. *Two to four hours credit.*

2-MUS 275. INDIVIDUAL PERFORMANCE IN BRASS. *Two to four hours credit.*

2-MUS 276. INDIVIDUAL PERFORMANCE IN PERCUSSION. *Two to four hours credit.*

2-MUS 277. INDIVIDUAL INSTRUCTION IN COMPOSITION. *Two to four hours credit.*

2-MUS 278. INDIVIDUAL PERFORMANCE IN HARP. *Two to four hours credit.*

2-MUS 279. INDIVIDUAL PERFORMANCE IN GUITAR. *Two to four hours credit.*

2-MUS 280. MIXED CONCERT CHOIR. *One hour credit.*

See course description MUS 180.

2-MUS 281. UNIVERSITY CHORUS. *One hour credit.*
See course description MUS 181.

2-MUS 282. UNIVERSITY SINGERS. *One hours credit.*
See course description MUS 182.

2-MUS 283. WOMEN'S CONCERT CHOIR. *One hour credit.*
See course description MUS 183.

2-MUS 284. VARSITY MEN'S GLEE CLUB. *One hour credit.*
See course description MUS 184.

2-MUS 285. OPERA WORKSHOP. *One to three hours credit.*
See course description MUS 185.

2-MUS 286. CHORUS AND ORCHESTRA WORKSHOP. *One hour credit.*
See course description MUS 186.

2-MUS 289. LABORATORY ORCHESTRA. *One hour credit.*
See course description MUS 189.

2-MUS 290. SYMPHONIC WIND BAND. *One hour credit.*
See course description MUS 190.

2-MUS 291. CONCERT BAND. *One hour credit.*
See course description MUS 191.

2-MUS 292. MARCHING BAND. *One hour credit.*
See course description MUS 192.

2-MUS 293. VARSITY BAND. *One hour credit.*
See course description MUS 193.

2-MUS 294. JAZZ ENSEMBLE. *One hour credit.*
See course description MUS 194.

2-MUS 295. UNIVERSITY BRASS CHOIR. *One hour credit.*
See course description MUS 195.

2-MUS 296. UNIVERSITY SYMPHONY ORCHESTRA. *One hour credit.*
See course description MUS 196.

2-MUS 297. CHAMBER ORCHESTRA. *One hour credit.*
See course description MUS 197.

MUS 300. COMPOSITION CLASS. *Two hours credit.*
Prerequisite, MUS 101 or permission of the instructor. This course is intended to serve as an introduction to musical composition and will afford beginning composers the opportunity to hear, discuss and evaluate their own work and that of their classmates. Class size will not exceed twelve students. This course may be repeated for credit.

MUS 301. COUNTERPOINT. *Three hours credit.*
Prerequisite, MUS 203. A study of the five species of counterpoint through four parts (or voices); the invention, canon, and fugue; a seminar on the construction and form as applied to contrapuntal technique.

MUS 302. HOMOPHONIC FORMS. *Three hours credit.*
Prerequisite, MUS 203. The purpose of this course is to acquaint the student with

the structure of homophonic forms, beginning with the motif and continuing to the analysis of the sonata, rondo, and variation forms.

MUS 303. INSTRUMENTATION. *Three hours credit.*

Prerequisite, MUS 203. A course planned to develop knowledge and skill in arranging and orchestrating for various combinations of instruments from a few instruments to a full symphony orchestra.

MUS 310. TEACHING ELEMENTARY GENERAL MUSIC. (PTE) *Two hours credit.*

Comprehensive study of the role of music with today's children (K-6) including the integration of handicapped children in the music class.

MUS 311. TEACHING MIDDLE-JUNIOR HIGH SCHOOL GENERAL MUSIC. (PTE) *Three hours credit.*

Comprehensive study of the role of music with today's students (middle and junior high school).

MUS 313. TEACHING INSTRUMENTAL MUSIC. (PTE) *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.

4-MUS 315. 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 helping others to listen to music intelligently. For non-music majors.

MUS 316. TEACHING MUSIC LISTENING. *Three hours credit.*

Music majors prerequisites, MUS 210 and 310. Non-music major prerequisites, MUS 206 and 310. Exploring teaching methodology and materials within structured school music listening programs.

4-MUS 317. CHILDREN'S SONG LITERATURE. *Three hours credit.*

Music major prerequisite, MUS 310. Non-music major prerequisite, MUS 204, 205, and 206. A course designed to acquaint the teacher with the song literature available for children. For elementary classroom teachers, music teachers, and supervisors.

MUS 318. MUSIC ACTIVITIES FOR CLASSROOM TEACHERS. *Three hours credit.*

Broad range of innovative teaching ideas explored which nurture musicality in children.

2-MUS 320. INSTRUMENTAL TECHNIQUES AND CONDUCTING I. *One hour credit.*

Prerequisites, MUS 101, 102, 103. The technique, practice and principles of instrumental conducting. The development of effective hand and baton technique. Drill and examples of the various meter patterns, tempo, style, dynamics, musical terms, study and preparation of the musical score. Extensive experience in interpretation of materials using the laboratory band and orchestra.

2-MUS 321. INSTRUMENTAL TECHNIQUES AND CONDUCTING II. *One hour credit.*

Prerequisite, MUS 320. 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.

2-MUS 322. INSTRUMENTAL TECHNIQUES AND CONDUCTING III. *One hour credit.*

Prerequisite, MUS 321. The techniques and practice of instrumental conducting. The development of hand and baton techniques. 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.

2-MUS 323. CHORAL TECHNIQUES AND CONDUCTING I. *One hour credit.*

Prerequisites, MUS 101, 102, 103, 141, 142, and 143. This course is designed to develop a basic conducting technique for the choral musicians. Meter patterns, preparatory beats, cueing and releases are studied and applied. Ideas relative to tone production diction, blend, balance and intonation are discussed. Musical scores are prepared and conducted.

2-MUS 324. CHORAL TECHNIQUES AND CONDUCTING II. *One hour credit.*

Prerequisite, MUS 323. This is a continuation of the work begun in 323. Stress is placed on the mastery of some of the larger, more complex scores. Irregular beat patterns, up-beat pickups and other advanced technical problems are studied and methods for solving them developed.

MUS 325. CHORAL CONDUCTING AND LITERATURE FOR THE HIGH SCHOOL. *One hour credit.*

Prerequisite, MUS 324. A study, performance, and conducting of choral literature from all periods of composition conducive for use in varying junior and senior high school vocal situations. Each student will be required to develop an extensive bibliography of various literature types.

2-MUS 330. STRING ENSEMBLE. *One hour credit.*

2-MUS 331. BRASS ENSEMBLE. *One hour credit.*

2-MUS 332. WOODWIND ENSEMBLE. *One hour credit.*

2-MUS 333. PERCUSSION ENSEMBLE. *One hour credit.*

2-MUS 334. PIANO ENSEMBLE. *One hour credit.*

2-MUS 335. GUITAR ENSEMBLE. *One hour credit.*

4-MUS 340. SURVEY OF HISTORY AND LITERATURE OF JAZZ. *Two hours credit.*

A survey of the history and literature of jazz music from its beginnings to the present. This course is open to all students.

4-MUS 341. MUSIC AND THE RELATED ARTS. *Two hours credit.*

A study of the relationship of music, painting, architecture, poetry, dance, drama, sculpture, film, with emphasis on the humanistic values of the arts and their impact on the philosophical and social problems of our time. Technical analysis will be restricted to a minimum, while meaning and interpretation will be stressed. This course is open to all students.

4-MUS 344. MUSIC IN AMERICAN HISTORY AND CULTURE. *Three hours credit.*

The purpose of this course is to examine selected areas of American music in a historical and cultural framework. Material to be discussed includes musical traditions of various ethnic groups. Music composed as a result of certain events or for

particular purposes, and the use specifically American elements in classical music.

4-MUS 345. MUSICAL CULTURES OF THE WORLD I. *Three hours credit.*

Prerequisite, one of the following -- MUS 141, 142, 143, 204, or consent of the instructor. A survey of selected musical cultures in Asia, North Africa, and the Near East, (China, Japan, Indonesia, India, Thailand, Iran, Morocco, and related areas). Musical instruments, theoretical systems, performance practices, the role of music in society, and the relationship of music to the other arts will be covered.

4-MUS 346. MUSICAL CULTURES OF THE WORLD II. *Three hours credit.*

Prerequisite, one of the following -- MUS 141, 142, 143, 204, or consent of the instructor. A survey of selected musical cultures in America (Akimo, North and South American Indian), Africa south of the Sahara (Ghana, Dahomey, Chad, Mali, Zaire, Mozambique, Uganda and related areas), Australia, and Oceania. Musical instruments, performance practices, the role of music in society, and relationship of music to other arts will be covered.

4-MUS 347. MUSICAL CULTURES OF THE WORLD III. *Three hours credit.*

Prerequisite, one of the following -- MUS 141, 142, 143, 204, or consent of the instructor. A survey of European folk music, Afro-American Folk Music, and Latin American Folk Music. Style and structure as well as origin, mode of transmission, and function of the music will be covered.

MUS 350. TRADITIONS IN PIANO LITERATURE I: BAROQUE TO PRESENT.

Two hours credit.

Prerequisite, limited to piano majors or to others with approval of instructor. A course investigating stylistic trends and interpretation of the piano literature from the Baroque period to the present.

MUS 351. TRADITIONS OF PIANO LITERATURE II: BAROQUE TO PRESENT.

Two hours credit.

Prerequisite, MUS 350. A course investigating stylistic trends and interpretation of the piano literature from the Baroque period to the present.

MUS 352. TRADITIONS IN PIANO LITERATURE III: BAROQUE TO PRESENT. *Two hours credit.*

Prerequisite, MUS 351. A course investigating stylistic trends and interpretation of the piano literature from the Baroque period to the present.

2-MUS 358. WOODWIND CLASS. *One hour credit.*

This course is required of all music majors with vocal, piano, and general music emphasis (BA in Music Education). The fundamentals of woodwind instruments and training literature for woodwinds will be covered.

2-MUS 359. GUITAR CLASS. *One hour credit.*

This class is open to non-guitar majors for the purpose of studying the fundamentals and literature of the guitar.

2-MUS 360. 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.

2-MUS 361. FLUTE AND SAXOPHONE CLASS. *One hour credit.*

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 the instruments.

2-MUS 362. CLARINET CLASS. *One hour credit.*

To develop a teaching knowledge of the members 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 instruments.

2-MUS 363. 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.

2-MUS 364. TRUMPET AND FRENCH HORN CLASS. *One hour credit.*

A concentrated course in trumpet and French horn to develop a teaching knowledge of the instruments and to develop enough playing skill to demonstrate good tone, technique, and breath control.

2-MUS 365. LOW BRASS CLASS. *One hour credit.*

To develop a teaching knowledge of trombone, baritone, and tuba. To acquire sufficient skill for purposes of demonstration.

2-MUS 366. 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.

2-MUS 367. BRASS AND PERCUSSION CLASS. *One hour credit.*

This course is required of all music majors with vocal, piano, and general music emphasis (BA in Music Education). The fundamentals of brass and percussion instruments and brass and percussion training literature will be covered.

2-MUS 368. 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.

2-MUS 369. INDIVIDUAL PERFORMANCE IN VOICE FOR NON-VOICE MAJORS. *Two hours credit.*

See course description MUS 169.

2-MUS 370. INDIVIDUAL PERFORMANCE IN VOICE. *Two to four hours credit.***2-MUS 371. INDIVIDUAL PERFORMANCE IN PIANO.** *Two to four hours credit.***2-MUS 372. INDIVIDUAL PERFORMANCE IN ORGAN.** *Two to four hours credit.***2-MUS 373. INDIVIDUAL PERFORMANCE IN STRINGS.** *Two to four hours credit.***2-MUS 374. INDIVIDUAL PERFORMANCE IN WOODWINDS.** *Two to four hours credit.***2-MUS 375. INDIVIDUAL PERFORMANCE IN BRASS.** *Two to four hours credit.***2-MUS 376. INDIVIDUAL PERFORMANCE IN PERCUSSION.** *Two to four hours credit.*

2-MUS 377. INDIVIDUAL INSTRUCTION IN COMPOSITION. *Two to four hours credit.*

2-MUS 378. INDIVIDUAL PERFORMANCE IN HARP. *Two to four hours credit.*

2-MUS 379. INDIVIDUAL PERFORMANCE IN GUITAR. *Two to four hours credit.*

2-MUS 380. MIXED CONCERT CHOIR. *One hour credit.*
See course description MUS 180.

2-MUS 381. UNIVERSITY CHORUS. *One hour credit.*
See course description MUS 181.

2-MUS 382. UNIVERSITY SINGERS. *One hour credit.*
See course description MUS 182.

2-MUS 383. WOMEN'S CONCERT CHOIR. *One hour credit.*
See course description MUS 183.

2-MUS 384. VARSITY MEN'S GLEE CLUB. *One hour credit.*
See course description MUS 184.

2-MUS 385. OPERA WORKSHOP. *One to three hours credit.*
See course description MUS 185.

2-MUS 386. CHORUS AND ORCHESTRA WORKSHOP. *One hour credit.*
See course description MUS 186.

2-MUS 389. LABORATORY ORCHESTRA. *One hour credit.*
See course description MUS 189.

2-MUS 390. SYMPHONIC WIND BAND. *One hour credit.*
See course description MUS 190.

2-MUS 391. CONCERT BAND. *One hour credit.*
See course description MUS 191.

2-MUS 392. MARCHING BAND. *One hour credit.*
See course description MUS 192.

2-MUS 393. VARSITY BAND. *One hour credit.*
See course description MUS 193.

2-MUS 394. JAZZ ENSEMBLE. *One hour credit.*
See course description MUS 194.

2-MUS 395. UNIVERSITY BRASS CHOIR. *One hour credit.*
See course description MUS 195.

2-MUS 396. UNIVERSITY SYMPHONY ORCHESTRA. *One hour credit.*
See course description MUS 196.

2-MUS 397. CHAMBER ORCHESTRA. *One hour credit.*
See course description MUS 197.

MUS 400. PEDAGOGY OF MUSIC THEORY. *Three hours credit.*
Prerequisites, MUS 203, 301, 302, 303. This course is designed to familiarize potential theory teachers with methods and materials available for the teaching of

theory courses on all levels, and to provide them with practical experience in theory teaching under the guidance of qualified instructors. (Observation and practice teaching will be required in this course and will be arranged at the convenience of the teacher and student.)

2-MUS 401. IMPROVISATION. *Two hours credit.*

Improvisation is one of the most natural forms of musical expression. The course starts with simple vocal and rhythmical improvisations and proceeds to group improvisation, using prepared charts which indicate mood, tempo, form, and the structural role, leading or accompanying, of each instrument.

MUS 402. POLYPHONIC FORMS. *Three hours credit.*

A study of the forms, techniques and literature of the 17th, 18th, and 19th century polyphonic music.

5-MUS 403. ACOUSTICS OF MUSIC. *Three hours credit.*

A study of the physical properties of sound and musical instruments: frequency, amplitude, waveforms, wave motion, resonance, the harmonic series, tuning and temperament, as compared with the psycho-acoustical properties; timbre, pitch, loudness, masking. Emphasis is placed on practical applications in music.

2-MUS 404. PIANO ACCOMPANYING. *Two hours credit.*

Prerequisite, piano proficiency level II or above. The course is designed to develop proficiency in accompanying solo vocal and choral performance, solo instrumental performance, and accompanying instrumental ensembles and performing chamber music ensembles. Technical and interpretive problems relating to accompanying are discussed and explored. A weekly laboratory workshop provides opportunity for performance. Extensive familiarity with major repertoire is stressed.

MUS 405. SIXTEENTH-CENTURY COUNTERPOINT. *Three hours credit.*

Prerequisite, MUS 301. This course is a study of the style of sixteenth-century polyphonic music. Emphasis will be placed on actual music of the period rather than arbitrary theoretical concepts. Composers to be included in the study are Palestrina, Lassus, Des Pres, Victoria, Morales and others.

2-MUS 409. STAGE AND OPERA TECHNIQUES. *One to three hours credit.*

Study of proper selection of opera and operetta; its organization and procedures for casting and tryouts. Rehearsal procedures, scenery, lighting, costuming and makeup; advertising, tickets and programs, and other basics necessary to production of a public performance.

MUS 410. INTRODUCTION TO VOCAL PEDAGOGY. *Two hours credit.*

The study of the problems related to establishing basic techniques for singing.

MUS 411. 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 and improvement of teaching methods and the creation of original materials for class work.

MUS 412. INSTRUMENT REPAIR AND CARE. *Two hours credit.*

Study of the care and repair of band and orchestral instruments. Practical experience in instrument repairs which requires a minimum amount of equipment, skill and time.

MUS 413. PHILOSOPHICAL AND PSYCHOLOGICAL FOUNDATIONS IN MUSIC EDUCATION. *Three hours credit.*

An introduction to important philosophical and psychological thought which has influenced music education.

MUS 414. MUSIC FOR CHILDREN WITH LEARNING DISABILITIES. *Three hours credit.*

Prerequisite, MUS 206 (non-music majors); MUS 310 (music majors). A course designed to help with the process of integrating children with learning disabilities into the elementary school general and instrumental music programs, and the change of music in special needs programs.

MUS 422. INDIVIDUAL STUDIES IN MUSIC. *One to four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

MUS 423. PRACTICUM IN BAND CONDUCTING AND PERFORMANCE. *Three hours credit.*

A laboratory course in advanced band conducting and performance. Supervised conducting experience under actual conditions is provided. Marching and football band performance will also be covered.

MUS 424. PRACTICUM IN CHORAL CONDUCTING AND PERFORMANCE. *Three hours credit.*

A workshop course in advanced choral conducting and performance. Provides opportunity for supervised conducting, analysis of choral materials, problems of choral organization, a study of the literature of choral conducting and practices.

MUS 425. PRACTICUM IN ORCHESTRAL CONDUCTING AND PERFORMANCE. *Three hours credit.*

A workshop course in advanced orchestral conducting and performance. Provides opportunity for supervised conducting, analysis of orchestral material, problems of organization, a study of the literature of orchestral conducting and practice.

2-MUS 430. STRING ENSEMBLE. *One hour credit.*

2-MUS 431. BRASS ENSEMBLE. *One hour credit.*

2-MUS 432. WOODWIND ENSEMBLE. *One hour credit.*

2-MUS 433. PERCUSSION ENSEMBLE. *One hour credit.*

2-MUS 434. PIANO ENSEMBLE. *One hour credit.*

2-MUS 435. GUITAR ENSEMBLE. *One hour credit.*

MUS 437. PIANO LITERATURE IV. *Two hours credit.*

Prerequisite, piano performance level II or above. The beginnings of Romanticism as evidenced in the work of Weber will be studied. Special consideration will be given to the work of the leading composers of the German Romantic School: Mendelssohn, Schumann, and Brahms.

MUS 438. PIANO LITERATURE V. *Two hours credit.*

Prerequisite, piano performance level II or above. The contribution of Chopin and Liszt will be studied in detail. The significance of Debussy, as representative of the Impressionistic School, will be considered.

MUS 439. PIANO LITERATURE VI. *Two hours credit.*

Prerequisite, piano performance level II or above. This course will be devoted to the literature of the modern period. The work of Ravel, Bartok, Stravinsky, Schoenberg, and Prokofieff will be examined. Recent trends will be discussed.

4-MUS 441. CHORAL LITERATURE. *Three hours credit.*

An historical study of the stylistic trends, musical characteristics, and performance practice of choral music.

4-MUS 442. CHORAL LITERATURE FROM 1750. *Three hours credit.*

A study of the stylistic trends, musical characteristics and performance practice of choral music written after 1750.

4-MUS 443. INSTRUMENTAL LITERATURE. *Three hours credit.*

A study of instrumental literature for school groups. The high school band and orchestra, materials for class and individual instruction, and small instrumental ensembles.

MUS 444. 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.

4-MUS 445. VOCAL REPERTOIRE: GERMAN ART SONG. *Two hours credit.*

A course in performance of nineteenth and twentieth century German Art Song, with particular emphasis upon style and diction.

4-MUS 446. VOCAL REPERTOIRE: FRENCH ART SONG. *Two hours credit.*

A course in performance of nineteenth and twentieth century French Art Song, with particular emphasis upon style and diction.

4-MUS 447. VOCAL REPERTOIRE: ITALIAN SONG. *Two hours credit.*

A course in performance of songs and airs before the nineteenth century, with particular emphasis upon style and diction.

4-MUS 448. COLLEGIUM MUSICUM. *One hour credit.*

This performing group is concerned with little performed music of all types. The goal of the organization is to give the student experience in preparing and performing early music, music for unusual media and experimental music of all types. Admission with the approval of the instructor.

4-MUS 449. HISTORY OF MUSICAL INSTRUMENTS. *Three hours credit.*

A study of the development of musical instruments from the distant past to the present. Specific notice will be made of their growth into families of instruments and their usage in musical practice.

MUS 450. DALCROZE-EURHYTHMICS IN THE GENERAL MUSIC CLASSROOM. *One hour credit.*

This course is designed to help develop the musical sensitivity of children through movement and rhythms based on the Dalcroze-Eurhythmics concepts.

MUS 451. KODALY -- HIS IMPACT ON AMERICAN MUSIC EDUCATION. *One hour credit.*

A workshop approach on the music teaching of the Hungarian composer-music educator and ways of adapting those methods to the classrooms of the United States.

MUS 452. ORFF SCHULWERK IN AMERICAN SCHOOLS. *One hour credit.*
The study of Orff approaches to music teaching; its philosophy, methodology, and adaptation into the music curriculum.

MUS 453. CREATIVITY IN MUSIC EDUCATION. *One hour credit.*
Through a workshop approach, students will explore topics such as: defining and evaluating music creativity, and developing creative music experiences for school children.

MUS 454. NON-PERFORMANCE MUSIC COURSES IN THE SENIOR HIGH SCHOOL. *One hour credit.*

An investigation of current developments in general music, theory, history, and humanities related to the senior high school curriculum. A study of courses, content, scheduling, and innovative practices.

MUS 455. THE HISTORY OF MUSIC EDUCATION IN THE UNITED STATES. *One hour credit.*

An overview of music education in the United States from its beginning to the present.

MUS 456. TESTS AND MEASUREMENT IN MUSIC. *One hour credit.*

This course is designed to acquaint students with the use of tests in music, procedures of administration and analysis. A study is also made of aptitude tests, achievement tests, and measurement of accountability through behavioral objectives.

MUS 457. PUBLIC RELATIONS IN SCHOOL MUSIC. *One hour credit.*

Prerequisite, MUS 210. A consideration how to work effectively with faculty, staff, parents, merchants, news media, fellow professionals, and general public.

MUS 458. PUBLIC SCHOOL MUSIC MANAGEMENT. *One hour credit.*

Prerequisite, MUS 210. The course will present the problems of management in grades K-12. It will include areas of scheduling, financing, programming, certification, school law, insurance, purchasing, festivals, professional responsibility, and other concerns relative to the course title.

MUS 460. PRINCIPLES OF VIOLIN AND VIOLA TEACHING. *Two hours credit.*

This is a laboratory course which includes observation and participation and instruction in group and individual violin and viola.

MUS 461. PRINCIPLES OF PIANO TEACHING I. *Two hours credit.*

Prerequisite, piano performance level II or above. A laboratory course including observation and participation in group and individual piano instruction. The beginning pianist and individual differences. Readiness and normal progress defined. Musicianship and music reading approached through piano study. Basic keyboard techniques. Criteria for selecting teaching materials.

MUS 462. PRINCIPLES OF PIANO TEACHING II. *Two hours credit.*

Prerequisite, MUS 461. Studio procedures. Demonstrations of specific musical and technical problems and their possible solutions. Guided teaching. Keyboard experience in the school music program. Individual differences in sight-reading ability, musicianship, and literature and materials.

MUS 463. PRINCIPLES OF PIANO TEACHING III. *Two hours credit.*

Prerequisite, MUS 462. Studio management. Piano teaching as a profession. Class members will assume responsibility for teaching one or more pupils at beginning and intermediate levels with clinical study of problems involved. Adjudication.

Public performance. Recital planning. Basic teaching repertory and representative styles.

MUS 468. INDIVIDUAL COACHING IN MUSICAL THEATRE REPERTORY.
One hour credit.

Prerequisite, musical theatre majors only. Individual instruction in the interpretation of roles in musical theatre repertory.

2-MUS 469. INDIVIDUAL PERFORMANCE IN VOICE FOR NON-VOICE MAJOR. *Two hours credit.*

See course description MUS 169.

2-MUS 470. INDIVIDUAL PERFORMANCE IN VOICE. *Two to four hours credit.*

2-MUS 471. INDIVIDUAL PERFORMANCE IN PIANO. *Two to four hours credit.*

2-MUS 472. INDIVIDUAL PERFORMANCE IN ORGAN. *Two to four hours credit.*

2-MUS 473. INDIVIDUAL PERFORMANCE IN STRINGS. *Two to four hours credit.*

2-MUS 474. INDIVIDUAL PERFORMANCE IN WOODWINDS. *Two to four hours credit.*

2-MUS 475. INDIVIDUAL PERFORMANCE IN BRASS. *Two to four hours credit.*

2-MUS 476. INDIVIDUAL PERFORMANCE IN PERCUSSION. *Two to four hours credit.*

2-MUS 477. INDIVIDUAL INSTRUCTION IN COMPOSITION. *Two to four hours credit.*

2-MUS 478. INDIVIDUAL PERFORMANCE IN HARP. *Two to four hours credit.*

2-MUS 479. INDIVIDUAL PERFORMANCE IN GUITAR. *Two to four hours credit.*

2-MUS 480. MIXED CONCERT CHOIR. *One hour credit.*

See course description MUS 180.

2-MUS 481. UNIVERSITY CHORUS. *One hour credit.*

See course description MUS 181.

2-MUS 482. UNIVERSITY SINGERS. *One hour credit.*

See course description MUS 182.

2-MUS 483. WOMEN'S CONCERT CHOIR. *One hour credit.*

See course description MUS 183.

2-MUS 484. VARSITY MEN'S GLEE CLUB. *One hour credit.*

See course description MUS 184.

2-MUS 485. OPERA WORKSHOP. *One to three hours credit.*

See course description MUS 185.

2-MUS 486. CHORUS AND ORCHESTRA WORKSHOP. *One hour credit.*

See course description MUS 186.

2-MUS 489. LABORATORY ORCHESTRA. *One hour credit.*

See course description MUS 189.

2-MUS 490. SYMPHONIC WIND BAND. *One hour credit.*
See course description MUS 190.

2-MUS 491. CONCERT BAND. *One hour credit.*
See course description MUS 191.

MUS 492. MARCHING BAND. *One hour credit.*
See course description MUS 192.

2-MUS 493. VARSITY BAND. *One hour credit.*
See course description MUS 193.

2-MUS 494. JAZZ ENSEMBLE. *One hour credit.*
See course description MUS 194.

2-MUS 495. UNIVERSITY BRASS CHOIR. *One hour credit.*
See course description MUS 195.

2-MUS 496. UNIVERSITY SYMPHONY ORCHESTRA. *One hour credit.*
See course description MUS 196.

2-MUS 497. CHAMBER ORCHESTRA. *One hour credit.*
See course description MUS 197.

MUS 498. GUITAR IN THE CLASSROOM. *One hour credit.*
Prerequisite, MUS 101 or MUS 204. An introduction to playing guitar as an instrument to acquaint children with their singing heritage in U.S. Folk Music. Guitar required.

NURSING

2-NURS 100. ORIENTATION TO NURSING. *Two hours credit.*
An introduction to health care and nursing. Explores historical and contemporary issues and the relationships that exist in health care delivery.

The Nursing curriculum is in the process of redesign at time of this publication. Additional course descriptions will be available from the School of Nursing, September, 1975.

OCEANOGRAPHY

Courses in oceanography are administered by the Department of Earth Sciences.

5-OCN 100. GENERAL OCEANOGRAPHY. *Four hours credit. (Three hours lecture, two hours laboratory.)*

An introduction to the field of oceanography for non-science majors. The geological, physical, chemical and biological aspects of the oceans and ocean basins will be treated.

5-OCN 200. MAN AND THE SEA. *Three hours credit.*

A course to introduce the various aspects of man and technology concerning the oceans. Considers food and minerals from the sea, underwater habitats, submersibles, diving, recent technological developments, pollution and international political implications of the oceans.

5-OCN 301. PRINCIPLES OF OCEANOGRAPHY I. *Three hours credit.*

A descriptive treatment of the historical, geological and technological aspects of oceanography including oceanographic tools and techniques, exploration and exploitation, origin of the oceans and ocean floors, marine sediments and geomorphology.

5-OCN 302. PRINCIPLES OF OCEANOGRAPHY II. *Three hours credit.*

Prerequisite, OCN 301. A descriptive treatment of the physical and biological aspects of the ocean, including the general character of water masses, ocean circulation and currents, waves, tides, the distribution and ecology of marine organisms and the general productivity of the ocean.

OUTDOOR EDUCATION

OED 250. OUTDOOR EDUCATION AND ENVIRONMENTAL AWARENESS.

Three hours credit.

A course designed to develop appreciation and awareness for the natural environment through direct experience participation in many environmental settings. Cognitive learnings will be taught followed by definite concentration on affective and/or psychomotor learnings. The interdisciplinary approach, involving faculty from other disciplines and resources persons with special expertise, will be utilized.

OED 308. WORKSHOP IN OUTDOOR EDUCATION. *Three hours credit.*

This workshop is designed to provide undergraduate students with an understanding of the board interdisciplinary approach to Outdoor Education. Direct experience participation in the outdoors will be provided related to all academic disciplines. Faculty from all disciplines and other resource specialists will be involved in the instructional offerings. Emphasis will be placed on the cognitive, affective, and psychomotor domains.

OED 350. EDUCATION FOR LEISURE THROUGH OUTDOOR EDUCATION.

Four hours credit.

Emphasis will be placed on the unique contribution Outdoor Education can make toward educating people for their leisure. An analysis will be made of selected educational programs with specific leisure education programs. Contributions made by local, state, national, and private agencies will be emphasized.

OED 450. PROGRAMS IN OUTDOOR EDUCATION. *Three hours credit.*

A course designed to acquaint the student with the varied programs in Outdoor Education in the state and nation. Traditional and innovative programs will be explored and analyzed to determine the feasibility and effectiveness of these programs in meeting educational and societal needs.

PHILOSOPHY

4-PHIL 100. INTRODUCTION TO PHILOSOPHY. *Four hours credit.*

An in-depth first course in philosophy. Student becomes familiar with philosophic problems of lasting relevance and alternative methodologies for treatment. Reference made to classical and contemporary philosophers and to utilization of philosophic analysis to present-day concerns.

4-PHIL 150. MORALITY AND INDIVIDUAL IDEALS. *Four hours credit.*

An introduction to and a consideration of selected problems in normative and

critical ethics, from early Greek to contemporary thought, with emphasis on the notions of personal responsibility and the "good life".

4-PHIL 201. HISTORY OF ANCIENT PHILOSOPHY. *Four hours credit.*

Ancient Philosophy from the Presocratics to Plotinus. The emergence of philosophical cosmology from mythopoic cosmogony; the Socratic ethical turn; Plato; Aristotle; Hellenistic and Roman development; Neoplatonism.

4-PHIL 202. HISTORY OF MODERN PHILOSOPHY. *Four hours credit.*

Modern philosophy from Descartes through Kant. Emphasis is given to the Cartesian relation to the classical tradition; the turn to subjectivity; rationalism; empiricism; the transcendental turn; the influences of mathematics, the natural sciences and religious beliefs.

4-PHIL 203. HISTORY OF RECENT PHILOSOPHY. *Four hours credit.*

Recent philosophy, including German Idealism, the Hegelian synthesis, and its break-down (Kierkegaard, Marx, Nietzsche), Bergson, American Philosophy (James, Royce).

4-PHIL 270. PHILOSOPHIES OF INDIA. *Four hours credit.*

An introduction to selected schools of Indian philosophy with emphasis on the problems of knowledge and the self.

4-PHIL 305. CONTEMPORARY PHILOSOPHICAL MOVEMENTS. *Three hours credit.*

Prerequisite, PHIL 202. A consideration of philosophy in the twentieth century, including Phenomenology (Husserl, Heidegger), Existentialism (Sartre, Jaspers, Camus, Marcel), Analysis (Russell, Moore, Wittgenstein), Positivism (Carnap, Ayer).

4-PHIL 312. HISTORY OF MEDIEVAL PHILOSOPHY. *Three hours credit.*

Prerequisite, PHIL 201. A consideration of philosophy in the middle ages, include Greek and Roman influences and the confrontation with Christianity; Augustine; Anselm; the controversy over universals; the Neoplatonic, Nominalist and Aristotelian schools; Jewish and Islamic thought; German mysticism; late scholasticism; conflicts and attempted reconciliations of reason with revelation; Cusa and Bruno.

4-PHIL 315. EXISTENTIALISM. *Three hours credit.*

Prerequisite, three hours of philosophy. Consideration and evaluation of the existentialist movement in philosophy including its relation to classical thought. Negative and positive influences; theistic existentialism (Jaspers, Marcel, Buber, Berdyaev); atheistic existentialism (Heidegger, Sartre, Camus); radical finitude and authenticity; nonobjects; shipwreck, meaning and death.

4-PHIL 330. AESTHETICS. *Three hours credit.*

Classical and contemporary philosophical theories of beauty and art; including such topics as the relation of art to morals, truth and play; the nature of creativity; aesthetic experience and aesthetic evaluation; the concept of representation.

1-PHIL 340. FORMAL LOGIC. *Four hours credit.*

A study of traditional and recent formal logic, including symbolic logic. Stress placed on methods and techniques of formalization, applications to problem-solving, syllogisms, truth-functions, quantification. Consideration of presuppositions and possible limitations of formal analysis.

1-PHIL 345. SEMINAR IN LOGIC AND LANGUAGE. *Three hours credit.*

A variable content course, designed for the student who wishes to pursue studies in formal logic, as well as related interests such as history of logic, ordinary and ideal

languages, inductive logic, etc. Student may receive up to 15 hours credit via different subtitles.

4-PHIL 350. MORAL PHILOSOPHY. *Three hours credit.*

Contemporary moral philosophers seek to reduce the complexity of concrete moral dilemmas by making such questions decidable without reducing their significance. To this end, human justice, happiness, freedom, responsibility, and rights will be examined, as will classical sources, skepticism about moral language and insights from social and psychological science.

4-PHIL 355. SOCIAL PHILOSOPHY. *Three hours credit.*

Classical and contemporary social thought with emphasis on the principles of democracy, fascism, Marxism, and utopianism, in light of the questions of society, the social, and the constitution of man.

4-PHIL 360. PHILOSOPHY OF HISTORY. *Three hours credit.*

Prerequisite, three hours of philosophy. Examination of speculative and critical philosophies of history, with emphasis on Augustine, Hegel, Marx, and critical issues of explanation, selection, casual attribution. Cyclic, theocentric and voluntaristic models; relation of data to interpretive scheme; historicism, design and the absurd.

4-PHIL 365. PHILOSOPHY OF TECHNOLOGY. *Four hours credit.*

Student will investigate alternative theories, concepts and meanings of "technology." Focus placed upon effects of technology on social, political, individual values and goals, and changes in American ideology.

4-PHIL 370. PHILOSOPHY OF RELIGION. *Three hours credit.*

Prerequisite, three hours of philosophy. Philosophical investigation of religious language and religious experience. Emphasis is placed on such topics as: the source and dimension of the holy, what is "God" a name for, proofs for and against the existence of God, transcendence, immanence, hierophany, pantheism, mysticism. Classical and contemporary philosophical theories of religion will be examined.

4-PHIL 375. PHILOSOPHY OF SCIENCE. *Three hours credit.*

Prerequisite, three hours in philosophy or one course in scientific methodology. A critical survey of the classical and modern problems underlying scientific operations. Emphasis is placed upon analysis of selected conceptual frameworks: logic of inquiry in the natural and social sciences; substantive and methodological concepts of cause, prediction, determination, generalization, error.

4-PHIL 380. PROBLEMS AND METHODS OF PHILOSOPHY. *Three hours credit.*

Prerequisite, three hours of philosophy. Variable content course which student may elect more than once. Such topics as scepticism, realism, phenomenology, free will, philosophy of mythology, inductive logic, concepts and reference, etc. The student becomes immersed in one philosophic problem and alternative methodologies for treatment.

4-PHIL 405. STUDIES IN THE HISTORY OF PHILOSOPHY. *Three hours credit.*

Prerequisite, six hours in philosophy, or instructor's consent. An intensive investigation into one selected work, or thinker, or school of intrinsic or historical merit in pre-19th Century philosophy. A variable content course for which the student may receive up to 15 hours credit.

4-PHIL 415. AMERICAN PHILOSOPHY. *Three hours credit.*

Prerequisite, three hours in philosophy. A critical study of the "Golden Age" of American philosophy, including Continental and English influences. Pragmatism

(Pierce, James), Idealism (Royce), Essentialism (Santayana), Process philosophy (Whitehead), Naturalism (Dewey), and contemporary developments.

4-PHIL 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Prerequisite, instructor's consent. Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on one problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

4-PHIL 430. EPISTEMOLOGY. *Three hours credit.*

Prerequisite, six hours of philosophy. Examination of classical and contemporary theories of the meaning and criteria of knowledge, truth, and reference. Such topics as truth and time; certitude, synthetic and analytic propositions, necessary and contingent truth, concepts and percepts, illusion and lies, constituting and constituted egos, etc.

4-PHIL 440. METAPHYSICS. *Three hours credit.*

Prerequisite, six hours of philosophy. Examination of such concepts as Being, substance, causation, reality, process, in the light of recent and contemporary thought, including the sceptical and positivist stances.

4-PHIL 480. STUDIES IN 19TH AND 20TH CENTURY PHILOSOPHY. *Three hours credit.*

Prerequisite, PHIL 201 or 202 or 203. Intensive analysis of selected figures, movements, and problems in recent and contemporary philosophy. Such topics as: Schopenhauer and Bergson, Nietzsche, Mill and Bradley, Positivism, Later Heidegger, Wittgenstein, Marcel and Royce, Ethical Emotivism, Husserl and Russell, etc. Variable content course which student may elect more than once.

PHYSICS

5-PHYS 100. CONCEPTUAL PHYSICS. *Three hours credit. (Two hours lecture, three hours laboratory.)*

Non-mathematical approach to basic physics for the non-science student. Emphasis will be placed upon history and philosophy of physics and upon relating concepts of physics to environment. No credit towards physics major or minor.

5-PHYS 120. PHYSICAL SCIENCE LABORATORY. *One hour credit. (Two hours laboratory.)*

The laboratory is designed to allow students to demonstrate, observe, and discuss qualitative experimental exercises pertaining to basic physical concepts and principles.

5-PHYS 150. PRINCIPLES OF PHYSICS. *Five hours credit. (Four hours lecture, three hours laboratory.)*

An introduction to the basic concepts of physics, including mechanics, thermodynamics, wave motion, electricity and magnetism, and atomic and nuclear physics. Not open to physics majors or minors.

5-PHYS 160. PRINCIPLES OF MOTION. *Three hours credit. (Two hours lecture, three hours laboratory.)*

A study of translatory and rotational motion which will include concepts of forces, momentum, and energy. The presentation of the material will be descriptive and the emphasis will be toward the applied.

5-PHYS 255. ELEMENTS OF COMPUTER PROGRAMMING. *Three hours credit.**(Two hours lecture, three hours laboratory.)*

Prerequisite, MATH 123 or equivalent. A non-theoretical applied course in elementary computer programming. A large portion of this course will involve the student programming the 360 computer system. *Not open to students with previous programming training.*

5-PHYS 260. INTRODUCTORY PHYSICS -- MECHANICS. *Four hours credit.**(Three hours lecture, three hours laboratory.)*

Prerequisite, MATH 123 or consent of instructor. The first quarter of the introductory course treating classical and modern mechanics.

5-PHYS 261. INTRODUCTORY PHYSICS -- HEAT, SOUND AND LIGHT. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, PHYS 260. The second quarter of the introductory course treating classical and modern heat, sound, and light.

5-PHYS 262. INTRODUCTORY PHYSICS -- ELECTRICITY AND MAGNETISM. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, PHYS 260. The third quarter of the introductory course treating classical and modern electricity and magnetism.

5-PHYS 263. RADIOACTIVITY. *Three hours credit. (Two hours lecture, three hours laboratory.)*

A non-mathematical course in the detection and evaluation of various atomic and nuclear radiations. Topics to be covered include elementary atomic and nuclear theory, types of radiation and detectors, biological and medical applications, radioactive dating, x-rays, laboratory experience in the use of radiation detectors.

5-PHYS 265. GENERAL PHYSICS -- MECHANICS. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, MATH 132 or taken concurrently. The first quarter of the general course in physics covering the laws, principles, and generalizations of mechanics.

5-PHYS 266. GENERAL PHYSICS -- ELECTRICITY. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, PHYS 265 and MATH 133. The second quarter of the general course in physics covering the principles, laws, and generalizations in electricity.

5-PHYS 267. GENERAL PHYSICS -- SOUND, LIGHT, AND HEAT. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, PHYS 265, MATH 133. The third quarter of the general course in physics treats the laws, principles, and generalizations concerning sound, light, and heat.

5-PHYS 268. MODERN PHYSICS. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, PHYS 262 or concurrent PHYS 267. Fourth quarter of the general course in physics, intended as a terminal course. Not countable towards physics major or minor. An elementary study of concepts of physics formulated since 1900, including atomic and nuclear physics. The laboratory will include detection and evaluation of atomic and nuclear radiation.

5-PHYS 302. PHILOSOPHICAL CONCEPTS OF PHYSICAL SCIENCE. *Three hours credit.*

Prerequisite, one course in philosophy or one course in physics. A non-mathematical study of philosophical problems in physics including causality and determinism, measurement, conservation principles, particle-wave duality, the uncertainty principle, the correspondence principle, the validation of physical

laws, universal conclusions from locally valid laws, the broad structure of science, free will.

5-PHYS 361. A.C. AND ELECTRONICS I. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, PHYS 267 or PHYS 262. A study of alternating current circuits and instruments, electrical measurements, power supplies, amplification by vacuum tubes, transistors, oscillators, bridges.

2-PHYS 364. ELEMENTARY PHOTOGRAPHY. *Three hours credit. (Two hours lecture, three hours laboratory.)*

An introductory course covering the basic elements of photography. Topics include developing, printing and enlarging and the use of photography in the teaching of science.

Not recommended for students with previous photography laboratory experience.

5-PHYS 365. MECHANICS I. *Four hours credit.*

Prerequisites, PHYS 265 and MATH 133. 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.

5-PHYS 366. ELECTRICITY AND MAGNETISM I. *Four hours credit.*

Prerequisites, PHYS 266 and MATH 133. First course of a sequence of two courses. An advanced study in electric fields, electric potential, magnetic fields and induced electromotive force.

5-PHYS 367. OPTICS I. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, PHYS 267 and MATH 133. A study of geometric optics including the theory of thin lenses, thick lenses, spherical mirrors, lens aberrations, and a survey of optical instruments.

5-PHYS 368. ATOMIC PHYSICS. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, PHYS 267, MATH 234, PHYS 365 recommended. A study of modern physics concepts including probability quantization, x-rays, wave properties of matter, Heisenberg's uncertainty principle, the Schroedinger equation, the simple atom.

5-PHYS 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

5-PHYS 462. ELECTRONICS II. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisite, PHYS 361. A study of servo systems, operational amplifiers, pulse shaping, switching, and tuning, digital counting, solid state devices.

5-PHYS 465. MECHANICS II. *Three hours credit.*

Prerequisites, PHYS 365, MATH 234. Second course in 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.

5-PHYS 466. ELECTRICITY AND MAGNETISM II. *Three hours credit.*

Prerequisites, PHYS 366, MATH 234. 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.

5-PHYS 468. NUCLEAR PHYSICS I. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, PHYS 368. A study of special relativity, nuclear reactions, decay schemes, sub-atomic particles, high energy reactions, the detection and evaluation of nuclear radiation.

PHYS 469. SOLID STATE PHYSICS. *Four hours credit.*

A study of free electron theory of solids, semiconductor theory, imperfections in solids, transport properties, and statistical distributions.

POLITICAL SCIENCE

3-PSCI 100. NATIONAL GOVERNMENT OF THE UNITED STATES. *Five hours credit.*

Origin and adoption of the Constitution, basic principles of the American constitutional system, the machinery of popular control, and the structure of the national government. Not open to students taking PSCI 101 or PSCI 102. Not open to PSCI majors or minors.

3-PSCI 101. UNITED STATES GOVERNMENT I. *Three hours credit.*

An introduction to the foundations of the United States national political system. Democratic theory, majoritarianism and constitutionalism will be discussed. The roles of the electorate, interest groups, political parties, and civil liberties will be analyzed. Not open to students taking PSCI 100. Open only to PSCI majors and minors.

3-PSCI 102. UNITED STATES GOVERNMENT II. *Three hours credit.*

Prerequisite, PSCI 101. A study of the formal policy-making agencies of the United States government. The role and function of Congress, the Presidency and the Judiciary will be analyzed. The latter part of this course will focus on the making of United States foreign policy. Not open to students taking PSCI 100. Open only to PSCI majors and minors.

3-PSCI 103. UNITED STATES GOVERNMENT III. *Three hours credit.*

Prerequisite, PSCI 101 or permission of the instructor. In the first part of this course the national problems and government programs in the fields of business, labor, agriculture, the general economy, and social disorganization will be studied. Problems of Federalism will be studied. The second half of the course will focus on state and local government.

3-PSCI 106. CONTEMPORARY POLITICAL CONFLICT, CONSCIOUSNESS, AND POWER IN THE UNITED STATES. *Five hours credit.*

An analysis of current events of American political democracy as they relate to serious political conflict, political consciousness, citizen duty, and political power. This course is open to everyone except Political Science majors.

3-PSCI 200. LEGISLATIVE PROCESSES. *Three hours credit.*

Prerequisites, PSCI 100 or PSCI 101 and 102. A survey of American legislative systems and processes. The structure and organization of legislatures and the process of statute law-making.

3-PSCI 201. STATE AND LOCAL GOVERNMENT. *Five hours credit.*

Prerequisite, PSCI 100 or PSCI 101 and 102. The organization of state, county, and municipal governments.

3-PSCI 202. LEGISLATIVE PROCESSES II. *Three to fifteen hours credit.*

Prerequisites, PSCI 100, PSCI 200. Legislative Processes II offers a unique opportunity to combine a substantial amount of self-directed research on the part of a student under the supervision of the instructor with actual field experience as an observer and assistant to an elected member of the Colorado State Legislature.

3-PSCI 205. CIVIL LIBERTIES IN THE UNITED STATES. *Three hours credit.*

An analysis of judicial, executive and legislative actions which have threatened, violated and promoted civil liberties in the United States. Particular attention will be given to free speech, press and assembly, church-state relations, due process and the nationalization of the Bill of Rights.

3-PSCI 206. POLITICS AND THE CONSUMER. *Three hours credit.*

An analysis of political action, past and present, aimed at protecting consumers in the economic market place. Legislative and administrative consumer law will be discussed. Political tactics of consumer advocacy will be analyzed in case studies and actual field projects.

3-PSCI 207. POLITICS OF FEMINISM. *Three hours credit.*

The study of the role of women in American politics and a description and analysis of the political factors and tactics used by feminists in moving toward their goals. Special attention will be given to an evaluation of contemporary feminist politics. The sexist bias of American political institution will be explored.

3-PSCI 210. EUROPEAN POLITICAL SYSTEMS. *Four hours credit.*

A comparative analysis of the political systems of selected European nations, including Great Britain, France, and West Germany.

3-PSCI 220. INTERNATIONAL RELATIONS. *Four hours credit.*

An introductory study of the basic principles and problems of the international political system.

3-PSCI 250. INTRODUCTION TO RESEARCH IN POLITICAL SCIENCE. *Three hours credit.*

An introduction to the discipline of political science. Special attention will be devoted to library resources and the writing of research papers. A bibliographical essay on a topic chosen by the student will be required. Primarily intended for majors.

3-PSCI 300. PUBLIC OPINION AND PRESSURE GROUPS. *Four hours credit.*

A study and analysis of the nature and role of public opinion and pressure groups in American politics. This course analyzes the techniques used in forming, manipulating, and measuring public opinion, and studies the process by which pressure groups use and compete with public opinion in the formation of public policy.

3-PSCI 301. PROBLEMS IN UNITED STATES GOVERNMENT. *Three hours credit.*

Prerequisites, PSCI 100 or PSCI 101 and 102. 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.

3-PSCI 302. THE PRESIDENT AND THE BUREAUCRACY. *Three hours credit.*

An intensive examination of the role of the President and the Federal bureaucracy in the national political system. Emphasis is placed on the concepts and techniques of presidential leadership and the Executive branch's relationship with Congress, the Judiciary and the public. Sources of constitutional authority and power, and problems of contemporary Presidential policy making are examined.

3-PSCI 303. THE ADMINISTRATION OF JUSTICE. *Four hours credit.*

A comprehensive analysis of the judicial process including the appellate and jurisdictional aspects of the legal system in the United States. The focus of the course is on the administration of criminal justice including the arrest, trial, and rights of prisoners.

3-PSCI 305. THE POLITICS OF BUREAUCRACY. *Four hours credit.*

This course focuses on the organization and management of governmental bureaucracies. Special emphasis will be placed on the politics of bureaucracies and continuity problems of control, accountability, personnel and finance.

3-PSCI 310. EAST EUROPEAN GOVERNMENT AND POLITICS. *Four hours credit.*

A study of the governments and political systems of the East European states of East Germany, Poland, Czechoslovakia, Hungary, Bulgaria, Rumania, Yugoslavia, and Albania. Internal politics and external relationships with one another and with the Soviet Union will be given special attention.

3-PSCI 320. AMERICAN FOREIGN POLICY. *Four hours credit.*

An analysis of the development of recent American foreign policy, especially since World War I.

3-PSCI 325. POLITICS AND CONFLICT IN THE MIDDLE EAST. *Four hours credit.*

Focus will be on the structure, development and policies of major Middle Eastern political systems. Domestic and international conflicts and relations to the major powers will be discussed.

3-PSCI 330. NATURAL LAW, DIVINE LAW, AND HUMAN VIRTUE. *Three hours credit.*

This course in political philosophy is addressed to the above topics and others as they appear in classical and medieval thinkers. Plato, Aristotle, Aquinas, and Luther will be read among others.

3-PSCI 331. CONSENT, FREEDOM, AND POLITICAL OBLIGATION. *Three hours credit.*

This course in political philosophy is addressed to the above topics and others as they appear in early modern thinkers. Machiavelli, Hobbes, Locke, Rousseau, and Tocqueville will be read among others.

3-PSCI 332. EQUALITY, DEMOCRACY, AND REVOLUTION. *Three hours credit.*

This course in political philosophy is addressed to the above topics and others as they appear in modern thinkers. Paine, Saint-Simon, Marx, Lenin, and J.S. Mill will be read among others.

3-PSCI 340. FIELD RESEARCH AND STUDY IN POLITICAL SCIENCE. *Three to fifteen hours credit.*

Field Research and Study in Political Science offers an opportunity to combine a substantial amount of self-directed research on the part of the student under the supervision of the instructor with actual field experience as an observer and assistant to a public (governmental) policy maker.

3-PSCI 343. POLITICS AND THE ENVIRONMENT. *Four hours credit.*

Prerequisites, PSCI 100 or 101, 102; ENST Introductory Seminar 110 (optional) or permission of instructor. An intensive study of environmental policies and policy making in selected countries, but with an emphasis on the United States. Political actors, institutions, processes and policies of government/groups are investigated.

3-PSCI 400. POLITICAL PARTIES. *Three hours credit.*

Prerequisites, PSCI 100 or PSCI 101 and 102. 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.

3-PSCI 401. MINORITY POLITICS. *Three hours credit.*

A study of the political techniques and strategies by which ethnic, racial, religious, and economic minority groups have achieved socio-economic goals through the political system. Electoral and non-electoral politics will be evaluated.

3-PSCI 402. URBAN POLITICS. *Four hours credit.*

A study and analysis of city government and politics. Attention will be given to structure, reorganization, and finance with special emphasis on political forces and strategies operating with the metropolitan areas of the United States. The problems of urban disorganization, mass transit, housing, and minority representation will be covered.

3-PSCI 410. GOVERNMENT AND POLITICS OF ASIA. *Four hours credit.*

A comparative study of the major political system of Asia, including China, Japan, India, and Indochina.

3-PSCI 411. GOVERNMENT AND POLITICS OF LATIN AMERICA. *Four hours credit.*

A comparative study of the political systems of Latin America.

3-PSCI 412. THE POLITICS OF THE DEVELOPING AREAS. *Four hours credit.*

A study of the politics of developing areas, with particular emphasis on Africa, Asia and the Middle East; concepts of development, modernization and nation-building.

3-PSCI 413. POLITICAL SYSTEMS OF SUB-SAHARAN AFRICA. *Four hours credit.*

Analysis of major types of political systems in Sub-Saharan Africa with case studies of selected countries exemplifying each type. Special problems of multiracial and multicultural societies.

3-PSCI 414. GOVERNMENT AND POLITICS OF THE SOVIET UNION. *Four hours credit.*

An intensive inquiry into the institutions and processes of the government of the Soviet Union.

3-PSCI 421. THE UNITED NATIONS. *Three hours credit.*

The background and organization of the United Nations. Includes a detailed study of the six organic bodies of the United Nations and its subsidiary agencies.

PSCI 422. INDIVIDUAL STUDIES. *One to four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

3-PSCI 423. REGIONAL AND SUPRANATIONAL POLITICAL ORGANIZATIONS. *Four hours credit.*

Prerequisite, PSCI 220. An analysis of some regional and supranational political organizations, such as the North Atlantic Treaty Organization and the European Economic Community, and an evaluation of the role and significance of these organizations in international politics.

3-PSCI 425. SOVIET FOREIGN POLICY. *Four hours credit.*

An analysis of recent and contemporary problems in the relations of the Soviet Union with Western, neutralist, and other communist nations.

3-PSCI 426. FOREIGN POLICIES IN ASIA. *Four hours credit.*

This course examines the foreign policies of China, Japan and India with special reference to the superpower rivalry between the United States and the Soviet Union in the post World War II era.

3-PSCI 430. MAJORITY RULE AND MINORITY RIGHTS. *Three hours credit.*

An analysis of the American contribution to thought on such subjects as authority and obligation in civil society. Special attention will be paid to the themes of majority rule, minority rights, and civil disobedience and to the thought of Madison, Thoreau, Niebuhr, and Dewey. No prerequisites, but familiarity with American politics and the tradition of political philosophy would be helpful.

3-PSCI 435. PROBLEMS IN POLITICAL PHILOSOPHY. *Three hours credit.*

Prerequisites, two of PSCI 330, 331, 332, 430. Selected problems or philosophies will receive close and lengthy attention. Familiarization with a considerable literature and a substantial paper will be required.

PSYCHOLOGY

2-PSY 120. GENERAL PSYCHOLOGY. *Three hours credit. Taught every quarter.*

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.

2-PSY 121. INTRODUCTION TO PSYCHOLOGY I. *Four hours credit.*

An introductory survey of psychology as a science, basic statistics, learning, perception, sensation, motivation, and physiological psychology. Required for majors.

PSY 122. INTRODUCTION TO PSYCHOLOGY II. *Four hours credit.*

An introductory survey of intelligence, personality, growth and development, maturation, socialization, abnormal psychology, social psychology, memory, cognition, and emotion. Required for majors.

PSY 123. CURRENT ORIENTATIONS IN PSYCHOLOGY. *Three hours credit.*

Survey of predominant contemporary "forces" in psychology (emphasizing psychoanalytic, behavioristic, humanistic and transpersonal forces). The complimentary contribution of each force to our understanding of human behavior and potential will be examined. Images of man implicit in different psychological orientations will be discussed.

2-PSY 161. GROUP PROCESS AND HUMAN RELATIONS. *Three hours credit.*

Fall, Winter, Spring.

Prerequisite, majors only. A freshman seminar for undergraduate psychology majors designed to give students an understanding of principles which undergird human relations in groups. Personal involvement and group processes is an important aspects of the course.

PSY 201. PRINCIPLES AND PHILOSOPHIES OF GUIDANCE. *Three hours credit. Taught every quarter.*

A general introduction to guidance; a study of the guidance activities, and their use in industry, business, the classroom, and the professions.

PSY 222. EXPLORATION SEMINAR. *Two hours credit.*

Prerequisites, sophomore psychology majors only. Students majoring in psychology will research, report, and discuss topics of mutual interest. These topics may be related to traditional areas of research and theory in psychology or may launch out into relatively unexplored areas. The focus is on the personal involvement and unique interests of each student in the seminar.

PSY 230. HUMAN GROWTH AND DEVELOPMENT. *Five hours credit.*

This course is designed to be an introduction to the basic concepts and issues of growth and development. The course considers the individual from conception through senescence. Emphasis is placed on cognitive, affective, psychomotor and social development throughout the lifetime of individuals.

PSY 240. HUMAN LEARNING AND COGNITION. *Three hours credit.*

A basic course in learning from the cognitive viewpoint. Confined to verbal learning, memory, information processing, concept learning and problem solving.

PSY 241. ANIMAL LEARNING. *Three hours credit.*

Prerequisite PSY 121 or permission of instructor. Techniques, findings, and theories on learning and retention in animals and the role of non-human research findings as a model for human learning.

PSY 250. HUMANISTIC PSYCHOLOGY. *Three hours credit.*

Humanistic psychological systems, conceptualizations, models, methods, tools and research are explored as a mean of developing better understanding of self and others, more effective interactions, increased sensitivity, and more humanistic and existentially meaningful lives.

PSY 251. TRANSPERSONAL PSYCHOLOGY. *Three hours credit.*

An introductory overview of the emergent Fourth Force in psychology, including such topics as religious, mystical and peak experiences; yoga; meditation; cosmic unity; parapsychology; hypnosis; playfulness; maximal sensory awareness; meta-needs; and transcendence of self.

2-PSY 255. THE PSYCHOLOGY OF EMOTIONAL ADJUSTMENT. *Three hours credit. Taught every quarter.*

This course will emphasize individual adjustment to the psychological stresses arising from internal (personal) and external (environmental) sources. Special emphasis will be placed upon the varied reaction patterns of individuals toward coping with common and unique stress factors. Consideration will also be directed to stress and reaction with regard to racially and physically different individuals.

PSY 265. SOCIAL PSYCHOLOGY. *Three hours credit.*

Prerequisites, PSY 120, 122 or permission of instructor. Designed to explore the interdependent effects of individuals as members of society. Topics may include the group as a system, communication, attitudes, conformity, persuasion, competition and power, and leadership.

PSY 271. PSYCHOLOGICAL TESTING AND MEASUREMENTS. *Three hours credit.*

Prerequisites, RSM 203 or equivalent. Required of PSY majors. Emphasis will be on an introduction to psychological test theory and interpretation of results. Group versus individual tests (cognitive, affective and psychomotor domains), reliability, validity, standardization procedures will be discussed.

PSY 275. EXPERIMENTAL PSYCHOLOGY. *Five hours credit.*

Prerequisites, RSM 203, majors only. This is a course designed to introduce the

student to experimental and other psychological research, and provides practical experience in reviewing, conducting and reporting psychological research.

PSY 301. CLASSROOM ASSESSMENT FOR ELEMENTARY TEACHERS. *Two hours credit.*

The course investigates evaluation processes in elementary schools; alternatives to current practices; types of information to be considered in evaluation and grading. Experience will be provided in constructing educational objectives, test items, and observational evaluation scales appropriate to elementary teaching.

PSY 302. CLASSROOM ASSESSMENT FOR SECONDARY TEACHERS. *Two hours credit.*

The course investigates evaluation processes in the secondary schools; alternatives to current practices; types of information to be considered in evaluation and grading. Experience will be provided in constructing educational objectives, test items, and observational evaluation scales appropriate to secondary teaching.

PSY 304. SELF CONCEPT AND SCHOOL ACHIEVEMENT. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module is designed to present a brief history of theories of the Self, characteristics of the Self and the relationship of Self Concept and school achievement. Several methods, techniques and instruments used to measure Self Concept will be introduced and discussed.

PSY 305. DISCIPLINE. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module examines the behaviors considered by teachers as deviant, possible reasons for the misbehavior, the use of rules for behavior and the characteristics and types of control techniques available to teachers.

PSY 306. PSYCHOLOGICAL EFFECT OF POVERTY ON LEARNING. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module deals with the consequences of deprivation, equality, individuality, the abilities of man and compensatory programs. Special emphasis will be given to the Black child and to the Mexican American child as they relate to the educational institutions.

PSY 307. BEHAVIOR MODIFICATION. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module presents the basic concepts of operant and respondent conditioning including reinforcement, punishment, extinction, schedules of reinforcement, shaping and relates these principles to the learning of emotional and social responses. The intent is to indicate that consequences of a person's behavior have considerable effect in determining how he behaves.

PSY 309. PIAGET. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module is a short course in the cognitive development theory of Jean Piaget. Piaget's stages of development will be covered with examples of Piaget's work given for each stage. The implications of Piaget's work for education will be discussed.

PSY 310. THE TEACHER'S ROLE IN COUNSELING. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module is an exploration and examination of assorted practices and conditions which facilitate inter-personal communication and healthy growth. Discussion of the facilitative effects of empathy, congruence, positive regard and self disclosure will be included. Implications of modeling and professional "role playing" will be examined.

PSY 311. TEACHER EFFECTIVENESS. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module provides an exploration of psychological evidence that has implications for the development of teaching effectiveness. Focus

will be on the appropriateness of particular procedures for particular learning processes. The assumption will be made that different conceptions of teaching may be more or less effective in a given situation.

PSY 312. PRINCIPLES OF MOTIVATION IN THE CLASSROOM. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module will approach motivation from a focus on the child. The major theoretical approaches will be given and their applications to the classroom explored.

PSY 313. PROBLEM SITUATIONS IN THE CLASSROOM. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module will be devoted to a discussion of problem situations that can commonly occur in classroom teaching. Situations suggested by the students plus those suggested by the instructor will be discussed and possible solutions sought.

PSY 314. ISSUES IN EDUCATION PSYCHOLOGY. (PTE) *Maximum three hours credit.*

Prerequisite, PSY 120. This module is a flexible module providing opportunities to try out potential new modules or offer temporary ones. The actual content is thus not restrictively defined. A group of students may suggest particular issues not covered by other modules of interest and importance to them. Instructors may suggest topics of special interest to them.

PSY 315. INTELLIGENCE AND ABILITY. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module looks at various definitions of intelligence and how it is measured so that the teacher may gain enough understanding of the concept to see where IQ tests may both benefit and harm some children. Consideration will be given to the controversy over the role of heredity and environment.

PSY 317. SYSTEMATIC OBSERVATION. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module will be an introduction to the use of varied instruments for systematic observation of classroom processes. Each will be shown to provide a valid and unique, though incomplete (or partial) perspective of the teaching-learning process. Uses of such instruments for the improvement of teaching effectiveness will be explored.

PSY 318. IMPLICATIONS FOR EDUCATION OF MAJOR ORIENTATIONS IN PSYCHOLOGY. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module will be an examination of the contributions of major frames of reference in psychology to a comprehensive understanding of educational possibilities. The adequacy of particular theories for helping us deal with particular problems in the teaching-learning process will constitute a major portion of the course.

PSY 319. THE PSYCHOLOGY OF BECOMING A TEACHER. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module will focus on the residues of past relationships with parents and teachers which may influence a teacher's present relationships with others -- especially children, and his/her choice of a particular teaching situation. Emphasis on the significance of self-knowledge as a factor affecting one's ability to teach.

PSY 321. SOCIAL PSYCHOLOGY IN THE CLASSROOM. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module has as its focus the many and varied problems the teacher and student encounter from a social psychology viewpoint. Such topics

as attitude and belief change of teachers and students, interpersonal processes, group interaction and personality theories and trends will be covered.

PSY 323. INSTRUCTION AND INDIVIDUAL DIFFERENCES. (PTE) *One hour credit.*

Prerequisite, PSY 120. This module explores the challenge to teachers of the use of traditional teaching methods and materials in the face of new discoveries in the field of human learning and behavior. Topics: early attempts to provide for individual differences, meeting individual needs for various subjects, innovations affecting the teacher-learner situation.

PSY 325. TEACHING FOR CREATIVITY. (PTE) *One hour credit.*

Prerequisite, PSY 120. This two-week module will discuss the following topics: development of creativity in the classroom, defining creativity, creative children and testing patterns, and creative dramatics.

PSY 341. PHENOMENOLOGICAL APPROACHES TO PERCEPTION. *Three hours credit.*

Study of factors influencing openness to experience (e.g., physiological capacities, time, opportunity, need, expectations, language, perception of self). Understanding the dynamics of behavior from an internal frame of reference will be emphasized. The multi-dimensionality of perceptual possibilities and consequent implications for educational processes will be explored.

PSY 343. SENSORY AND PERCEPTUAL PROCESSES. *Four hours credit.*

Prerequisite, PSY 121 or permission of instructor. A review of sensory mechanisms in man including vision, audition, olfaction, etc., and coverage of research and theory about organization and interpretation of sensory input. Lab will apply psychophysical and other specialized techniques.

PSY 344. ALTERED STATES OF CONSCIOUSNESS. *Three hours credit.*

Prerequisite, PSY 251. A course designed to extend the understanding of behavior through an in-depth examination of altered states of consciousness. States of consciousness in which the individual feels qualitative or quantitatively-measured shifts in mental functioning are physiologically, psychologically, and philosophically investigated. Personal experiences, in non-chemically produced altered states, will be investigated.

PSY 345. PARAPSYCHOLOGY. *Three hours credit.*

A basic course designed to examine present and past research in the areas of extra-sensory perception, telepathy, precognition, clairvoyance, psychokinesis, and other phenomena that may fall within the realm of parapsychological or psi-phenomena. Attention is given to testing techniques and the psychology of the field.

PSY 349. EDUCATIONAL PSYCHOLOGY. *Five hours credit.*

Prerequisites, PTE, PSY 120. 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.

2-PSY 350. PSYCHOLOGY OF ACTUALIZATION. *Three hours credit.*

Prerequisite, PSY 250. A course designed to study man's desire for self-fulfillment the tendency for him to become actualized in what he is potentially. The course studies the idea of idiosyncratic health as an alternative to the adjustment theory of psychological health and the growth of the human potential movement.

PSY 361. HUMAN AWARENESS LABORATORY. *Two hours credit.*

Prerequisite, permission of instructor. An experiential class designed to provide students with direct feedback regarding the way they relate with others. Through group interaction the student has the opportunity to improve communication, correct self-defeating attitudes and behaviors, and become more accepting of himself and others. (COURSE MEETS FOR A MINIMUM OF 30 HOURS PER QUARTER.)

PSY 365. PSYCHOLOGY OF PREJUDICE. *Three hours credit. Taught every quarter.*

A course designed to assist students to understand in-depth the basic causes of prejudice and the learning of prejudicial behavior. Experiences are provided for greater understanding of people and the processes for diminishing the degree of prejudice by the individual.

PSY 369. ECOLOGICAL PSYCHOLOGY. *Three hours credit.*

Literature from the areas of learning, social psychology, and ethology will be examined in order to consider how the characteristics of an environment affect the behavior of organisms, what the implications are for behavior when an environment is altered, and how the principles of behavior might be employed to insure man's survival.

PSY 375. RESEARCH METHODOLOGIES. *Four hours credit.*

Prerequisite, RSM 203. A survey of research methodologies other than experimental approaches. Methods of historical, philosophical and descriptive research utilizing correlation, survey, sampling techniques, choice of independent and dependent variables, data-gathering, naturalistic observations, case studies, longitudinal and cross-sectional studies will be included. The student will be expected to participate in a laboratory.

PSY 422. INDIVIDUAL STUDIES. *Maximum four hours credit. Taught every quarter.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

PSY 425. SEMINAR: PSYCHOLOGICAL ISSUES. *Three hours credit. Taught every quarter.*

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

PSY 431. INFANCY AND CHILDHOOD. *Three hours credit.*

This course is designed to concentrate on human development from conception to (not including) preadolescence. Special emphasis will be given to the physical, mental, social and emotional development of infants and children.

PSY 432. PREADOLESCENCE AND ADOLESCENCE. *Three hours credit.*

This course considers theories of preadolescence and adolescence, physical and intellectual development, emotional and social adjustment, family and social factors, adolescent alienation, entering adulthood and related issues.

PSY 433. MATURITY AND AGING. *Three hours credit.*

This course examines the concerns and decisions met during maturity. Interrelationships among physiological, sociological and psychological variables which af-

fect aging will be explored. Roles of the aging in our society and psychological reactions to death will be considered.

PSY 442. EXPERIMENTAL ANALYSIS OF BEHAVIOR. *Three hours credit.*
Prerequisite, PSY 121, 15 hours in Psychology, majors only. Students will examine the theoretical basis for individual organism research and the principles of learning that underlie such an approach. The students will be required to participate in a conditioning laboratory to develop competence in techniques.

PSY 443. MOTIVATION. *Three hours credit.*
Prerequisite, PSY 121 or permission of instructor. The following motivational concepts and related research may be considered: drive, goal direction, incentive, reinforcement, external stimulation, emotion, homeostasis, biological aspects, instinct and self-actualization.

PSY 444. PSYCHOLINGUISTICS. *Three hours credit.*
Prerequisite, PSY 240. The study of encoding and decoding in order to account for the facts of language and the use of language by human beings. The course may contain an outline of modern approaches in the acquisitions of language and research in psycholinguistics.

PSY 445. SOCIAL LEARNING AND BEHAVIOR MODIFICATION. *Three hours credit.*

Prerequisite, PSY 442 or permission of instructor. A course in applied learning theory giving emphasis to the roles played by vicarious, symbolic and self-regulatory processes, e.g., modeling, imitation, desensitization, and cybernetics. Students will be required to apply operant and social learning principles in dealing with behavior in an educational, clinical, or other social setting.

PSY 457. THEORIES OF PERSONALITY. *Three hours credit.*
Prerequisites, PSY 120 or PSY 122. General psychological systems of personality theory used to explain personality functioning and development are explored and applied. (These systems may include type-trait, behavior-learning, psychoanalytic and neopsychoanalytic, and perceptual-field personality theory.)

2-PSY 458. ABNORMAL PSYCHOLOGY. *Three hours credit.*
Prerequisites, PSY 122 or PSY 255. The course designed to give an understanding of abnormal behavior, its causes, symptoms, characteristics, classifications and prevention.

PSY 463. SOCIODRAMA. *Two hours credit.*
A laboratory course combining lecture, discussion, and reactions to readings with focus on the activity involved in the technique of sociodrama.

PSY 464. SOCIOMETRY. *Two hours credit.*
A laboratory course combining lecture, discussion, and reactions to readings with focus on the sociometric technique.

PSY 465. PSYCHOLOGY OF HUMAN SEXUALITY. *Three hours credit.*
Attempts to develop awareness of and sensitivity to sex as an individual difference that affects learning and motivation throughout life. Social, biological, and psychological basis for sex differences and institutional structures will be examined as well as socialization processes in the development of sex role identity.

PSY 466. INDUSTRIAL PSYCHOLOGY. *Three hours credit.*
Students will study the basic methods used by psychologists in selection, placement, training, and motivation of industrial personnel. They will examine the psychological factors involving inter-personal relations influencing morale, production, job satisfaction, etc.

PSY 407. PSYCHOLOGY OF SOCIAL CHANGE. *Three hours credit.*

An analysis of the sources and organization of power relations in the community and various institutions. Techniques for utilizing change-producing process within institutions.

PSY 408. PSYCHOLOGY OF WOMEN. *Three hours credit.*

Theoretical bases and issues from psychology regarding and influencing the traditional concept of the "female personality," i.e., psychoanalytic theory and definitions of neurotic behavior, motivation, achievement needs, identity, ego-strength and self-esteem, and the inter-dependent influence upon the development of the "weaker sex."

PSY 480. PHYSIOLOGICAL PSYCHOLOGY. *Five hours credit.*

Prerequisites, introductory biology or zoology course and PSY 121 or permission of instructor. Introduction to neuroanatomy and neurophysiology. Functional relationship between nervous system and behavior, review of sensory and motor processes and investigative procedures. Biochemical correlations of learning and other behaviors will be considered.

PSY 481. COMPARATIVE PSYCHOLOGY. *Four hours credit.*

Prerequisite, PSY 121. Innate and learned, individual and social, normal and abnormal behavior of insects, fish, amphibia, reptiles, birds, and mammals. Ethological and experimental techniques will be explored in lecture and laboratory.

PSY 490. DEVELOPMENT OF PSYCHOLOGICAL IDEAS AND SYSTEMS.
Three hours credit.

Survey of the origins and development of psychological ideas and systems. Includes discussion of the psychology of science; goals, laws, paradigms, and the evolution of science as a human endeavor. (Students should be advised that many graduate schools in psychology recommend this be taken at the undergraduate level.)

PSY 491. FIELD EXPERIENCE. *Five to fifteen hours credit.*

Prerequisite, advanced standing and permission of the instructor. Majors only. Minimum of 5 hours required for majors. Either full or part-time experience for one quarter or for extended quarters working with professionals in psychology. Arrangements with the instructor and the supervisor must be completed during the quarter prior to registration.

PSY 499. SPECIAL TOPICS IN PSYCHOLOGY. *Maximum four hours credit.*

This course is scheduled on an irregular basis to explore special areas in psychology and will carry a subtitle. If successful, the course may later be added to the curriculum as a regular course. Check in the Psychology office to learn of topics currently planned.

RESEARCH AND STATISTICAL METHODOLOGY

RSM 203. INTRODUCTORY STATISTICAL METHODS. *Three hours credit.* (Not equivalent to RSM 504.)

Basic statistical concepts and techniques; comprehension of research and literature in education and the other behavioral sciences using elementary statistical methods.

RSM 312. BASIC PRINCIPLES OF TEST CONSTRUCTION AND UTILIZATION. *Two hours credit.*

Principles underlying construction of teacher-made and standardized achievement tests; types, uses, and interpretation of derived scores; factors influencing reliability and validity; recent developments in educational and psychological measurement; does not require specific statistical skills but relates statistical concepts to test interpretation.

RSM 323. INTRODUCTION TO INFORMATION PROCESSING AND COMPUTERS. *Three hours credit.*

Introduces the computer, its nature, use and impact on education and society. Involves basic concepts, programming and applications. Requires no previous knowledge of computer fundamentals.

RUSSIAN**1-RUS 101. 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. Audio-visual aids will be used as needed.

1-RUS 102. ELEMENTARY RUSSIAN II. *Five hours credit.*

A continuation of RUS 101.

1-RUS 103. ELEMENTARY RUSSIAN III. *Five hours credit.*

A continuation of RUS 102.

1-RUS 201. INTERMEDIATE RUSSIAN. *Four hours credit.*

Prerequisite, RUS 103. Review of Russian grammar, imitative composition and the reading of intermediate Russian texts.

1-RUS 202. INTERMEDIATE RUSSIAN COMPOSITION AND CONVERSATION I. *Four hours credit.*

Prerequisite, RUS 201. A continuation of RUS 201 but emphasizing more intensive reading, oral reports, advanced composition and more extensive conversation.

1-RUS 203. INTERMEDIATE RUSSIAN COMPOSITION AND CONVERSATION II. *Four hours credit.*

Prerequisite, RUS 202. A continuation of RUS 202. A study of three Russian authors in their shorter works (Turgenev, Lermontov, Pushkin). Oral reports, advanced composition, and translation.

4-RUS 305. SURVEY OF RUSSIAN LITERATURE I. *Three hours credit.*

Prerequisite, two years college Russian or permission of instructor. The course is designed to introduce students to masterpieces of Russian literature from beginning to end of the eighteenth century. Introduction to the life and work of Russia's greatest classics.

4-RUS 306. SURVEY OF RUSSIAN LITERATURE II. *Three hours credit.*

Prerequisite, two years college Russian or permission of instructor. The course is designed to introduce students to masterpieces of Russian literature of the nineteenth century.

4-RUS 307. SURVEY OF RUSSIAN LITERATURE III. *Three hours credit.*

Prerequisite, two years college Russian or permission of instructor. The course is designed to introduce students to masterpieces of Russian literature of the twentieth century.

1-RUS 335. RUSSIAN CONVERSATION. *Three hours credit.*

Prerequisite, two years college Russian or equivalent. The course is designed to develop the basic speech habits for control of spoken, conversational Russian through exercise in reproducing of episodes in the student's own words.

1-RUS 336. ADVANCED RUSSIAN COMPOSITION. *Three hours credit.*

Prerequisite, two years of college Russian or permission of instructor. The course is designed to increase the student's fluency in the language through the use of original compositions, translations, and resumes.

1-RUS 337. ADVANCED RUSSIAN GRAMMAR. *Three hours credit.*

Prerequisite, two years college Russian or permission of instructor. A study of Russian syntax and the common difficulties in sentence structure. Emphasis is on many exceptional grammatical rules in Russian.

4-RUS 341. PUSHKIN. *Three hours credit.*

Prerequisite, three years college Russian or permission of instructor. Life and works of A. Pushkin. Emphasis on his contribution as "The Sun of Russian Literature." The course will converse in Russian.

SCIENCE EDUCATION

SCED 151. INTRODUCTORY SCIENCE FIELD EXPERIENCES. *Two hours credit. (Maximum six hours credit.)*

A course which provides prospective science teachers with practical experience in the classroom and community during their freshman, sophomore, and junior years.

SCED 260. INTEGRATED ELEMENTARY SCIENCE TEACHING METHODS I. *One hour credit.*

Co-requisite, SCI 260, 261, or 262. This course integrates methods of elementary science teaching with content. Opportunities for field experiences provided. Open to freshman and sophomore elementary education majors.

SCED 261. INTEGRATED ELEMENTARY SCIENCE TEACHING METHODS II. *One hour credit.*

Co-requisite, SCI 260, 261, or 262. This course integrates methods of elementary science teaching with content. Opportunities for field experiences provided. Open to freshman and sophomore elementary education majors.

SCED 262. INTEGRATED ELEMENTARY SCIENCE TEACHING METHODS III. *One hour credit.*

Co-requisite, SCI 260, 261, or 262. This course integrates methods of elementary science teaching with content. Opportunities for field experiences provided. Open to freshman and sophomore elementary education majors.

SCED 276. TESTING AND EVALUATION IN K-12 SCIENCE. *Three hours credit.*

This course will provide students with a survey, analysis, design and trial use of evaluation and measurement devices appropriate for use in assessing the achievement of curricular objectives in K-12 science teaching. Students will examine several instruments including achievement, attitude, rating scales, question-

naires, judgment scales of products, interviews, controlled-observation techniques, socio-metric techniques, anecdotal records, stereographic reports and sound tape recordings.

SCED 360. SCIENCE FOR THE HANDICAPPED. *Two hours credit.*

An opportunity for students to examine commercial materials, to modify existing materials, and to develop science study units relating to science and the handicapped child. An individualized approach will be used to allow each student to concentrate on areas of special interest. Micro-teaching will be utilized -- "live" on video tape. Appropriate for pre-school, elementary, and secondary majors.

SCED 441. METHODS OF TEACHING SECONDARY SCHOOL SCIENCE.

Three hours credit.

Prerequisite, PTE. Prerequisite to student teaching. Includes a curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the subject area to the total secondary program. Teaching techniques are a point of emphasis.

SCED 442. METHODS OF TEACHING SCIENCE IN THE MIDDLE SCHOOL/JUNIOR HIGH SCHOOL. *Three hours credit.*

Prerequisite, PTE. Prerequisite to student teaching. Includes curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the subject area to the total secondary program. Teaching techniques are a point of emphasis.

SCED 470. TEACHING SCIENCE IN THE ELEMENTARY SCHOOL. (PTE)

Three hours credit. (Two hours lecture, three hours laboratory.)

The purpose of this course is to develop a knowledge of objectives, methods, and materials which the teacher will need for providing learning activities, and for teaching a functional elementary science program. Laboratory activities are included.

SCED 475. SCIENCE FOR THE PRESCHOOL CHILD. *Three hours credit.*

The purpose of this laboratory centered course is to develop a knowledge of objectives, methods and materials which the early childhood teacher will need for providing learning activities.

SCIENCE

These courses are taught by the appropriate departments.

4-SCI 100. HISTORY OF SCIENCE AND MODERN MAN. *Three hours credit.*

The course endeavors to trace the historical and philosophical development of scientific methods of investigation, their effects on the perceptions of modern man and the contemporary reactions to them. The class will be restricted to an enrollment of 30.

5-SCI 103. 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.

5-SCI 104. BIOLOGICAL SCIENCE. *Three hours credit.*

This is a course designed to acquaint beginning students with the modern day concepts of the cell and protoplasm; animal and plant reproduction; and genetic transmission of hereditary traits.

5-SCI 106. REACHING BEYOND THE RATIONAL. *Three hours credit.*

This course discusses a present mood of skepticism about the quantifying, objective methods of science. The rise to a state of acceptance of the scientific method and a concept of a clockwork universe will be traced. Some concepts and ideas which lie on the ragged edge between scientific and irrational will be presented.

5-SCI 107. ENERGY: MAN AND THE CRISIS. *Three hours credit.*

A non-mathematical study of the basic concepts of energy as it relates to man and his environment. Topics include fundamental principles and limitations of energy conversion, man's energy requirements, environmental impact of large scale energy uses, energy sources -- fossil, nuclear, solar. The underlying causes of the impending energy crisis will be covered in detail and possible future energy technology alternatives will be discussed.

4-SCI 108. SCIENCE AND SOCIETY. *Three hours credit.*

The relationship of science to society is investigated and discussed. An historical approach is used to show the growth of science and development of public attitudes toward science. Present relationships between science and society are emphasized.

5-SCI 109. RELATIVITY AND COSMOLOGY. *Three hours credit.*

A non-mathematical treatment of the concepts of special and general relativity, leading to a discussion of a variety of cosmological models. The "big bang" and steady-state theories of cosmology are covered, as well as expanding, closed, and open models.

5-SCI 110. SIGHTS AND SOUNDS. *Three hours credit.*

A descriptive study of the wave motion to sound and light. Emphasis will be placed on sound associated with music and musical instruments, and on light associated with art.

SCI 150. A LABORATORY INTRODUCTION TO EARTH SCIENCE. *One hour credit. (Two hours laboratory.)*

Selected laboratories from Earth Science Curriculum Project, independent investigations, and related projects will comprise this laboratory-oriented course.

4-SCI 210. VALUES -- ACT (1) ON ENVIRONMENT. *Three hours credit.*

A general education interdisciplinary course which provides students with opportunities for first hand investigation of environmental problems such as air and water pollution, population studies, and use of natural resources including land and energy. Controversial environmental issues are presented and value clarifying techniques used to examine students' relationships to their environments.

5-SCI 260. EARTH SCIENCE CONCEPTS FOR ELEMENTARY TEACHERS. *Three hours credit. (Two hours lecture, two hours laboratory.)*

Co-requisite, SCED 260, 261, or 262. Introductory course in earth science designed especially for elementary education majors.

5-SCI 261. BIOLOGICAL SCIENCE CONCEPTS FOR ELEMENTARY TEACHERS. *Three hours credit. (Two hours lecture, two hours laboratory.)*

Co-requisite, SCED 260, 261, or 262. A study of some basic concepts in science with an emphasis on their application to living organisms. The course is designed for elementary education minors interested in a general understanding of science.

5-SCI 262. PHYSICAL SCIENCE CONCEPTS FOR ELEMENTARY TEACHERS. *Three hours credit. (Two hours lecture, two hours laboratory.)*

Co-requisite, SCED 260, 261, or 262. A study of some basic concepts in science with

an emphasis on their application to the physical world. The course is designed for elementary education majors interested in a general understanding of science.

5-SCI 301. HISTORY OF THE PHYSICAL SCIENCES. *Three hours credit.*

The study of the development of the basic concepts and principles of the physical sciences from the Greeks to the modern period stressing its contribution to our cultural heritage and the evaluation of science as an activity of men.

5-SCI 303. ELEMENTARY BIOLOGICAL SCIENCE. *Three hours credit. (Two hours lecture, three hours laboratory.)*

A content course that emphasizes basic understanding of animal and plant life. Films, laboratory experiences, field work, visual aids, museum study and reading materials are used to develop the concepts. This course not applicable to a graduate science major.

5-SCI 309. SCIENCE FOR ELEMENTARY TEACHERS. *Three hours credit. (Two hours lecture, three hours laboratory.)*

A subject matter course for elementary majors presenting science concepts and information for elementary teachers. Areas may include light, heat, sound, simple machines, and the interrelationships of things to the physical environment.

SCHOOL OF EDUCATIONAL CHANGE AND DEVELOPMENT

SECD 102. PROFESSIONAL DEVELOPMENT EXPERIENCES. *One to fifteen hours credit.*

Freshman students in the School of Educational Change and Development may elect professional development experiences that are a part of their program approved by their Resource Board and Advisory Board. The nature of the experiences and the credit hours will be determined by the student's accepted proposal.

SECD 202. PROFESSIONAL DEVELOPMENT EXPERIENCE. *One to fifteen hours credit.*

Sophomore students in the School of Educational Change and Development may elect professional development experiences that are a part of their program approved by their Resource Board and Advisory Board. The nature of the experiences and the credit hours are determined by the student's accepted proposal.

SECD 302. PROFESSIONAL DEVELOPMENT EXPERIENCES. *One to fifteen hours credit.*

Junior students in the School of Educational Change and Development may elect professional development experiences that are a part of their program approved by their Resource Board and the Advisory Board. The nature of the experiences and the credit hours are determined by the student's accepted proposal.

SECD 402. PROFESSIONAL DEVELOPMENT EXPERIENCES. *One to fifteen hours credit.*

Senior students in the School of Educational Change and Development may elect professional development experiences that are a part of their program approved by their Resource Board and the Advisory Board. The nature of the experiences and the credit hours are determined by the student's accepted proposal.

SECD 422. 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 Dean of the School of Educational Change and Development.

SOCIOLOGY

3-SOC 100. PRINCIPLES OF SOCIOLOGY. *Five hours credit.*

A study of social organization, culture, socialization, social stratification, associations, collective behavior, population and ecology with detailed applications to the functioning of society in the United States today.

All of the following Sociology courses have a prerequisite SOC 100 or equivalent.

3-SOC 120. MARRIAGE AND THE FAMILY. *Four hours credit.*

A functional approach to education for marriage and family life, including anticipating marriage, what it means to be married, the making of a family and the nature of family life yesterday, today and tomorrow.

3-SOC 145. SOCIAL PROBLEMS. *Three hours credit.*

Designed to help the student understand some of the complex problems of our society from a sociological frame of reference. The student will look at such things as poverty, slums, wars, alcoholism, mental illnesses, drug addiction and prostitution, in the context of American society.

3-SOC 221. THE SOCIOLOGY OF SEX ROLES. *Three hours credit.*

This course is designed to focus on the changing status of the American woman and its effects on our society. Will study the woman as a daughter, wife, mother, career girl and explore the varieties of roles and effects upon the matrix of our society.

3-SOC 240. CRIMINOLOGY. *Four hours credit.*

A general survey of criminal behavior including theories of causation, types of crime, extent of crime, law enforcement, criminal justice, punishment and treatment.

3-SOC 270. WORLD POPULATION PROBLEMS. *Four hours credit.*

Various theories of population are examined. Methods of discovery are investigated and critical variables including fertility, mortality, and migration are analyzed. The general problem of population is related to major sociological variables to indicate the web of interdependency.

3-SOC 272. THE COMMUNITY. *Three hours credit.*

Common features of all communities and differences among communities due to size, ecology, occupation, distinctive history and cultural heritage are examined. The community is seen as a network of interacting social systems comprised of meaningful social groupings, family, religion, economy, local government, health, welfare services, and recreation.

3-SOC 310. 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.

3-SOC 311. COLLECTIVE BEHAVIOR. *Three hours credit.*

Relevant and appropriate sociological theory is directed to the subdiscipline of collective behavior. Mobs, riots, crowds, crazes, mass behavior, revolutions and reforms are unified through certain theoretical developments that permit the

systematic examination of the social strains underlying collective effort and behavior.

3-SOC 312. MASS COMMUNICATION AND PROPAGANDA ANALYSIS. *Three hours credit.*

An examination of the structure and policy of mass communications in relation to their economic, political, sociological, and psychological functions. An analysis of propaganda, its techniques, and its impact upon the masses will also be considered.

3-SOC 321. POLITICAL SOCIOLOGY. *Three hours credit.*

A sociological analysis of the state as a social organization, the nature and conditions of its legitimacy, the nature of political systems and political behavior in a societal context, and of the interrelationships of political and societal phenomena.

3-SOC 323. SOCIOLOGY OF RELIGION. *Three hours credit.*

A comparative study of the world's major religions, their origins and historical development, their doctrines, literature, customs, and relations to society.

3-SOC 325. SOCIOLOGY OF MEDICINE. *Three hours credit.*

A systematic attempt to relate sociological concepts to the fields of physical health and illness. An overview of socio-cultural aspects of the institution we know as "Medicine." The community and medical care, which will include medical education, the hospital as a social institution, concepts of medical practice.

3-SOC 333. SOCIAL STRATIFICATION. *Three hours credit.*

Presentation of a unified portrait of the class system of present-day America. Course seeks a description of the realities of the American class system, an analysis of the verified knowledge based on systematic research, and treatment of the topic of mobility central to the American open-class system.

3-SOC 334. SOCIOLOGY OF THE FUTURE. *Three hours credit.*

A Sociological perspective of the future. Attention is given to an analysis of the future from several sociological perspectives, and interpretation of utopian designs for societies of the future, and the theoretical construction of future societies.

3-SOC 337. SOVIET SOCIETY TODAY. *Four hours credit.*

A sociological analysis of the Soviet Union's social institutions, social problems, and value systems, specifically considering the Communist ideology in theory and practice as revealed in examining the structure, function, and problems of the family, social stratification, nationalities, education, science, the arts, and social welfare programs.

3-SOC 340. JUVENILE DELINQUENCY. *Four hours credit.*

The problem of delinquency is approached from the sociological, psychological, and legal points of view. Several sociological theories are proposed as possible causes of delinquency. The various methods by which the delinquent is rehabilitated in correctional institutions are discussed.

3-SOC 341. SOCIOLOGY OF AGING. *Three hours credit.*

Survey of theories and research on the social aspects of aging with emphasis on later maturity and old age, social problems of the aged, retirement, and use of leisure by the aged.

3-SOC 345. SOCIOLOGY OF MINORITIES. *Four hours credit.*

A course dealing with the evidence as to all types of intergroup relations; race, nationality, minority groups, income groups, urban and rural groups, and with methods of teaching and measuring intergroup relations.

3-SOC 402. ISSUES AND PERSPECTIVES IN SOCIOLOGY. *Three to nine hours credit.*

This is a variable topic course in sociology. Possible topics will be the sociology of science, art forms, alternative life styles, formal organization or comparative sociology. This course may be taken three times if the topic is different each of the three times.

3-SOC 410. SMALL GROUPS. *Three hours credit.*

Observing, analyzing, and comparing behavior in various small groups. Emphasis will be upon groups devoted to decision-making and problem solving.

3-SOC 415. THE SOCIOLOGY OF CHILD DEVELOPMENT. *Three hours credit.*

A sociological approach to the field of child development. The primary emphasis is upon the social situation and how the child grows and develops within its context from birth to maturity.

3-SOC 420. SOCIOLOGY OF EDUCATION. *Three hours credit.*

A systematic attempt to relate sociological concepts to the educational institution. This course will focus upon a scientific analysis of the social processes and social patterns involved in the educational system.

3-SOC 421. INDUSTRIAL SOCIOLOGY. *Three hours credit.*

The processes involved in the development of industrial society; social organization of work; internal dynamics of the work plant as a social system; the development of the labor movement in the U.S.; and the dynamics and impact of labor management relations.

3-SOC 422. INDEPENDENT STUDY IN SOCIOLOGY. *Maximum 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 department.

3-SOC 424. SOCIOLOGY OF CRIMINAL LAW. *Four hours credit.*

An inquiry into the origins of criminal law, its administration, and the effect of legal sanctions.

3-SOC 427. MILITARY SOCIOLOGY. *Three hours credit.*

Analysis of the military as a social institution with comparisons to its place in the institutional patterns of other nations. Both the historical aspects and the contemporary institutional position are covered.

3-SOC 432. OCCUPATIONS AND PROFESSIONS. *Three hours credit.*

Description and analysis of selected occupations and professions in American society.

3-SOC 435. SOCIO-CULTURAL CHANGE. *Three hours credit.*

Presentation of theories of change. Analysis of change as the product of interaction of several factors. Discussion of the effects of technology on change and problems of measurement of change. The processes of change in the underdeveloped countries will be introduced and comparisons with the developed nations will be made.

3-SOC 447. SOCIAL DEVIANCE. *Four hours credit.*

A study of social deviancy, particularly in terms of the types, sources, functions, dysfunctions and social control mechanisms that operate relative to these departures from conformity.

3-SOC 450. HISTORY OF SOCIAL THOUGHT. *Four hours credit.*

A systematic and historical development of social thought from primitive folk thinking to contemporary theories of society and social relations.

3-SOC 451. SOCIAL THEORY I. *Four hours credit.*

This course includes sociological theory from Auguste Comte to the early 20th Century. It deals with the beginnings of sociology as a separate discipline up to its full emergence in the academic community. Emphasis is upon the more important theorists and the major schools of theory.

3-SOC 452. SOCIAL THEORY II. *Four hours credit.*

This survey of contemporary sociological theories with particular emphasis on the theories of Parsons, Merton, Homans, Mills and Levy will relate contemporary theories to the thoughts of classical European and American Sociologists.

3-SOC 454. SOCIAL CONFLICT. *Four hours credit.*

Analysis of the nature of social conflict, its origins, functions, dysfunctions, and how conflict is resolved or accommodations made to it.

3-SOC 460. SOCIAL RESEARCH I. *Four hours credit.*

The course focuses upon the scientific method as it applies to sociology and the social sciences. Methods and techniques of research, as well as study designs relevant to sociology, are examined.

3-SOC 461. SOCIAL RESEARCH II. *Four hours credit.*

Prerequisite, SOC 460 or equivalent. A continuation of introductory statistics with special emphasis on applied problem solving utilizing both parametric and non-parametric measurements. Also covered are statistics relating to scale verification, concepts of statistical applications, and theories of levels of significance.

3-SOC 478. URBAN SOCIOLOGY. *Three hours credit.*

Population, spatial, and social patterns characteristic of modern urban communities. Trends and problems in urban communities such as out-migration and urban blight.

3-SOC 479. HUMAN ECOLOGY. *Three hours credit.*

The study of man-nature ecosystems with special regard to man's social role in environment alteration, utilization and destruction. The role of social institutions and processes in conservation and exploitation of natural resources.

For 500 level classes -- see Graduate Catalog.

SPANISH

1-SPAN 101. ELEMENTARY SPANISH I. *Five hours credit.*

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.

1-SPAN 102. ELEMENTARY SPANISH II. *Five hours credit.*
A continuation of SPAN 101.

1-SPAN 103. ELEMENTARY SPANISH III. *Five hours credit.*
A continuation of SPAN 102.

1-SPAN 201. 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 communications.

1-SPAN 202. INTERMEDIATE SPANISH II. *Four hours credit.*
Prerequisite, two years of high school Spanish or one year of college Spanish. A continuation of SPAN 201 but emphasizing more intensive reading, oral reports, advanced composition and extensive conversation based on Spanish and Spanish-American culture.

1-SPAN 203. INTERMEDIATE SPANISH III. *Four hours credit.*
Prerequisite, two years of high school Spanish or one year of college Spanish. A continuation of SPAN 202. 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.

1-SPAN 310. ADVANCED SPANISH GRAMMAR. *Four hours credit.*
Prerequisite, two years of college Spanish. A systematic study of the more complex theories and forms of Spanish grammar, with emphasis on mood, tense, and voice.

4-SPAN 315. COLONIAL LATIN AMERICAN LITERATURE. *Three hours credit.*
Prerequisite, two years of college Spanish. A study of the literature and civilization of Spanish America from the time of the earliest Spanish explorers until the nineteenth century.

4-SPAN 316. NINETEENTH CENTURY LATIN AMERICAN LITERATURE.
Three hours credit.
Prerequisite, two years of college Spanish. The literature of the 19th century will be studied with particular emphasis on the development of *Americanismo Literario* and with emphasis on the general movements of Romanticism and Naturalism.

4-SPAN 317. TWENTIETH CENTURY LATIN AMERICAN LITERATURE.
Three hours credit.
Prerequisite, two years of college Spanish. A study of the main works of the contemporary period of Spanish American Literature.

1-SPAN 325. ADVANCED SPANISH COMPOSITION. *Three hours credit.*
Prerequisite, two years of college Spanish. A course designed to increase the student's fluency in the language through the use of original compositions, translations, and resumes.

1-SPAN 335. SPANISH CONVERSATION. *Four hours credit.*
Prerequisite, two years of college Spanish. A course designed to increase the ability of each student to use spoken Spanish in practical, everyday situations. The class will be conducted in Spanish.

1-SPAN 345. SPANISH PRONUNCIATION. *Four hours credit.*
Prerequisite, two years of Spanish. A study of the mechanics of Spanish pronunciation. Methods of recognizing and correcting pronunciation errors.

4-SPAN 355. SPANISH LITERATURE OF THE MIDDLE AGES. *Three hours credit.*

Prerequisite, two years of college Spanish. A study of Spanish literature and civilization from the late medieval period to the Renaissance.

4-SPAN 356. SPANISH LITERATURE OF THE GOLDEN AGE. *Three hours credit.*

Prerequisite, two years of college Spanish. A study of Spanish literature and civilization of the sixteenth, seventeenth, and eighteenth centuries. Emphasis is placed on Cervantes, Lope de Vega, and Fernando de Rojas.

4-SPAN 357. NINETEENTH AND TWENTIETH CENTURY SPANISH LITERATURE. *Three hours credit.*

Prerequisite, two years of college Spanish. A study of Spanish literature and civilization of the nineteenth and twentieth centuries, with greatest emphasis on the more recent periods.

4-SPAN 375. SPANISH AND LATIN AMERICAN DRAMA. *Three hours credit.*

Prerequisite, oral facility in the language. Study of the major periods and development of Spanish and Latin American Theatre. Representative dramatists will be studied and scenes and/or works will be staged in class and public performance.

1-SPAN 400. PROBLEMS IN ORAL SPANISH. *Three hours credit.*

Prerequisite, two years of college Spanish beyond first year, or permission of instructor. A course designed to provide advanced oral training; to help students with persistent individual problems in spoken Spanish to overcome those difficulties.

SPAN 401. STUDY ABROAD PROGRAM: COURSEWORK. *Eight hours credit.*

Prerequisite, two years college Spanish or permission of the department. This course is designed to give students a practical experience in the use of Spanish. Study will include formal instruction in conversation, composition, and culture at the foreign study center. To be taken with SPAN 402.

SPAN 402. STUDY ABROAD PROGRAM: PROJECT. *Four hours credit.*

Prerequisite, two years of college Spanish or permission of department. This course is designed to give students an opportunity to research the contemporary and historical cultural phenomena of Spain through the completion of an area studies project in the region of the study center. To be taken with SPAN 401.

4-SPAN 405. LATIN AMERICAN SHORT STORY. *Three hours credit.*

Study of the Latin American short story from romanticism to the present. To include Quiroga, Borges, Rulfo, Cortazar, Marquez.

4-SPAN 406. LATIN AMERICAN POETRY. *Three hours credit.*

Prerequisite, two years of college Spanish. Concentration will be on four general periods of Latin American poetry: Modernismo, Posmodernismo, Vanguardismo, and Posvanguardismo. These movements will be related to the foreign poetic influences and visual arts of the corresponding periods.

4-SPAN 410. SPANISH CIVILIZATION. *Three hours credit.*

Prerequisite, two years of college Spanish. A course designed to acquaint the student with general trends of Spanish Civilization and Culture, including the historical, economic, political and artistic development of the country from prehistoric times to present.

4-SPAN 415. TWENTIETH CENTURY SPANISH DRAMA. *Three hours credit.*

Prerequisite, two years of college Spanish. A study of Spanish Drama in the 20th

century, the School of Benavente, the new Direction of Federico Garcia Lorca, the Post-War Theatre of Alfonso Sastre and Buero Vallejo.

4-SPAN 430. CERVANTES. *Four hours credit.*

Prerequisite, two years of college Spanish. The life and works of Miguel de Cervantes Saavedra, how he portrays the Spain of his day; and how his works mark the various stages in his career. The class will be conducted in Spanish.

SPAN 422. INDIVIDUAL STUDIES. *One to four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department.

4-SPAN 430. A PANORAMA OF MEXICAN LITERATURE. *Three hours credit.*

Prerequisite, two years of college Spanish. The study of Mexican literature from colonial times to the present-day. The class will be conducted in Spanish.

4-SPAN 450. LATIN AMERICAN CULTURE AND CIVILIZATION. *Three hours credit.*

Prerequisite, two years of college Spanish. A course designed to give the student an understanding of the historical and cultural development of the countries of Latin America. A survey of the major historical events from the pre-Colombian period to the present will be included. Primary emphasis will be placed upon Mexico. The class is conducted in Spanish.

1-SPAN 475. SPANISH READING. *Maximum four hours credit.*

Prerequisite, two years of college Spanish. Designed to fit the reading abilities and interests of various students. Class meets two days a week for intensive reading. Extensive outside reading is reported in conference.

SPAN 400. SPANISH FOR READING KNOWLEDGE. *No credit.*

Prerequisite, none. A course to enable doctoral candidates in other fields to pass the Ph.D. language reading examination in Spanish.

SOCIAL STUDIES EDUCATION

SSED 341. METHODS OF TEACHING SOCIAL SCIENCE IN THE SECONDARY SCHOOL. *Three hours credit.*

Prerequisite, PTE. Prerequisite to student teaching. Includes curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the subject area to the total secondary program. Teaching techniques are a point of emphasis.

THEATRE ARTS

2-THEA 100, 101, 102. INDIVIDUAL PERFORMANCE IN THEATRE. *One hour credit each.*

Open to all students who desire to participate in production activities of the theatre. A minimum of ten credits is required of Theatre Arts majors. Two credits are required of Theatre Arts minors. S-U final marks.

2-THEA 110. INTRODUCTION TO STAGECRAFT. *Three hours credit. (Two hours lecture, two hours laboratory. Lab card required.)*

A study of the arts, terminology, and materials of stagecraft and the physical theatre plant. Emphasis is placed on basic stage construction, shifting and rigging procedures, and scene painting.

2-THEA 160. ACTING I (INTERNALS). *Three hours credit. (Two hours lecture, three hours laboratory. Lab card required.)*

The emphasis of the course is on the primary needs of acting: concentration, motivation, and believability.

2-THEA 200, 201, 202. INDIVIDUAL PERFORMANCE IN THEATRE. *One hour credit each.*

Open to all students who desire to participate in production activities of the theatre. A minimum of ten credits is required of Theatre Arts majors. Two credits are required of Theatre Arts minors. S-U final marks.

2-THEA 210. STAGECRAFT. *Three hours credit. (Two hours lecture, two hours laboratory. Lab card required.)*

Prerequisite, THEA 110. A study of advanced construction problems, rigging, and backstage organization and management. The laboratory experiences will include the development of basic skills in mechanical drafting, scenic and properties construction, and advanced painting techniques.

2-THEA 220. BEGINNING STAGE COSTUMING. *Three hours credit. (Two hours lecture, two hours laboratory. Lab card required.)*

An introduction to the techniques of basic costuming for the theatre: the role of the costumer, pattern and construction, and a familiarity with materials and practices relating to play production.

2-THEA 230. INTRODUCTION TO THE THEATRE. *Three hours credit.*

An introductory course to the theatre which gives a comprehensive outline of the living stage, its players and craftsmen, and its place in society from primitive theatre to contemporary American and European theatres.

2-THEA 240. BEGINNING PLAY DIRECTION. *Three hours credit. (Two hours lecture, three hours laboratory. Lab card required.)*

Prerequisites, THEA 110 and THEA 160. A basic course in the principles of directing a play. The major focus of the course is on contemporary theories and practices of play direction.

2-THEA 260. ACTING II (EXTERNALS). *Three hours credit. (Two hours lecture, three hours laboratory. Lab card required.)*

Prerequisite, THEA 160. The second course in the principles of acting. The primary focus of the course is on observation, character analysis and research, and the use of the actor's voice and body for external characterization.

2-THEA 261. STAGE MAKE-UP. *Two hours credit. (One hour lecture, two hours laboratory. Lab card required.)*

A basic course designed to acquaint the student with the principles of the art of stage make-up.

2-THEA 270, 271, 272. STAGE MOVEMENT I, II, III. *One hour credit each.*

A laboratory course in the development of the actor's basic tools, his body and his voice. Emphasis is placed upon skills needed to communicate various realistic modes of movements, strength, agility, and control.

2-THEA 280. CREATIVE DRAMATICS. *Three hours credit. (Laboratory arranged. Lab card required.)*

A discussion-laboratory course in improvisational drama for young people which

studies why and how creative dramatics is used in the educational, recreational and dramatic development of children. The laboratory allows students to guide school children (K-8 grades) in creative dramatic activities.

2-THEA 300, 301, 302. INDIVIDUAL PERFORMANCE IN THEATRE. *One hour credit each.*

Open to all students who desire to participate in production activities of the theatre. A minimum of ten credits is required of Theatre Arts majors. Two credits are required of Theatre Arts minors. S-U final marks.

2-THEA 310. BEGINNING SCENE DESIGN. *Three hours credit. (Two hours lecture, two hours laboratory. Lab card required.)*

Prerequisites, THEA 110, 210. A fundamental course in scene design. Emphasis is placed on the aesthetics and styles of stage design and the development of rendering skills and staging concepts.

2-THEA 320. HISTORY OF STAGE COSTUMING. *Four hours credit.*

A study of costume design for the theatre. Emphasis is given to the survey of historical styles of costumes used in the theatre from the primitive times to the present.

2-THEA 340. DIRECTING PERIOD PLAYS. *Three hours credit. (Two hours lecture, three hours laboratory. Lab card required.)*

Prerequisite, THEA 240. A production course in the directing of plays from Aeschylus through Ibsen for public performance. Particular attention will be given to the stylistic demands of each period.

2-THEA 341. DIRECTING EXPERIMENTAL PLAYS. *Three hours credit. (Two hours lecture, three hours laboratory. Lab card required.)*

Prerequisite, THEA 240. A production course in the directing of plays from various contemporary styles: symbolism, expressionism, "theatre of cruelty," "theatre of the grotesque," "theatre of the absurd," and other experimental styles.

2-THEA 342. DIRECTING MUSICAL THEATRE. *Three hours credit. (Two hours lecture, three hours laboratory. Lab card required.)*

Prerequisite, THEA 240. A study of specific techniques required of a director for the production of various styles of musical theatre. A historical look at musical theatre. A detailed study of production techniques.

2-THEA 350, 351, 352. SUMMER THEATRE WORKSHOP I, II, III. *Twelve hours credit each.*

Prerequisite, acceptance by Theatre Arts staff. Workshop in acting and technical theatre; eight weeks of eight hour daily rehearsal for six summer productions. Undergraduate majors in Theatre Arts receive credit for THEA 210, THEA 220, THEA 260 (with course instructor's permission) and two hours in Individual Performance in Theatre.

2-THEA 353. THEATRE PRODUCTION. *Two hours credit. (Four hours laboratory.)*

Prerequisite, acceptance by the Theatre Arts staff director. A laboratory class in the production and presentation of touring theatre before live audiences. Double period, two days a week. Repeatable for eight hours maximum credit.

2-THEA 370, 371, 372. RHYTHMIC AND DRAMATIC MOVEMENT I, II, III. *One hour credit each.*

Prerequisites, THEA 270, 271, 272. A laboratory course in the continued preparation of the actor's skills in movement. Emphasis is upon the rhythmic demands of various styles of acting, period movement, and stage fighting.

2-THEA 380. CHILDREN'S THEATRE PRODUCTION. *Three hours credit. (Laboratory arranged. Lab card required.)*

Prerequisite, THEA 280, or permission of instructor. A basic production course in the methods and procedures of producing good theatre for children. Study of the literature in the field, technical problems, and the educational values of theatre for children will be emphasized.

2-THEA 390. CHAMBER THEATRE. *Three hours credit. (Six contact hours per week.)*

Prerequisites, COMM 170, THEA 240, or permission of instructor. A course designed to acquaint the student with the principles and production techniques of Chamber Theatre.

2-THEA 400, 401, 402. INDIVIDUAL PERFORMANCE IN THEATRE. *One hour credit each.*

Open to all students who desire to participate in production activities of the theatre. A minimum of ten credits is required of Theatre Arts majors. Two credits are required of Theatre Arts minors. S-U final marks.

2-THEA 410. ADVANCED STAGING TECHNIQUES. *Four hours credit. (Eight contact hours per week.)*

Prerequisite, THEA 310. An advanced study and practice of the modern trends and developments in scene design and staging methods and techniques, with emphasis on stage management, new materials, the staging and design of the multi-set production, and the care and maintenance of equipment.

2-THEA 411. STAGE LIGHTING. *Two hours credit. (One hour lecture, two hours laboratory. Lab card required.)*

Prerequisite, THEA 310. An introduction to lighting theory and lighting design applicable to staging practices.

2-THEA 420. STAGE COSTUMING DESIGN. *Four hours credit. (Two hours lecture, four hours laboratory. Lab card required.)*

Prerequisite, THEA 320. An introduction to costume design with consideration of the media in which costumes can be designed for stage use.

2-THEA 422. INDIVIDUAL STUDIES. *Maximum four hours credit.*

Qualified undergraduate students outline and spend a minimum of 25 clock hours per quarter hour on a problem relating to their major field under staff supervision. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the department. Repeatable for credit.

2-THEA 430. HISTORY OF THE THEATRE I. *Three hours credit.*

A research study of European theatre and its development from the beginnings until the end of the Middle Ages, including the primitive origins of theatre and the development of Oriental theatres.

2-THEA 431. HISTORY OF THE THEATRE II. *Three hours credit.*

A research study of European theatre and its development from the Italian Renaissance until the close of the 18th century.

2-THEA 432. HISTORY OF THE THEATRE III. *Three hours credit.*

A research study of American and European theatre and its development from the beginning of the 19th century to the present.

2-THEA 440. DIRECTING THE ONE-ACT PLAY. *Two hours credit.*

Prerequisites, THEA 240, 340, 341. A practicum in play direction giving the student the opportunity to produce a one-act play under staff supervision. Two

copies of a well-written paper, defending the purpose and success of the production, and one promptbook will be required.

2-THEA 460. SERIOUS STYLES OF ACTING. *Two hours credit. (Four contact hours per week.)*

Prerequisite, THEA 260. An advanced laboratory course in acting, concentrating on Greek tragedy, Elizabethan and Jacobean tragedy and history, the serious drama of the Spanish Renaissance, French neo-classic tragedy, 19th century Romantic drama, Ibsen and Strindberg.

2-THEA 461. COMIC STYLES OF ACTING. *Two hours credit. (Four contact hours per week.)*

Prerequisite, THEA 260. An advanced laboratory course in acting, concentrating on Greek and Roman comedy, farce comedy in the Medieval and Renaissance periods, Commedia dell'Arte, Elizabethan and Jacobean comedy, French neo-classic comedy, English comedy of the Restoration and 18th century, and 19th century farce and comedy.

2-THEA 462. PROBLEMS IN ACTING CONVENTIONS. *Two hours credit. (Four contact hours per week.)*

Prerequisite, THEA 260. An advanced laboratory course in acting, concentrating on stage dialects and the conventions needed to act such modern dramatic forms as naturalism, expressionism, impressionism, symbolism, "theatre of the absurd," "theatre of cruelty," happenings, and other modern experimental forms.

2-THEA 465. MUSICAL THEATRE REPERTORY I. *Two hours credit. (Four contact hours per week. Taken concurrently with MUS 468.)*

Prerequisite, THEA 260. The first of a sequence of three advanced laboratory courses in the acting of musical theatre, concentrating on performance values in singing and acting; this course focuses on the development of believability and the development of emotional life in character and action.

2-THEA 466. MUSICAL THEATRE REPERTORY II. *Two hours credit. (Four contact hours per week. Taken concurrently with MUS 468.)*

Prerequisite, THEA 465. The second of a sequence of three advanced laboratory courses in the acting of musical theatre, concentrating on performance values in singing and acting; this course focuses on the development of external characterization for age, modes of production, and stylistic stereotypes.

2-THEA 467. MUSICAL THEATRE REPERTORY III. *Two hours credit. (Four contact hours per week. Taken concurrently with MUS 468.)*

Prerequisite, THEA 466. The third of a sequence of three advanced laboratory courses in the acting of musical theatre, concentrating on performance values in singing and acting; this course focuses on advanced movement, stage presence in lead and chorus roles, dialect, and advanced repertoire.

VOCATIONAL TEACHER EDUCATION

4-VE 210. CAREER OPPORTUNITIES AND EXPLORATIONS. *Three hours credit.*

This course will provide the student an opportunity to identify teaching careers in Vocational Technical Teacher Education, as well as Career Opportunities in related occupational areas outside of education. Attention will focus on eight career clusters: Agri-Business Occupations, Business and Office Occupations, Distribu-

tion and Marketing Occupations, Health Occupations, Home Economics Occupations, Technical Occupations, Trade and Industrial Occupations and Special Needs Programs and Related Occupations. Students will have an opportunity to meet and discuss career roles with educators and representatives from business, industry and governmental agencies to discuss career roles and to develop a career plan. S-U final mark.

VE 290. DIRECTED FIELD EXPERIENCES. *Maximum twelve hours credit.*

Prerequisite, instructor's permission. This course will provide undergraduate students an opportunity to improve their technical and professional skills and knowledge in a specific occupational field related to their major area of study. Each field experience is carefully planned by the student and instructor to meet the needs of the student. This experience will aid students in their professional development as a Vocational Education teacher. Students should have prior approval from their major adviser. S-U final mark.

VE 310. VOCATIONAL EDUCATION FOUNDATION -- SEMINARS. *Three hours credit.*

This beginning course is a closely directed study of vocational education history, legislation, state policies, programs, and contemporary concerns facing vocational educators. The combination design of both large and small group sessions allows for student participation and presentations.

VE 412. COOPERATIVE EDUCATION AND COORDINATION TECHNIQUES. *Three hours credit.*

Prerequisite, VE 310. This is a required course for many vocational teachers and provides the student with an analysis of cooperative vocational education programs and describes the specific duties of a teacher-coordinator. Actual problems encountered in coordinating the school program with on-the-job experiences are elucidated.

VE 414. VOCATIONAL YOUTH ORGANIZATIONS. *Three hours credit.*

This is a course which provides both in-class study of the organization and maintenance of a successful vocational youth organization and the actual participation in a Colorado vocational youth organization. The State Plan requires the local vocational program to have a youth organization available to vocational students; therefore, this course will give the enrollee an opportunity to understand the purpose and function of such organizations as VICA, DECA, FHA, FBLA, OEA, etc.

VE 416. ADULT VOCATIONAL EDUCATION. *Three hours credit.*

The course includes a brief overview of the organization and administration of post-secondary and adult occupational programs. Students are introduced to existing adult vocational programs through examination of current curricula for specific adult programs, field trips, and guest speakers.

VE 422. INDIVIDUAL STUDIES IN VOCATIONAL EDUCATION. *Maximum four hours credit.*

A qualified student spends a minimum of 25 clock hours per quarter hour on a problem which is not included under the regular vocational education program of instruction. Two copies of a well-written paper must be filed before credit is given, one to be filed with the instructor and one with the chairman of the department. Offered by arrangement.

VE 430. VOCATIONAL EDUCATION FOR LEARNERS WITH SPECIAL NEEDS. *Three hours credit.*

Emphasis is placed on the understanding of the characteristics and unique needs of learners often classified as the "disadvantaged" or, as described by the Vocational Education Acts of 1963 and 1968, as "persons with special needs." These are students who have academic, socio-economic, or other handicaps that prevent them

from succeeding in vocational education programs. The rationale for and the development of special vocational education programs and field experiences are important aspects of this course.

VE 498. SEMINARS IN VOCATIONAL EDUCATION. *Maximum six hours credit.* The Vocational Education Seminars are designed for small group participation which focus on specific topics. Each seminar will have a subtitle. No subtitle may be repeated for credit. S-U final mark.

ZOOLOGY

Courses in zoology are administered by the Department of Biological Sciences.

5-ZOO 105. GENERAL ZOOLOGY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

An introduction to animal biology through the use of selected topics chosen for their contemporary interest and utility as basic material in zoology. Relevance to man of the subjects covered is stressed. Credit not allowed for biology majors.

5-ZOO 121. MAMMALIAN ANATOMY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, ZOO 105, or BIO 103. A study of the organ systems of the mammalian body. Structure and integration of organs and organ systems of the human will be emphasized. Laboratory studies will include examination of injected laboratory mammals and cadaver organs.

5-ZOO 153. ELEMENTS OF HUMAN PHYSIOLOGY-ANATOMY. *Five hours credit. (Four hours lecture, three hours laboratory.)*

A class in beginning human physiology stressing the regulatory mechanisms that maintain normal body function. Emphasis is placed on broad, general biological principles as they apply to structure and function. Not open to biology majors.

5-ZOO 250. HUMAN PHYSIOLOGY. *Five hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisites, ZOO 121 or 326 and CHEM 281. A detailed presentation of the functions of the organ systems of the human body. Emphasis is placed on the mechanisms involved with the maintenance of normal function.

5-ZOO 304. ORNITHOLOGY. *Three hours credit.*

In this course classroom, museum, and field projects are concerned with the habits, habitats, life histories, migration activities, behavior patterns, and economic importance of birds. Students will have an opportunity to learn to identify birds in the field. Field work required.

5-ZOO 316. ENTOMOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 101, 103. 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.

5-ZOO 320. INVERTEBRATE ZOOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

A general study of the invertebrate phyla, with a phylogenetic approach. Form, function and evolutionary relationships are stressed. Examples of each group are

studied in the laboratory, using live specimens whenever possible. The insects and parasites are not emphasized.

5-ZOO 325. COMPARATIVE MORPHOGENESIS OF THE VERTEBRATES I.

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

Prerequisites, BIO 101, 102, 103. A study of the comparative developmental processes and fundamental principles of vertebrate embryology as they relate to the development and ultimate structure of the vertebrate organ systems. Developmental anatomy and adult morphology of the sharks through mammals are considered for laboratory study.

5-ZOO 326. COMPARATIVE MORPHOGENESIS OF THE VERTEBRATES II.

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

Prerequisites, BIO 101, 102, 103, ZOO 325. A study of the comparative developmental processes and fundamental principles of vertebrate embryology as they relate to the development and ultimate structure of the vertebrate organ systems. Developmental anatomy and adult morphology of the sharks through mammals are considered for laboratory study.

5-ZOO 340. ANIMAL ECOLOGY. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, BIO 101, 102, 103. The study of structure and function of ecosystems. Emphasis will be placed on totality or patterns of relations between organisms including man with their environment.

5-ZOO 351. MEDICAL PHARMACOLOGY. *Four hours credit. (Three hours lecture, three hours laboratory.)*

Prerequisites, BIO 103 or ZOO 105, CHEM 130, ZOO 250 (may be taken concurrently). A detailed study of the principles underlying absorption, distribution, metabolism and excretion of drugs. Special emphasis will be given to the interaction between drugs and living organisms.

5-ZOO 412. GENERAL PARASITOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, BIO 101, 103. A study of the symbiotic relationships of parasitism as exemplified by typical parasites of man, domesticated and wild animals. Life cycles, pathology, systematics, and host-parasite relationships are stressed.

5-ZOO 427. VERTEBRATE EMBRYOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, BIO 103. A study of the fundamental principles of embryology and developmental anatomy. Development from the zygote through the fetal stage will be considered. Serial sections of chick and pig are used to illustrate the developmental processes discussed in lecture. This course is designed primarily for premedical-dental students.

5-ZOO 441. FAUNISTICS. *Five hours credit. (Three hours lecture, six hours laboratory.)*

Prerequisites, BIO 101, 103. An advanced taxonomy and ecological survey of the local fauna of Colorado with special emphasis on amphibians, reptiles, and mammals. This will include field trips, collection, and classification of the local fauna, and a study of the habits, habitats, and life histories of the local species under the ecological conditions that govern their distribution. Collecting permits are needed.

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**Faculty
1974-75**

WALLACE AAS, B.S., Moorhead State Teachers College; M.A., University of Northern Colorado.

Associate Professor of Physics; Chairman, Department of Physics

DONALD K. ADAMS, B.S., Colorado State University; M.A., Ed.D., University of Northern Colorado.

Assistant Professor of Education

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Assistant Professor of English

GARTH H. ALLEN, B.B.A., M.A., J.D., University of Iowa.

Assistant Professor of Business

ROBERT P. ALLERHEILIGEN, A.B., M.B.A., Colorado State University.

Assistant Professor of Business

MARY L. ALM, A.B., University of Colorado; M.A.T., Indiana University; M.L.S., Rosary College.

Instructor in University Library, and Academic Biblio Librarian

- LIONEL ALVES, A.B., Yale University; M.A., San Francisco State College; Ph.D., University of California, Santa Barbara.
Assistant Professor of History
- FRANK W. ANDERS, B.S., University of California, Berkeley; M.S., U.S. Naval Post Graduate School.
Assistant Professor of Mathematics
- DARRELL E. ANDERSON, A.B., York College; Ph.D., University of Nebraska.
Professor of Psychology; Chairman, Department of Psychology, Counseling and Guidance
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Associate Professor of Business
- JAMES F. ANDERSON, Ph.B., University of Wisconsin; M.A., Ph.D., University of Colorado.
Associate Professor of Economics
- MARGARET A. ANDERSON, B.A., University of Northern Colorado.
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- RACHEL F. ANDERSON, A.B., M.A., University of Northern Colorado.
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Assistant Professor of College Student Personnel Work
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Associate Professor of Elementary Education
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Instructor in University Library; Academic Biblio Librarian

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Professor Emeritus of Sociology

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GUIDE TO CAMPUS OFFICES

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University of Northern Colorado
Greeley, Colorado 80639

Telephone: (Area Code 303) 351-2026

Admissions

Admissions Office, Carter 209 (Ext. 2881)

Affirmative Action

Affirmative Action Office, Frasier 105 (Ext. 2944)

Bulletins and Catalogs

Publications Office, Frasier 206 (Ext. 2772)

Counseling Services

Counseling and Testing Center, 103 Gray Hall (Ext. 2497)

Fee Payments

Accounting Office, Frasier 11 (Ext. 2201)

Financial Assistance and Student Employment

Financial Aids Office, Carter 209 (Ext. 2502)

Graduate Program Information

Graduate Office, 1410-20th Street (Ext. 3401)

Housing

Housing Office, Gordon Hall (Ext. 2721)

Off-Campus and Correspondence Courses

Center for Non-Traditional and Outreach Education,
Faculty Apts., Unit 1, Garden Level (Ext. 2891)

Registration

Registrar and Records Office, Frasier 123 (Ext. 3701)

Scholarships

Financial Aids Office, Carter 209 (Ext. 2502)

Summer Study

Admissions Office, Carter 209 (Ext. 2881)

