









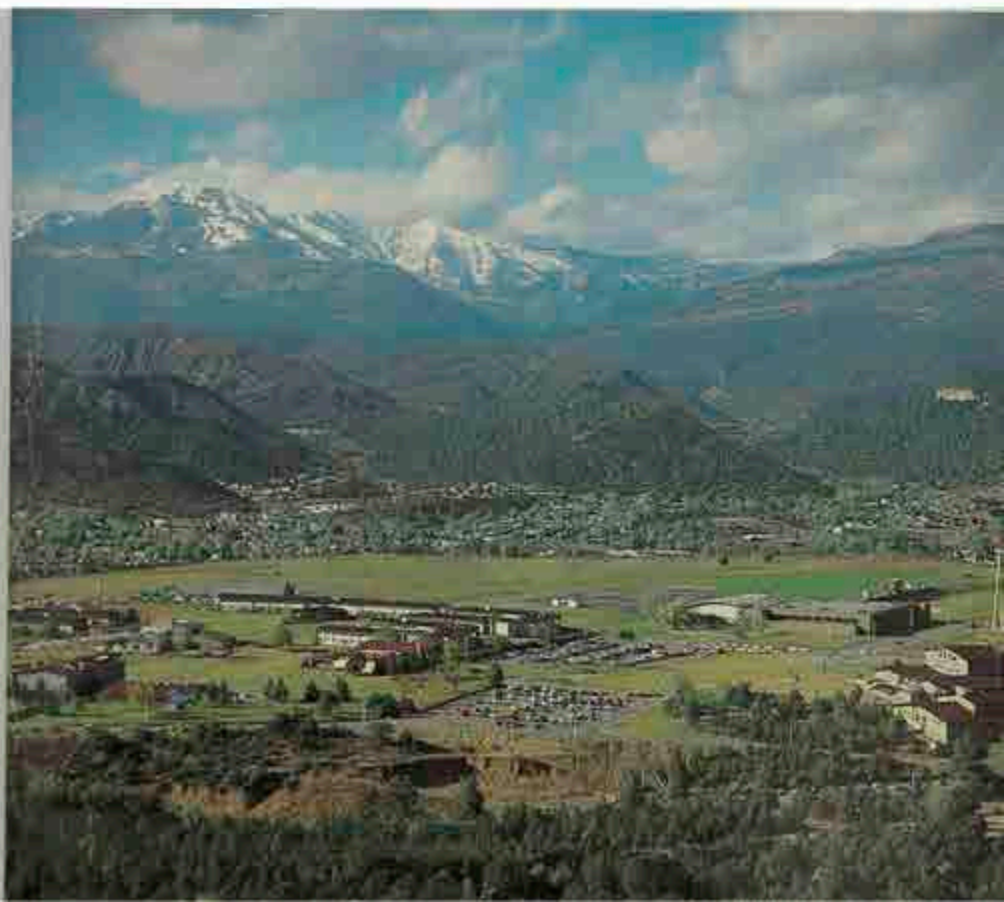


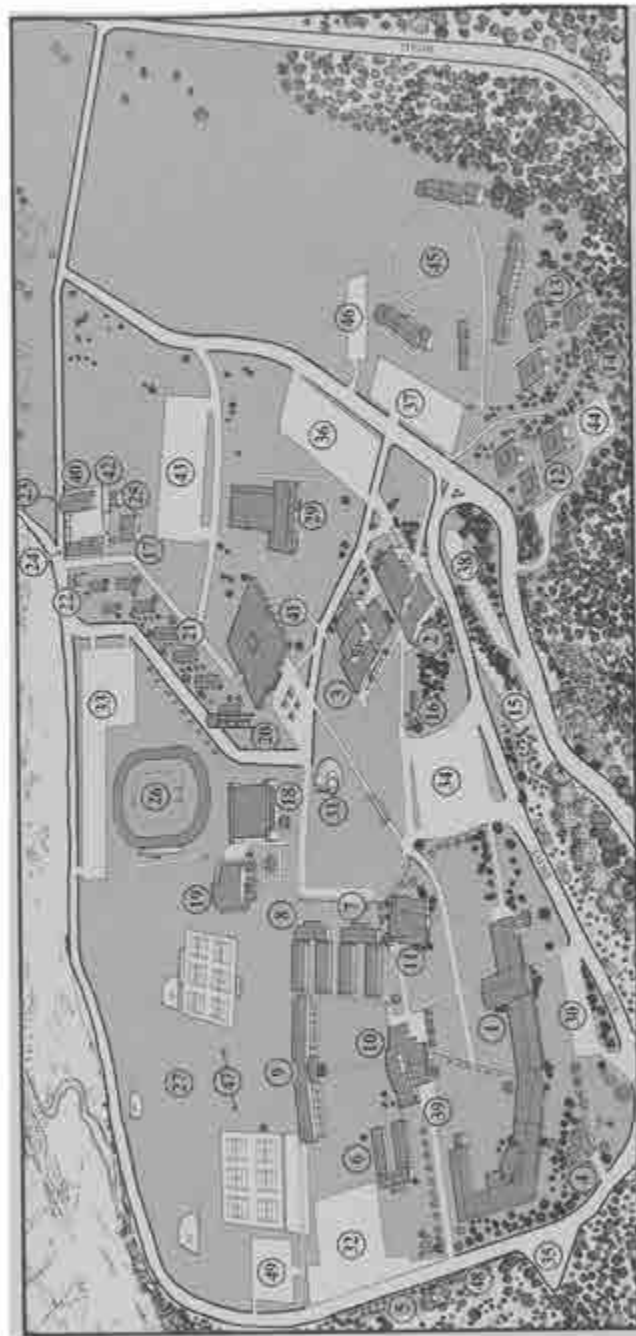


# FORT LEWIS COLLEGE

DURANGO, COLORADO

CATALOG 1983-85





#### CAMPUS BUILDINGS

- 1 Administration/Main Academic Building
- 2 College Union
- 3 Library
- 4 Admissions Center
- 5 Chapel
- 6 Ecclesiter/Palmer Halls
- 7 Camp/Snyder Halls
- 8 Crotton/Mears Halls
- 9 Cooper Hall
- 10 Raman A. Miller Student Center
- 11 Theatre

- 15 Buddy Stop
- 16 Health Center
- 17 3-Dimensional Building
- 18 Gymnasium
- 19 Natatorium
- 20 Water Tower
- 21 North Complex Housing
- 22 Archaeology Field Lab
- 23 Physical Plant
- 24 Supply and Receiving
- 25 Warehouse
- 26 DeWison Memorial Stadium
- 27 Outdoor Recreational Area

- 31 Amphitheatre
- 32 Parking Lot C
- 33 Parking Lot D
- 34 Parking Lot G
- 35 Parking Lot I
- 36 Parking Lot L
- 37 Parking Lot M
- 38 Parking Lot F
- 39 Parking Lot H
- 40 Parking Lot J
- 41 Classroom Building
- 42 State Forest Service Complex
- 43 Parking Lot H

- 47 Tennis Courts
- 48 Nature Trail Head
- 49 Parking Lot S

#### IMPORTANT OFFICES LOCATIONS

- Admissions 4
- Business Office 1
- Cashiers 1
- Financial Aid 10
- Housing 10
- President 1



# FORT LEWIS COLLEGE

DURANGO, COLORADO 81301

## CATALOG FOR THE 1983-1985 ACADEMIC YEARS

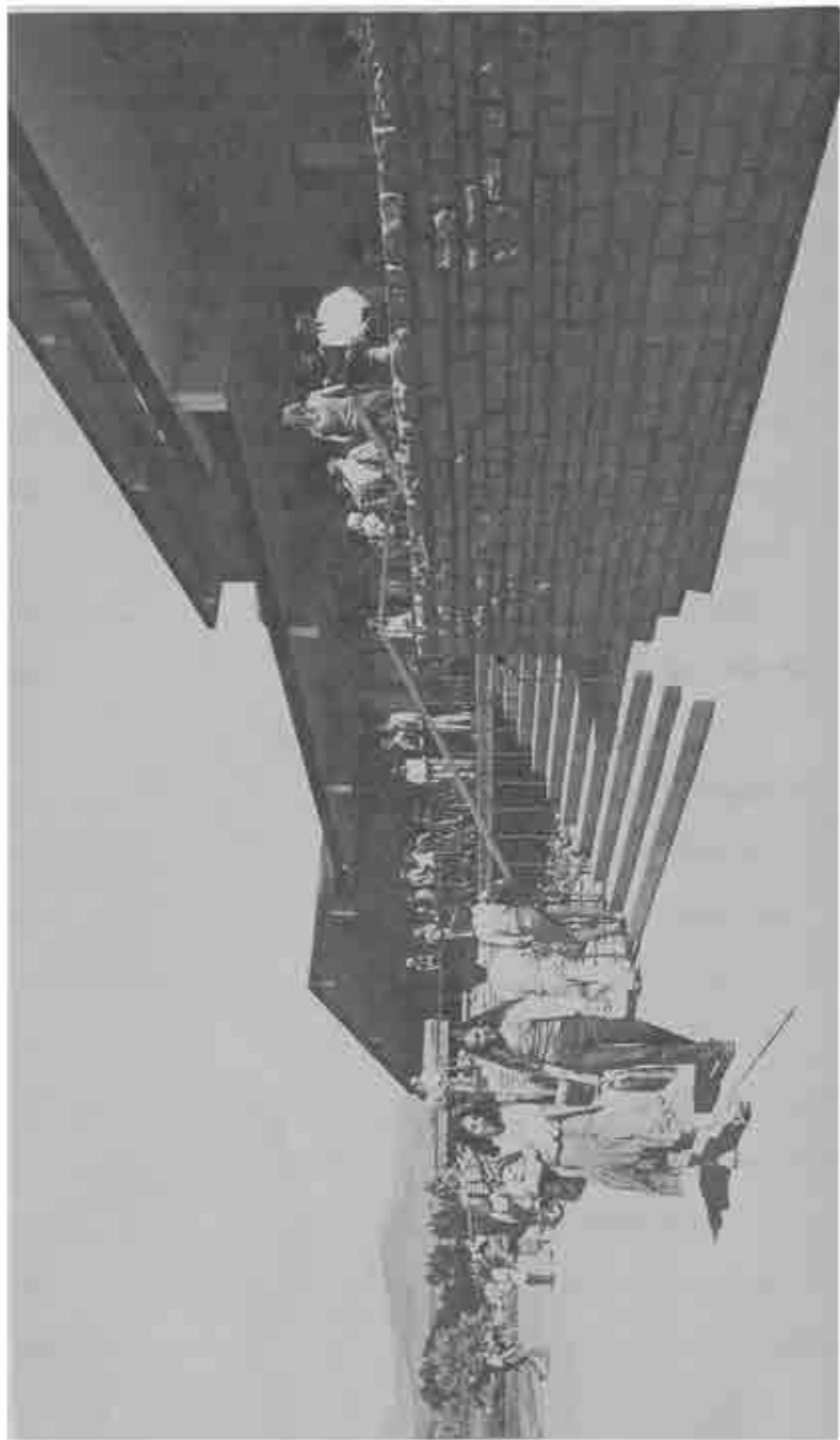
Course offerings and requirements at all Colleges vary with time and demand. The administration of Fort Lewis College reserves the right to alter course listings as necessary without notice.

Discrimination on the grounds of race, color, religion, sex, handicap, or national origin is contrary to the purposes and policies of Fort Lewis College and violates the spirit and intent of both state and national Civil Rights and handicap laws.



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# The College

## GENERAL DESCRIPTION

Fort Lewis College is a State-supported undergraduate college offering a broad spectrum of liberal arts based programs. It is accredited by the North Central Association of Colleges and Secondary Schools. The College has been given by its governing body, The State Board of Agriculture, the task of developing a program at least equal to the outstanding undergraduate institutions in the nation.

A steady pattern of growth during the past decade, both in enrollment and financial resources, is a measure of the successful way in which the College has met the challenge of its governing board. In 1962, for example, the College enrolled 720 students; in 1982 the enrollment exceeded 3500. The long-range plan of the College has established a pattern of controlled growth until a maximum of 4000 students is reached.

The College, originally located 16 miles southwest of Durango, moved to its present location in 1956. All of the College buildings were constructed at that time or later.

A library-classroom building and six new residence halls were opened for use in 1967. A new College Union building and a life science addition to the Academic Building were completed in 1968 and 1969. A new physical education building and a new humanities-fine arts structure were opened in 1971. In addition to these new buildings, the College functions in the Academic Building (classrooms, laboratories, and administrative offices), the Theatre-Classroom Building, the Gymnasium, Miller Student Center, the Health Center, the Chapel, thirteen residence halls, Centennial Apartments and the North Complex living quarters.

A Natatorium was completed in 1975. A new complex of playing fields and a new classroom building were opened in 1976. The new Centennial Apartments were opened in the fall of 1978.

The College has a faculty of over 150 persons who are all, along with the administrative staff, dedicated to providing for each student the best possible teaching and the best possible learning environment. Sixty-nine percent of the faculty have earned doctoral degrees.

At Fort Lewis College the needs of the individual student are always the primary concern. To satisfy this concern, the College offers a relatively large variety of programs, yet all are based on the liberal arts tradition.

## **EDUCATIONAL GOALS**

So it is that the various curricula are designed to provide a broad cultural background that includes a critical awareness of the human heritage, of the challenging requirements and opportunities of the present and the future, and of the complexities and possibilities of the human mind and personality. From this, the College believes that the student will learn how to identify and make use of his or her unique abilities and training.

In this context, the College recognizes the primary importance of, and provides wide opportunities for preparation for a career whether it be in the arts, in business, in education, in the sciences, or in any of the many ways in which a student may desire to serve mankind and self.

The goals are broadly the same, although individual results are often quite different, for each student whether he or she represents the dominant sectors of the culture or the minority segments. Philosophically, historically, and by virtue of its location, Fort Lewis College has, therefore, a clear responsibility to develop the best possible undergraduate education for all students including the American Indians and the Spanish-Americans.

## **CALENDAR**

Fort Lewis College operates on a modified trimester plan. The fall and winter trimesters are each approximately 15 weeks in length. The third trimester is also 15 weeks long, but it is divided into three 5-week sessions.

The fall trimester begins early in September and ends in mid-December; the winter trimester begins in January and ends in late April. The summer sessions extend from about the first of May through mid-August.

Students who choose to attend all three trimesters can graduate in two and two-thirds calendar years. Those who attend only during the winter and fall trimesters graduate in the traditional four years and often find the long summer a valuable time for gainful employment as well as a pleasant vacation period.

## **ACCREDITATION**

The College is accredited by the North Central Association of Colleges and Secondary Schools. In addition, the School of Business Administration is accredited by the American Assembly of Collegiate Schools of Business. The School of Education is accredited by the National Council for the Accreditation of Teacher Education. Accreditation by NCATE provides for reciprocal teacher certification in 31 states. The Chemistry Department offers a Bachelor of Science degree which is accredited by the American Chemical Society.

## SUMMER SESSIONS

The summer sessions at Fort Lewis College offer a rich variety of courses from the regular curriculum for the student who wishes to graduate in less than four years.

In addition, a wide choice of special, innovative courses are provided for those seeking new approaches to learning. Typically these special projects are full-time courses carrying six semester credit hours in which students and instructors concentrate on only one course. More often than not the courses are conducted off campus in non-traditional settings. In the past the projects have ranged from a geology field camp to creative writing in a wilderness situation to an archaeological "dig" to four weeks in Denver studying the management process in metropolitan business firms to a month in the mountains learning the techniques of wilderness living.







# Admission

Fort Lewis College selects for admission those applicants who appear to be best qualified to benefit from and contribute to the educational environment of the College.

Students may apply for admission to Fort Lewis College any time after completion of their junior year of high school. An application should be submitted as early as possible and at least one month prior to registration. The required application form usually will be available at the office of any Colorado High School counselor. It can always be obtained from the Office of Admissions, Fort Lewis College.

A student desiring on-campus housing should apply early. A student must first be accepted before he or she may apply for on-campus housing.

## FRESHMAN

A high school student should:

Obtain an application blank from the high school counselor or from Fort Lewis College.

Fill out the application for admission and mail it with the \$10 application fee to the Admissions Office. Request the high school principal or counselor to send an official transcript. (This transcript is to be forwarded directly to the College.)

Take the *American College Test (ACT)* or *Scholastic Aptitude Test (SAT)* and have the results sent to Fort Lewis College. It is suggested that *one* of these tests be taken in the spring of the junior year of high school. Complete information regarding these tests may be secured from the high school counselor or principal, or by writing to: Registration Department, American College Testing Program, P. O. Box 414, Iowa City, IA 52240 or Registration Department, Scholastic Aptitude Test, Box 592, Princeton, NJ 08541.

The entering freshman class is selected from applicants who by their records from high school and the American College Test or Scholastic Aptitude Test results show promise of profiting from the educational opportunities offered by Fort Lewis College. The Director of Admissions and his advisers base their judgment on the high school record, the rank in class, the American College Test results as well as recommendations and other pertinent information.

Those admitted are normally high school graduates (grades 9-12) who have completed 15 acceptable secondary school units, with preference being given to students who have followed a strong

college preparatory program. Of the 15 units, at least 10 must be chosen from these academic fields: English, foreign languages, mathematics, science, and social studies and include not fewer than 3 units of English.

During the summer months Fort Lewis College conducts a freshman orientation program for new freshmen and their parents. The orientation provides an opportunity to pre-register, make new friends, and meet faculty and staff. Information regarding this special program will be mailed to all accepted freshmen during the Spring.

## **TRANSFER STUDENTS**

A college student wishing to transfer to Fort Lewis College should:

Request an application form from the Office of Admissions.

Complete the application and send it to the Admissions Office at Fort Lewis College with a \$10 application fee. This is not refundable.

Request that an official transcript be forwarded to Fort Lewis College to the attention of the Admissions Office from each college or university attended. Generally, American College Test results are not required for transfer students.

Transfer students who have completed less than one full successful academic year in college should also have a high school transcript forwarded to the Admissions Office.

Applicants with a cumulative scholastic average of "C" and honorable dismissal from other colleges and universities may be admitted at the beginning of any term. College course credits that fulfill the requirements for a degree program at Fort Lewis College will ordinarily be acceptable for transfer.

Normally a maximum of 72 semester credits or equivalent from a junior college may be applied toward a degree. Ordinarily, credit in upper-division courses from junior colleges will not be accepted as upper-level work at Fort Lewis College. Also, if a student attends a junior college after attending a senior college or university, a maximum of only 72 semester hours from all schools may be applied toward a degree. An effort will be made to bring college transfer students into the Fort Lewis College program without loss of previously earned credits.

A summer, on-going registration period is made available to allow transfer students an opportunity to pre-register for fall classes. Information regarding this special program is mailed to all accepted transfer students in the spring.

## **FORMER STUDENTS**

Former students are those who officially withdrew or who are returning to the College after an absence of more than two trimesters. Former students must petition to resume studies. If the student has attended other collegiate institutions in the interval, complete transcripts of all work taken also must be submitted. Former students may be permitted to resume studies based on their records.

Any student who has registered for classes at Fort Lewis College at *any* time in the past is considered a former student. Students in this category who have withdrawn and/or have not registered within the last two consecutive terms must Petition to Resume Studies. Students who have been under academic suspension must also Petition to Resume Studies. If the student has attended other collegiate institutions in the interval, complete transcripts of all course work taken must be submitted.

## **FOREIGN STUDENTS**

Fort Lewis College is authorized under federal law to enroll non-immigrant alien students.

In general, applicants from foreign countries are required to qualify for admission as other applicants do. A brief statement concerning the admission policies for foreign applicants may be obtained from the Office of Admissions.

## **UNCLASSIFIED STUDENTS**

Under special circumstances students are permitted to register without having been admitted formally to the College. Usually these are adults whose objectives may be realized by taking a few courses rather than by pursuing a degree. The privilege of re-registering may be withdrawn at any time when the accomplishments of a student are not deemed satisfactory. Satisfactory performance as an unclassified student may qualify one for regular admission; however, students seeking regular admission must contact the Admissions Office as to procedure for establishing regular status.

## **INDIAN STUDENTS**

Fort Lewis College as a matter of policy and in compliance with Federal Law allows Indian students as defined below, to attend the institution tuition free.

Fort Lewis College adheres to the following definition:  
"The term Indian shall include all persons of Indian descent who are members of any recognized Indian tribe now under Federal Jurisdiction, and all persons who are descendants of such mem-

bers who were, on June, 1934, residing within the present boundaries of any Indian reservation, and shall further include all persons of one-half or more Indian blood. Eskimos and other aboriginal people of Alaska shall be considered Indians . . . ." (United States Code, 1964 Edition Vol. 6, Title 25, Chapter 14, Section 479, Page 4, 897.)

Fort Lewis College will review all applications of American Indian students to determine if they qualify for the tuition waiver. If an American Indian qualifies according to an appropriate tribal certification, such student will be admitted tuition free.

## **EARLY ADMISSION**

### **FULL-TIME STUDENTS**

Fort Lewis College offers a limited program in early admission for a selected number of well qualified high school students. Under this program an outstanding scholar who has completed 14 acceptable units in high school may apply for admission as a regular freshman full-time student at Fort Lewis College.

Further information may be obtained from the Admissions Office.

### **CONCURRENT STUDENTS**

Superior high school seniors who attend a high school within commuting distance of the campus or extension classes may be admitted as part-time freshmen students in order to take one or two courses. Ordinarily such students are expected to meet early admission requirements and must have the approval of the high school administration.

Students wishing to participate in this program should obtain further information from the Admissions Office or the high school counselor.

## **COLLEGE CREDIT BY EXAMINATION**

### **ADVANCED PLACEMENT**

Fort Lewis College participates in the Advanced Placement Program of the College Entrance Examination Board. Under this plan outstanding secondary school students may take certain college-

level courses in their own high school. Satisfactory scores on an examination administered and graded by the College Board are forwarded to Fort Lewis and may serve as a basis for credit and/or advanced placement.

Anyone interested in additional information may consult his high school guidance counselor or write to the College Entrance Examination Board, Box 592, Princeton, New Jersey 08550.

## **ACT TESTS**

Superior scores on the ACT Assessment Battery also serve as a basis for credit and/or advanced placement. The decision of the College is final in awarding credit by examination. For further information contact the Office of Admissions.

## **COLLEGE LEVEL EXAMINATIONS**

Fort Lewis College has adopted a policy whereby up to a maximum of 24 credits may be granted on the basis of appropriate scores on The General Examinations of The College Level Examination Program.

Students who obtain at least a standard score of 500 or the 50th percentile in natural sciences, humanities, social sciences, history, and mathematics will receive six semester credits for each examination provided the following stipulations are met:

1. The examinations must be taken prior to the end of student's first year at college.
2. No credit will be granted if college course work has been taken that covers much of the areas covered by the examinations.

Fort Lewis College also grants additional credits on the basis of appropriate results of The Subject Matter Examinations of the College Level Examination Program. Further information may be obtained from the Records Office or from C.L.E.P., Box 1821, Princeton, N.J. 08540.

## **VETERAN STUDENTS**

Fort Lewis College is authorized by the state approving agency according to federal law for the training of students receiving benefits through the Veterans Administration.

**ANY QUESTIONS ABOUT ADMISSION  
NOT ANSWERED HERE SHOULD BE  
ADDRESSED TO:  
OFFICE OF ADMISSIONS AND DEVELOPMENT  
FORT LEWIS COLLEGE  
DURANGO, COLORADO 81301  
Phone 303-247-7184**





## Costs

Costs for students attending Fort Lewis College will vary in accordance with the number of trimesters they attend. Specific costs are published annually in the Tuition and Fee Schedule for the academic year and in the Tuition and Fee Schedule for the spring trimester. For details, please consult the proper Tuition and Fee Schedule.

A student, by the act of registration, automatically incurs an obligation to the College. This obligation must be satisfied by payment to the College. Students who take 9-18 credits during either the fall or winter trimesters are charged full tuition and fees. Students who take more than 18 credits are assessed an additional surcharge.

Personal expenses, such as clothing, travel, social activities, books and supplies will depend upon the individual and are in addition to the scheduled expenses. The State Board of Agriculture, governing body for Fort Lewis College, reserves the right to change any fee at any time without formal notice whenever conditions warrant such change.

**PAYMENT OF FEES.** All charges including tuition, room and board are due and payable at the time of registration. Only under certain circumstances will request for delayed payment of any charge be considered.

**DELINQUENT ACCOUNTS.** "The College will not register a student, nor provide a transcript to any student or former student with a past due financial obligation to the College."

**REFUND OF TUITION AND FEES.** (See Class Schedule for each term for the census date described below). A student withdrawing from college by the specified census date may obtain a 90% refund of tuition and refundable student fees only. No refund will be made after the specified census date. A student dismissed or suspended from college as a result of official college action will automatically forfeit all tuition and fees. The Student Union Fee is non-refundable.

**CHANGES IN REGISTRATION — NOT WITHDRAWAL FROM COLLEGE.** The period from the official registration day to the census date is designated in the registration procedures each term when a student is permitted to change registration by adding courses or by dropping courses with no grade records. A student's tuition and fees will be adjusted according to the net number of credits for which the student is registered on the final date for adding courses. When an exception is made because of special circumstances and the net credits are increased by a



class being added, the appropriate charge will be assessed. No adjustment will be made for decreasing the number of credits by dropping classes subsequent to the above period. A drop slip may not be used to withdraw from college.

## **CLASSIFICATION FOR TUITION PURPOSES**

Every student, when admitted to Fort Lewis College, is classified as either an in-state or an out-of-state student for tuition purposes according to the provisions of Title 23, Article 7, Colorado Revised Statutes, 1973, as amended (The Tuition Classification Statute). Additional information is available in the Records Office, Room 240, Academic Building.

The tuition classification of every student is stated on the Permit to Register when admitted to Fort Lewis College. The classification continues while attending Fort Lewis College unless the procedure stated below is followed.

Any student has the right to challenge his or her tuition classification by obtaining a *Petition for In-State Tuition Classification* from the Records Office, completing it, and returning the petition with the required documentation to the Records Office on or before the last date for adding classes (census date) in the term in which a change of classification is requested.

## **RESIDENCE HALL RESERVATIONS**

Rooms in residence halls are reserved, if space is available, upon receipt of a signed contract and a \$50 security deposit. The \$50 security deposit will reserve accommodations for the Fall and Winter Trimester of each academic year, 8 months, or the remaining portion thereof if the entering date occurs after the opening date of the Fall Trimester. The \$50 security deposit will be returned approximately sixty (60) days after the close of the Winter Trimester less any damages and/or obligations owing to the College.

**CENTENNIAL APARTMENTS RESERVATION.** Apartments in the Centennial Complex are reserved on a space available basis upon receipt of a \$100 security deposit and a signed contract. The \$100 security deposit will reserve accommodations for the Fall and Winter Trimesters of each academic year, eight months or the remaining portion thereof, if the entering date occurs after the opening date of the Fall Trimester. The \$100 security deposit will be returned approximately sixty (60) days after the close of the Winter Trimester less any damages or obligations owing the College.

Residents remaining in the Centennial Complex during official college vacation will be permitted to remain in their units pro-

vided they will be continuing residence during the 8 month contract period. Residents terminating occupancy at the end of the Fall or Winter trimester must vacate residency prior to the last calendar date of the particular trimester.

For those students reserving space for only the Winter Trimester, a security deposit is required and students will receive their refund according to the above policy procedure.

## REFUND OF ROOM CHARGES

Refunds of room or apartment payments for withdrawals from the residence halls for other than disciplinary action will be based on the following schedule:

During or Before End of the First Week	Forfeiture of Security Deposit
During or Before End of the Second Week	50% Refund
During or After Third Week	No Refund

## REFUND OF BOARD CHARGES

Refund of Board charges upon receipt of appropriately approved withdrawal notices for reasons other than disciplinary action will be based on the following schedule:

During or Before End of First Week*	\$25.00 Charge
Beginning of the Second Week* and Continuing Until the End of the Term	\$25.00 Charge — Plus pro rata charge for all meals taken from the beginning of the second week.

\*Billing weeks are from Wednesday to Tuesday.



# Student Services

To foster the academic, cultural, and personal development of each student, Fort Lewis College provides the best possible social and physical environment. The Office of the Vice President of Student Affairs is responsible for the coordination of the various activities needed to achieve this purpose.

## HOUSING

The thirteen residence halls and the Centennial Apartments at Fort Lewis College provide many students with an excellent physical environment. The College provides housing for approximately one-third of the student enrollment.

All residence halls are financed in such a manner that they are paid for by the students who occupy them. Because the College has a considerable financial investment in these facilities, it is necessary to manage them efficiently under the terms of a policy established by the State Board of Agriculture that assures a level of occupancy enabling Fort Lewis College to meet its financial obligation.

All new applicants for campus housing are assigned according to date of application. Students who are not accommodated on campus will be assisted in finding off-campus housing.

After a term in on-campus housing and having proven themselves to be mature, responsible residents, students who wish housing for the next academic year must make application and pay a security deposit by a specified date. He or she is then eligible to request a roommate and room from those available. Detailed information regarding this procedure will be available in the Housing Office.

It is the student's responsibility to make proper application for housing upon receipt of the permit to register or acceptance by the College. The appropriate deposit must accompany the housing application. If a space is available, the student will be sent a Housing Agreement which will assure on-campus accommodations if signed and returned to the Housing Office within the specified time. The Housing Agreement is for the Fall and Winter Trimesters of an academic year.

Fort Lewis College may be characterized as somewhat conservative or traditional in its approach to residence hall living policies. Resident students are issued a key which permits them to gain entrance to their residence hall and room. Residents are expected to live by the rules and regulations as outlined in their Housing Agreement, Guide to Residence Living and Student Handbook.

Each residence complex is staffed by a Complex Coordinator, Head Resident and Student Assistants. It is their responsibility to promote a living environment conducive to study and pleasant living. They are there as added resources for the student as he adjusts to collegiate living at Fort Lewis College. The Student Services Staff also attempts to stimulate supplementary social activities to aid in the personal growth and development of the individual. All living is a learning experience; the Fort Lewis College residence hall program is predicated on this principle, carried out in an educationally directed manner, and dedicated to providing safe, healthy, relaxed places for all students to sleep and study. Fort Lewis College does not believe that such principles are best served through elaborate facilities or completely open facilities.

The RESIDENCE HALL ASSOCIATION (RHA) includes all students, both male and female living on campus. Each of the thirteen residence halls has a council of officers who coordinate the hall activities.

Students admitted to Fort Lewis College should realize they are expected to follow the housing policies as a condition of their admission to the College.

## **OFF-CAMPUS HOUSING**

The Fort Lewis College Off-Campus Housing Service is located in the College Union Building and is designed to help students deal with the details concerning off-campus housing. The service maintains lists of rooms, houses, apartments, and mobile homes for rent and of persons looking for roommates. In addition, the service provides information pertinent to off-campus housing—maps, newspaper want ads, general housing data, information on Durango's Housing codes and Zoning Ordinances.

## **Counseling and Student Development**

The focus of the Counseling and Student Development Center is primarily for academic support. The Center offers programs designed to help students acquire those life skills which are not necessarily included in regular curricular programs. It operates on the philosophy that a student's personal growth is as important as his or her intellectual development.

The Counseling and Student Development Center's Staff provides confidential, professional counseling individually and in small groups. The Staff also offers a variety of workshops on personal, career, and educational topics as interest and need dictate.

Personal counseling is intended only to assist the students in solving their problems of a short-term nature. The Counseling Center Staff does not offer long-term or intensive psychological treatment. Should a student's situation be life threatening or the problem require intensive, long-term psychiatric aid, the Center will assist the student in making the proper referral and obtaining follow-up services.

In addition to providing personal counseling, the Center offers services to students needing assistance with career and life planning decisions. The Center utilizes a computerized career information system which provides rapid access to occupational information and graduate and professional schools. The Center also provides support and information for students withdrawing or contemplating termination of their studies at Fort Lewis College.

Finally, the Counseling and Student Development Center Staff views student development as a cooperative effort among Faculty Advisors and other Student Affairs staff. Students are referred to these individuals when circumstances warrant; information is exchanged when students request it and within the limits of confidentiality.

## **CAREER AND LIFE PLANNING PROGRAM**

The Career and Life Planning Program is a major component of the Counseling and Student Development Center. Its major function is to provide career counseling services to students. Career Counseling includes assistance with choosing a major, exploring career alternatives, preparing a resume and planning for job interviews. The Center has an extensive collection of career resource materials including a computer-based career information system and graduate and professional opportunities.

Concomitant with the Career Counseling Services, the staff works in cooperation with the Office of Career Services and the Cooperative Education Department to increase the likelihood of student success in meeting individual, personal and career goals.

## **LEARNING SKILLS PROGRAM**

Most students during their college careers need help in achieving their educational goals. The Learning Assistance Center exists to provide additional academic support to meet these goals. This support is supplied in a number of different forms.

Courses sponsored by the Center offer students the opportunity to improve their basic skills in writing, reading and mathematics. In addition, the Learning Skills classes assist entering freshmen quickly to develop their time management, note taking, concentration and test-taking skills. The Center also provides a peer

tutorial program. A student wishing aid in any subject needs only to come to the Learning Assistance Center to be assigned a free tutor. Those who wish to be tutors receive elective credit.

In order to select appropriate curricula, students may benefit from diagnostic tests in reading, writing and/or mathematics. The Center's personnel can evaluate the examination results and recommend courses or individual student programs. Furthermore, the staff of the Center is prepared to offer non-credit, mini-courses and workshops to help students overcome academic difficulties. Other available resources in the Learning Assistance Center range from computerized review programs to course outline texts to handouts.

## **HEALTH SERVICES**

The Student Health Center is an out-patient treatment center located near the center of the campus and residence halls. A nurse practitioner is on duty during the daytime hours. A college physician sees students during hours posted at the Student Health Center. One of the college physicians is on call evenings, weekends and holidays.

The Student Health Center provides general medical care and minor surgical procedures. All medical records are confidential. No release of information is possible without the written consent of the individual involved except in cases of public health matters in which certain reports of contagion may be required by public health officials.

In addition to college-provided services, accident and sickness (hospitalization) insurance is available to students and dependents through an independent carrier. A student group health program may be purchased during registration at the beginning of each trimester.

No pre-entrance physical examination is required. A complete physical evaluation will be performed by the Health Center nurse practitioner or medical doctor for participation in intercollegiate athletic programs.

In the case of a serious, chronic illness or medical problem, the attending physician should provide a detailed statement to Robert C. Pivonka, M.D., Health Center, Fort Lewis College.

## STUDENT FINANCIAL AID

Fort Lewis College offers a complete student financial aid program of scholarships, grants, loans and student employment.

### *Federally Funded Programs*

1. Pell Grant
2. National Direct Student Loan (NDSL)
3. Supplemental Educational Opportunity Grant (SEOG)
4. College Work-Study (CWS)
5. Colorado Guaranteed Student Loan (CGSL)

### *State Funded Programs*

1. Colorado Student Grant (CSG)
2. Colorado Scholars Program
  - a. Presidential Scholarship (entering Freshmen only)
  - b. Continuing Student Scholarship (Post-Freshmen students only)
3. Athletic Scholarship (Men and Women)
4. Colorado Work-Study Program
5. Colorado Student Incentive Grant (CSIG)

All financial aid awards, with the exception of Athletic Scholarships, Presidential Scholarships and Continuing Student Scholarships, are based on financial need.

Every effort is made to provide the best type of aid or combination of aid to assist students in completing a college education.

All financial aid awards are contingent upon availability of funds.

### *Scholarships*

A number of scholarships are available. Eligibility and selection criteria varies depending on donor instructions. Additional information may be secured from the Office of Financial Aid.

## APPLICATION PROCEDURE

All students wishing to be considered for student financial aid must apply for a Pell Grant and campus-based financial aid by using the ACT-Family Financial Statement (ACT-FFS). Students wanting to apply for Federal Student Aid *only* may fill out the Application for Federal Student Aid Programs.

The appropriate Financial Aid application may be secured from your high school counselor or by request from the Office of Student Financial Aid, Fort Lewis College, Durango, Colorado 81301.

Applications for student aid are to be completed by May 1, for complete consideration for the academic year and March 1, for summer school aid.

Applications for the Colorado Guaranteed Student Loan Program may be obtained from a lender (bank, credit union or savings and loan association) who participates in the program. The loan application must then be processed by the Office of Financial Aid and returned to the lender for loan consideration and approval.

Complete consumer information relevant to all student services programs is available upon request. Requests for information should be directed to the appropriate office.

## **CAREER SERVICES**

Fort Lewis College has a full-time Office of Career Services. In addition to the Career Services staff, career counseling is available from faculty members and the career counselor in the Counseling and Student Development Center.

The Office of Career Services works closely with the career counselor, faculty members, and the Cooperative Education Program.

The Office of Career Services arranges interviews for students with a wide variety of employers in business, education, and government.

The Office of Career Services maintains personal credential files for Fort Lewis seniors and graduates on an ongoing basis. These files are made available to prospective employers when requested by the student or graduate.

The Office of Career Services posts an extensive listing of job vacancies nationwide. The Career display area also includes a resource area with numerous books and publications on career planning and job openings.

It is suggested that students register with the Office of Career Services upon completion of their junior year. Students are encouraged to consult the publications in the career resource area beginning as early as their freshman year.

The Office of Career Services also tries to assist students in securing summer jobs as well as part-time positions during the school year.

## **ALUMNI ASSOCIATION**

The Alumni Association of Fort Lewis College is increasingly active as both a service organization and as a means of helping former students enjoy the nostalgia of their college days.



Regular newsletters are always produced with news of classmates, activities, and projects that help the college. Among these are sponsorship of recruiting, social functions and athletic events, placement assistance, and financial support. Correct addresses and current news of all former students are needed for a more complete and inclusive letter. Please drop us a line if you are an alumnus or have news of our former students.

## **COLLEGE UNION BUILDING (CUB)**

The Fort Lewis College Union Building is located on the southeast corner of the campus. It is the central meeting area for students and offers lounges, meeting rooms, dining room, snack bar, and large ballroom. The Student Government and Court Offices are located in this building as are the offices of Public Information, Student Activities, and Food Service. Also located in the building are the Bookstore, Independent Newspaper, KDUR Radio Station, Outdoor Pursuits, and the PUB.

## **BOOKSTORE**

The campus bookstore, called The Sutler's Shop, is located in the basement of the College Union Building. In addition to all textbooks and supplies for all classes, the bookstore sells candies, tobaccos, jewelry, greeting cards, stationery, Fort Lewis jackets and shirts, magazines, toiletries, and various other sundries. The bookstore is designed to serve the students' needs, especially those who live on campus. The hours are 8 a.m. to 5 p.m., Monday through Friday.

## **MAIL SERVICE**

A post office is maintained in the College Union Building for the convenience of the students. Students living on campus have their mail delivered to the residence halls. **STUDENTS LIVING OFF CAMPUS SHOULD OBTAIN A POSTAL BOX AT THE COLLEGE POST OFFICE UNLESS THEIR PERMANENT ADDRESS IS DURANGO.**

## **MOTOR VEHICLES**

Students are permitted to have their cars on campus. Freshmen often find that the ready availability of a car has been a contributing factor to a poor academic record. The Vice President of Student Affairs may have the use of an automobile restricted if excessive use appears to be resulting in poor grades or other misuse.

Students and all Fort Lewis College personnel must register and pay the scheduled fees for all automobiles during the official registration period. Campus traffic and parking regulations are distributed at the time of registration.

Currently the registration fee is \$12. Students using campus parking lots are assessed this fee to pay for the construction and maintenance of parking lots, since it is the policy of the State of Colorado not to build parking lots with state funds. All parking sticker permits are pro-rated at \$1.00 per month from the time of the student's first registration until August 31 of the academic year.

Special decals may be issued to students or college personnel who have disabling handicaps.

## **ATHLETICS AND RECREATION**

Fort Lewis College has a comprehensive men's and women's intercollegiate athletic program. The College sponsors men's teams in the following sports: football, basketball, wrestling, swimming, golf, and tennis. The Women's Intercollegiate program includes College-sponsored teams in volleyball, basketball, swimming, and tennis. All Raider teams compete against four-year colleges in the Rocky Mountain and Southwestern areas. Facilities include 12 tennis courts, a gymnasium, football stadium, 440-yard track, a weight room, and a swimming pool. Located adjacent to the campus are the municipal golf course and a ski hill. Fort Lewis is a member of the Rocky Mountain Athletic Conference, National Association of Intercollegiate Athletics, the National Collegiate Athletic Association, Intermountain Association for Intercollegiate Athletics for Women, and the National Association for Intercollegiate Athletics for Women.

An excellent intramural and recreation program is offered at Fort Lewis College. Opportunities for competition are provided in basketball, volleyball, softball, wrestling, tennis and table tennis, bowling, archery and swimming.

The physical education facilities are also available to students evenings and weekends for informal recreation activities such as swimming, basketball, weight training, volleyball, archery, and gymnastics.

# Student Life

## ASSOCIATED STUDENTS OF FORT LEWIS COLLEGE (ASFLC)

The Student Senate of Fort Lewis College is the central agency for student policy, planning, coordinating, and budgeting for all student organizations. The Senate consists of fifteen senators elected at large by the student body. One-half of the senate members are elected each trimester for terms of one year. Many of the diverse responsibilities of the Student Senate are delegated to various standing committees and numerous temporary committees.

The largest committee in scope and membership is the Student Activities Council (STAC). The Student Activities Council formulates policies for the operation of the College Union. Events and programs sponsored by STAC are planned through the following committees: Concert, Cultural, Dance, Lecture, Movie, PUB, and Special Events. The Board is chaired by the Activities Vice President. Interested students may become Board members, committee chairpersons, or members of STAC. The Director of Student Activities is a non-voting member of the Board.

The executive branch of the student government at Fort Lewis College is unique in Colorado colleges because it consists of a Student Body President, Executive Vice President, an Activities Vice President and the Student Court.

The Student Body President coordinates the efforts of the legislative and executive branches and provides communication between the faculty, administration, and students.

The Executive Vice President chairs the Senate meeting and is responsible for preparing the agenda.

The Student Court is counsel to the Executive Vice President and Senate regarding all actions taken within the ASFLC Constitution. It interprets the Constitution and provides adjudication of on-campus parking and traffic violations and student affairs that cannot be settled elsewhere by a petition for a decision.

## CAMPUS BROADCASTING

KDUR is a non-commercial, educational, radio station run entirely by the students of the College. The station began broadcasting in the spring of 1975, and has become one of the school's fastest growing sources of communication. KDUR not only serves the student body, faculty and staff of Fort Lewis College but also the community of Durango.

## STUDENT NEWSPAPER

The Fort Lewis College *Independent* is the student newspaper, edited and staffed by students. Usually it contains 12 pages and comes out weekly on Friday mornings.

Any student is welcome to work on the staff. Writers, photographers, cartoonists, layout persons, ad salespersons, bookkeepers, editors and artists always are in demand.

The paper is governed by a committee made up of students and faculty members which serves in an advisory capacity.

## OUTDOOR PURSUITS

The Outdoor Pursuits program provides students with the opportunity to experience the mountain and desert lands adjacent to Durango. The program offers trips nearly every weekend with activities ranging from hiking to rock climbing, cross country skiing to river rafting and more. In addition, students may check out equipment free of charge, utilize the program's library of maps, books and magazines and benefit from workshops sponsored by the program. Outdoor Pursuits is an excellent way to meet people and enjoy the College's unique geographical location.

## STUDENT CONDUCT CODE

Fort Lewis College believes that learning and day-to-day living cannot be separated, but go hand-in-hand. Therefore, student behavior which threatens the individual or the community will not be tolerated. For these reasons and for their own human and social value, high standards of personal conduct are expected of students both on and off-campus. Any student who is unwilling or unable to meet these standards may be asked to leave the College. There are rules and regulations published in the Student Handbook concerning student conduct. The College relies on good taste and maturity of college students and on their assumption of full adult responsibility for the consequences of their behavior.

Fort Lewis College acknowledges the fact that most students recognize the importance of self-discipline and the expectations of a mature citizen in the College community. However, the complexity of College regulations frequently confuses those students who are unfamiliar with existing rules and regulations. For this reason it is necessary to point out that a demonstrated sense of responsibility and conformity to high standards of behavior in accordance with College, City, State, and Federal regulations is expected of all students.

Any student of Fort Lewis College, who by his or her conduct in the residence halls, cafeteria, classroom, or elsewhere on or off-

campus demonstrates a lack of regard for the established standards by which respected citizens of the community live, will be referred to appropriate officials for such corrective action as is deemed necessary.

The Fort Lewis College Student Handbook, which is published annually, includes information on college policies, rules and regulations, and information on campus organizations, offices and services. The Student Conduct Code is published and available. It is the responsibility of the student to be familiar with and abide by the Student Conduct Code.

## **DISCIPLINARY ACTION**

The Vice President of Student Affairs is officially charged with encouraging and promoting high standards of conduct by all students. Through his own initiative, or through referrals made by members of the faculty, staff, or others, he or his delegate considers all cases of misconduct. To ensure due process, appeals for cases of an especially serious nature may be made to the appropriate committee for reconsideration.

Should major disciplinary action be necessary, it will take one of the following forms:

In addition to other penalties, disciplinary agencies may give a **WARNING** for minor infractions. These warnings are cumulative and are considered official College actions. When a student has completed his academic program, his previous warnings are null and void.

**PROBATION** is a middle status between good standing and suspension or dismissal. The student remains enrolled but under stated conditions according to College policies. Probation covers a stated trial period during which it is determined whether the student is returned to good standing, having met the stated requirements, or dismissed or suspended at the end of the probation period for failure to meet the stated requirements.

**SUSPENSION** is an involuntary separation of the student from the College, but it differs from dismissal in that it implies and states a time limit when return may be possible. Thus suspension may extend for one trimester or until a specified date or a stated condition is met.

Involuntary separation of the student from the College is implied by the term **DISMISSAL**. It may not be a permanent separation but neither is a definite time set when return may be expected. Terms having the same meaning which seem less commonly used and which could be replaced by dismissal are involuntary withdrawal, requested withdrawal, disqualification, expelled, or expulsion.

## **POLICIES**

### **PEACEFUL ASSEMBLY**

The policy on demonstrations is really a reaffirmation of the commitment of the College to the principles of a democratic society in which each individual is entitled to the rights and privileges guaranteed him by the Constitution of the United States, including the right to peaceful assembly and that of free speech.

The primary purpose of Fort Lewis College is to provide facilities for obtaining an education for its students. Any peaceful demonstration by groups exercising the right of peaceful assembly and free speech will receive the full protection of any and all administrative personnel and staff. Any student who attempts to interfere with the exercise of these rights will be subject to College disciplinary action. Conversely, if an individual participating in a demonstration impedes the freedom of movement of other individuals, or if he in any way obstructs the normal use of a building or other facility, or interferes with the normal academic processes of the College, then he too will be subject to College discipline. It is important to understand that speech and behavior are distinctly separable.

All students at all times are expected to behave in accordance with the Student Code which calls for a high standard of personal behavior governed by good taste and maturity. This code warns that any student behavior which threatens the individual, the community, or property will not be tolerated.

### **GUNS AND WEAPONS**

Unlawful or unauthorized use, possession or storage of guns, ammunition or other lethal or dangerous weapons, explosive substances, or chemicals is expressly prohibited on the FLC Campus. Because of accidents that have occurred, and the failure of students to comply with the policy on storage of guns on campus, this regulation is deemed necessary. Students are reminded that it is also against school policy to store guns in their cars.

### **IDENTIFICATION CARDS**

Validated identification cards are required of all students. They are important in helping a student establish his identification for all financial transactions, and for admission to many campus events and facilities. It should be carried and presented when requested by college officials.

# **The Academic Programs**

## **THE DEGREES**

Fort Lewis College offers a number of programs leading to the bachelor's degree. The Bachelor of Science is offered in Biology, Chemistry, Geology, and Physical Sciences; the Bachelor of Arts is granted in all other four-year programs. In addition, the College offers a program leading to the Associate of Arts in Secretarial Studies and one leading to an Associate of Arts in Agricultural Science.

The Fort Lewis College teacher education programs have been approved by the Colorado State Board of Education. Certification is offered in elementary education and a wide variety of secondary teaching fields.

## **THE ACADEMIC PROGRAMS**

The academic programs at Fort Lewis College are offered through the Schools of Arts and Sciences, Business Administration, Education, and the Center of Southwest Studies.

### **ARTS AND SCIENCES**

Curricula in Agriculture, Anthropology, Art, Biology, Chemistry, Computer Science, Engineering, English, Forestry, French, Geology, German, History, Latin, Mathematics, Music, Philosophy, Physics, Political Science, Sociology, Spanish, and Theatre, as well as interdisciplinary work in the Humanities and the Physical Sciences, are offered in the School of Arts and Sciences.

### **BUSINESS ADMINISTRATION**

The School of Business Administration is a professional school, offering instruction in Accounting, Business Administration, Business Education, Economics, and Secretarial Science.

### **EDUCATION**

The School of Education prepares students professionally for teaching at both the elementary and secondary levels; it also offers major fields of study in Physical Education and Psychology.

### **STUDENT CONSTRUCTED PROGRAM**

In addition, the College has established the Student-Constructed Major, whereby a student may design a major to meet a specific purpose. The major may be related to any school or include

course offerings from more than one school. Student Constructed Major contract forms and requirements are available in the Office of Academic Affairs.

Also, Fort Lewis College offers a rich variety of special programs which are available to students regardless of the specific school in which they are enrolled.

## **LIBRARY**

The Library at Fort Lewis College is truly a special instructional program. Its broadly experienced professional staff, all of whom hold graduate degrees, and its well-trained complement of technical and clerical specialists provide ready, competent service to students, faculty, and staff.

Library holdings, in addition to over 150,000 volumes of books, 8,600 reels of microfilm, 950 magazine subscriptions, and approximately 30,000 volumes of microfiche, include a wide selection of audiovisual material. The approximately 4,500 recordings, individually cataloged as a convenience to library patrons, include popular and classical music, poetry, dramatic readings and speeches. Films, filmstrips, and some 6,000 overhead projector transparencies are likewise important components of the audiovisual collection.

Individualized reference service by a professional librarian is provided during most hours of library operation, normally about eighty-one hours each week. Additionally, library orientation is a regular feature of the Freshman Seminar Program. An essential part of the orientation is instruction in the use of bibliographic tools, such as periodical indexes and abstracts and basic reference books needed in the preparation of research papers and reports.

## **CENTER OF SOUTHWEST STUDIES**

The Center of Southwest Studies is closely allied to both the Library and the instructional Schools. As a major field of study the Center provides an interdisciplinary approach to an investigation of the history and culture of the Southwest. The course work for this program is drawn mostly from Anthropology, History, and Spanish.

The holdings of the Center include books, magazines, newspapers, separates, photographs, and records of all kinds. At the present time, the materials on the American Indians are among the largest in the entire western portion of the United States. A second important collection is composed of mining, railroad, and military records. Most of the collection is housed in the Southwest Room of the Library where the materials are available to students and faculty in all disciplines and research scholars throughout the nation.



A brief visit to the Southwest Center reveals the fact that Fort Lewis College is located in a fascinating multi-cultural area where the rich traditions of the Spanish, the American Indians, and Western America are developing a new and even richer culture. Fort Lewis College, through its federally funded Intercultural Program, is a significant part of this process.

## **THE JAPAN PROGRAM**

The Japan Program was established at Fort Lewis College in 1975. The high quality of the program was fully recognized by 1976-77 when Fort Lewis College became the only small college in the United States to be awarded a full Education Abroad Grant of \$10,000 from the Japan Foundation.

The Japan Program staff organizes a group of Fort Lewis students every year to study at Fort Lewis' sister school, Kansai Gaidai University in the Kyoto-Osaka area. Students may study in Japan either fall or spring semester. Arrangements can also be made for students who wish to spend a full academic year in Japan. As of 1983 nine groups totalling over one-hundred students have studied in Japan and have lived with Japanese families.

Pre-departure academic preparation in Japanese language and culture is coordinated at Fort Lewis College through the Japan Program.

Some former Japan Program students have entered graduate school in international management and careers in international business often with the assistance of the Japan Program staff at Fort Lewis College.

The Japan Program also places Fort Lewis graduates in teaching positions in Japan and arranges visiting professorships for faculty members.

The Japan Program arranges visits to the Fort Lewis campus for Japanese groups and formal study for Japanese students. Many Japanese students enroll in the FLC Summer Intensive English Program for periods of five to fifteen weeks. An average of about twenty Japanese students are continuously enrolled at Fort Lewis as regular degree students.

The Japan Program was originally established by James K. Ash and it is currently under his direction.

## **MEXICO PROGRAM**

Fort Lewis College has approved three Study Abroad Programs in Mexico. In 1974 San Miquel Allende Program located at San Miguel Allende Guanajuato, Mexico, was established. The main purpose of this program is to develop fluency in the use of the

Spanish language and the acquisition of in-depth knowledge of the culture of the Spanish speaking people by immersion and by studying specific courses in the social sciences and the arts oriented towards this goal. The duration of this program is one trimester. In 1979 the Cemanahuac Educational Program was established at Cuernavaca Morelos, Mexico. The purpose of the program was the same as the San Miguel Allende Program except that the Cemanahuac program besides being an intensive immersion course in the Spanish language had a more extensive list of courses in the area of social science courses and required a good background in the language with at least one year of study with at least a B average. This program lasts 16 weeks. The University of Yucatan Program was established in 1979 at the same time as the Cemanahuac Program and was intended for advanced students in Spanish who would like to enroll in 14 of the professional programs offered by the University of Yucatan, such as Medicine, Architecture, Engineering, et cetera. This program requires excellent mastery of the Spanish language and students attend classes eleven months out of the year for 5, 6 or 7 years until they finish the career. All of these programs require that the student live with a Mexican family. The San Miguel Program is intended for students with one year of Spanish. The Cemanahuac Program is intended for excellent students in Spanish with at least one year of the language and preferably more. The Yucatan program is intended for students who have at least three years of language study with a B average or better and are interested in pursuing a professional career.

## **COOPERATIVE EDUCATION**

The Cooperative Education Program is designed to help students translate the theoretical systems of scholarship into patterns of work and thought that are directly useful in the broader community.

The Cooperative Education Program assists students in defining career goals and locating appropriate placements. Students work with private or government employers throughout the United States in jobs related to their career interests.

Students analyze their work experience and career goals while enrolled in Cooperative Education in the form of a daily work journal and a formal final paper at the end of the trimester. Written work is evaluated by the program director at Fort Lewis and is done in conjunction with appropriate faculty members whenever possible. Grading is on a credit (S), no-credit (NC) basis.

Cooperative Education students may be enrolled part-time or full-time depending on the nature of the job and the number of hours worked per week. Students may be in salaried positions or unsalaried internships. Cooperative Education emphasizes full-time

salaried positions whenever possible. These include formal agreements with a wide variety of federal agencies for specialized career training programs which qualify students for permanent placement upon graduation.

Cooperative Education Program credits are granted in the form of general electives. Students can earn from three to a maximum of ten credits in a single trimester under the heading of Cooperative Education 200, 300, or 400. The level and amount of credit depends on the nature of the work placement and the number of hours of weekly involvement.

Students are allowed to apply a maximum of twenty Cooperative Education elective credits to their bachelor's degree at Fort Lewis College.

Cooperative Education Program students who are based in Durango pay regular tuition and fees. Students who work outside a twenty-mile radius of the college pay regular tuition and reduced fees.

Students are normally eligible to participate in Cooperative Education after they have satisfactorily completed their freshman year and have obtained the approval of their faculty advisor.

The Cooperative Education Program at Fort Lewis College was established in 1970 which made it the first college program of its kind in Colorado. Since that time it has continued as one of the most extensive Cooperative Education Programs in the state.

## **COMPUTER CENTER**

The Fort Lewis College Computer Center is equipped with A Digital Equipment Corp. PDP-11/70 computer. The Center provides computational support for computer-oriented courses, student and faculty independent studies, and digital computer indoctrination seminars for faculty and students without charge for normal academic use; when possible, programming assistance is provided.

## **COOPERATION WITH OTHER INSTITUTIONS**

In cooperation with Colorado State University, Fort Lewis College offers growing programs in agriculture, forestry, and engineering. In these fields a student may take two years of work at Fort Lewis; if the student follows the prescribed program and maintains a 2.5 average, his work will be transferred as a block to Colorado State University at the beginning of the Junior year. In engineering, Fort Lewis also offers a 3-2 cooperative plan in which the student spends three years at Fort Lewis followed by two years at Colorado State University; at the conclusion of the program, the student receives a Fort Lewis College degree in mathematics and a degree from Colorado State University in en-

ginning. A program in Engineering in association with The Colorado School of Mines or University of New Mexico has been established. By taking a certain block of courses at Fort Lewis College in the first two years, a student can transfer to either University of New Mexico or School of Mines as a junior if all requirements are met. These programs are, of course, transferable to other schools as well as on the basis of a course-by-course evaluation.

The Department of Biology, in cooperation with accredited teaching hospitals, offers a program in medical technology.

## **CONTINUING EDUCATION**

The Continuing Education Program endeavors to fill the needs and demands of the people in the San Juan Basin.

Through night classes it can help the employed to complete courses for graduation, the interested to attain worthwhile leisure time activities, and the unemployed to equip themselves for gainful employment. Many courses are offered as an aid to teachers to meet certification requirements, or to keep up with new developments in their fields; when possible, Fort Lewis College in cooperation with other colleges and universities will attempt to make graduate courses available, both on and off-campus. Fort Lewis College will offer specialized or hobby courses in diverse fields providing sufficient interest exists. Inquiries concerning Continuing Education should be addressed to the Director of Continuing Education.



# **REQUIREMENTS FOR GRADUATION**

## **GENERAL REQUIREMENTS**

Each candidate for graduation must complete a minimum of 128 credit hours, a minimum cumulative grade-point average of 2.0, and a minimum grade-point average of 2.0 for those courses accepted to meet the requirements for his major course of study.

Each student is required to complete a minimum of 50 credits of the 128 credits required for graduation outside the discipline in which the student is majoring.

Candidates for bachelors degrees have three basic parts to their program: general studies, a major, and electives. Each candidate must complete a minimum of 41 credit hours in the general studies program to be chosen as outlined below, and 32 credit hours minimum in a field of specialization, called the major. The balance of the 128 hours required for graduation are called electives. The student has wide latitude in selecting these, although some of them may be specified in certain programs as auxiliary to the major or for teacher certification.

A student must complete his or her final 28 hours of credit in residence. Exceptions to this requirement include such programs as medical technology and engineering (3-2). Other exceptions may be made in unusual circumstances by the Vice President of Academic Affairs on recommendation of the appropriate School Dean. Among the 128 credit hours required for the degree, 40 hours must be upper-level courses. No more than 28 credit hours will be accepted for work completed by correspondence, extension, and broadcast educational television.

A course offered in substitution of a required course or the request that a requirement be waived must have the approval of the faculty adviser, the School Dean, and the Vice President of Academic Affairs.

## **PETITIONING TO GRADUATE**

In order to graduate from Fort Lewis College, each student must submit a signed Petition for Candidacy for a degree which can be obtained from the Records Office. The signed petition must be returned to the Records Office within a month after the completion of 90 credit hours for the Bachelor's degree and after the completion of 30 credit hours for the Associate of Arts degree. Also the graduation fee must be paid by that date.

## **SECOND BACHELOR'S DEGREE**

A student who for special reasons desires to secure a second bachelor's degree must complete a minimum of 28 semester

credit hours in addition to the total number of credits required for the first degree. The student is required to complete all requirements for the second degree including general graduation requirements and specific requirements for the major selected. No honors are awarded upon the receipt of a second bachelor's degree. If a student receives his first bachelor's degree from another accredited college the additional 28 semester credit hours must be in residence to fulfill the requirements for the second bachelor degree. The additional credits required for the second degree may be completed concurrently with those credits applying on the first degree and two degrees may be granted simultaneously, providing all of the requirements have been completed for both degrees.

## GENERAL STUDIES

Fort Lewis requires a broad background of general studies of all candidates for the bachelor's degree. Students have a variety of choices, but they are specified by general categories in order to assure breadth of education in addition to the specialization required in the major. Each student will be aided by a faculty adviser in choosing a general studies program best suited to his/her own needs and interests.

### I. FRESHMAN/SOPHOMORE SEMINARS

Every beginning freshman will take a freshman seminar in one of his first two trimesters at Fort Lewis. (Freshmen in the Intercultural Program may postpone their first seminar for one or two trimesters if this is recommended by their advisers.) Sophomores are required to take a seminar in one of the trimesters of the sophomore year. The two seminars are to be taken from different instructors. They are offered in a wide variety of fields and are intended to develop at the beginning of a student's college career both research and communication skills. Only two seminars can be counted toward graduation.

### II. DISTRIBUTION REQUIREMENTS

The groups below indicate the number of courses required in each group. The listing is by academic field in most cases, and any course in the field may be chosen with the exceptions noted in parentheses. Courses taken in the major field will not apply toward groups A, B, C and D except for the broad majors of Elementary Education, Humanities, Physical Science, and Southwest Studies. However, courses required for a major that are under "Auxiliary Requirements from Other Departments" may apply toward General Distribution Requirements.

Furthermore, courses of less than three hours' credit will not meet these requirements, except where there are laboratory activities related to other courses taken at the same time or previously.

## Group A. VALUE STRUCTURE

*Three courses must be chosen, at least one from each sub group.*

1. English (except Engl 189, Engl 208, and courses numbered below Engl 130.)  
Foreign Language
2. Art (except Art 203)
- 念 Southwest 111, 112
- 琴 Music (except Mu 314, Mu 315 & Mu 316). Three consecutive trimesters (i.e., Fall, Winter, Fall) in any one large music ensemble (Band, Choir or Orchestra) will equate for one course from this sub-group.
- 演 Theatre (except Thea 121)

## Group B. QUANTITATIVE AND NATURAL SCIENCE

*Three courses required; at least one must be a natural science with laboratory; the three must be chosen from at least two different fields.*

Biology  
Chemistry  
Geology  
Physical Science  
Physics  
Mathematics (except Computer Science)

*The following individual courses outside these fields may also be chosen:*

*BA 251, 252, Business Statistics  
Phil 271, Logic*

## Group C. FOUNDATIONS OF SOCIETY

*Two courses required.*

History  
Philosophy (except Phil 271)  
Anthropology

## Group D. SOCIAL STRUCTURE AND BEHAVIOR

*Two courses required.*

Economics  
Political Science  
Psychology (except Psych 218)  
Sociology

### III. SPECIAL DISTRIBUTION REQUIREMENTS

At least one course used to meet graduation requirements must focus on contemporary Latin America, Asia, Africa, or a combination thereof. A list of specific courses that meet this requirement will be published prior to each registration period.

### IV. PHYSICAL EDUCATION

Two activity courses of one credit hour each are required; the two must be in different activities.

## THE MAJOR

All students seeking baccalaureate degrees must select a major area of study for specialization. The College now offers majors in Biology, Chemistry, Geology, Physical Sciences, Anthropology, Art, English, History, Humanities, Mathematics, Music, Political Science, Spanish, Accounting, Business Administration, Business Education, Economics, Elementary Education, Physical Education, Psychology, Sociology, and Southwest Studies. In addition to these regular majors the College has established a procedure whereby a student with a special purpose may construct his own major. Ordinarily, this major should be of an interdisciplinary character and be submitted for approval not later than the end of the sophomore year. The student-constructed major contract must be approved by the advisor, appropriate School Dean, a representative of the Curriculum Committee, and the Vice President of Academic Affairs.

Associate of Arts degrees are offered in Agricultural Science and Secretarial Studies.

## ELECTIVES

The third part of a student's program of study consists of additional courses, called "electives," selected by him in accordance with his ability, interest, and purpose. The courses permit a student to become acquainted with other areas of knowledge to broaden his education, to supplement his major area of concentration, to meet specific requirements of a graduate school, to take professional teacher certification courses, or to add a second teaching field.

## REPEATABLE COURSES

Certain courses are repeatable but have limits on the number of credits that can be counted toward graduation. The limit on Physical Activity courses is six semester credits in different physical activities or levels. Thea 100, 200, 300, 400, and 401, may each be repeated for 6 credits as well as Engl 250, 251, 450, and 451. Up to 24 credits are allowable toward graduation in either series of



courses. The courses, General Studies 200 and 300 may be taken three times for a total of nine credits. Either Ed 310 or 311 may be repeated for a total of 4 credits. A combined maximum of twelve credits from Mu 105, 106, 107, 110, 115, and 116 are allowable toward graduation. Any course in Applied Music may be repeated once for a total of two, three, or four credits at the same level. A combined maximum of sixteen hours from Applied Music are allowable toward the 128 credits required for graduation.

## **MINORS**

Minors, even though not required for graduation, are offered by some departments. A student desiring a minor should contact the appropriate department as early in his college career as possible to determine whether that department offers a minor and the requirements for its completion.

# **ACADEMIC PERFORMANCE**

## **EXAMINATIONS**

The number and type of examinations in any particular course are determined by the instructor. Separate days are set aside for the final examinations that come at the close of each trimester.

It is the student's responsibility to take all examinations or to arrange for exceptions directly with the instructor.

## **GRADING**

Beginning with the grades awarded in the fall term of the academic year 1977-78, all grades of I (incomplete) will be changed to F's after one year unless the faculty member responsible for the assignment of the I (incomplete) takes the action either to change the grade or to retain the I (incomplete) for an additional period.

The grade of X means the student has passed a course by special examination.

The grade of P means that the student has passed a course on a Pass-Fail basis.

The grade of W signifies that the student has withdrawn from the course while passing and, ordinarily, that grade is given between the census date and one week past midterm of any term.

The grade of S (credit) means that the student has successfully completed the course.

The grade of NC (No Credit) means the student did not complete the course. No credit is given nor is the grade figured in the grade point average.

The grade of NG (No Grade) indicates that the instructor did not report a grade by the deadline for submission of final grades.

For a number of usages the quality of a student's work is appraised according to grade point averages. Fort Lewis uses the 4-point system, which assesses grade points as follows:

A	4 points	C	2 points
A-	3.75 points	C-	1.75 points
B+	3.25 points	D+	1.25 points
B	3 points	D	1 point
B-	2.75 points	D-	.75 points
C+	2.25 points	F	0 points

The grade point average, carried to two decimal places will be computed by dividing the total number of grade points by the total number of credit hours attempted. Grades of X, S, P, W, NC and NG do not affect the grade point average.

When a student repeats a course the credit will count only once and only the last grade will be counted in the grade point average.

## **CREDIT-NO CREDIT**

Courses that primarily utilize field experiences may, at the discretion of the sponsoring School, be graded either "credit-no credit", or with the traditional "A through F" letter grade system.

Should the "credit-no credit" option be utilized, the courses may still be applied to either the major or general distribution requirements.

## **PASS-FAIL ELECTIVES**

A student with at least a C cumulative average is permitted to take up to four Pass-Fail electives during his/her undergraduate career. The Pass-Fail basis is limited to elective courses only. Pass-Fail may not apply to General Studies requirements, departmental requirements, or teacher-education requirements. The student may take no more than one Pass-Fail elective in any one trimester and no more than 18 hours may be taken during the term he/she is carrying the Pass-Fail elective. A Freshman may not choose a course on this basis before his second term. The student taking a Pass-Fail elective must fulfill all necessary prerequisites for that course. Changes to or from Pass-Fail status after the beginning of a term are limited to the normal period for adding courses.

## **ACADEMIC PROGRESS**

Full-time students generally have two trimesters to make proper academic adjustment to college, but anyone not doing satisfactory academic work may receive a probation, warning, or suspension notice earlier.

An over-all grade of 2.0 is considered satisfactory progress toward a degree. A grade-point average of less than 2.0 marks unsatisfactory progress and may result in a student being placed on probation or warned or suspended or dismissed from College. A student who has been suspended may petition for readmission after completion of his suspension period. However, such petition does not guarantee readmission.

## **DEAN'S LIST**

The Dean's List is published at the end of each semester honoring students of high scholastic achievement.

Students who attain a grade point average of 3.4 or better in not less than 14 hours of graded credit and have completed all work for which they are registered by the end of the term will be listed for that term.

To graduate with honors the student must have earned in residence at Fort Lewis at least the same number of credit hours that are required for his major. No honors are awarded upon receipt of a second bachelor's degree. Grade point averages required for honors are as follows:

Summa cum laude — Grade point average of 3.8 to 4.0.

Magna cum laude — Grade point average of 3.6 to 3.7.

Cum laude — Grade point average of 3.4 to 3.5.

Graduation "with honors" depends wholly on achieving a high grade point average. It should not be confused with participation in the John F. Reed Honors Program, which is described on pp. 49, 50 & 51 of this catalog.

## **CREDIT BY SPECIAL EXAMINATION**

Credit for some courses may be earned by special examination. Application should be made to the chairman of the appropriate department.

The College Entrance Examination Board provides a group of standardized exams available in lieu of courses. These are called College Level Examination Program (CLEP) tests. Successful results are acceptable at Fort Lewis College for many of these. Students interested in credit by CLEP tests should inquire about details at the Office of Records.

## **CREDIT FOR MILITARY SERVICE**

Veterans are allowed credit for previous education. Also, credit for military experience may be allowed according to the American Council on Education recommendations when the D.D. 214 and other relevant information is submitted to the Records Office.

## **AUDIT**

A student may audit courses with the permission of the instructor if he desires to attend classes regularly but does not wish to receive grades and credit.

Upon registration, the student must declare whether he wishes to take a course for audit or for credit. A student may not change from audit to credit basis, or vice versa, after the closing date for adding classes in each trimester. When registering, a student may take both audit and credit courses but the total should not exceed a normal load.

A student auditing courses is required to pay fees at the same rate as if enrolled for credit.

Students who wish to audit a course and later wish to obtain credit for it may do so by special examination.

# **ACADEMIC PROCEDURES**

## **REGISTRATION**

Registration for each trimester immediately precedes the beginning of classes for the trimester.

A fee is charged for late registration.

## **COURSE LOAD**

The normal student load in a given trimester is 16 semester credit hours. A three-hour course will customarily be taught three hours per week, a five-hour course, five hours per week.

The maximum regular load is 18 hours in a trimester. If a student wants to take more than this he must obtain permission from his adviser and his School Dean. A student should plan to spend a minimum of two hours of outside preparation for every hour of classroom or laboratory attendance.

## **CLASSIFICATION**

A regular student is one who has been admitted to the College and who has declared his intention to pursue the requirements for the baccalaureate or associate of arts degree.

Regular students are classified as follows according to semester hours completed:

Freshman	Less than 30 semester hours
Sophomore	30-59 semester hours
Junior	60-89 semester hours
Senior	90 or more semester hours

An unclassified student is one who has been permitted to enroll but who does not intend to work toward a degree.

## **PROGRAM CHANGES**

Once a student has registered for a given set of classes, records are established, and no courses are dropped from, or added to, a student's official registration except on forms provided by the Records Office. Such changes are the responsibility of the individual student; he must make arrangements with the Records Office, with his faculty adviser, and with the instructors concerned. There is a fee charged for making changes.

With the consent of the adviser and the instructors, courses may be added during the first week and a half following registration.

A grade in a course dropped by a student prior to 5:00 p.m. on the Friday following the date midterm grades are due is to be recorded as W or F at the discretion of the faculty for either the fall or winter trimester; during each of the five-week sessions, the deadline for the policy stated above is the third Friday of the session. After these deadlines, a grade of W may be given only in the case of unusual circumstances determined by the course instructor.

A student who desires to withdraw from College entirely must go through an official withdrawal procedure starting with the Counseling Center. Failure to do so leaves the student liable to a record of total failures for the term.

## **ATTENDANCE**

Regular class attendance is expected. Each instructor keeps his own record of student absences and determines the extent to which absences affect final grades.

## **FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974**

In compliance with the Family Educational Rights and Privacy Act of 1974 (P.L. 93-380) as amended, each eligible student has the

right to review his or her own academic records, to seek correction of information contained in those records, and to limit disclosure of information from the records.

Student academic records which are kept in the Records Office are confidential to the student, the academic adviser, and those faculty or staff members who must have access to the files to perform their jobs. No information from a student's file will be released to any other party without the written permission of the student.

This information plus the policy and details concerning the Act (available in the Records Office) constitute the annual notification to students of their rights under the Act.

## **TRANSCRIPTS**

The first transcript (record of grades) for a Fort Lewis College student is supplied free of charge. A charge is made for additional transcripts. All accounts with Fort Lewis must be settled before a transcript may be issued.

## **EFFECTIVE CATALOG**

Academic policies and regulations are changed by Fort Lewis College from time to time. Which set of regulations as published in the catalog applies to a given student is determined by the following rule: All students intending to graduate from Fort Lewis College must meet the course requirements for graduation set forth in the catalog in effect at the time of their matriculation or the one in effect at the time of their graduation; students may choose between the two catalogs but may not combine them; regulations other than course requirements will apply according to the catalog in effect at the time of graduation except as new regulations have other effective dates specifically fixed. However, no catalog more than ten years old at the time of the student's graduation will be accepted as the source of graduation requirements. A student who matriculated earlier than ten years before graduation will meet the requirements of the catalog in effect at the time of graduation, or may petition the Vice President of Academic Affairs to be permitted to graduate under some intervening catalog not more than ten years old. Any student who is not registered at Fort Lewis College for any continuous period of two calendar years or more forfeits his claim to the catalog under which he entered and comes under the catalog in effect at the time he next returns to Fort Lewis College as a student. Such students will also have the right of appeal to the Vice President of Academic Affairs for use of an earlier catalog.

The College reserves the right to cancel a class if enrollment in the class is not deemed sufficient.

# The Curriculum

## INTERPRETING THE CATALOG

The figures after each course have the following meanings: the first figure in the parentheses refers to hours spent in lecture or seminar sessions and the second number for hours in laboratory each week. The figure outside the parentheses refers to semester credit hours. Disciplines appear alphabetically according to school and the schools themselves are in alphabetical order beginning with the School of Arts and Sciences.

Courses are numbered on four levels. 100-199 indicate the courses with these numbers are intended primarily for freshmen, 200-299 primarily for sophomores, 300-399 primarily for juniors, and 400-499 primarily for seniors. However, a student may freely choose courses one level above or below his own classification if he has the proper prerequisites. He may choose a course more than one level removed from his own classification only with the consent of the instructor of the course. A few courses are numbered below 100. These do not count toward graduation. Courses numbered below 300 are called lower division courses while those 300 and above are known as upper division.

The courses offered are listed by Schools except that those listed below are not confined to any one School.

## COURSES COMMON TO ALL PROGRAMS

### FRESHMAN COMPOSITION SEMINARS

At Fort Lewis College the Freshman Composition Seminar is offered in lieu of what other colleges and universities call Freshman English and Speech. This course is designed to teach library research methods as well as strengthen written and oral communication skills. To meet these objectives, students become familiar with library resources and write at least one research paper which involves collecting, organizing, and documenting library material. In addition, students write a number of other papers, each of which is evaluated by the instructor. Oral skills are improved through formal oral presentations and class discussion.

Seminars are taught by faculty from throughout the College on a variety of topics. Motivation for learning these important communication skills is enhanced by allowing students to choose a topic of interest upon which to focus their writing and oral presentations.

The seminar format, limited enrollment, and student choice of topics make the Fort Lewis College Freshman Composition Seminar a particularly effective means of learning basic oral and written communication skills.

## SOPHOMORE COMPOSITION SEMINARS

In the Sophomore Composition Seminars students continue to strengthen their communication skills. Library, laboratory, or field work requires more sophisticated research techniques than those required in the Freshman Composition Seminars. Students use primary resources as well as other kinds of materials in preparation of expository papers and oral presentations. Students complete at least one research project, either a paper or a documented speech.

The Sophomore Composition Seminar topic is selected by the student from a variety of topics offered in a wide range of disciplines. Students should select a topic in which they are interested, but one which differs from their Freshman Composition Seminar topic. Credit cannot be given for a Sophomore Composition Seminar taught by the same professor who taught the student's Freshman Composition Seminar.

### GS 92 MATH LAB

1-3

The Math Lab provides personalized review and instruction in college preparatory mathematics for students with deficiencies or apprehensions concerning required entrance-level courses. Individualized diagnosis and teaching programs are applied to the students specific problem areas. This credit does not count toward the minimum semester credits required for a degree.

### GS 90 WRITING LAB

(3-0) 3

An intense, developmental program designed to quickly raise a student's writing proficiency to the college level. This credit does not count toward minimum semester credits required for a degree.

### GENERAL STUDIES 200

2-4

A lower-division seminar in interdisciplinary studies. Offered on sufficient demand. This course and General Studies 300 may be repeated for a combined maximum of nine hours.

### GENERAL STUDIES 300

2-4

An upper-division seminar in interdisciplinary studies. Offered on sufficient demand. This course and General Studies 200 may be repeated for a combined maximum of nine hours.

### 190 SPECIAL TOPICS

1-6

This is not a fixed course but is a designation to take advantage of special opportunities and topics. It can be offered in any area with consent of the School Dean and the Vice President of Academic Affairs. Credit may vary from 1-6 hours.

### 390 SPECIAL TOPICS

1-6

Same as 190 Special Topics except that this course is at the upper division level.

### 299 INDIVIDUALIZED STUDY

1-3

Independent study for lower division or non-major students. Available in most disciplines offered at Fort Lewis College.



All major fields require either independent study or a seminar at the senior level.

Independent study may be undertaken in a field other than the student's major. To do so, a student must have the approval of his adviser, his Department Chairman, the Department Chairman in whose area the study will be made, and the professor who will supervise the study. However, independent study in the field outside the student's major cannot be substituted for the requirement of independent study or seminar in his major field.

#### JOHN F. REED HONORS PROGRAM

The College offers the John F. Reed Honors Program for students of superior ability. Students who complete the Honors Curriculum and Additional Requirements are excused from the General Distribution Requirements and will receive special recognition at graduation and on their transcripts. Students not wishing to enroll in the John F. Reed Honors Program may request permission (from the instructor or from the chairman of Honors Council) to take individual Honors courses.

All Honors courses are small seminars. Their approach is interdisciplinary. The John F. Reed Program seeks to offer an enriched educational opportunity to bright students who enjoy working in small groups with others like themselves.

Entering freshmen may be admitted to the John F. Reed Honors Program on the basis of high school records and ACT scores. Second-term freshmen and sophomores may be admitted on the basis of academic achievement and faculty recommendations. Students already at Fort Lewis should petition the Honors Council through its chairman if they wish to be considered for admission.

Reed Scholars must maintain a minimum cumulative grade point average of 3.2. They may leave the Program at any time without loss of academic credit, but must, in conference with the Director of Records and a representative of the Honors Council, decide which of the General Distribution Requirements will be considered satisfied by the Honors seminars they have completed.

The John F. Reed Honors Program consists of the following Core courses and Additional Requirements:

<i>1. The Honors Core</i>	<i>Credits</i>
<i>Freshman Year</i>	
1st Term: Hon 101, Freshman Honors Seminar in Literature	4
2nd Term: Hon 102, Freshman Honors Seminar in Philosophy, Religion and Morality	4
<i>Sophomore Year</i>	
1st Term: Hon 201, Honors Seminar in History and Humanities	4
2nd Term: Hon 202, Honors Seminar in the Shaping of the Modern Mind	3

*Junior Year*

1st Term: Hon 305, Honors Seminar in Aesthetics and the Fine Arts	3
2nd Term: Hon 306, Honors Seminar in the Natural Sciences	3

*Senior Year*

1st Term: Hon 403, Honors Seminar in the Social Sciences	3
Hon 499, Honors Thesis (writing of first draft)	1
2nd Term: Hon 404, Honors Seminar in the Nature of Man	3
Hon 499, Honors Thesis (completion and public presentation)	1-2

**II. Additional Requirements**

1. Foreign Language: The completion of the second term of the second year of a foreign language or the demonstration of an equivalent proficiency	0-14
2. A Natural Science with a Laboratory	3-5
3. Formal Reasoning: Mathematics (Math III or above), Computer Science or Logic	3
4. A Non-Western course	3
5. P.E.: Two activity courses	2
	<hr/> 40-57

Honors courses will satisfy the General Distribution Requirements for students not enrolled in the Honors Program as follows: Hon 101, Freshman Composition Seminar; Hon 102, Group C; Hon 201, Group A or C; Hon 202, Sophomore Composition Seminar; Hon 305, Group A; Hon 306, Group B; Hon 403, Group D; or Hon 404, Group C.

**HONORS 101 FRESHMAN HONORS SEMINAR  
IN LITERATURE**

(4-0) 4

An examination of great works of literature chosen from various cultures and eras. Students will write essays and do research, as well as improve their ability to read critically.  
*Prerequisite:* Admission to the Honors Program or Consent of the Instructor.

**HONORS 102 FRESHMAN HONORS SEMINAR IN  
PHILOSOPHY, RELIGION, AND MORALITY**

(4-0) 4

An examination of issues in philosophy, religion, and morality through the reading and discussion of important works from both Eastern and Western traditions. The course emphasizes the improvement of the students' writing, as well as improvement in their ability to read and analyze critically.  
*Prerequisite:* Admission to the Honors Program or Consent of the Instructor.

**HONORS 201 SOPHOMORE HONORS SEMINAR IN  
HISTORY AND HUMANITIES**

(4-0) 4

An examination of selected issues in the humanities prior to 1700. Issues are considered both in their historical context and with regard to their importance in shaping today's culture.  
*Prerequisite:* Admission to the Honors Program or Consent of the Instructor.

HONORS 202 HONORS SEMINAR IN THE SHAPING  
OF THE MODERN MIND (3-0) 3

An examination of selected issues in such fields as the arts, economics, science, philosophy, and religion which have played major roles in forming the institutions and values of Western society since the Renaissance.

*Prerequisite:* Admission to the Honors Program or Consent of the Instructor.

HONORS 305 HONORS SEMINAR IN AESTHETICS AND  
THE FINE ARTS (3-0) 3

An examination of the nature of the artistic experience through the study of theories of aesthetics as well as selected great works of art representing various eras and cultures.

*Prerequisite:* Admission to the Honors Program or Consent of the Instructor.

HONORS 306 HONORS SEMINAR IN THE  
NATURAL SCIENCES (3-0) 3

An examination of technological and scientific developments that have shaped human lives, as well as shaping people's views of themselves, of one another, and of their universe. The course also considers the moral issues involved in the application and control of scientific knowledge.

*Prerequisite:* Admission to the Honors Program or Consent of the Instructor.

HONORS 403 HONORS SEMINAR IN THE  
SOCIAL SCIENCES (3-0) 3

An examination of the problems man faces in contemporary society, through such perspectives as those provided by politics, history, sociology, and economics. The course considers the social process and its influence on the chances of human survival.

*Prerequisite:* Admission to the Honors Program or Consent of the Instructor.

HONORS 404 HONORS SEMINAR IN THE NATURE  
OF MAN (3-0) 3

An examination of interpretations of human nature from viewpoints as diverse as those provided by anthropology, psychology, biology, and religion. The course asks what people are from as many directions as possible.

*Prerequisite:* Admission to the Honors Program or Consent of the Instructor.

HONORS 499 HONORS THESIS 1-2

An independent study usually taken in both terms of the senior year. The first term is devoted to writing the first draft of a senior honors thesis, on a topic chosen by the student with the aid of a faculty advisor approved by the Honors Council. In the second term the thesis is finished and a copy of it is placed in the library's permanent collection. The student also conducts a public oral presentation based on the thesis.

*Prerequisite:* Admission to the Honors Program or Consent of the Instructor.

# SCHOOL OF ARTS AND SCIENCES

ANTHROPOLOGY

ART

BIOLOGY, AGRICULTURE, AND FORESTRY

CHEMISTRY

ENGLISH AND THEATRE

FOREIGN LANGUAGES

GEOLOGY

HISTORY

MATHEMATICS

MUSIC

PHYSICS AND ENGINEERING

POLITICAL SCIENCE AND PHILOSOPHY

SOCIOLOGY AND HUMAN SERVICES

EDWARD L. ANGUS, Dean

# THE SCHOOL OF ARTS AND SCIENCES

## The Departments:

- Anthropology — Susan M. Riches, Chairman
- Art — Mick Reber, Chairman
- Biology, Agriculture, and Forestry — Page Lindsey, Chairman
- Chemistry — William R. Bartlett, Chairman
- English and Theatre — Carroll V. Peterson, Chairman
- Foreign Languages — Ingrid Ryan, Chairman
- Geology — Douglas C. Brew, Chairman
- History — Ira L. Plotkin, Chairman
- Mathematics — William C. Ramaley, Chairman
- Music — Ralph A. Downey, Chairman
- Physics and Engineering — Tom D. Norton, Chairman
- Political Science and Philosophy — James C. Decker, Chairman
- Sociology and Human Services — Dennis W. Lum, Chairman

The programs in the School are administered through its academic departments, but for easy reference the separate curricula are listed alphabetically.

## Agriculture

Assistant Professor Arthur E. Johnson;  
Instructor Dean L. Winward.

The Agriculture Department offers a two-year Agricultural Science program leading to an Associate of Arts in Agricultural Science degree. This program is designed to fill the needs of those students pursuing an Agricultural career on a farm, ranch, or other agriculture-oriented business. At the students option, they may emphasize either Animal Production or Agronomy.

Although completion of the two-year Associate of Arts degree program is recommended for all students, including those anticipating transferring to a four-year agricultural program to attain a baccalaureate degree, a less structured program may be followed providing the student with the equivalent background of the first two years of a general agriculture program of a four-year agricultural college. Such a program normally consists of fewer Agriculture courses with a greater emphasis placed on non-agriculture course requirements.

Interdepartmental Student Constructed Majors leading to baccalaureate degrees are available (i.e., Agricultural Economics, Agricultural Chemistry, Agricultural Business, etc.). Students wishing to participate in this program should consult with their advisor prior to the completion of their sophomore year.

Minors are offered in General Agriculture, Agronomy, and Animal Science. For information and requirements for minors, consult with a member of the Agriculture faculty.

Associate of Arts in Agricultural Science degree requirements:

General Studies .....	23-29
Freshman Composition Seminar	4
Sophomore Composition Seminar	4
Approved math course (MA 110 or above, not MA 130)	3-5
Four courses to be selected from the four General Distribution groups, one from each group	12-16
Physical Education Activity .....	2
Specific Agricultural Science Requirements.....	12
AG 101 Introductory Animal Science	4½
AG 102 Principles of Crop Production	4½
AG 150 Farm Records and Accounts	3
Agricultural Science Electives (at least five courses selected from the following).....	minimum 15
AG 201 Livestock Judging	2
AG 202 Weeds and Weed Control	4
AG 210 Livestock Breeds	3
AG 231 Range Management	4
AG 235 Soils and Soil Fertility	4
AG 240 Principles of Animal Nutrition	4
AG 243 Irrigation Principles	3
AG 390 Special Topics (as offered)	3-5
AG 473 Mammalian Physiology	4

Suggested Electives

*ENGR 102 Technical Drafting*

*ENGR 205 Surveying I*

*Computer Science, Economics, Chemistry, Biology, Business Administration*

**TOTAL REQUIRED FOR GRADUATION.....64**

**Agriculture Experience:** A student is required to have a minimum of 15 weeks of work experience on a farm, ranch, or other acceptable agricultural business prior to the awarding of the Associate of Arts in Agricultural Science degree.

**Ag 101 INTRODUCTORY ANIMAL SCIENCE (3-3) 4½**

Basic introduction to the aspects of animal science, concentrating on products, reproduction, genetics, anatomy, basic production in cattle, sheep, swine, and dairy.

**Ag 102 PRINCIPLES OF CROP PRODUCTION (3-3) 4½**

Basic principles of crop production concentrating on growth, development, management, utilization and cultural practices dealing mainly with the crops of Colorado.

**Ag 150 FARM RECORDS AND ACCOUNTS (3-0) 3**

This course is designed to give proficiency in keeping farm records for income tax and management purposes.

- Ag 201 LIVESTOCK JUDGING (1-3) 2  
 Selection and evaluation of modern types of livestock.  
*Prerequisite:* Ag 101 and Sophomore standing
- Ag 202 WEEDS AND WEED CONTROL (3-3) 4  
 Principles and practices of weed control and recognition of important weed species.
- Ag 210 LIVESTOCK BREEDS (3-0) 3  
 A history and descriptive evaluation of the breeds of livestock significant to U.S. production.  
*Prerequisite:* Ag 101.
- Ag 231 RANGE MANAGEMENT (3-3) 4  
 A study of the development, management, utilization and improvement of rangelands.
- Ag 235 SOILS AND SOIL FERTILITY (3-3) 4  
 A basic course dealing with soil formation, physical and chemical properties, fertility, management and conservation.  
*Prerequisite:* Chem. 150.
- Ag 240 PRINCIPLES OF ANIMAL NUTRITION (3-3) 4  
 Nutrient sources and requirements of livestock, including ration balancing and laboratory analysis of feedstuffs.  
*Prerequisite:* Ag 101 or permission of instructor.
- Ag 245 IRRIGATION PRINCIPLES (2-3) 3  
 Basic introduction to surveying, irrigation water and soil moisture measurements, conveyance, application methods emphasizing soil-plant-water relationships.
- Ag 473 MAMMALIAN PHYSIOLOGY (3-3) 4  
 See Biology 473.

## Anthropology

Professors John C. Ives and Susan M. Riches;  
 Associate Professor Donald R. Gordon and Robert A. Ibarra  
 Assistant Professor Philip G. Duke

Fort Lewis College offers a program of courses leading to the Bachelor of Arts Degree with a major in Anthropology. A range of courses is offered to serve the interests of the College as a whole. Courses within the department are suitable as electives in the broad liberal arts tradition and also are designed to fulfill the requirements of those who wish to continue their studies in one of the subfields of the discipline.

Students majoring in Anthropology may be certified to teach in the broad area of Social Studies at the secondary level. To obtain requirements for teacher certification, please contact the Department of Teacher Education.

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN ANTHROPOLOGY

General Studies .....		41
<i>Specific Departmental Requirements</i>		
Anth 205, Introduction to Physical Anthropology	3	
Anth 210, Introduction to Cultural and Social Anthropology	3	
Anth 301, Human Evolution	4	
Anth 341, Old World Prehistory	3	
Anth 496, Senior Seminar	2	15
<i>Other Departmental Requirements</i>		
Two additional courses in Cultural Anthropology	6	
Two additional courses in Archaeology or Prehistory	6	
Plus anthropology electives to total 32 .....		32
Requirements outside the department		
Math 201, Elementary Statistics or equivalent	3	3
<i>Electives</i> .....		37
<b>TOTAL REQUIRED FOR GRADUATION</b> .....		<b>128</b>

Minors are available in General Anthropology and Archaeology for students majoring in other disciplines. For details, interested students should consult with the Department Chairperson.

## COURSES

Anth 151 INTRODUCTION TO ANTHROPOLOGY (3-0) 3  
A comprehensive study of general Anthropology. The course is recommended as a beginning course for students who have no previous background in Anthropology. Fall and Winter terms.

Anth 205 INTRODUCTION TO PHYSICAL ANTHROPOLOGY (3-0) 3  
This course is designed to introduce the student to the basic concepts and techniques used in the study of human biology and human evolution. Fall term.

Anth 210 INTRODUCTION TO CULTURAL AND SOCIAL ANTHROPOLOGY (3-0) 3  
The course covers general concepts, development and selected sub-fields of social/cultural anthropology. The study of both American and Non-Western culture is emphasized and integrated with a practical application of anthropological methods and research.

Anth 211 TRIBAL PEOPLES (3-0) 3  
A comparative study of band and tribal peoples of Africa, Eurasia, Oceania and the New World. Fall term.

Anth 213 PEASANT SOCIETIES (3-0) 3  
A study of agricultural societies throughout the world and the position of these societies within more complex systems. Winter term.

Anth 215 ANTHROPOLOGY OF RELIGION (3-0) 3  
A study of religious behavior in non-literate societies. Alternate years.



- Anth 231 ARCHAEOLOGY OF THE SOUTHWEST, (3-2) 4  
 PART I: THE ANASAZI CULTURE  
 The development of the Pueblo dwelling peoples of the Four Corners area. Fall term.
- Anth 259 FIELD TRAINING IN ARCHAEOLOGY 4-8  
 Actual excavation in the field with instruction in the various techniques of Archaeology. The student will spend all day, five days a week, in the field. The length of the dig is based on current excavation plans and may vary. Credit is determined by field school period. A written description of the field school for each year will be furnished to prospective students. Summer term.
- Anth 276 FOLKLORE OF THE SOUTHWEST (3-0) 3  
 See English 276. Winter term.
- Anth 301 HUMAN EVOLUTION (3-2) 4  
 This course will review the history and theory of organic evolution including elementary genetics. Subsequent topics will include human and infrahuman fossils, human anatomy, primatology and behavioral evolution, and subspecies variation. Winter term.  
*Prerequisite:* Anth 205 or consent of instructor.
- Anth 312 TOPICS IN ARCHAEOLOGY 3-4  
 Various archaeological topics will be taken up different times. May be repeated for different topics. Topics which have been offered in the past include; Plains Archaeology, Sea of Civilization, Archaeology of Eastern North America, Arctic Archaeology. Some topics may include laboratory.  
*Prerequisite:* Anth 151 or 231 or 259 or consent of instructor.
- Anth 321 TOPICS IN ETHNOGRAPHY AND (3-0) 3  
 SOCIAL ANTHROPOLOGY  
 The intensive study of a culture or of a particular problem topic in cultural anthropology. Topics which have been offered in the past include: South America, India, Mesoamerica, Australia and New Guinea, American Ethnic Groups, Field Methods in Ethnohistory. The course may be repeated for different topics.  
*Prerequisite:* Anth 151 or 210 or consent of instructor.
- Anth 331 ARCHAEOLOGY OF THE SOUTHWEST, (3-2) 4  
 PART II: THE HOHOKAM & MOGOLLON CULTURES  
 The development of the Hohokam and Mogollon cultures in the southern Southwest. A study of archaeological interpretations and method as applied to the Southwestern United States. Winter term.  
*Prerequisite:* Anth 231 or consent of instructor.
- Anth 341 OLD WORLD PREHISTORY (3-0) 3  
 A survey of Europe, Asia and Africa from the first evidence of culture until the development of civilizations. The emphasis is on the European sequence.
- Anth 361 THE NORTH AMERICAN INDIAN (3-0) 3  
 Archaeology, ethnology, and linguistic relationships of the Indians of North America. Alternate years.

Anth 401 ADVANCED TOPICS IN ANTHROPOLOGY 2-6  
Various topics will be given. Course may be repeated for a different topic. Offered on demand. Topics which have been offered in the past include; World Without Borders (Multinational Corporations), Cultural Ecology, Field and Lab Technics: Archaeology, Advanced Field School: Archaeology.

*Prerequisites:* junior or senior standing (unless by consent of instructor) and a minimum of two other courses in anthropology.

Anth 451 SOCIAL STRUCTURE (3-0) 3  
Contemporary theories of the social aspects of man's culture are emphasized. Problems of data gathering and analysis are considered. Alternate years.

*Prerequisite:* any course dealing with social or cultural anthropology, or consent of instructor.

Anth 496 SEMINAR (2-0) 2  
Advanced study and research in selected topics. Winter term.  
*Prerequisite:* senior standing and permission of instructor.

Anth 499 INDEPENDENT STUDY 1-3  
Individual research is conducted under the supervision of a faculty member. Offered on demand.  
*Prerequisite:* approval of Department Chairman.

## Art

Professor Stanton Englehart;  
Associate Professors David J. Hunt, Mick Reber,  
Laurel Vogl, and C. Gerald Wells;  
Assistant Professor Ellen Cargile

The Art Department attempts to increase the student's awareness and understanding of art and its relationship to society. The art major prepares the student to be a practicing artist, to enter graduate school for further professional training, or to teach art on the elementary or secondary levels. The Department also serves majors from other disciplines who select art as a minor field. The department welcomes those students who wish to elect art courses as a means of achieving a greater sense of personal sensitivity and awareness.

There is a continuous schedule of student and professional shows for the benefit of the college and the general public. This department is of service to the general public through participation in the Continuing Education program.

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN ART

General Studies .....		41
<i>Specific Departmental Requirements</i>		
Art 310, Art History to the Renaissance	3	
Art 311, Art History from the Renaissance	3	
Art 405, Theory and Aesthetics	3	
Art 496, Seminar		
or		
Art 499, Independent Study	2	
	11	
<i>Other Departmental Requirements</i>		
21 hours from the remainder of art offerings with the exception of		
Art 203, Art for Elementary Teachers	21	
	—	
	32	32
<i>Electives</i> .....		55
<b>TOTAL REQUIRED FOR GRADUATION</b> .....		<b>128</b>

Students seeking secondary certification must complete, in addition to the specific requirements of the art major, the following courses:

101 Drawing	3
102 Painting	3
104 Basic Design	3
105 Ceramics	3
106 Introduction to Printmaking	3
204 Two and Three Dimensional Sculpture	3
208 Basic Photography	3
SW 111 or 112 Indian Arts and Crafts	3-4

*Recommended courses are:*

201 Drawing, 203 Art for Elementary Teachers

A student who is admitted to the Teacher Education Program after September 1, 1978, must complete additional requirements as provided by the Colorado Teacher Certification Law of 1975. Information concerning these requirements may be obtained from the Department Chairman for Teacher Education or from the appropriate academic department chairman or academic advisor.

## COURSES

Art 101 DRAWING (0-6) 3  
Practice in problems of technique, perspective, color, and design, and basics of composition. Subject matter to deal with still life, landscape, animals, and the human figure. (Course work in this area offered at the beginning and advanced levels.) Fall and Winter terms.

- Art 102 PAINTING** (0-6) 3  
 Instruction in various painting media. Students will concentrate on compositional and color problems while working from still life, landscape, and figures. (Course work in this area offered at the beginning and advanced levels.) Fall and Winter terms.
- Art 104 BASIC DESIGN** (0-6) 3  
 An elementary course in the principles of composition utilizing line, mass, and color theory with emphasis on space and formal design related to both art and industrial art. An introduction to the basic tools and materials of both areas. Fall and Winter terms.
- Art 105 CERAMICS** (0-6) 3  
 Individual projects and forming of pottery of varied styles. Emphasis will be placed on expressive forms. Practice in ceramic procedures and use of materials: throwing, slab, molding, glazing, and firing. Fall and Winter terms.
- Art 106 INTRODUCTION TO PRINTMAKING** (0-6) 3  
 A studio experience exploring the materials and methods basic to making prints. Relief, etching, collographic and silk screen techniques will be emphasized.
- Art 201 DRAWING** (0-6) 3  
 A continuation of Art 101 but with emphasis placed on drawings of the human figure. Fall and Winter terms.  
*Prerequisite:* Art 101.
- Art 202 PAINTING** (0-6) 3  
 A continuation of Art 102. Fall and Winter terms.  
*Prerequisite:* Art 102.
- Art 203 ART FOR ELEMENTARY TEACHERS** (3-0) 3  
 Contemporary and historical concepts, practices, and methods used in the elementary school art program.
- Art 204 TWO AND THREE DIMENSIONAL SCULPTURE** (0-6) 3  
 A course in two-dimensional design in bas-relief and three-dimensional sculpture. It consists of modeling in plastic materials as well as carving and shaping more rigid and resistant materials such as wood, metal, and stone.
- Art 206 CERAMICS** (0-6) 3  
 A continuation of Art 105. Fall and Winter terms.  
*Prerequisite:* Art 105.
- Art 208 BASIC PHOTOGRAPHY** (0-6) 3  
 A basic course in photography. Introduction to the camera and basic darkroom procedures. Various ways to produce prints and photographic printing plates will be emphasized. Fall and Winter terms.
- Art 301 DRAWING** (0-6) 3  
 A continuation of Art 201. Fall and Winter terms.  
*Prerequisites:* Art 101, 201.

Art 302 PAINTING	(0-6) 3
A continuation of Art 202. Fall and Winter terms. <i>Prerequisites:</i> Art 102, 202.	
Art 303 ADVANCED STUDIO	(0-6) 3
Special Topics. Fall and Winter terms. <i>Prerequisite:</i> consent of instructor.	
Art 306 ADVANCED PRINTMAKING	(0-6) 3
Advanced development of printmaking skills with opportunity to do specialized work in one or more areas. <i>Prerequisite:</i> Art 106.	
Art 307 ART: FORMS AND IDEAS	(3-0) 3
Philosophical inquiry, by topic, into the formal nature of the visual arts and their meanings. Historical art forms will be compared with contemporary patterns of form and thought. Fall and Winter terms.	
Art 308 CERAMICS	(0-6) 3
A continuation of Art 206. Fall and Winter terms. <i>Prerequisite:</i> Art 105, 206.	
Art 310 ART HISTORY TO THE RENAISSANCE	(3-0) 3
History and appreciation of painting, sculpture, and architecture. These forms will be studied through their relationships to each other and to the societies which produced them. Fall term.	
Art 311 ART HISTORY FROM THE RENAISSANCE	(3-0) 3
A continuation of Art 310, Winter term.	
Art 401 DRAWING	(0-6) 3
A continuation of Art 301. Fall and Winter terms. <i>Prerequisite:</i> Art 101, 201, 301 or permission of instructor.	
Art 402 PAINTING	(0-6) 3
A continuation of Art 302. Fall and Winter terms. <i>Prerequisites:</i> Art 102, 202, 302.	
Art 404 ADVANCED STUDIO	(0-6) 3
Special Topics. Fall and Winter terms. <i>Prerequisite:</i> consent of instructor.	
Art 405 THEORY AND AESTHETICS	(3-0) 3
Appreciation and understanding of various art forms through the study of aesthetics. Winter term.	
Art 408 ADVANCED PRINTMAKING	(0-6) 3
A continuation of Art 306. <i>Prerequisites:</i> Art 106, 306.	
Art 496 SEMINAR	(2-0) 2
Advanced study and research in selected topics. On demand. <i>Prerequisite:</i> consent of instructor.	

Individual research is conducted under the supervision of a faculty member. Offered on demand.

*Prerequisite:* approval of Department Chairman.

## Biology

Professors James G. Erickson,  
John E. Dever, Jr., Preston Somers and  
Albert W. Spencer;

Associate Professors David W. Jamieson,  
J. Page Lindsey and O. Tacheeni Scott

Assistant Professors Thomas P. Sluss and William H. Romme

The various biology curricula are designed to fit the needs of many types of students. Although all of these curricula lead to a Bachelor of Science degree in Biology, there are three major avenues, each with variations, leading to the degree: general biology, environmental biology, and cellular and molecular biology.

The general biology option provides the student with an exposure to all the major conceptual areas of biology. It is intended for students wishing to pursue teaching and professional careers or graduate school. It is also recommended for those students who are undecided about specific career goals in biology.

The environmental biology option provides a very broad exposure to the principles and practices of ecology, environmental conservation and management of natural resources. Thus, this option is particularly valuable for those students who plan to work for the many private firms and state and federal governmental agencies concerned with natural resource management and environmental impact assessment. This curriculum also provides appropriate preparation for students interested in teaching biology at the secondary school level as well as for those interested in graduate study in ecology and environmental science.

The cellular and molecular biology option is designed to prepare students for graduate study in either molecular or cellular biology or to find employment as a laboratory technician in those areas upon graduation from Fort Lewis.

There is a considerable demand from both government and industry for people trained in the biological sciences and for which a bachelor's degree is sufficient. Administrative and professional careers may be found in government service and with a variety of conservation and recreation agencies at both state and federal levels. Laboratory and technical work is available with industry and with several government agencies. Some sales positions, especially for pharmaceutical houses, require a biology background. Many positions for biologists require a graduate degree for which a liberal arts biology major is an excellent background.

Minors in Biology, Botany, Zoology, Microbiology and Natural History are available. Interested students should consult with the chairman of the department.

## General Biology Option

General Studies .....	41	
<i>Specific departmental requirements</i>		
Bio 100 Laboratory Experiences in Biology	1½	
Bio 101 Introduction to Biology	3	
Bio 102 General Botany	4½	
Bio 103 General Zoology	4½	
Bio 220 Fundamentals of Ecology	4	
Bio 321 General Physiology	4	
Bio 371 Genetics	4	
Other biology courses (including one in the 400 series, other than 496 and 499) excluding co-operative education	11	
Bio 496 Seminar; or		
Bio 499 Independent Study	2	38½
<i>*Auxiliary requirements from other Departments</i>		
Chemistry 150-151		
Chemistry 231-232		
Math 221		
Psych 241 or Math 201		29
<i>Recommended Courses: (These are suggested for those students anticipating graduate school).</i>		
Math 222		
Physics 217-218		
Computer Science 120		
Chemistry 311		
Foreign Language (French or German recommended)		
<i>Electives</i> .....		19½
<b>TOTAL REQUIRED FOR GRADUATION</b> .....		<b>128</b>
*These auxiliary requirements fulfill Group B — Quantitative or Natural Science under the distribution requirements.		

## Environmental Biology Option

General Studies .....	41
<i>Specific departmental requirements:</i>	
Bio 100 Laboratory Experiences in Biology	1½
Bio 101 Introduction to Biology	3
Bio 102 General Botany	4½
Bio 103 General Zoology	4½
Bio 120 Environmental Conservation	3
Bio 201 Systematic Botany	4
Bio 203 Field Zoology	5
Bio 220 Fundamentals of Ecology	4
Bio 471 Field Ecology	5
Bio 496 Seminar	
or	
Bio 499, Independent Study	2
Other biology courses (in the 300 or 400 series)	3
	—
	39½
<i>Auxiliary requirements from other departments*:</i>	
Chem 150-151, General Chemistry	11
Math 111, Pre-Calculus II	5
Math 201, Elementary Statistics, or equivalent	3
Ag 235, Soils and Soil Fertility	4
Ag 231, Range Management	4
	—
	27
<i>Recommended electives (to be selected in consultation with student's advisor):</i>	
Bio 371, Genetics**	
Math 221, Calculus, and Math 222, Calculus**	
Math 360, Operations Research	
Engr 205, Surveying I	
Geol 115, Physical Geology	
CS 150, Introduction to Programming Systems	
Econ 262, Microeconomics, or Econ 261, Macroeconomics	
Engl 363, Advanced Composition	
Chem 231-232, Organic Chemistry	
Chem 365, Analytical Chemistry	
Chem 367, Instrumental Methods of Analysis	
Physics 132-232-233 or 162-262-263, 211, 212	
**These courses are necessary for entrance to graduate school 23	
TOTAL REQUIRED FOR GRADUATION .....	128

\*These auxiliary requirements fulfill Group B — Quantitative or Natural Science under the distribution requirements.



## Cellular and Molecular Biology Option

General Studies .....	41
<i>Specific Departmental requirements</i>	
Bio 100 Laboratory Experiences in Biology	1½
Bio 101 Introduction to Biology	3
Bio 102 General Botany	4½
Bio 103 General Zoology	4½
Bio 232 Embryology & Developmental Biology of Vertebrates or Bio 473 Mammalian Physiology	4
Bio 321 General Physiology	4
Bio 331 Microbiology or Bio 400 Plant Physiology	4
Bio 371 Genetics	4
Bio 433 Bacterial Physiology or Bio 455, Cell and Molecular Physiology or Bio 322 Radiation Biology	4
Bio 496 Seminar or Bio 499, Independent Study	2    35½
<i>*Auxiliary requirements from other Departments</i>	
Chem 150-151	11
Chem 231-232 Organic Chemistry	10
Math 221 Calculus	5
Psych 241 or Math 201	3    29
<i>Recommended Courses: (These are suggested for those students anticipating graduate school)</i>	
Math 222 Calculus	
Physics 162, 262, 263, 211, 212	
Chem 311 Biochemistry	
Chem 312 Biochemistry Laboratory	
Chem 358-359 Physical Chemistry	
Chem 365 Analytical Chemistry	
Chem 367 Instrumental Methods of Analysis	
CS 120 Introduction to Programming I BASIC	
<i>Electives</i> .....	22½
<b>TOTAL REQUIRED FOR GRADUATION</b> .....	<b>128</b>

\*These auxiliary requirements fulfill Group B — Quantitative or Natural Science under the distribution requirements.

We recommend that one Group A requirement be filled by Engl. 363, Advanced Composition.

## Health Careers Preparatory Programs

Students considering careers in health professions should carefully plan their academic program very early in their undergraduate education. To assist the prospective pre-health professions student in selecting curricula which will satisfy the academic requirements of specific professional schools, Fort Lewis College has established a Pre-Health Advising Committee. It is strongly recommended that the pre-health professions student, in addition to consulting his/her major advisor, select a member of this committee to serve as a personal academic advisor.

Specific pre-professional course requirements vary significantly depending upon the health field chosen. All professional schools, however, prefer those students who have had a broad undergraduate education, a solid foundation in the natural sciences and who possess well developed communication skills. Hence, the pre-health professions student should anticipate securing a thorough understanding of biology, chemistry, mathematics, physics, and English. Although most pre-health professions students have majored in biology or chemistry, most professional schools will consider graduates in other major fields who have met their basic requirements for admission.

Students may pursue courses at Fort Lewis College which lead to a wide-range of health careers. Over the years, the Pre-Health Advisory Committee and Fort Lewis College have developed a very favorable professional rapport with the professional schools in Colorado, Arizona, New Mexico, and Utah. Many of our students have chosen to attend schools in the Four Corners' States, but many also have attended professional schools throughout the nation. The most popular pre-professional programs at Fort Lewis College have been those in Dentistry, Medicine, Medical Technology, and Veterinary Medicine, but advising and academic planning are also available for programs in Dental Hygiene, Nursing, Optometry, Pharmacy, and Physical Therapy.

The Pre-Health Advisory Committee exists as a body to guide and counsel all students in the health careers preparatory programs.

This committee has prepared a Pre-Professional Student Handbook containing examples of suggested course schedules and curricula. Interested students may obtain a copy of the handbook by contacting any member of the Pre-Health Advisory Committee.

In addition to advising students in their preparatory programs, the Committee assists students in application procedures and in preparing for professional school admittance interviews. The committee will, upon student request, provide recommendation documents to professional schools in accordance with the student's qualifications.

The Pre-Health Club is a student organization that seeks to promote and develop interest in the health professions.

Regular meetings and field trips are conducted throughout the academic year. Films, slides, and discussions that pertain to questions students have concerning health careers are presented at their meetings. Field trips are taken to labs, clinics, hospitals, and medical schools.

The Pre-Health Club and Pre-Health Advisory Committee invite directors of various health professions schools, local professional health practitioners, and faculty to present seminars dealing with some aspect of health care or academic preparation for entrance into a professional school.

All students who have an interest in the health profession are encouraged to participate in the Pre-Health Club.

## COURSES

- Bio 100 LABORATORY EXPERIENCES IN BIOLOGY** (0-3) 1½  
This course is designed to accompany Bio 101 or 110. Fall, Winter, and Summer terms.
- Bio 101 INTRODUCTION TO BIOLOGY** (3-0) 3  
An introduction to the unifying central concepts of biology, including ecology, evolution, respiration, photosynthesis, and genetics. This course is designed for science majors. Credit cannot be earned for both Bio 101 and 110. Fall and Winter terms.  
*Prerequisite:* Concurrent registration in Bio 100.
- Bio 102 GENERAL BOTANY** (3-3) 4½  
Study of the development of the plant kingdom. Fall and Winter terms.  
*Prerequisite:* Bio 100, 101.
- Bio 103 GENERAL ZOOLOGY** (3-3) 4½  
Study of the development of the animal kingdom from the protozoans through the vertebrates. Fall and Winter terms.  
*Prerequisite:* Bio 100, 101.
- Bio 110 SURVEY OF LIFE SCIENCES** (3-0) 3  
A course to cover historical aspects of biology, emphasizing scientists and their personal triumphs or accidents that have led to outstanding scientific discoveries. Concepts of scientific method will be covered in this course to give the non-major a feeling for processes that are carried out in biological research. This course is designed for non-science majors. Credit cannot be earned for Bio 101 and 110. Fall, Winter and Summer terms.  
*Prerequisite:* Concurrent registration in Bio 100.
- Bio 120 ENVIRONMENTAL CONSERVATION** (3-0) 3  
The course will deal with natural resources in a global context. Attention will be given to public policies and programs which affect the long-range utilization of these resources. Winter term.
- Bio 121 HUMAN ANATOMY & PHYSIOLOGY** (2-3) 3½  
An introduction to the structure and function of the human body. Fall and Winter terms.
- Bio 132 HUMAN SEXUALITY** (3-0) 3  
Biological aspects of human reproduction, supplemented by discussion of medical, societal, psychological and ethical issues. Not applicable to the Biology major. Winter term.
- Bio 201 SYSTEMATIC BOTANY** (2-6) 4  
A study of the classification and relationship of the major flowering plant groups; use of plant keys and related terminology. Fall and Summer terms.  
*Prerequisite:* Bio 102.

- Bio 203 FIELD ZOOLOGY** (4-3) 5  
Collection, identification, and museum preparation of the vertebrate animals of the region. Summer term.  
*Prerequisite:* Bio 102.
- Bio 205 ENTOMOLOGY** (1-6) 3  
A study of the general anatomy and physiology of insects, their identification and control. Offered on demand.
- Bio 220 FUNDAMENTALS OF ECOLOGY** (3-3) 4  
A study of the fundamentals of the interrelationships between organisms and their environments. Winter term.  
*Prerequisites:* Bio 102, 103, and current registration in Math 201 or equivalent.
- Bio 231 VERTEBRATE COMPARATIVE ANATOMY** (2-6) 4  
A morphological study of the evolutionary development of vertebrate animals. Comparative dissections of representative animals will be done. Fall term of alternate years.  
*Prerequisite:* Bio 103.
- Bio 232 EMBRYOLOGY & DEVELOPMENTAL BIOLOGY OF THE VERTEBRATES** (2-6) 4  
A detailed study of reproduction and development in representative vertebrates. The laboratory work explores the anatomy of development in depth, and the lecture correlates this development with and explains it on the basis of cellular and molecular events during ontogeny. Winter term.  
*Prerequisite:* Bio 102.
- Bio 301 THE ANATOMY AND MORPHOLOGY OF VASCULAR PLANTS** (2-6) 4  
An examination of the variation in structure and function of plant cells and their arrangement into tissues. The structure and development of plant organs will be studied in detail, and a major emphasis will be the comparative evolutionary survey of the vegetative and reproductive morphology of living and fossil plants. Winter term of even numbered years.  
*Prerequisite:* Bio 102.
- Bio 303 HISTOLOGY** (2-3) 3  
Study of the microscopic anatomy of the vertebrate body. Fall and Winter terms.  
*Prerequisite:* Bio 103.
- Bio 321 GENERAL PHYSIOLOGY** (3-3) 4  
Studies of the functions of animal and plant cells, tissues, organs, and whole organisms, with emphasis on the basic processes common to all. Fall and Winter terms.  
*Prerequisites:* Bio 102, 103, Chem. 231, and Math 201.
- Bio 322 RADIATION BIOLOGY** (3-3) 4  
An introduction to the theory of radioactivity and the application of isotopes in medicine, physiology and research. Animals and plants will be

used to demonstrate tracer techniques and results will be evaluated by use of scaler-counters and liquid scintillation. Winter term every two years.

*Prerequisites:* Bio 101, 102, 103, 321 and permission of instructor.

**Bio 331 MICROBIOLOGY (3-3) 4**

A survey of the microbial world with emphasis on staining and culturing techniques and clinical methods for identification of bacteria and fungi of medical, economic and agricultural importance. Winter term.

*Prerequisites:* Bio 101, 102, 103; Chem 151.

**Bio 332 IMMUNOLOGY (3-3) 4**

An introduction to the structures and biochemical activities of antibodies and the mechanisms of the immune response. The laboratory will emphasize analytical methods of measuring antibody-antigen reactions.

*Prerequisite:* Bio 331.

**Bio 350 MYCOLOGY (3-3) 4**

A survey of the Kingdom Fungi covering classification, physiology, development, genetics, and environmental relationships peculiar to the fungi.

*Prerequisites:* Bio 102 and Chem 150/151.

**Bio 360 BRYOPHYTES AND LICHENS (2-6) 4**

A course to include taxonomy, morphology, ecology, reproduction, and evolution of the Bryophytes and Lichens. The course will include at least one one-day weekend field trip to a high elevation area near Durango. Winter term of odd numbered years.

*Prerequisite:* Bio 102.

**Bio 371 GENETICS (3-3) 4**

An investigation of inheritance with emphasis on the genetics of man, crops, and domestic animals. A discussion of the genetic basis of evolution is included. Fall term.

*Prerequisite:* Bio 321 or consent of instructor.

**Bio 400 PLANT PHYSIOLOGY (3-3) 4**

A study of plant water relations, nutrition, metabolism, and adaptations to different environments.

*Prerequisites:* Bio 102, Chem 311.

**Bio 407 EVOLUTION (3-0) 3**

A study of the origin of living populations and the factors influencing genetic change. Winter term of alternate years.

*Prerequisite:* Bio 371.

**Bio 433 BACTERIAL PHYSIOLOGY (3-3) 4**

Unique characteristics of metabolic pathways in bacteria will be studied. Major laboratory emphasis is placed on the interrelationships of bacteria, viruses and immune response, and their effects on human physiology. Fall term of even-numbered years.

*Prerequisites:* Bio 321, 331; Chem 232.

- Bio 455 CELLULAR AND MOLECULAR BIOLOGY (3-3) 4  
 Examination of the metabolic processes of the cell with respect to organelle compartmentalization. Emphasis will be placed on bioenergetics, intermediate metabolism, and the biology of the gene. Winter term.  
*Prerequisite:* Chem 232, Bio 321 or Bio 433. Biochemistry is strongly recommended.
- Bio 471 FIELD ECOLOGY 5  
 An advanced ecology course that emphasizes sampling methods, description of local plant and animal communities, and techniques of environmental monitoring in terrestrial and aquatic ecosystems.  
*Prerequisites:* Bio 201, 203, and 220. Math 201 or Psych 241.
- Bio 473 MAMMALIAN PHYSIOLOGY (3-3) 4  
 Functions of the mammalian organ systems with emphasis on nutrition, metabolism, and reproduction. Fall term.  
*Prerequisite:* Bio 321.
- Bio 477 BIOGEOGRAPHY (3-3) 4  
 A study of the past and present distributions of plants and animals. Emphasis is on seed plants and vertebrate animals. Offered on demand.  
*Prerequisite:* consent of instructor.
- Bio 496 SEMINAR (2-0) 2  
 Advanced study and research in selected topics. Fall and winter terms.  
*Prerequisite:* senior standing and permission of instructor.
- Bio 499 INDEPENDENT STUDY 1-3  
 Individual research under the supervision of a faculty member. Offered on demand.  
*Prerequisite:* approval of Department Chairman.

## Chemistry

Professors E. Merle Harrison, Rodney D. Hamilton, John M. Ritchey, James W. Mills and William C. Langworthy;  
 Associate Professors William R. Bartlett and Doreen M. Mehs;  
 Assistant Professor Ron C. Estler

The Chemistry Department seeks to prepare students to become chemists in industry and teaching; to enter medical, engineering, or other professional and graduate schools; and to provide a general knowledge of chemistry and of the scientific method.

In order to achieve these objectives, a flexible curriculum has been designed, thus giving the student an opportunity to tailor a degree to fulfill personal needs and interests. The chemistry major prepares the student for professional work in various areas of chemical technology, or may be combined with other majors or minors so that the student may ultimately practice in interdisciplinary vocations. An extended major is recommended for students contemplating advanced study.

The Chemistry Department also offers certification by the American Chemical Society to students who complete the certified curriculum (described below). Those students planning on entering professional schools in medicine, dentistry, or veterinary medicine should consult the pre-health curriculum recommendations in this catalog.

A minor is available in Chemistry for students majoring in other disciplines. For details, interested students should consult with the Department Chairperson.

Chemists are concerned with the structure, composition, energy relationships, chemical conversions and other properties of substances. The various areas of chemical technology offer the largest field of employment in the physical sciences. Chemists are employed in fields such as petroleum, primary metals, electrical equipment, aerospace, pollution control, energy research and production, forensic science, paper, food, rubber, plastics, and textiles.

Thus, the graduate will find many applications for his training—e.g., teaching, research, management, production and sales—in the fields of education, business, industry, government, and medicine.

#### BACHELOR OF SCIENCE DEGREE WITH A MAJOR IN CHEMISTRY

General Studies .....			41
<i>Specific Departmental Requirements:</i>			
Chem 150-151, Fundamentals of Chemistry	11		
Chem 231-232, Organic Chemistry	10		
Chem 365, Analytical Chemistry	4		
Chem 358-359, Physical Chemistry	6		
Chem 360, Physical Measurements	2		
Chem 367, Instrumental Methods of Analysis	4		
Chem 496-497, Seminar	2	39	
<i>**Auxiliary Requirements from Other Departments:</i>			
Mathematics through Math 222	14		
Phys 162-262-263 (132-232-233), 211, 212	11		
Computer Science 150 or 120	3	28	
<i>Electives</i> .....			20
<b>TOTAL REQUIRED FOR GRADUATION</b> .....			<b>128</b>

\*Phys 132, 232, 233 not recommended for EXTENDED MAJORS.

\*\*These auxiliary requirements fulfill Group B—Quantitative or Natural Science—under the distribution requirements.

#### EXTENDED MAJOR

Students planning to earn an advanced degree in chemistry, biochemistry, engineering, or other science-based post-graduate programs for the purpose of teaching or research are strongly encouraged to extend the chemistry major by completing 12-16 credits in the following courses:

- Chem 264, Inorganic Chemistry
- Chem 311, Biochemistry
- Chem 351, Pharmacology

Phys 301, Introduction to Electronics  
 Phys 320, Modern Physics  
 Phys 380, Advanced Physics Laboratory I  
 Phys 420, Quantum Mechanics I  
 Chem 431, Advanced Organic Chemistry  
 Chem 454, Advanced Topics in Chemistry  
 Chem 460, Synthesis Techniques  
 Chem 464, Advanced Inorganic Chemistry  
 Chem 499, Independent Study  
 Math 223, Calculus  
 Math 327, Differential Equations  
 Math 401, Probability and Statistics  
 Bio 231, Vertebrate Comparative Anatomy  
 Bio 232, Developmental Biology of Vertebrates  
 Bio 321, General Physiology  
 Bio 371, Genetics  
 Bio 331, Microbiology  
 Bio 455, Cell Structure and Physiology

Students are also encouraged to complete a year of German or French since many graduate schools require language proficiency.

The student is urged to consult with a member of the chemistry faculty for aid in designing a sequence of courses which best fit individual needs and goals.

## THE ACS CERTIFIED B.S. DEGREE

Chemistry majors may qualify for certification by the ACS upon graduation by successfully completing a core of specified courses in chemistry and related fields. The student should consult with the department chairperson for the ordering of the courses bears upon achieving the goals of the certified curriculum.

FOR STUDENTS DESIRING PRE-HEALTH CAREERS SEE INDEX.

### SECONDARY TEACHING IN CHEMISTRY

Students majoring in Chemistry may be certified to teach Science at the secondary level. To obtain requirements for teacher certification, please contact the Department of Teacher Education.

A student who wishes to obtain a teaching certificate with a major in chemistry should complete at least 12 upper division credits in chemistry and six upper division credits in related disciplines—either mathematics or physics.

#### *Specific Departmental Requirements:*

Chem 150, 151	11
Chem 231	5
Chem 365	4
Other chemistry courses numbered 200 or above	4

#### *Auxiliary Requirements from other Departments:*

Mathematics or Physics courses numbered 200 or above	6
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## COURSES

**Chem 110 INTRODUCTION TO COLLEGE CHEMISTRY (4-3) 5½**

This course provides the necessary scientific and mathematical background for those students not qualified for Chem 150. Major topics include a consideration of scientific and chemical measurement and calculation, elementary atomic theory, descriptive chemistry of the elements, the mole concept, balancing chemical equations, and calculations based upon chemical equations. This course is designed for those students who have not had high school chemistry and have generally weak scientific and mathematical backgrounds. It may not be used for credit in any major program.

**Chem 150 FUNDAMENTALS OF CHEMISTRY (4-3) 5½**

A conceptual approach to fundamental principles of chemistry including electronic structure of atoms and molecules, stoichiometry, solutions and states of matter, metallic and non-metallic properties, chemical thermodynamics and equilibrium, reaction kinetics, nuclear chemistry and electrochemistry. It is the recommended beginning course for science majors. Fall and Winter terms.

*Prerequisite:* Either two years of high school mathematics, satisfactory performance on ACT/SAT examination, or concurrent enrollment in Math 110.

**Chem 151 FUNDAMENTALS OF CHEMISTRY (4-3) 5½**

A continuation of Chemistry 150. Winter Term.

*Prerequisite:* Chem 150 or permission of instructor.

**Chem 225 ENVIRONMENTAL CHEMISTRY (3-0) 3**

Sources, flow, dispersion and degradation of chemical pollutants in the environment. Energy relationships in natural systems. Introduction to abatement theory, mechanisms of pollution control.

*Prerequisite:* Chem 151.

**Chem 231 ORGANIC CHEMISTRY (4-3) 5**

Nomenclature, structure, stereochemistry and reactions of aliphatic and aromatic hydrocarbons. Unifying principles of reaction mechanisms are introduced and applied to free-radical substitution, electrophilic addition and electrophilic aromatic substitution reactions. The laboratory work is designed to acquaint the student with fundamental isolation and separation techniques. Fall term.

*Prerequisite:* Chem 151.

**Chem 232 ORGANIC CHEMISTRY (4-3) 5**

Nomenclature, structure, spectroscopy and reactions of the major functional group classes. Emphasis is placed on nucleophilic substitution and addition reactions. The chemistry of biological compounds is introduced with studies of lipids, carbohydrates and amino acids. Laboratory emphasis is on synthesis and identification of organic compounds. Winter term.

*Prerequisite:* Chem 231.

- Chem 264 INORGANIC CHEMISTRY (2-0) 2  
Occurrence, metallurgy, properties, uses of selected elements, compounds, and alloys. Also included are aspects of inorganic environmental chemistry, crystal-structure, stereochemistry of non-transition elements, coordination compounds, acidity and basicity, energy and chemical change, solution chemistry, solid-liquid phase equilibria, periodic relationships, and organo-metallic compounds. Winter term.  
*Prerequisite:* Chem 151.
- Chem 301 SCIENTIFIC GLASSBLOWING (0-3) 1  
This course is designed to provide the student with the basic skills of glassblowing manipulation. The properties and uses of different types of glass will be considered. Simple laboratory apparatus will be designed and built.
- Chem 305 NATURAL PRODUCTS FROM PLANTS (1-6) 3  
A comprehensive study of the biologically active constituents of plants of the Southwest and elsewhere. Medicinal compounds and poisons are emphasized. Chemical structures, physiological activity, plant sources and biosynthetic pathways are discussed. Lab work includes field gathering, isolation and identification of compounds. May term.  
*Prerequisite:* Chem 231.
- Chem 311 GENERAL BIOCHEMISTRY (4-0) 4  
The basic principles of biochemistry. The structure and function of proteins, carbohydrates, lipids, and nucleic acids; the metabolic processes occurring within living organisms; and biochemical genetics.  
*Prerequisite:* Chem 232.
- Chem 312 GENERAL BIOCHEMISTRY LAB (1-3) 1  
The laboratory is designed to acquaint the student with basic biochemical techniques.
- Chem 351 PHARMACOLOGY (3-0) 3  
Studies of the effects produced by drugs, and of their administration, absorption, distribution and excretion. Special emphasis is placed on the theories of the mechanism of action of drugs.  
*Prerequisite:* Chem 231.
- Chem 358 PHYSICAL CHEMISTRY (3-0) 3  
An introduction to thermodynamics and its applications to chemical processes. The course explores why chemical reactions occur, the nature of chemical equilibrium, the factors determining the speed of reactions, and the role of temperature in reactions and equilibria. Includes elementary kinetic gas theory and the Boltzman distribution, energy, entropy, free energy and equilibrium, ideal solutions, colligative properties, and reactions rate theory. Fall term.  
*Prerequisites:* Chem 151, Phys 218 (or 202), and concurrent enrollment in Math 222.
- Chem 359 PHYSICAL CHEMISTRY (3-0) 3  
A study of the quantum theory of atoms and molecules, Includes fundamentals of quantum mechanics, electronic structure of atoms and molecules, molecular symmetry, molecular vibration and rotation, and the interaction of matter with light. Winter term.  
*Prerequisite:* Chem 358.

- Chem 360 PHYSICAL MEASUREMENTS (0-6) 2  
 Instruction in design of experiments to measure physical properties and the analysis of data. These general techniques are applied in studies of kinetics, thermochemistry, electrochemistry, spectroscopy, and molecular structure.  
*Prerequisites:* Chem 359 or consent of instructor.
- Chem 365 ANALYTICAL CHEMISTRY (3-3) 4  
 Introduction to quantitative analytical chemistry including error, gravimetric and volumetric analysis; acid-base and redox equilibria; and electrochemistry; examples related to environment concerns will be emphasized. Fall term.  
*Prerequisite:* Chem 151; Chem 231 recommended.
- Chem 367 INSTRUMENTAL METHODS OF ANALYSIS (3-3) 4  
 Modern spectroscopic theory and methods including electronic, infrared, nuclear magnetic resonance, emission, flame, atomic absorption, mass, x-ray and Mossbauer. Chromatographic, optical activity, and thermal methods of analysis will be introduced.  
*Prerequisite:* Chem 365 or consent of instructor.
- Chem 431 ADVANCED ORGANIC CHEMISTRY (3-0) 3  
 Advanced studies in reaction mechanisms, molecular structure, stereochemistry, energy relationships, spectroscopy, and the application of quantum mechanics to organic chemistry. Fall term.  
*Prerequisite:* Chem 232.
- Chem 454 ADVANCED TOPICS IN CHEMISTRY 1-4  
 Advanced material in various areas of chemistry. During the course, material from one specific area will be treated. Class schedules will indicate the area. Example of offerings include polymer, forensic and photo chemistry. The time spent in the classroom and in the laboratory will vary with the topic. On demand.  
*Prerequisite:* the 200 or 300 level course(s) in the specific subject area.
- Chem 460 SYNTHESIS TECHNIQUES (0-6) 2  
 Instruction in synthetic chemical techniques and the design of synthesis experiments. Standard organic and inorganic methods will be considered and applied to a variety of classes of compounds. Fall term.
- Chem 464 ADVANCED INORGANIC CHEMISTRY (3-0) 3  
 Atomic structure and periodic table, magnetic properties, modern bonding theories, chemistry of selected transition and non-transition elements, reaction mechanism, solid state, organometallic and bioinorganic chemistry, inorganic synthesis. Winter term.  
*Prerequisite:* Chem 264, 358 or consent of instructor.
- Chem 496 SEMINAR (1-0) 1  
 Advanced study and research in selected topics. Fall terms.  
*Prerequisites:* Junior or Senior standing or consent of instructor.

Advanced study and research in selected topics, Winter terms.

*Prerequisites:* Chem 496 or consent of instructor.

**Chem 499 INDEPENDENT STUDY**

1-3

Work on a current research problem under the direction of a faculty member. Students present oral and written papers based on this research. On demand.

*Prerequisites:* Junior or Senior standing and permission of instructor.

## Engineering

Professor James R. Baker

Associate Professors Tom F. Norton, Jeffrey A. Moore

Assistant Professor Donald Spangsberg and Paul Boucher,

Visiting Assistant Professor

Instructor Carla S. Williams

The engineering program at Fort Lewis College offers the student the requisite fundamental engineering sciences background, the liberal arts background, and the strong mathematical foundation necessary for pursuing upper-level classes and graduate studies in engineering. The program offers the equivalent of the first two years of college engineering studies, as well as selected, more advanced courses.

Fort Lewis College participates in formal engineering program agreements with Colorado State University (CSU) at Fort Collins, Colorado; the Colorado School of Mines (CSM) at Golden, Colorado; and the University of New Mexico (UNM) at Albuquerque, New Mexico. Under the block transfer agreement with Colorado State University, the student completes a prescribed sequence of courses, listed below, in residence at Fort Lewis College. Successful completion of this sequence with an average grade point of 2.5 in the courses listed is sufficient for the collective transfer of the courses as a junior in that institution. The block transfer sequence may be completed in two years residence at Fort Lewis College.

Under the block transfer plan agreement with the Colorado School of Mines, the student completes a prescribed sequence of courses, listed below, in residence at Fort Lewis College. If the student successfully completes this sequence of courses with a grade point average of 2.5 or above, admission to the Colorado School of Mines is guaranteed, with full junior standing.

The block transfer agreement with the University of New Mexico operates in a similar manner. The student must complete a prescribed sequence of courses, listed below, in residence at Fort Lewis College. Successful completion of this sequence, with a grade point average of 2.25, assures admission to the University of New Mexico's College of Engineering with full junior standing at that institution.

Students who are interested in obtaining a mathematics degree in addition to an engineering degree may wish to pursue a 3-2 program. Under this option, the student attends Fort Lewis College for six terms (equivalent to three academic years), and the cooperating institution for

pletes the requirements for the basic engineering core, and most of the requirements for a mathematics major. At the cooperating institution the student completes the remaining requirements for a Bachelor of Arts degree in mathematics, awarded by Fort Lewis College, and the requirements for an engineering degree from the cooperating institution.

Although the above plans pertain specifically to the agreements with Colorado State University, Colorado School of Mines, and the University of New Mexico, the courses offered are ordinarily accepted for credit in comparable courses at other degree-granting engineering institutions. In addition, the engineering courses are often used by students in planning student-constructed majors at Fort Lewis College. Student-constructed majors utilizing the engineering courses are available in conjunction with physics, geology, mathematics and other disciplines. The student should consult his advisor if interested in such a student-constructed major. An Engineering minor is also available to students majoring in other disciplines at Fort Lewis College. Students interested in an engineering minor should consult with the engineering faculty.

## CSU BLOCK TRANSFER PLAN

### *Specific Departmental Requirements*

Engr 104	Engineering Principles I	3
Engr 105	Engineering Principles II	3
Engr 201	Electric Networks I	3
Engr 202	Electric Networks II, or	3
Engr 203	Electronics	
Engr 217	Statics	3
		18

### *Auxiliary Requirements*

FCS	Freshman Composition Seminar	4
Math 221, 222, 223	Calculus I, II, III	13
SCS	Sophomore Composition Seminar	4
Math 327	Differential Equations	3
Phys 162, 262, 263	Physics for Scientists and Engineers, I, II, III	9
Phys 211, 212	Physics Laboratory I, II	2
Phys 370	Heat and Thermodynamics	3
Chem 150-151	Fundamentals of Chemistry	11
GS	Humanities and Social Sciences	6
		55

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## CSM BLOCK TRANSFER PLAN

### *Specific Courses Required of All Students*

FCS, SCS	Freshman, Sophomore Composition Seminars	8
Math 221, 222, 223	Calculus I, II, III	13
Engr 102	Technical Drafting	3
Engr 104	Engineering Principles I	3
Engr 217	Statics	3
Chem 150-151	Fundamentals of Chemistry	11

Geol 115, 115L	Physical Geology	4½
Phys 162, 262, 263	Phys. for Sci. & Engr. I, II, III	9
Phys 211, 212	Physics Laboratory I, II	2
Chem 358	Physical Chemistry	3
PE ACT	Physical Activities I, II, III, IV	4
		63½

*An Additional 16-18 Hours Selected From:*

Econ 261	Economics-Macro	3
Econ 262	Economics-Micro	3
Engr 221	Dynamics	3
Engr 317	Mechanics of Materials	3
Engr 321	Fluid Mechanics	3
Geol 116, 116L	Historical Geology	4½
Geol 207	Mineralogy	3
Math 327	Differential Equations	3
Math 401	Probability and Statistics	3
Chem 231	Organic Chemistry	3
GS	Humanities and Social Sciences	3-6
		16-18½

80-82

## UNM BLOCK TRANSFER PLAN

*Common Courses Required of All Students*

FCS, SCS	Freshman, Sophomore Composition Seminars	8
Math 221, 222, 223	Calculus I, II, III	13
Chem 150, 151	Fundamentals of Chemistry I, II	11
Engr 104, 105	Engineering Principles I, II	6
Phys 162, 262, 263	Phys. for Sci/Engr I, II, III	9
Phys 211, 212	Physics Laboratory I, II	2
Engr 201	Electric Networks I	3
Math 327	Differential Equations	3
		55

*A Minimum of 15 Hours Additional, Depending on the Intended Major, Selected from the Following:*

Engr 217	Statics	3
Engr 221	Dynamics	3
Engr 205, 305	Surveying I, II	8
Engr 202	Electric Networks II	3
Engr 317	Mechanics of Materials	3
Engr 321	Fluid Mechanics	3
Phys 370	Heat and Thermodynamics	3
Phys 320	Modern Physics	3
Chem 231, 232	Organic Chemistry I, II	10
Econ 261	Economics-Macro	3
Bio 100, 101	Intro. to Biology	4½
Bio 103	General Zoology	4½
Thea 121	Speech Communication	3
GS	Humanities and Social Sciences	15

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## COURSES

**Engr 102 TECHNICAL DRAFTING (2-2) 3**

A basic course in engineering graphics, including geometric constructions, orthographic projection, sectional views, dimensioning, layout, working drawings, and elementary descriptive geometry.

**Engr 104 ENGINEERING PRINCIPLES I (3-0) 3**

Introduction to programming using the FORTRAN language, problem solving methods, algorithm development, program design, debugging, documentation, and computer solution to several mathematical/engineering problems. Credit will not be granted for both ENGR 104 and CS 150.

*Prerequisite:* Math 111 or equivalent.

**Engr 105 ENGINEERING PRINCIPLES II (3-0) 3**

Solution of fundamental engineering and design problems utilizing digital computation and graphical techniques. Topics include graphical and numerical mathematics, engineering statistics, and computer graphics.

*Prerequisites:* Math 221 and Engr 104.

**Engr 201 ELECTRIC NETWORKS I (2-3) 3**

An introduction to engineering circuit analysis. Topics include linear circuit elements (resistors, capacitors, inductors), linear circuits, Kirchoff's laws, methods of analysis, RL, RC, and RLC circuits, phasors, sinusoidal steady state response, average value and RMS values.

*Prerequisite:* Math 222.

**Engr 202 ELECTRIC NETWORKS II (2-3) 3**

Topics include polyphase circuits, complex frequency and frequency response of linear networks, magnetically coupled circuits, two port networks, Fourier analysis, and Laplace transform techniques.

*Prerequisite:* Engr 201.

**Engr 203 ELECTRONICS (3-0) 3**

An introduction to electronics and electronic devices. Topics include rectifiers, amplifiers, diodes, tubes, transistors, power supplies, and certain other nonlinear devices. Applications of the devices discussed along with their mathematical models are also covered.

*Prerequisite:* Engr 201.

**Engr 205 SURVEYING I (2-4) 4**

Care and use of surveying instruments. Fundamental surveying computations. Applications in traversing and topographic mapping. Sources and evaluation of errors.

*Prerequisite:* Math 111 or equivalent.

**Engr 217 STATICS (3-0) 3**

Vectors, forces and moments. Static equilibrium of particles and rigid bodies. Friction, centroids, moments of inertia, and virtual work.

*Prerequisite:* Math 221.

- Engr 221 DYNAMICS (3-0) 3  
Kinematics and kinetics of particles and rigid bodies. Concepts of work-energy, impulse-momentum, and their applications.  
*Prerequisite:* Engr 217.
- Engr 305 SURVEYING II (2-4) 4  
Topics include the Public Land Survey system, coordinate systems and control surveys, photogrammetry, astronomic observations, and route surveys.  
*Prerequisites:* Engr 205, Math 221.
- Engr 317 MECHANICS OF MATERIALS (3-0) 3  
Stresses and deformations in structural members and machine elements, combined stresses, and stress transformations.  
*Prerequisite:* Engr 217.
- Engr 321 FLUID MECHANICS (3-0) 3  
Fluid properties. Statics, kinematics, and kinetics of fluids including gravitational and viscous effects.  
*Prerequisite:* Engr 221.

## English

Professors G. Leonard Bird, Kenneth I. Periman, and Carrol V. Peterson

Associate Professors Larry W. Gasser, Roland Jones, Lillian B. Lang, Paul N. Pavich, and Shaila Van Sickle  
Assistant Professor Mary Jean Moseley

The work offered in English deals with several aspects of a liberal education: the linguistic, literary, and artistic history of Western culture; selected studies in non-Western literatures in translation; human values; the relationships between cultures in the Southwest; and written and oral communication, both utilitarian and creative.

Students with other majors find the courses in English valuable for their general educational development. In addition, the English department offers supporting courses for the Southwest Studies major, the Humanities major, the Elementary Education major, and the Division of Cultural Studies.

Because many students wonder what one can do with an English major after graduation, English advisors can help students plan courses of study preparing them for graduate or professional school; careers in business, industry, or government; careers in communications; or secondary school teaching.

The English major has three options which indicate the career possibilities:

### The General Option

A traditional English major; or preparation for graduate or professional school; or preparation for a career by combining an English major with courses in other fields.



The Communications Option	An English major with a communications emphasis.
The English Education Option	Preparation for secondary school teaching.

Minors are available in English and Communications for students majoring in other disciplines. For details, interested students should consult with the Department Chairperson.

#### BACHELOR OF ARTS DEGREE WITH A MAJOR IN ENGLISH

##### *The General Option:*

General Studies ..... 41 hrs

##### Specific Departmental Requirements

A minimum of 34 hours from English courses designated in the catalog as "applicable to the major." These courses must be distributed as follows:

One course in World Literature (161, 162, 163, 221, or 222)

One course in American Literature (243, 244, or 342)

One course in Composition (363 or 364)

One course in Language (225, 362, or 461)

Two courses in English Literature (any two from 331-335, 431)

Engl 432, Shakespeare

Engl 496 or 499 (at least 2 hours)

Other English courses ..... 9-10 hrs

TOTAL HOURS IN ENGLISH ..... 34 hrs

Electives ..... 53 hrs

(English advisors can help students choose electives which will further their individual career goals.)

TOTAL HOURS REQUIRED FOR GRADUATION ..... 128

##### *The Communications Option:*

General Studies ..... 41 hrs

##### Specific Departmental Requirements

One course in World Literature (161, 162, 163, 221, or 222)

One course in American Literature (243, 244, or 342)

One course in Composition (363 or 364; 363 preferred)

One course in Language (225, 362, or 461; 225 preferred)

Two courses in English Literature (any two from 331-5, 431)

English 189 or 208

At least 6 hours from Engl 250, 251, 450, 451

Engl 432, Shakespeare

Engl 496 or 499, at least 2 hours

One other English course for 3 or 4 hours

TOTAL HOURS IN ENGLISH ..... 36-37

##### Auxiliary Requirements from Other Departments

Theatre 121

Theatre 102

Theatre 301 or 304

TOTAL AUXILIARY REQUIREMENTS.... 9

Electives .....	41-42
(English advisors can help students elect courses which will further strengthen their communications option.)	

TOTAL HOURS REQUIRED FOR GRADUATION.....	128
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*The English Education Option:*

The English Education Option gives high-quality preparation to students who wish to become secondary school English teachers. This option recognizes that secondary teachers must be able to teach in all standard areas of literature, language, and composition and frequently must also direct plays; therefore it is an extremely demanding major which requires careful planning and advising. Students choosing this option should consult Professor Lillian Lang as early in their college careers as possible.

General Studies .....	41
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*Specific Departmental Requirements for the English Education Option*

Engl 221 Classical Literature	3
or	
Engl 222 Bible as Literature	
Engl 225 Semantics	3
Engl 243 American Literature, 1865-1945	3
Engl 328 Literature for the Adolescent	3
Engl 331-335 British Literature (Select 3 of 5 courses.)	9
Engl 342 American Literature to 1865	3
Engl 362 Introduction to Linguistics	3
Engl 363 Advanced Composition*	4
Engl 364 Creative Writing	4
Engl 244 Contemporary American Literature or	
Engl 412 Twentieth Century English and American Fiction	3
Engl 432 Shakespeare	3
Engl 461 History of the English Language	3
Engl 463 Methods of Teaching English as a Second Language	3
Engl 481 Materials of Instruction for Teaching English**	1
Engl 496 Seminar	2
or	
Engl 499 Independent Study	

TOTAL DEPARTMENTAL REQUIREMENTS.....	50
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\*English Education option students will be expected to pass a proficiency examination or offer credit in Engl 101, Basic Composition, before taking Engl 363.

\*\*To be taken prior to student teaching, in conjunction with Educ 480 Methods of Teaching English (Secondary).

Auxiliary Requirements in Theatre and Journalism for the English Education Option:

Two 3-hour courses in Theatre and two 3-hour courses in Journalism, consisting of one theory and one "practicum" in each area, are required. Specific courses are to be determined in conference with the English Education advisor, Professor Lang.

Total Auxiliary Requirements .....12

Refer to Education Section of the Catalog for Secondary Certification Requirements

Total hours required for graduation ..... 128

#### SECONDARY ENGLISH EDUCATION AS A SECOND TEACHING EMPHASIS:

The following program will qualify a secondary teacher candidate for a second teaching area. The program may be undertaken only with consent of the English Education advisor, and only in conjunction with a teaching major in another area. Note: This program alone will not qualify a person for a teaching certificate.

Required Courses:

Engl 243 American Literature, 1865-1945.....	3
Engl 328 Literature for the Adolescent.....	3
British Literature—Any 2 courses.....	6
Engl 331 Renaissance Literature.....	3
Engl 332 Neoclassical Literature.....	3
Engl 333 Romantic Literature.....	3
Engl 334 Victorian Literature.....	3
Engl 335 English Novel.....	3
Engl 432 Shakespeare.....	3
Engl 362 Introduction to Linguistics.....	3
Engl 363 Advanced Composition*.....	4
Engl 461 History of the English Language.....	3
Engl 481 Materials of Instruction for Teaching English**.....	1
Educ 480 Methods of Teaching English (Secondary).....	2
Thea 121 Speech Communication.....	3

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\*Teacher candidates will be expected to pass a proficiency examination in composition or offer credit in Engl 101, Basic Composition, before taking Engl 363, Advanced Composition.

\*\*To be taken trimester prior to student teaching, in conjunction with Educ 480, Methods of Teaching English (Secondary).

# ENGLISH COURSE OFFERINGS

## Preparatory English

Engl 101 BASIC COMPOSITION (3-0) 3  
Designed to develop basic writing and speaking skills. Emphasis on grammar, mechanics, vocabulary, spelling, and punctuation, with some attention to writing of short papers. Sections will be provided for bilingual students. Admission by referral or with approval of instructor. Offered on demand.

## General English Electives

Courses fulfilling distribution requirements, requirements for majors other than English, or serving as electives; open to non-English and English majors, but not applicable to the English major.

Engl 130 MASTERS OF ENGLISH LITERATURE (3-0) 3  
The English literary and cultural heritage presented in its historical context. Winter term.

Engl 140 THE AMERICAN TRADITION IN LITERATURE (3-0) 3  
The American literary and cultural heritage presented in its historical context. Fall term.

Engl 150 INTRODUCTION TO PLAY READING (3-0) 3  
An introduction to the methods of understanding plays. Same as Thea 150. Offered on demand.

Engl 327 CHILDREN'S LITERATURE (3-0) 3  
A study of all types of literature for children, development of criteria for evaluating books, and methods of creating in children a love of good books through a sound literature program in the elementary school. Fall and Winter terms.

## Literature Courses

Courses applicable to the English major but also appropriate for distribution requirements, electives, or other special needs.

Engl 161 WORLD LITERATURE TO 1914 (3-0) 3  
A study of selected masterpieces of world literature to 1914. Winter term.

Engl 162 WORLD LITERATURE SINCE 1914 (3-0) 3  
A study of selected masterpieces of world literature, primarily the novel, since 1914. Fall term.

Engl 163 TWENTIETH CENTURY ASIAN AND AFRICAN NOVEL (3-0) 3  
A study of selected twentieth century novels in translation from Asia and Africa. Designed to give an appreciation and awareness of cultures other than Euro-American. Winter term.

- Engl 221 CLASSICAL LITERATURE (3-0) 3  
A study of ancient Greek and Roman literature. Fall term.
- Engl 222 BIBLE AS LITERATURE (3-0) 3  
A study of the Bible as literature, and its influence on art, music, and literature of the Western world. Fall term.
- Engl 243 AMERICAN LITERATURE, 1865-1945 (3-0) 3  
A study of American literature from the Civil War to World War II, with emphasis on the development of realism and naturalism. Winter term.
- Engl 244 CONTEMPORARY AMERICAN LITERATURE (3-0) 3  
A study of American literature from World War II to the present, with emphasis on the novel. Fall term.
- Engl 280 LITERATURE OF THE SOUTHWEST (3-0) 3  
The American Southwest seen through fiction, poetry, biography, and other works by Anglos, Indians, and Spanish Americans. Winter term.
- Engl 328 LITERATURE FOR THE ADOLESCENT (3-0) 3  
Beginning with a review of children's literature, this course is a study of all types of literature for adolescents and young adults. Evaluative criteria for book selection will be considered. Emphasis on minority and ethnic literature. Winter term.
- Engl 331 ENGLISH LITERATURE THROUGH THE RENAISSANCE (3-0) 3  
A study of the literature of England from Malory to Milton. Fall term, alternate years.
- Engl 332 NEOCLASSICAL LITERATURE (3-0) 3  
A study of the literature of England from about 1660 to 1798, with emphasis on satire and social and literary commentary. Winter term, alternate years.
- Engl 333 ENGLISH ROMANTIC LITERATURE (3-0) 3  
A study of the literature of England from about 1798 to 1830. Emphasis on poetry and non-fictional prose. Winter term.
- Engl 334 VICTORIAN LITERATURE (3-0) 3  
A study of the literature of England from about 1830 to 1914. Emphasis on poetry and non-fictional prose. Fall term.
- Engl 335 THE ENGLISH NOVEL (3-0) 3  
A study of the development of the English novel from its beginning to World War I. Fall term, alternate years.
- Engl 342 AMERICAN LITERATURE TO 1865 (3-0) 3  
A study of American literature before the Civil War, with emphasis on the American Renaissance. Fall term, alternate years.
- Engl 370 HISTORY OF THE FILM (2-2) 3  
A study of the film as an art form, with emphasis on American and European films. Students view at least one major film each week. Fall and Winter terms

- Engl 376 FOLKLORE OF THE SOUTHWEST (3-0) 3  
 A study of Anglo-American, Hispanic, and American cultures, as reflected in their folklore, with attention paid to published and unpublished materials and collecting techniques, leading to a fuller understanding and appreciation of folk traditions of the Southwest. Fall term.
- Engl 380 AMERICAN INDIAN LITERATURE (3-0) 3  
 A study of traditional and contemporary American Indian expression of thought as seen through oration, tales and legends, chants and songs, poetry, drama, and the novel. Offered on demand.
- Engl 411 TWENTIETH CENTURY ENGLISH AND AMERICAN POETRY (3-0) 3  
 A study of twentieth century poetry from 1914 to the present. Fall term, alternate years.
- Engl 412 TWENTIETH CENTURY ENGLISH AND AMERICAN FICTION (3-0) 3  
 A study of selected twentieth century English and American prose writers, concentrating on the novel. Winter term.
- Engl 431 CHAUCER (3-0) 3  
 A study of the writings of Geoffrey Chaucer. Winter term, alternate years.
- Engl 432 SHAKESPEARE (3-0) 3  
 A study of Shakespearan drama. Fall term.  
*Recommended prerequisite:* two courses in the Engl 331-334 series.

## English Language and Composition Courses

Courses applicable to the English major but also appropriate for distribution requirements, electives, or other special needs.

- Engl 189 NEWS WRITING (2-3) 3  
 A practical course in news writing, with emphasis on news gathering, interviewing, and the writing of news stories for the weekly student newspaper. Fall term, alternate years.
- Engl 208 JOURNALISM (2-3) 3  
 Advanced news writing, editorial and feature writing, preparation of copy for newspaper and campaigns, headline writing, and newspaper make-up. Winter term, alternate years.
- Engl 225 SEMANTICS (3-0) 3  
 A course which emphasizes the various ways in which words have meaning: lexical, psychological, social, philosophical. The course also emphasizes the ways in which interpersonal communication can break down because of manner, nonaligned assumptions about the world or about words, or because of the manipulation of words for propagandistic purposes. Fall and Winter terms.

Engl 362 INTRODUCTION TO LINGUISTICS (3-0) 3

A course which gives primary emphasis to the structure of the language, its sound, morphological and syntax systems. It gives secondary emphasis to many other facets of language: language acquisition; usage and the debate over prescriptive and descriptive approaches to language, to rules, to dialects and dialect variations, to the question of a "standard" dialect; the relationship between linguistics and reading and writing skills and to the analysis of literature. Fall and Winter terms.

Engl 363 ADVANCED COMPOSITION (4-0) 4

An advanced writing course with emphasis on the common forms of writing used by educated adults. Fall and Winter terms.

*Prerequisite:* Freshman and Sophomore Seminars.

Engl 364 CREATIVE WRITING (4-0) 4

An advanced writing course with concentration in such writing areas as poetry and short fiction. Fall and Winter terms.

*Prerequisite:* approval of instructor.

Engl 461 HISTORY OF THE ENGLISH LANGUAGE (3-0) 3

A study of the development of English from Indo-European sources to the present. Winter term.

## Practicum Courses

Courses applicable to the English major but also appropriate for distribution requirements, electives, or other special needs. A maximum of 24 credits can count toward graduation.

Engl 250 PRACTICUM-INDEPENDENT 1-6

Directed experience for lower-division students in newspaper work on the *Independent*. Credit is based on the ratio of 30 hours of work for each credit earned. Students will be directed by a professor who will assign, monitor, and evaluate their work. Repeatable for a maximum of 12 credits. Permission of instructor required. Fall and Winter terms.

Engl 251 PRACTICUM-KDUR 1-6

Directed experience for lower-division students in radio broadcasting on KDUR. Credit is based on the ratio of 30 hours of work for each credit earned. Students will be directed by a professor who will assign, monitor, and evaluate their work. The course may be repeated for a maximum of 12 credits. Permission of instructor required. Fall and Winter terms.

Engl 450 PRACTICUM-INDEPENDENT 1-6

Directed experience for upper-division students in newspaper work on the *Independent*. Credit is based on the ratio of 30 hours of work for each credit earned. Students will be directed by a professor who will assign, monitor, and evaluate their work. Repeatable for a maximum of 12 credits. Permission of instructor required. Fall and Winter terms.

Engl 451 PRACTICUM-KDUR 1-6  
Directed experience for upper-division students in radio broadcasting on KDUR. Credit is based on the ratio of 30 hours work for each credit earned. Students will be directed by a professor who will assign, monitor, and evaluate their work. The course may be repeated for a maximum of 12 credits. Permission of instructor required. Fall and Winter terms.

## Capstone Courses

Courses applicable to the major but open to all qualified students.

Engl 496 SEMINAR (2-0) 2 or (3-0) 3  
Advanced study and research in selected topics. Offered on demand.  
*Prerequisite:* senior standing or permission of instructor.

Engl 499 INDEPENDENT STUDY 1-3  
Individual research is conducted under the supervision of a faculty member. Fall and Winter terms.  
*Prerequisite:* permission of instructor.

## English Education Courses

Courses applicable to English Education Option of the English major but also appropriate for electives or other special needs.

Engl 463 METHODS OF TEACHING ENGLISH (3-0) 3  
AS A SECOND LANGUAGE  
Designed to prepare English teachers and bilingual-bicultural teachers in their teaching of children with language backgrounds other than English. Application made of both generalized and specific techniques. Offered on demand.  
*Prerequisite:* Engl 362.

Engl 481 MATERIALS OF INSTRUCTION FOR (1-0) 1  
TEACHING ENGLISH  
An introduction to materials for teaching literature, language, and composition in the secondary schools. Includes principles for the selection of literature for high school pupils and relationship of language and composition to the total secondary program. Teaching techniques are a point of emphasis. To be taken concurrently with Educ 480 term prior to student teaching. Fall term.

NOTE: Engl 190 and 390 Special Topics and English 496 Seminar provide greater depth in English offerings. Recent subjects include Mark Twain, The Short Story, The West Through Fiction and Film, Modern Grammar, Science Fiction, Women in Literature, and Writing Fiction. Special Topics courses ordinarily apply to the major.



## Foreign Languages

Associate Professors M. Federico Cano, and Deborah A. MacKeefe

Assistant Professors Reinaldo M. Alcazar, Lourdes Carrasco, and Ingrid Ryan.

The Department of Foreign Languages offers work in French, German, Latin, and Spanish as an important element of a well-rounded liberal education and as preparation for life in the modern inter-related world. A Bachelor of Arts degree with a major in Spanish is offered. (See statement under SPANISH below.)

A minor is offered in French, German, and Spanish. Students majoring in Elementary Education may elect a Spanish minor as an area of concentration.

A student who is admitted to the Teacher Education Program after September 1, 1978, must complete additional requirements as provided by the Colorado Teacher Certification Law of 1975. Information concerning these requirements may be obtained from the Department Chairman for Teacher Education or from the appropriate academic department chairman or academic advisor.

### COURSES

#### French

- FL 147 ELEMENTARY FRENCH I (4-0) 4  
A course in grammar, prose composition, reading, and conversation. Fall term.
- FL 147C CONVERSATION I - FRENCH (1-0) 1  
Instruction in everyday conversation. Optional.  
*Prerequisite:* Students must be enrolled in FL 147, Elementary French I, or obtain consent of instructor.
- FL 148 ELEMENTARY FRENCH II (4-0) 4  
Further study of French with emphasis on reading, composition, and conversation. Winter term.
- FL 148C CONVERSATION II - FRENCH (1-0) 1  
Continuation of FL 147C. Optional.  
*Prerequisite:* Students must be enrolled in FL 148, Elementary French II, or obtain consent of instructor.
- FL 247 INTERMEDIATE FRENCH I (3-0) 3  
A course in second-year French with emphasis on reading and conversation. Fall term.
- FL 248 INTERMEDIATE FRENCH II (3-0) 3  
Continuation of FL 247. Winter term.

FL 301 ADVANCED FRENCH COMPOSITION AND SYNTAX (3-0) 3  
Composition and syntax through the study and analysis of French literary texts. Offered on demand.  
*Prerequisite:* FL 248.

FL 308 TOPICS IN FRENCH LITERATURE (3-0) 3  
Topics will vary; the course may be repeated for a different topic. Offered on demand.

## German

FL 123 ELEMENTARY GERMAN I (4-0) 4  
A course in grammar, pronunciation, reading, and conversation. Fall term.

FL 123C CONVERSATION I - GERMAN (1-0) 1  
Instruction in everyday conversation. Optional.  
*Prerequisite:* Students must be enrolled in FL 123, Elementary German I, or obtain consent of instructor.

FL 124 ELEMENTARY GERMAN II (4-0) 4  
A continuation of FL 123. Winter term.

FL 124C CONVERSATION II - GERMAN (1-0) 1  
Continuation of FL 123C. Optional.  
*Prerequisite:* Students must be enrolled in FL 124, Elementary German II, or obtain consent of instructor.

FL 233 INTERMEDIATE GERMAN I (3-0) 3  
Second-year German with emphasis on reading, composition, and conversation. Fall term.

FL 224 INTERMEDIATE GERMAN II (3-0) 3  
Continuation of FL 223. Winter term.

FL 323 THIRD-YEAR GERMAN I (3-0) 3  
Emphasis on literature, advanced reading, conversation, and composition. Fall term.

FL 324 THIRD-YEAR GERMAN II (3-0) 3  
Emphasis on literature, advanced reading, conversation, and composition. Winter term.

FL 325 TOPICS IN GERMAN LITERATURE (3-0) 3  
Topics will vary; may be repeated for a different topic. Offered on demand.

## Latin

FL 109 INTRODUCTORY LATIN I (4-0) 4  
An introduction to the Latin language. Fall term.

FL 110 INTRODUCTORY LATIN II  
 A continuation of FL 109. Winter term.  
*Prerequisite:* FL 109 or equivalent.

(4-0) 4

## Spanish

To earn a major in Spanish, a student is required to complete the equivalent of 32 hours of course work in the language.

A student with previous study and/or on the basis of a placement examination, may be placed at an appropriate level.

A student electing Spanish as a major will consult with the Chairman, Department of Foreign Languages, for advice and assistance in formulating a plan of study.

Students intending to acquire a teaching credential at the secondary or elementary level (at the elementary level a bilingual-bicultural concentration is offered) should consult with the appropriate chairman in the School of Education.

Students desiring to pursue a major in Southwest Studies requiring courses in Spanish should consult with the Director, Center of Southwest Studies and the Chairman, Department of Foreign Languages.

### BACHELOR OF ARTS WITH A MAJOR IN SPANISH

General Studies .....			41
<i>Specific Departmental Requirements</i>			
FL 311 and FL 312, Survey of Spanish Literature I & II			
or			
FL 321 and FL 322, Survey of Hispanic American Literature I & II		6	
FL 496 Seminar; or FL 499 Independent Study		2	
Courses in 300 or 400 level		10	18
<i>Other Departmental Requirements or equivalency</i>			
FL 115 and FL 116, Elementary Spanish		8	
FL 215 and FL 216, Intermediate Spanish		6	14
Electives .....			55
TOTAL REQUIRED FOR GRADUATION .....			128

## COURSES

FL 115 ELEMENTARY SPANISH I (4-0) 4  
 A course in grammar, prose composition, reading, and conversation. Fall and Winter terms.

FL 115C CONVERSATION I - SPANISH (1-0) 1  
 Instruction in everyday conversation. Optional.  
*Prerequisite:* Students must be enrolled in FL 115, Elementary Spanish I, or obtain consent of instructor.

- FL 116 ELEMENTARY SPANISH II (4-0) 4  
A continuation of FL 115. Fall and Winter terms.
- FL 116C CONVERSATION II - SPANISH (1-0) 1  
Continuation of FL 115C. Optional.  
*Prerequisite:* Students must be enrolled in FL 116, Elementary Spanish II, or obtain consent of instructor.
- FL 215 INTERMEDIATE SPANISH I (3-0) 3  
A course in second-year Spanish with emphasis on grammar review, reading, and conversation. Fall and Winter terms.
- FL 216 INTERMEDIATE SPANISH II (3-0) 3  
A continuation of FL 215. Fall and Winter terms.
- FL 311 SURVEY OF SPANISH LITERATURE I (3-0) 3  
A survey of the literature of Spain from the 10th to the 18th centuries. Fall term.  
*Prerequisite:* FL 216
- FL 312 SURVEY OF SPANISH LITERATURE II (3-0) 3  
A survey of the literature of Spain from 1824 to the present. Winter term.  
*Prerequisite:* FL 311 or permission of instructor.
- FL 319 ADVANCED SPANISH CONVERSATION (3-0) 3  
Conversation based on current events and literary material. Fall term.  
*Prerequisite:* FL 216 or equivalent.
- FL 320 SPANISH STYLISTICS & ADVANCED COMPOSITION (3-0) 3  
Intensive study of the elements of style and extensive application through written and spoken exercises.  
*Prerequisite:* FL 216.
- FL 321 SURVEY OF HISPANIC AMERICAN LITERATURE I (3-0) 3  
A course in the literature of Colonial Spanish America from 1492-1824, with an emphasis on pre-Columbian literature, chronicles of discovery, travel and conquest, the 17th century poetry, roots of national literature and folklore, and literature of the Wars of Independence. Fall term.  
*Prerequisite:* FL 216.
- FL 322 SURVEY OF HISPANIC AMERICAN LITERATURE II (3-0) 3  
A course dealing with the Romanticists, Realists, Modernists, and Naturalists of the 19th century Spanish American republics. Also the literature of the 20th century emphasizing the Mexican Revolution and contemporary Spanish American writers will be included. Winter term.  
*Prerequisite:* FL 321 or permission of instructor.
- FL 425 LITERATURE OF THE GOLDEN AGE IN SPAIN (3-0) 3  
Reading the masterworks of Spain's Golden Century, with emphasis on Miguel de Cervantes, writings of the Spanish mystics, and the picaresque novel. Alternate years.  
*Prerequisite:* FL 320, FL 312, or FL 322.

- FL 426 TWENTIETH CENTURY SPANISH LITERATURE** (3-0) 3  
 A course on the novels, plays, essays, and poetry of 20th century Spanish authors. Emphasis on Unamuno, Baroja, Garcia Lorca, Gironella, literature of the Spanish Civil War, and contemporary authors of Spain. Alternate years.  
*Prerequisite:* FL 312, FL 320, or FL 322.
- FL 427 HISPANIC AMERICAN NOVEL AND POETRY** (3-0) 3  
 A course on the novels of the Pampa, the Llanos, the Jungle, the Sierra, and the City, as well as the poetic masterworks of Spanish America. Also included are the contemporary psychological novel, the novels of social and political reform, and contemporary poetry. Alternate years.  
*Prerequisite:* FL 312, FL 320, or FL 322.
- FL 429 MEXICAN LITERATURE** (3-0) 3  
 A survey of Mexican literature with emphasis on the works of the Revolution of 1910 and contemporary Mexican authors. Alternate years.  
*Prerequisite:* FL 312, FL 320, or FL 322.
- FL 496 SEMINAR IN SPANISH** (2-0) 2  
 Advanced study and research in selected topics. On demand.  
*Prerequisite:* senior standing and permission of instructor.
- FL 499 INDEPENDENT STUDY IN SPANISH, FRENCH, OR GERMAN** 1-3  
 Individual research conducted under the supervision of a faculty member. Offered on demand.  
*Prerequisite:* approval of Department Chairman and senior standing.

## Forestry

This program is designed for those students who intend to transfer to Colorado State University or other institutions offering degrees in forestry. It is not a terminal curriculum. The student should plan to enter the summer forestry camp session at the end of his second year at Fort Lewis College if the school to which he is transferring has a summer camp program. The term *forestry* is used here for all related areas; e.g., game and fish management and range management, as well as forest management.

## COURSES

- For 211 DENDROLOGY** (3-3) 4  
 Classification, identification, silvical characteristics, economic importance, and distribution of the broad-leaved and coniferous trees of the United States. Fall term.  
*Prerequisite:* Biology 102.
- For 220 FUNDAMENTALS OF ECOLOGY** (3-0) 3  
 A study of the fundamentals of the interrelationships between organisms and their environments.  
*Prerequisites:* Bio 100 and 101

## Geography

Geog 271 WORLD GEOGRAPHY

(3-0) 3

An introduction to world geography including physical and cultural regions and development of natural resources. Offered on demand.

**FRENCH (see FOREIGN LANGUAGES)**

**GERMAN (see FOREIGN LANGUAGES)**

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## Geology

Professors Frank O. Bowman, Jr., John A. Campbell  
and Jack A. Ellingson;

Associate Professors Douglas C. Brew and Robert W. Blair, Jr.

Assistant Professors Thomas N. Westervelt, James D. Collier  
and Mark D. Johnson, Visiting Assistant Professor

The Department offers a Bachelor of Science degree with a major in geology. Laboratory and field equipment and geology holdings in the College library facilitate the necessary research and reading. The study of geology at Fort Lewis College is enhanced by the College's remarkable location amidst the unsurpassed geological phenomena in the southern Rocky Mountains and adjacent areas of the Southwest. The Grand Canyon, the Goose Necks of the San Juan River, Monument Valley, and Shiprock are representative of the classical geological localities nearby. The numerous outcrops and mine workings in the vicinity are sources of excellent geological specimens for the student. Also, the essentially continuous sequence of rocks in the Animas River valley represents literally hundreds of millions of years of erosion and deposition.

Students majoring in Geology may be certified to teach science at the secondary level. To obtain requirements for teacher certification, please contact the Department of Teacher Education.

### BACHELOR OF SCIENCE DEGREE WITH A MAJOR IN GEOLOGY

General Studies (including ten hours of auxiliary requirements  
from other sciences) ..... 41 hrs.

#### *Specific Departmental Requirements*

Geol 115 and 115L Physical Geology and Lab	4½
Geol 116 and 116L Historical Geology and Lab	4½
Geol 207 Mineralogy	3
Geol 208 Optical Mineralogy	4
Geol 210 Petrology	3
Geol 323 or 333 Geomorphology or Paleontology	4
Geol 335 and 336 Structural Geology	6
Geol 361 Stratigraphy and Sedimentation	3

Geol 441 Field Geology	6	
Geol 496 Seminar or		
Geol 499 Independent Study	2	
	40	40

*Auxiliary Requirements from other Departments*

Chemistry 150-151	11	
Physics 162-262-263 (or 132-232-233), 211, or 212	10	
Mathematics 221 and 222 or Math 201 or Engr 104	8-9	
NOTE: Ten hours included in the 41 hrs of General Studies		
	29-30	29-30

*Electives* ..... 26-27

TOTAL REQUIRED FOR GRADUATION ..... 128

## Preparation for Graduate School

It is strongly recommended that geology majors gear their programs toward graduate study. The following courses are recommended for that purpose.

Math 222 Calculus (most graduate schools require a minimum of 1 year of calculus)

Geol 323 and 333 Geomorphology and Paleontology

Geol 351 Igneous Petrology

Geol 362 Sedimentary Petrology

Geol 415 Regional Geology of the U. S.

Additional work in the Physical Sciences and Mathematics

French or German

Engineering 205

Technical Drafting (Engr 102)

## COURSES

Geol 105 ROCKS AND MINERALS (2-2) 3  
Hand specimen study of the common rock-forming minerals, gem and ore minerals, and igneous, metamorphic, and sedimentary rocks. On demand — Continuing Education only.

Geol 115 PHYSICAL GEOLOGY (3-0) 3  
Processes and agents at work on Earth and resultant land forms and structural features. Fall and winter terms.

Geol 115L PHYSICAL GEOLOGY LABORATORY (0-3) 1½  
Laboratory work on minerals, rocks and maps. Field trip. Fall and winter terms.

*Prerequisite or corequisite:* Geol 115

- Geol 116 HISTORICAL GEOLOGY (3-0) 3  
The geologic history and development of life on the Earth as recorded by rocks and fossils. Fall and Winter terms.  
*Prerequisites:* Geol 115, 115L
- Geol 116L HISTORICAL GEOLOGY LABORATORY (0-3) 1½  
Laboratory work on rocks, fossils and maps. Field trip. Fall and Winter terms.  
*Prerequisites:* Geol 115, 115L, 116 (Corequisite)
- Geol 150 GEOLOGY OF THE SOUTHWEST (3-0) 3  
A survey of the historical and structural geology and geomorphology of the Southern Rockies, Colorado Plateau, and Cordilleran provinces. Emphasis is on classic geologic areas and the significant geologic concepts that have been derived from them. This course will not count toward Physical Science major. Offered on demand — Continuing Education only.
- Geol 207 MINERALOGY (2-3) 3  
The elements of crystallography and the classification and identification of minerals. Fall term.  
*Prerequisites:* Geol 115, 115L and completion of, or concurrent enrollment in Chem 150.
- Geol 210 PETROLOGY (2-3) 3  
The megascopic study of igneous, sedimentary and metamorphic rocks with emphasis on the physical and chemical conditions governing the origins, occurrences and associations of various rock types. Fall and winter terms.  
*Prerequisite:* Geol 207
- Geol 220 PHYSIOGRAPHIC REGIONS OF THE UNITED STATES (3-0) 3  
A survey of the general geology and development of the present landscape across the United States.  
*Prerequisites:* Geol 115, 115L
- Geol 323 GEOMORPHOLOGY (3-3) 4  
A relationship of geological processes to the development of the landforms. Field trips. Fall term.  
*Prerequisite:* Geol 207.
- Geol 325 INTRODUCTION TO REMOTE SENSING (2-3) 3  
Introduction to the principles of remote sensing. Includes the study of the electromagnetic spectrum and the interpretation of visible, infrared and microwave imagery from airborne as well as spaceborne platforms. Winter, alternate years.  
*Prerequisites:* Geol 115, 115L
- Geol 333 INTRODUCTORY PALEONTOLOGY (3-3) 4  
The systematic study of fossils, primarily those used often in the identification and correlation of geologic formations. Fall term.  
*Prerequisite:* Geol 114.



- Geol 335 STRUCTURAL GEOLOGY (2-3) 3  
 The geometric, kinematic, and dynamic analysis of structural features in the Earth's crust; basic operation and applications of the Brunton field compass and steronet and techniques in field mapping and note taking will be emphasized throughout the course. Fall term.  
*Prerequisites:* Math 111, Geol 115, 115L
- Geol 336 STRUCTURAL GEOLOGY (2-3) 3  
 A continuation of Geology 335. Winter term.  
*Prerequisite:* Geol 335
- Geol 355 IGNEOUS PETROLOGY AND PETROGRAPHY (3-2) 4  
 The origin, occurrence, classification, and description of igneous rocks. Winter term.  
*Prerequisites:* Geol 208, 210
- Geol 356 METAMORPHIC PETROLOGY (3-2) 4  
 The origin, occurrence, and classification of metamorphic rocks. Winter term.  
*Prerequisites:* Geol 208, 210
- Geol 361 STRATIGRAPHY AND SEDIMENTATION (2-3) 3  
 Sediments and sedimentary rocks - their characteristics and classification; sedimentary processes, tectonics and sedimentation. Stratigraphy - its history, stratigraphic nomenclature, facies relationships and correlation. Fall term.  
*Prerequisites:* Geol 207, 210
- Geol 363 SEDIMENTARY PETROLOGY (3-2) 4  
 The origin, occurrence and classification of sedimentary rocks. Winter Term.  
*Prerequisites:* Geol 208, 210 and Geol 361
- Geol 371 INTRODUCTION TO GEOPHYSICAL PROSPECTING (3-3) 4  
 The fundamentals of exploration geophysics-particularly gravitational, magnetic and seismic methods. Fall Term.  
*Prerequisites:* Geol 115, 115L, Math 221 and either junior standing or instructor's permission.
- Geol 401 NATURAL RESOURCES AND THE ENVIRONMENT (3-0) 3  
 A critical study of the need for development of fossil fuel and industrial mineral deposits and the need to preserve regions in their natural state. Offered on demand.  
*Prerequisite:* Geol 113 or permission of the instructor.
- Geol 409 ECONOMIC MINERAL DEPOSITS (3-3) 4  
 Principles of ore genesis; geologic occurrence of uranium and metallic mineral deposits; mine tours.  
*Prerequisites:* Geol 351, Geol 334 and Geol 420 or Chem 150; or permission of instructor.

- Geol 410 PETROLEUM GEOLOGY (2-3) 3  
The origin, migration, and entrapment of petroleum, and the methods employed in exploration and development of petroleum occurrences.  
*Prerequisites:* Geol 366 and Geol 334, or permission of instructor.
- Geol 415 REGIONAL GEOLOGY OF THE UNITED STATES (3-0) 3  
An examination of the stratigraphy, tectonic setting and geologic evolution of the major physiographic units of the United States.  
*Prerequisites:* Geol 361 and 336
- Geol 420 INTRODUCTION TO GEOCHEMISTRY (3-0) 3  
Behavior of the common rock-forming oxides in endogenic and exogenic processes; isotope geochemistry; geochemical exploration.  
*Prerequisite:* Geol 207, or permission of instructor.
- Geol 425 PHOTOGEOLOGY (1-6) 3  
Introduction to the principles of aerial photography. Involves interpreting and making geologic maps from aerial photographs. Winter term, alternate years.  
*Prerequisites:* Geol 323, 335 or permission of instructor.
- Geol 432 PALEOECOLOGY (3-0) 3  
The methods and logic employed in a paleoecological analysis. An examination of the characteristics of organisms and environments that reveal information about ecology/paleoecology. Winter term, alternate years.  
*Prerequisite:* Geol 333
- Geol 433 MICROPALAEONTOLOGY (3-3) 4  
The study of fossil micro-organisms, their morphology, classification, paleoecology, and chronostratigraphy. Primary emphasis will be placed on the foraminifera, ostracodes and conodonts. Alternate years.  
*Prerequisites:* Geol 233 and Geol 365 or permission of instructor.
- Geol 434 ADVANCED STRUCTURAL GEOLOGY (3-0) 3  
Principles of plate tectonics, structural styles and evolution of the Rocky Mountains.  
*Prerequisite:* Geol 334.
- Geol 441 FIELD GEOLOGY 6  
The fundamental procedures and practices in geologic field mapping. Summer term.  
*Prerequisite:* 24 hours of geology.
- Geol 442 FIELD STUDIES 5  
Intensive field work on various geological problems emphasizing interpretation of petrologic and structural relationships. Summer term.  
*Prerequisite:* Senior standing in geology or permission of instructor.
- Geol 461 DEPOSITIONAL SYSTEMS (2-3) 3  
Modeling of sedimentary deposits with respect to time, and the development of stratigraphic sequences. Fall term. alternate years.  
*Prerequisite:* Geol 361

Advanced study and research in selected topics. Fall and Winter terms.

Individual research is under the supervision of a faculty member. Offered on demand.

*Prerequisite:* permission of Department Chairman.

## **GERMAN (see FOREIGN LANGUAGES)**

## **HEALTH CAREERS (see BIOLOGY)**

### **History**

Professors Robert W. Delaney, Gilbert C. Din,  
Thomas R. Eckenrode, and Duane A. Smith;  
Associate Professors Doreen Hunter, Reece C. Kelly,  
and Ira L. Plotkin;  
Assistant Professors James K. Ash, and  
B. Jane Parpart

The study of history at Fort Lewis College is an important part of liberal education. The Department of History offers a variety of courses to provide the student with an understanding and appreciation of man's past. Through examining the experiences of the human community the student gains a broad view of present social and political conditions and problems. This broad view contributes to his making responsible judgments as an informed citizen in his own times. Not the least of the benefits derived from the study of history is the attainment of an appreciation of the creative achievements of civilization; such an appreciation contributes to the student's intellectual reservoir from which liberally educated men and women draw aesthetic pleasure and creative inspiration. Finally, the study of history provides the student with a useful body of knowledge and basic skills in research necessary for a number of professions.

The 300-400 series: Upper division classes are offered under these numbers. These courses are organized under general headings such as History 460, Studies in European History and History 480, Studies in American History. Classes in each area of study will vary from one term to another as listed in the class schedule issued at the time of registration. A large offering of courses is available in each area. A student may take several courses under the same number, provided the particular subject matter differs each time. The Department of History employs this system in order that a greater variety of courses can be made available as needs and interests develop.

History majors are required to take a minimum of 36 hours, but no more than 42 hours of history shall apply toward the major. History majors are expected to concentrate in one of the areas listed below. Students majoring in History may be certified to teach in the broad area of Social Studies at the secondary level. To obtain requirements for teacher certification, please contact the Department of Teacher Education.

The Department offers a minor in History. For details of the courses required, see the Chairman of the History Department.

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN HISTORY

General Studies .....	41
<i>Areas of Concentration</i>	
African History	
European History	
Latin American History	
Asian History	
United States History	
History major with no concentration. Courses, with the consent of the adviser, must be chosen from at least three of the above mentioned areas.	
<i>Requirements in History</i>	
<i>Lower Division</i> .....	12
The survey sequence in the area of concentration (6 hrs.)	
Two additional courses (6 hrs.) in other introductory surveys (Survey of Western Civilization, Survey of Eastern Civilization, Survey of Latin American History, Survey of American History)	
<i>Upper Division</i> .....	24
Four courses on 300 or 400 level in the area of concentration (12 hrs.)	
Three additional 300 or 400 level courses taken outside the concentration in at least two areas (9 hrs.)	
Seminar taken in the area of concentration (3 hrs.)	
<i>Requirements Outside of History</i>	
Two courses in one foreign language .....	6-9
<i>Electives</i> .....	42-45
TOTAL REQUIRED FOR GRADUATION .....	128

## COURSES

Hist 120, 121 SOCIAL AND POLITICAL HISTORY OF INDIANS OF THE SOUTHWEST (3-0) 3

A two-trimester course on the history and culture of modern Indians of the Southwestern portion of the U.S. The first trimester deals with the Navajos, Apaches, Utes, and Pueblos; the second trimester deals with other tribes of the Southwest. Balanced attention is given to social, political, and economic aspects of each group. The course is approved for Southwest Studies major. Fall and Winter terms.

Hist 140 SURVEY OF AFRICAN CIVILIZATION I & II (3-0) 3

A survey history of African civilization with particular attention given to major historical trends and ideas. Particular countries within the cultural area may be treated in detail. Either part may be taken first. Fall and Winter terms.

- Hist 160 SURVEY OF WESTERN CIVILIZATION I AND II (3-0) 3  
 A history of Western civilization from man's earliest experience to the present through a study of great movements or periods in history. Balanced attention is given to the social, political, economic and cultural developments of the past that help to explain current civilization and problems. Fall and Winter terms.
- Hist 170 SURVEY OF EASTERN CIVILIZATION I AND II (3-0) 3  
 A survey history focusing on the great East Asian civilizations of China, Korea, and Japan. Attention is also given to their relations with the surrounding areas of Southeast Asia, Inner Asia, Central Asia, and South Asia. Either part may be taken first. Fall and Winter terms.
- Hist 270 SURVEY OF LATIN AMERICAN HISTORY I AND II (3-0) 3  
 A two-trimester general history survey of Latin America. Either part may be taken first. Fall and Winter terms.
- Hist 280 SURVEY OF AMERICAN HISTORY I AND II (3-0) 3  
 A two-trimester general introductory survey of United States history. Either part may be taken first. Fall and Winter terms.
- Hist 340 STUDIES IN NEAR EASTERN AND AFRICAN HISTORY (3-0) 3  
 A study of the history of the Near East and Africa. The specific topic will vary. Students may take this course one or more times for credit, provided the subject is different on each occasion. Offered on demand.
- Hist 350 STUDIES IN ASIAN HISTORY (3-0) 3  
 A study of the history of Asia. The specific topic will vary. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and Winter terms.
- Hist 360 STUDIES IN EUROPEAN HISTORY (3-0) 3  
 A study of the history of Europe. The specific topic will vary. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and winter terms.
- Hist 370 STUDIES IN LATIN AMERICAN HISTORY (3-0) 3  
 A study of the history of Latin America. The specific topic will vary. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and Winter terms.
- Hist 380 STUDIES IN AMERICAN HISTORY (3-0) 3  
 A study of the history of the United States and Canada. The specific topic will vary. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and winter terms.
- Hist 445 READINGS IN AFRICAN HISTORY (3-0) 3  
 An examination of selected historical topics and issues pertaining to the African continent. A senior level paper will be expected for those enrolled. Students may take this course one or more times for credit, provided the subject is different on each occasion.

Hist 455 READINGS IN ASIAN HISTORY (3-0) 3

An examination of selected historical topics and issues pertaining to the Asian world. A senior level paper will be expected for those enrolled. Students may take this course one or more times for credit, provided the subject is different on each occasion.

Hist 465 READINGS IN EUROPEAN HISTORY (3-0) 3

An examination of selected historical topics and issues pertaining to the European world. A senior level paper will be expected for those enrolled. Students may take this course one or more times for credit, provided the subject is different on each occasion.

Hist 475 READINGS IN LATIN AMERICAN HISTORY (3-0) 3

An examination of selected historical topics and issues pertaining to the American experience. A senior level paper will be expected for those enrolled. Students may take this course one or more times for credit, provided the subject is different on each occasion.

Hist 485 READINGS IN AMERICAN HISTORY (3-0) 3

An examination of selected historical topics and issues pertaining to the American experience. A senior level paper will be expected for those enrolled. Students may take this course one or more times for credit, provided the subject is different on each occasion.

Hist 496 SEMINAR (2-0) 2 or (3-0) 3

Advanced study and research in selected topics.

*Prerequisite:* senior standing and permission of instructor.

Hist 499 INDEPENDENT STUDY 1-3

Individual research is conducted under the supervision of a faculty member. Offered on demand.

*Prerequisite:* approval of Department Chairman and instructor.

## Humanities Major

Fort Lewis College offers an interdisciplinary major in Humanities. This major consists of an option of 20 or 32 hours and at least 12 hours in either one or two of the other cognate areas included within the offerings of the disciplines listed below, representing a total of 44 credit hours. Such a program in the Humanities affords a sound education for those contemplating careers in law or government service, for those preparing to go on to graduate school, and for those who wish a sound cultural grounding for the bachelor's degree. The student is required to cross traditional subject-matter areas to satisfy the requirements of the Humanities major; he will elect an option in History, Music, Art, English, Anthropology, Political Science, Foreign Language, Theatre, Philosophy, and also take at least 12 hours of coherent course work in either one or two other areas, depending upon his individual interests and needs.

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN HUMANITIES

General Studies .....	41
Primary concentration to include 2 credits in 496 or 499 .....	20-32
One or two secondary concentrations of 12 hours each .....	24-12    44
Two trimesters of college mathematics or two trimesters of one college foreign language .....	6-9    50-53
<i>Electives</i> .....	20-47
TOTAL REQUIRED FOR GRADUATION .....	128

### **Intercultural Studies**

Director Mary Jean Moseley  
Instructor Ellen Cargile

The purpose of the Division of Intercultural Studies is to develop a culturally pluralistic thrust that deals primarily with the complexities and opportunities of education across cultures involving the major ethnic societies in the service region of Fort Lewis College, but not excluding other ethnic and cultural groups.

To accomplish this purpose, the Division of Intercultural Studies in cooperation with the College departments will offer academic, service, experiential and cultural approaches in multi-cultural education that relate to the following basic aspects of the college community: academic programs, student services, community services, social and living experiences and cultural opportunities.

### **Mathematics**

#### **Computer Science & Statistics**

Professors Donald D. Bushnell, Richard A. Gibbs,  
Gary W. Grefsrud, William C. Ramaley  
Associate Professors Gregory C. Bell, Harry C. Rosenberg,  
Tomas E. Salazar, and Raymond E. Williams  
Assistant Professors Clifford B. Capp, O. D. Perry,  
James A. Wixom and Richard C. Walker, Visiting Assistant  
Professor

Society as a whole is becoming increasingly dependent upon solving complex problems of a numerical, quantitative, statistical nature which require logical thought. The mathematics department meets this demand by preparing its students for teaching careers, graduate school, or employment in such fields as computer science, statistics, engineering, business, biometrics, the actuarial sciences, and other areas involving mathematics.

Increasingly, mathematical applications depend on the uses of a computer. To facilitate students training in these areas, Fort Lewis College has modern interactive computing systems with video and hard copy terminals.

## MATHEMATICS MAJOR AND OPTIONS

A flexible curriculum has been designed which consists of five different options within the Mathematics major. These options are Business, Computer Science, Junior High School Teaching, Probability and Statistics, and General. These options provide the major with an opportunity to develop creative mathematical talents within personal areas of interest. Specific requirements for each option follow.

Many Mathematics majors begin their studies with Math 111 if their high school backgrounds include at least three years of mathematics, including two years of algebra and one of geometry. Students with stronger backgrounds may begin with Math 221, while Math 110 is offered for those students who are not prepared to begin with Math 111.

## TEACHER EDUCATION

A student who is admitted to the Teacher Education Program after September 1, 1978 must complete additional requirements as provided by the Colorado Teacher Certification Law of 1975. Information concerning these requirements may be obtained from the Department Chairman for Teacher Education or from the appropriate academic department chairman or academic advisor.

The Mathematics major who plans to teach in a senior high school must enroll in the General Option and must take Math 385, Math 386, Math 342, and Math 325. The Junior High Teaching Option is intended for those who plan to teach at the 7th, 8th, and 9th grade levels. A BA degree in Mathematics, Junior High Teaching Option, is awarded only upon successful completion of all courses required for Secondary School Teaching Certification.

For the elementary education major, Math 215, Math 216, and Ed 305 are required. Those students desiring a 12, 18, or 24-hour concentration in mathematics should consult the Mathematics Department for appropriate courses.

## MINORS IN MATHEMATICS, COMPUTER SCIENCE AND STATISTICS

Minors are available in Mathematics, Computer Science and Statistics for students majoring in other disciplines. For details, interested students should consult with the Department Chairperson.

### OPTIONS IN MATHEMATICS BACHELOR OF ARTS DEGREE WITH A MAJOR IN MATHEMATICS—GENERAL OPTION

General Studies .....	41
<i>Specific Departmental Requirements</i>	
Math 201	3
Math 221, 222, 223	13
Math 301	3
Math 385 and Math 386 or Math 422 and Math 423	6



*Other Departmental Requirements*

Additional courses numbered above Math 300 (except Math 315)	12
Math 496, Seminar; or Math 499, Independent Study	2

TOTAL..... 39

*Auxiliary Requirements*

CS 120 or CS 150 (Engr 104) (should be taken first year at Fort Lewis)	3
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Electives ..... 45

TOTAL REQUIRED FOR GRADUATION ..... 128

**BACHELOR OF ARTS DEGREE WITH A MAJOR IN  
MATHEMATICS —BUSINESS OPTION**

General Studies ..... 41

*Mathematics Requirements*

Math 201	3
Math 221, 222, 223	13
Math 311	3
Math 360/BA 360	3
Math 340 or Math 401	3
Math 499 (in business)	2

TOTAL MATHEMATICS..... 27

*Business Requirements*

At least 15 hours, (excluding Math 360/BA360), at least 6 of  
which are numbered over 300, taken from the Department  
of Accounting, Economics, and/or Business  
Administration.

TOTAL BUSINESS..... 15

*Auxiliary Requirements*

C.S. 120 (should be taken first year at Fort Lewis College) and an- other C.S. course (not C.S. 100)	6
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Electives ..... 39

TOTAL REQUIRED FOR GRADUATION ..... 128

**BACHELOR OF ARTS DEGREE WITH A MAJOR IN MATHEMATICS  
COMPUTER SCIENCE OPTION**

General Studies ..... 41

*Mathematics Requirements*

Math 201	3
Math 221, 222, 223	13
Math 311	3
Math 320 or Math 360	3
Math 496 or Math 499 (or CS 499)	2

TOTAL MATHEMATICS..... 22-24

*Computer Science Requirements*

A total of 18 hours of C.S. classes, excluding C.S. 100, at least 12 of which must be numbered over 300. The 18 hours must include the following:

1. Knowledge of at least two high-level languages (BASIC, FORTRAN, COBOL, PASCAL, etc.)
2. C. S. 320
3. C. S. 420
4. C. S. 499 (or Math 496 or Math 499)

TOTAL COMPUTER SCIENCE ..... 18-20

Electives ..... 45

TOTAL REQUIRED FOR GRADUATION ..... 128

BACHELOR OF ARTS DEGREE WITH A MAJOR IN MATHEMATICS,  
JUNIOR HIGH TEACHING OPTION

General Studies ..... 41

*Mathematics Requirements*

Math 111	5
Math 201	3
Math 215	3
Math 216	3
Math 221 or Math 260	5 or 3
Math 315	3
Math 316	3
Math 325	3
Math 342	3
Math 311 or Math 385	3
Math 496 or 499	2

TOTAL MATHEMATICS ..... 36 or 34

*Auxiliary Requirements*

CS 120 (should be taken first year at Fort Lewis) ..... 3

Courses for Secondary School Teaching Certification ..... 33

Electives ..... 15 - 17

TOTAL REQUIRED FOR GRADUATION ..... 128

BACHELOR OF ARTS DEGREE WITH A MAJOR IN MATHEMATICS,  
PROBABILITY AND STATISTICS OPTION

General Studies ..... 41

*Specific Mathematics and Statistics and Probability Requirements*

Math 201	3
Math 221, 222, 223	13
Math 327	3
Math 340	3

Math 350	3
Math 360	3
Math 401, 402	6
Math 496 or 499	2
<b>TOTAL MATHEMATICS</b> .....	<b>36</b>
<i>Auxiliary Requirement</i>	
CS 120 (should be taken first year at Fort Lewis) .....	3
Electives .....	48
<b>TOTAL REQUIRED FOR GRADUATION</b> .....	<b>128</b>

## MATHEMATICS COURSES

Students wanting to enroll in a mathematics course which is a prerequisite for a previously completed course must have the written consent of the Chairperson of the Mathematics Department.

### Math 110 PRE-CALCULUS I (3-0) 3

This course emphasizes functions and relations, starting with linear and quadratic functions and continuing to general polynomials and rational functions. Included are the basic concepts of analytic geometry and graphing, solutions of systems of equations in 2 and 3 unknowns, inequalities, exponents, and radicals. Fall and Winter terms.

*Prerequisites:* 2 years of algebra and/or geometry, and ACT Math score of at least 16, or successful completion of the Mathematics Department placement examination. Credit will be given for only one of Math 110 and Math 130.

### Math 111 PRE-CALCULUS II (5-0) 5

This course covers logarithmic, trigonometric, and exponential functions. Conic sections, polar coordinates, and further topics in analytic geometry are included. Fall and Winter terms.

*Prerequisites:* 3 years of algebra and geometry, or Math 110.

### Math 130 MATHEMATICS FOR LIBERAL ARTS (3-0) 3

This course contains an introductory survey of a variety of topics such as: theory and history of mathematics, logic, problem solving, number theory, consumer applications, and probability. Fall and Summer terms. Credit will be given for only one of Math 110 and Math 130

### Math 201 ELEMENTARY STATISTICS (3-0) 3

An introduction to basic ideas in statistics, exploratory data, analysis techniques, measures of association, statistical inference, confidence intervals, sampling and sample-size procedures. Fall and Winter terms.

*Prerequisite:* Math 110 or permission of the instructor. Credit will be given for only one of BA 251, Math 201 or Psych 241.

### Math 210 CALCULUS FOR BUSINESS (4-0) 4

An introductory linear programming and calculus course for students intending a major in the School of Business Administration. It will include such topics as limits, differential and integral calculus, sequences and series. Emphasis is on applications. Fall and Winter terms.

*Prerequisite:* Math 110 or equivalent.

**Math 215 MATHEMATICS FOR THE ELEMENTARY SCHOOL (3-0) 3  
TEACHER I**

This is the first of two courses required of Elementary Education majors. The course includes sets and set operations, construction of numeration systems, the arithmetic operations, and the development of the integers. Fall and Summer terms.

*Prerequisite:* Elementary Education major.

**Math 216 MATHEMATICS FOR THE ELEMENTARY SCHOOL (3-0) 3  
TEACHER II**

This course includes elementary number theory, construction of the rational number system, rational number arithmetic, ratios and proportions, decimals, percents, the metric system, and an introduction to the real number system. Winter and Summer terms.

*Prerequisite:* Math 215.

**Math 221 CALCULUS I (5-0) 5**

Limits, continuity, derivatives and integrals of elementary functions including polynomial, rational, logarithmic and exponential functions. Fall and Winter terms.

*Prerequisite:* Math 111 or 4 years of algebra, geometry and trigonometry and permission of the instructor.

**Math 222 CALCULUS II (4-0) 4**

A continuation of Math 221. Differentiation and integration of trigonometric functions, techniques and applications of integration, sequences and series. Fall and Winter terms.

*Prerequisite:* Math 221 or permission of the instructor.

**Math 223 CALCULUS III (4-0) 4**

Vectors and multi-variable calculus with applications. Fall and Winter terms.

*Prerequisite:* Math 222.

**Math 301 FOUNDATIONS FOR ADVANCED MATHEMATICS (3-0) 3**

A study of axiomatic systems and the applications of logic and set theory to various mathematical structures. This course is often taken concurrently with Math 223. Winter term.

*Prerequisite:* Math 221 or permission of the instructor.

**Math 311 MATRICES AND LINEAR ALGEBRA (3-0) 3**

Topics include matrices, determinants, similarity, eigenvalues, eigenspaces, vector spaces, linear transformations and applications. Fall term.

*Prerequisite:* Math 221 or permission of the instructor.

**Math 315 REAL NUMBERS AND GEOMETRY (3-0) 3**

Topics to include real numbers, points, space, incommensurables, limits, cartesian product, and geometry in the cartesian plane. Fall term of alternate years (odd numbered)

*Prerequisite:* Math 216 or permission of instructor.

- Math 316 TOPICS IN NUMBER THEORY** (3-0) 3  
 Some of the topics to be presented in this course are: modular arithmetic, finite fields, basic prime number theorems, congruences, and combinations. Winter term of alternate years (even numbered).  
*Prerequisite:* Math 315 or Math 221 or permission of the instructor.
- Math 320 NUMERICAL ANALYSIS** (3-0) 3  
 An introductory course in developing and using numerical techniques for solving problems in mathematics, the physical sciences, engineering and in other quantitative fields. Topics include approximation of functions by computable functions, zeros of functions, linear algebra and matrix calculations, and difference equations. The use of the computer will be included. Fall term of alternate years (odd numbered).  
*Prerequisites:* Math 223 and CS 120 or CS 150.
- Math 325 HISTORY OF MATHEMATICS** (3-0) 3  
 The development of selected mathematical concepts will be traced from the Greek era. The course will focus on mathematical creation as a human endeavor done within a cultural context. Fall term of alternate years (even numbered).  
*Prerequisite:* Math 111 or permission of instructor.
- Math 327 DIFFERENTIAL EQUATIONS** (3-0) 3  
 An introduction to ordinary differential equations. Topics will include methods of solving first order nonlinear equations, basic theory and methods of solving n-th order linear equations, including infinite series methods. Further topics will include an introduction to systems of linear ordinary differential equations and the Laplace transform. Applications will be emphasized. Winter term.  
*Prerequisite:* Math 223 or permission of instructor.
- Math 340 COMPUTER ASSISTED STATISTICAL MODELING** (3-0) 3  
 Will include topics such as variable classification and the choice of analysis, simple and multivariate regression, extra sum of squares principle, dummy variable, analysis of covariance, residual analysis, transformations and weighted least squares, factor analysis, and discriminant analysis. Winter of alternate years (odd numbered).  
*Prerequisites:* Math 201, CS 120
- Math 342 MODERN COLLEGE GEOMETRY** (3-0) 3  
 A course in college geometry which includes topics in Euclidean and non-Euclidean geometries. Fall term of alternate years (even numbered).  
*Prerequisite:* Math 301 or permission of instructor.
- Math 350 DESIGN AND ANALYSIS OF EXPERIMENTS** (3-0) 3  
 This course will study statistical applications and analysis of experiments common to a wide range of fields. Topics include latin squares, block designs, factorial designs, response surfaces, coding, method of steepest ascent, balances incomplete block designs, etc. Fall of alternate years (even numbered).  
*Prerequisite:* Math 201

**Math 360 INTRODUCTION TO OPERATIONS RESEARCH (3-0) 3**

This course will include many of the areas of operations research such as linear programming, dynamic programming, network flow problems, transportation-like problems, game theory, queuing theory and others. Winter term of alternate years (odd numbered). (This course is the same as BA 360).

*Prerequisite:* Math 210 or Math 221 and CS 120 or permission of the instructor.

**Math 385 ALGEBRAIC STRUCTURES I (3-0) 3**

A first course in abstract algebra which includes topics from group theory and ring theory. Applications will be discussed. Fall term of alternate years (even numbered).

*Prerequisite:* Math 301 or permission of instructor.

**Math 386 ALGEBRAIC STRUCTURES II (3-0) 3**

A continuation of Math 385. Topics include ring theory and field theory. Applications will be discussed. Winter term of alternate years (odd numbered).

*Prerequisite:* Math 385.

**Math 401 PROBABILITY AND STATISTICS I (3-0) 3**

This course covers topics in distribution theory, conditional probability, independence, moment generating functions, limiting distributions, estimation procedures, and hypothesis testing. Fall terms of alternate years (odd numbered).

*Prerequisites:* Math 201 and Math 223 or permission of instructor.

**Math 402 PROBABILITY AND STATISTICS II (3-0) 3**

A continuation of Math 401. Topics will include order statistics, multivariate distributions, nonparametric statistics, sufficient statistics, methods of multiple comparison, maximum likelihood procedures, and Bayesian procedures. Winter term of alternate years (even numbered).

*Prerequisite:* Math 401 or permission of instructor.

**Math 422 ADVANCED CALCULUS I (3-0) 3**

Topics include structure of the real number system, elementary topology of the real numbers and of Euclidean spaces, general theory of functions emphasizing limits and continuity and resulting properties, general theory of the Riemann integral and resulting integration properties. Fall term of alternate years (odd numbered).

*Prerequisite:* Math 301 or permission of instructor.

**Math 423 ADVANCED CALCULUS II (3-0) 3**

A continuation of Math 422. Topics will include the general theory of convergence, the general theory of differentiation of functions in Euclidean space, and the investigation of special integrals including the theorems of Green, Gauss, and Stokes. Winter term of alternate years (even numbered).

*Prerequisite:* Math 422.

**Math 430 COMPLEX VARIABLES (3-0) 3**

This course will cover topics in complex numbers, analytic functions, elementary functions and associated mappings, integrals, series, resi-

dues and poles; and conformal mappings. Fall term of alternate years (even numbered).

**Math 461 ELEMENTARY TOPOLOGY (3-0) 3**

Topology of metric spaces with emphasis on the structure of the real numbers; topological spaces; separation axioms; continuous functions; homeomorphisms and topological invariants; product spaces and quotient spaces. Winter term of alternate years (even numbered).

*Prerequisite:* Math 301 or permission of instructor.

**Math 496 SEMINAR (2-0) 2**

Advanced study and research in selected topics. Offered on demand.

*Prerequisite:* senior standing and permission of instructor.

**Math 499 INDEPENDENT STUDY 1-3**

Individual research conducted under the supervision of a faculty member. On demand.

*Prerequisite:* approval of Department Chairman.

### COMPUTER SCIENCE COURSES

Introductory Programming course: Most students enrolling in an introductory programming course will enroll in CS 120. Students more mathematically/scientifically oriented will enroll in CS 150.

Second Programming Course: Students who have completed an introductory programming course (CS 120, CS 150, or CS 160) may enroll in CS 240.

**CS 100 INTRODUCTION TO COMPUTING SCIENCE (3-0) 3**

An introductory course covering basic concepts and practices in modern computing. Survey of computers, languages, systems, applications and impact on society. Although there will be a brief introduction to computer programming, this course is not intended for the student who wishes to learn computer programming. Fall and Winter terms.

**CS 120 INTRODUCTION TO PROGRAMMING (BASIC) (3-0) 3**

Introduction to programming using the BASIC language, problem solving methods, algorithm development, program design, debugging, documentation, and computer solution to several problems from various disciplines. Fall and Winter terms.

*Prerequisite:* Math 110 or equivalent.

**CS 150 INTRODUCTION TO PROGRAMMING (FORTRAN) (3-0) 3**

Introduction to programming using the FORTRAN language, problem solving methods, algorithm development, program design, debugging, documentation, and computer solution to several mathematical/scientific problems. Fall and Winter terms. (same as ENGR 104) (Credit will not be given for both CS 150 and Engr 104).

*Prerequisite:* Math 111 or equivalent.

CS 160 INTRODUCTION TO PROGRAMMING (COBOL) (3-0) 3  
Introduction to programming using the COBOL language, problem solving methods, algorithm development, program design, debugging, documentation, and computer solution to several business oriented problems.

*Prerequisite:* Math 110 or equivalent.

CS 240 INTERMEDIATE PROGRAMMING (PASCAL) (3-0) 3  
A second course in computer programming, continuing topics from introductory courses. Small team programming. The PASCAL language will be taught and used, but no previous knowledge of this language is required. Fall and Winter terms.

*Prerequisite:* CS 120, CS 150 or CS 160 or permission of instructor (CS 100 will *not* fulfill this prerequisite).

CS 360 FILE PROCESSING TECHNIQUES (3-0) 3  
Concepts and algorithms used in structuring data on bulk storage devices. Applications to data management systems, file organization and information systems. Team programming of projects. Winter term.

*Prerequisite:* CS 240.

CS 420 COMPUTER ORGANIZATION AND ASSEMBLER LANGUAGE PROGRAMMING (3-0) 3

Computer structure, machine language, assemblers and assembly language, addressing techniques, program segmentation and linkage. Fall term of alternate years (even numbered).

*Prerequisite:* CS 360.

CS 450 DATA STRUCTURES AND ALGORITHM ANALYSIS (3-0) 3  
Stacks, queues, lists, trees, graphs, memory management and algorithms for implementation. Algorithm design and analysis, simple database management systems. Fall terms of alternate years (odd numbered).

*Prerequisite:* CS 360.

CS 499 INDEPENDENT STUDY

Individual research conducted under the supervision of a faculty member. On demand.

*Prerequisite:* approval of Department Chairman.

## MUSIC

Professors Ralph A. Downey and Patricia E. Weaver  
Associate Professors Jan Carl Roshong and Richard Strawn  
Assistant Professors Linda Mack and Don Stein

The Fort Lewis College Music Department offers a major in music with three different programs of study, each designed to meet specific goals and aspirations of the individual student. The department also offers to any student the opportunity to participate in the understanding and enjoyment of music which is one of the most ancient, joyous and personal forms of spiritual communication. The study of music offers to each student an expanded awareness of himself in terms of the musical expressions of man's most universal thoughts.



## THE MUSIC MAJOR

A Bachelor of Arts with a major in Music may be earned in either Liberal Arts, with two different options, or in Music Education as follows:

### LIBERAL ARTS — OPTION I — GENERAL MUSIC STUDIES

This curriculum is designed for those with no particular vocational goal or for those who plan to pursue graduate work in Music Theory, Music Journalism, Musicology, or Composition.

### LIBERAL ARTS — OPTION II — MUSIC PERFORMANCE

A concentration in Music Performance is offered in those areas of expertise represented by the individual members of the music faculty. This curriculum is designed as a preparation for a career in studio teaching or for graduate work leading to a career in music performance, studio teaching, or college teaching.

### MUSIC EDUCATION

This curriculum is designed for those planning a career in public school teaching.

The courses listed below are required for all Music Majors:

General Studies ..... 41

#### *Departmental Requirements - Prerequisite Offerings:*

MU 103A, Class Piano (Prerequisite)	1*
MU 128, Harmony & Sight-Singing I (Prerequisite)	5*

#### *Departmental Requirements - Specific Requirements:*

MU 126, Keyboard Harmony I	1
MU 129, Harmony & Sight-Singing II	5
MU 226, Keyboard Harmony II	1
MU 228, Harmony & Sight-Singing III	5
MU 229, Harmony & Sight-Singing IV	5
MU 230, Keyboard Harmony III	1
MU 250, Conducting I	3
MU 328, 16th Century Counterpoint	2
MU 331, History of Music I	3
MU 332, History of Music II	3
MU 333, 20th Century Music	2
MU 350, Conducting II	3
MU 420, Form & Analysis	3
MU 423, Orchestration	3
MU 424, Composition	2
MU 429, 18th Century Counterpoint	2
MU 496, Seminar or	
MU 499, Independent Study	2

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46 52\*

### *Other Departmental Requirements*

At least six credit hours from the following:

MU 105, Mu 110, Mu 115, Mu 200, with a maximum of 12 credit hours allowable toward graduation in any combination of these courses. At least one of the above required each trimester of residency. 6-12

Applied Music (8 to 16 hours) Required each trimester of residency. 8-16 14-28

*Electives* ..... 27-7

**TOTAL REQUIRED FOR GRADUATION** ..... 128

\*Two courses required as prerequisite to become a music major for students deficient in these areas.

Specific guidelines and additional requirements within each of the three programs of study are as follows:

### **LIBERAL ARTS — OPTION I — GENERAL MUSIC STUDIES**

Applied Music is required each trimester of residency but a student need not declare a major performing area. A student may study in a variety of applied areas. Large ensemble participation (Mu 105, Mu 110, Mu 115) is required each trimester of residency.

Two trimesters of foreign language, either French or German or a combination of the two, are strongly recommended.

The required two-hour senior Independent Study (Mu 499b) may be within the areas of Music History, Music Literature, Music Theory, Applied Music, or a combination of these. All Independent Studies require the approval of the area instructor and the Department Chairman.

### **LIBERAL ARTS — OPTION II — MUSIC PERFORMANCE**

The areas of specialization are: A-Piano, B-Voice, C-Brass, D-Woodwinds, E-Percussion, and F-Strings. \*The 8 to 16 hours of Applied Music must be directed toward the major instrument or area. Students must obtain Music Faculty approval and register for two credit hours of Applied Music within the major instrument or area each trimester of residency after declaring the major area of specialization. Any additional courses in other applied music areas do not contribute to specific departmental requirements. The Piano specialization requires Piano Symposium Mu 200, each trimester of residency.

Two trimesters of foreign language, either French or German or a combination of the two, are strongly recommended. The Voice specialization requires 3 trimesters of French or German, including at least one trimester of each language.

A half recital (Mu 499a) of at least 30 minutes duration is required during the junior year. A full recital (Mu 499b) of at least one hour duration is required during the senior year. For specific recital requirements, see the Music Department Student Handbook.

## MUSIC EDUCATION

All Music Education Majors must satisfy the Fort Lewis College Teacher Education Department requirements as well as the Music Department course requirements. Students may certify at the secondary level or K-12 level. The additional classes which are required are in compliance with the Teacher Certification Act of 1975 which outlines the following three areas of specialization: General Music, Instrumental Music, and Choral Music.

The additional required classes in General Music are: MU 120, MU 314, and MU 315.

The additional required classes in both the Instrumental and Choral areas are: Mu 314, Mu 315, Mu 103B, Mu 103C, Mu 103D, Mu 103E, and Mu 103F.

Applied Music and large ensemble participation (Mu 110 or Mu 115 for the Instrumental specialization and Mu 105 for the Choral specialization) are required each trimester of residency except during the trimester of student teaching. Those who elect the piano as the primary applied area and who do not have a secondary instrumental area should select the Choral Music specialization.

There is no foreign language requirement.

The required two-hour senior Independent Study (Mu 499b) may be within the areas of Music Education, Music History, Music Literature, Music Theory, Applied Music or a combination of these. All Independent Studies require the approval of the area instructor and the Department Chairman.

\*Within the brass, woodwind or string areas a specific instrument must be chosen.

A minor is available in Music for students majoring in other disciplines. For details, interested students should consult with the Department Chairperson.

## THEORY SEQUENCE

The required theory sequence for Music Majors includes Harmony and Sight Singing I, II, III and IV, Keyboard Harmony I, II, and III, 16th and 18th Century Counterpoint, 20th Century Music, Form and Analysis, Orchestration and Composition.

## PIANO PROFICIENCY

All Music Majors must satisfy a Piano Proficiency Requirement prior to graduation. The requirement includes sight-reading, harmonization at sight of a simple melody, two-octave major and harmonic minor scales, and the performance of a memorized composition of at least two pages in length from the traditional piano repertoire. Successful completion of Mu 126, Mu 226, and Mu 230 (Keyboard Harmony I, II, and III) satisfies the Piano Proficiency Requirement.

## MUSIC CONCENTRATIONS FOR THE ELEMENTARY EDUCATION MAJOR

Students who are Elementary Education Majors may construct a 12, 18, or 24 hour concentration in Music. Mu 316 (Music in the Elementary School) is required. Mu 314 (Methods and Principles of Teaching Vocal Music) is recommended for the 18 or 24 hour concentration. Mu 103A and Mu 103B (Piano and Vocal Class Instruction) are recommended for all three concentrations. Other recommended classes include: Mu 101, Mu 120, Mu 126, Mu 128, and Mu 332. All Applied Music and large and small ensemble credit can be included in the concentration.

### COURSES

**Mu 101 THE MUSICAL EXPERIENCE (3-0) 3**

A course in music appreciation designed for the general student. The intent of the course is to prepare students for informed and active listening experiences. Attendance at music performances on campus is an integral part of the course. Fall and Winter terms.

**Mu 103 INSTRUMENTAL, VOCAL AND PIANO CLASS INSTRUCTION (A,B,C,D,E, & F) (0-2) 1**

These classes are all designed to provide the student with the basic elements and techniques of performance in each of the media. Piano Class (Mu 103A) Sec. I is specifically designed for the music major lacking piano proficiency. Section II is specifically designed for the general student. A and B - Fall and Winter terms. C, D, E, & F - Alternating years.

*Prerequisite:* consent of instructor.

**Mu 104, 204, 304, 404 APPLIED MUSIC (A,B,C,D,E,F) 1 or 2**

Individual instruction scheduled, at the discretion of the instructor, either privately or in a small class. The course is open to all students. Each course may be repeated once for credit. No student may register for more than two different applied lessons during any one trimester. Students may register for two credit hours only with music faculty approval. Two credit hours are required for Option II. Students who register for two credit hours will receive longer lessons in proportion to the amount of time spent in preparation.

*Prerequisite:* consent of instructor.

**Mu 105 CONCERT CHOIR (0-3) 1**

Thorough study and performance each trimester of larger choral compositions. Open to all students. Fall and Winter terms.

**Mu 106 CHAMBER SINGERS (0-3) 1**

An ensemble specializing in the performance of small scale choral works. By audition only. Fall and Winter terms.

**Mu 107 SPECIAL CHOIRS (0-3) 1**

Requests for developing special choirs will be considered, upon written request to the Department of Music, as adjuncts to any on-campus organization. Under competent, organized supervision these choirs may function and receive 1 hour credit during any one term. Fall and Winter terms.

- Mu 110 BAND** (0-3) 1  
 Designed to provide every student who plays a musical instrument the opportunity to pursue his musical interests. A variety of musical literature will be provided as well as the opportunity to perform in concert on campus and on tour. Fall and Winter terms.
- Mu 115 SYMPHONY ORCHESTRA** (0-3) 1  
 Offered in conjunction with Durango Civic Symphony at no extra fee. This course provides an opportunity for the study and performance of major orchestral works. Two hours of rehearsal are held on Monday evening and the third is arranged at the convenience of the instructor and students. All string students are invited; wind and percussion students by audition only. Fall and Winter terms.
- Mu 116 ACCOMPANYING** (0-2) 1  
 A course designed to provide ensemble and accompanying experience for piano students.  
*Prerequisite:* consent of piano instructor.
- Mu 120 FUNDAMENTALS OF MUSIC** (3-0) 3  
 Open to all students. A course in musical literacy intended to help laymen acquire the basic skills necessary to participate fully in musical activities. No prior musical background is assumed. Fall and Winter terms.
- Mu 126 KEYBOARD HARMONY I** (0-2) 1  
 Piano lab concurrent with Harmony and Sight-Singing II and mandatory for students enrolled in that course. Emphases include all major and harmonic minor scales, triads and triadic progressions, and sight reading. Successful completion satisfies Part I of the Piano Proficiency Requirement. Winter term.  
*Prerequisite:* MU 103A or consent of instructor.
- Mu 128 HARMONY AND SIGHT-SINGING I** (5-0) 5  
 The study of basic four-part vocal writing in the 18th- and 19th-centuries. Emphases include major and minor modes, triads constructed within these modes, voice leading techniques, and the realization of figures basses. Related practice in sight-singing, rhythmic dictation and melodic dictation will supplement written exercises. Fall term.
- Mu 129 HARMONY AND SIGHT-SINGING II** (5-0) 5  
 Continuation of Harmony and Sight-Singing I. Four-part writing expanded to include nonharmonic tones, dominant sevenths, secondary dominants, and diatonic modulations. Winter term.  
*Prerequisite:* Mu 128
- Mu 200 PIANO SYMPOSIUM** (0-2) 1  
 A performing lab designed to accompany Applied Piano, and mandatory concurrently for any student registered in that course (Mu 104A, Mu 204A, Mu 304A, Mu 404A). Piano Symposium is open to all students. The course is repeatable. Fall and Winter terms.

Mu 203A INTERMEDIATE PIANO CLASS INSTRUCTION (0-2) 1  
Continuation of Mu 103A. Fall and Winter terms.  
*Prerequisite:* Mu 103A or consent of instructor.

Mu 226 KEYBOARD HARMONY II (0-2) 1  
Piano lab concurrent with Harmony and Sight-Singing III and mandatory for students enrolled in that course. Chord progressions utilizing secondary dominants and modulations, sight reading, harmonic analysis. Successful completion satisfies Part II of the Piano Proficiency Requirement. Fall term.  
*Prerequisite:* Mu 126.

Mu 228 HARMONY AND SIGHT-SINGING III (5-0) 5  
Continuation of Harmony and Sight-Singing II. Harmonic analysis, diminished seventh chords, dominant ninths in all forms, and nondominant seventh chords. Fall term.  
*Prerequisites:* Mu 129, Mu 126.

Mu 229 HARMONY AND SIGHT-SINGING IV (5-0) 5  
Continuation of Harmony and Sight-Singing III. Modulating and nonmodulating sequences, chromatically altered chords, and the expanded tonal language of the late 19th century. Winter term.  
*Prerequisites:* Mu 228, Mu 226.

Mu 230 KEYBOARD HARMONY III (0-2) 1  
Piano lab concurrent with Harmony and Sight-Singing IV and mandatory for students enrolled in that course. Compositional techniques for keyboard, free composition, memorization, sight reading. Successful completion satisfies Part III of the Piano Proficiency Requirement. Winter term.  
*Prerequisite:* Mu 226.

Mu 250 CONDUCTING I (3-0) 3  
A course in basic instrumental and choral conducting including baton technique, score reading, and various cueing and rhythmic aspects concerned with ensemble control. Fall term of alternate years.

Mu 300 VOCAL ENSEMBLE (0-2) 1  
A study through performance of the literature for vocal ensemble. A maximum of two credit hours to be allowed towards the Music Major. Fall and Winter terms.  
*Prerequisite:* consent of instructor.

Mu 301 WOODWIND ENSEMBLE (0-2) 1  
A survey through performance of the literature composed for woodwind instruments from the Renaissance through avant garde schools of composition and including the use of ancient instruments where applicable. A maximum of two credit hours to be allowed towards the Music Major. Fall and Winter terms.  
*Prerequisite:* consent of instructor.

Mu 302 BRASS ENSEMBLE (0-2) 1  
A survey through performance of the literature written for this medium. Literature from the Baroque period to and including the contemporary

period will be studied and performed. A maximum of two credit hours to be allowed towards the Music Major. Fall and Winter terms.

*Prerequisite:* consent of instructor.

**Mu 303 STRING ENSEMBLE (0-2) 1**

A survey through performance of the literature written for this medium. Literature from the Baroque period to and including the contemporary period will be studied and performed. A maximum of two credit hours to be allowed towards the Music Major. Fall and Winter terms.

*Prerequisite:* consent of instructor.

**Mu 314 METHODS AND PRINCIPLES OF TEACHING VOCAL MUSIC (3-0) 3**

A course designed to provide music majors with contemporary teaching skills and techniques in teaching vocal music in the public schools in grades K-12. The Kodaly and Orff methods coupled with a pragmatic approach will be used. Fall term of alternate years.

**Mu 315 METHODS AND PRINCIPLES OF TEACHING INSTRUMENTAL MUSIC (3-0) 3**

A course designed to provide music majors with contemporary teaching skills and techniques in the teaching of instrumental music in the public schools. Fall term of alternate years.

**Mu 316 MUSIC IN THE ELEMENTARY SCHOOL (3-0) 3**

A music class for training elementary classroom teachers. A study of basic music and basic music teaching. A correlation is made with the music indigenous to the cultures of the Southwest. Winter term, and one summer session.

**Mu 328 SIXTEENTH-CENTURY COUNTERPOINT (2-0) 2**

A course designed to familiarize students with contrapuntal techniques used by Renaissance composers through written exercises and analysis of representative works. Fall term of alternate years.

*Prerequisite:* Mu 229 or consent of instructor.

**Mu 331 MUSIC HISTORY I (3-0) 3**

Study of the history of music from classical antiquity to 1750. Fall term of alternate years.

**Mu 332 MUSIC HISTORY II (3-0) 3**

Study of the history of music from 1750 through 1900. Winter term of alternate years.

**Mu 333 TWENTIETH-CENTURY MUSIC (2-0) 2**

A survey of styles and techniques of contemporary composers, including analysis of representative works. Fall term of alternate years.

*Prerequisite:* Mu 229 or consent of instructor.

**Mu 350 CONDUCTING II (3-0) 3**

Continuation of Conducting I conducting techniques in addition to directing larger musical scores and advanced techniques. Winter term of alternate years.

*Prerequisite:* Mu 250

**Mu 420 FORM AND ANALYSIS (3-0) 3**

A course designed to introduce students to basic formal structures and to develop analytical skills. Topics will include motives, phrases, binary and ternary design, theme and variations, rondo form, and sonata form. Winter term of alternate years.

*Prerequisite:* Mu 229 or consent of instructor.

**Mu 423 ORCHESTRATION (3-0) 3**

A course designed to equip music majors with the skills and techniques of arranging for instrumental ensembles. Fall term.

*Prerequisites:* Mu 229, or consent of instructor.

**Mu 424 COMPOSITION (2-0) 2**

This seminar will explore ideas, problems and possible solutions encountered by students working individually in a creative medium. Winter term of alternate years.

*Prerequisite:* Mu 229 or consent of instructor.

**Mu 429 EIGHTEENTH-CENTURY COUNTERPOINT (2-0) 2**

Examination of contrapuntal techniques used by Baroque composers, concentrating especially on the inventions and fugues of J. S. Bach. Winter term of alternate years.

*Prerequisite:* Mu 229 or consent of instructor.

**Mu 496 SEMINAR (2-0) 2**

Advanced study and research in selected topics. Offered on demand.

*Prerequisite:* senior standing and permission of instructor.

**Mu 499 INDEPENDENT STUDY 1-3**

Individual research is conducted under the supervision of a faculty member. Offered on demand.

*Prerequisite:* approval of Department Chairman.

The following courses are offered periodically under the title Special Topics 190 or 390: Care and Repair of Wind and Percussion Instruments, Chamber Music Literature, Symphonic Literature, Opera as Drama, Vocal Literature, Choral Literature, Psychology of Music, Non-Western Survey of Music, Electronic Music, History and Performance of Jazz, Marching Techniques, Vocal Symposium, Percussion Ensemble and Jazz Ensemble (Open to all members of the FLC Band and others by audition. Instructor's Permission).

## Philosophy

Professors Paul W. Pixler and William Coe.

The study of philosophy at Fort Lewis College has as its purpose the study of traditional and contemporary philosophical issues and positions for their intrinsic interest, and also the demonstration that man's age-old but continuing attempts to understand himself and his relation to the world are important to all of us. It is the mark of the liberally educated person to understand the conclusions of the various specialized sciences in terms of their basic assumptions, to have thought seriously about the nature of such assumptions, and to be aware



of the way in which our views of reality are influenced by the very structures of our language. Perhaps the most important function of philosophy as a part of liberal education is the destruction—or at least the recognition—of the provincialism and complacency of much of our thinking. Philosophy is a necessary part of self-knowledge.

For those students interested in taking several courses or in constructing their own majors in philosophy, the program is designed to provide a systematic acquaintance with man's attempts to know himself, and a concomitant basis from which the student can formulate his own view of man and world. Also offers a minor in philosophy.

## COURSES

**Phil 141 PROBLEMS OF PHILOSOPHY (3-0) 3**

A broad selection of philosophical problems is presented through representative readings from the history of philosophy. Problems included are: free will vs. determinism, the nature and relationship of mind and body, the possibility of proving that God exists, the nature of morality, and the nature of knowledge and its relation to experience. Fall and Winter terms.

**Phil 171 CONTEMPORARY MORAL ISSUES (3-0) 3**

An examination of the relation between different ethical points of view and the handling of the personal, social, political, ecological, and global problems of today.

**Phil 251 ETHICS (3-0) 3**

This course reviews broadly the history of man's systematic attempts from Plato to modern theory to identify morality and to establish standards for making and assessing moral judgments. Winter term.

**Phil 261. PHILOSOPHY OF RELIGION (3-0) 3**

A detailed survey of philosophical approaches to problems raised by religion. Readings are selected from sources representing widely differing points of view. Fall term.

**Phil 271 LOGIC (3-0) 3**

A broad treatment of different methods of assessing the validity of deductive and inductive arguments. The course covers syllogistic logic, elementary, truth functional logic, quantification, and a brief discussion of inductive logic. Fall and Winter terms.

**Phil 274 ANCIENT AND MEDIEVAL PHILOSOPHY (3-0) 3**

An examination of the history of philosophy from the origins of scientific thinking in Asia Minor through the synthesis of Christianity and Greek philosophy in the thought of St. Augustine and the medieval Scholastics. A major emphasis of the course will be the systems of Plato and Aristotle, in which are embodied many of the roots from which modern thought has grown. Fall term.

**Phil 275 MODERN AND RECENT PHILOSOPHY (3-0) 3**

An examination of the history of philosophy from the Renaissance through the 20th Century. Schools of thought like Continental Rational-

ism and British Empiricism are studied not only on their own terms but in terms of their relationship to the Kantian synthesis. The Kantian philosophy in turn, together with much 19th Century thought, is shown to be a necessary background for the understanding of the major philosophical issues of the 20th Century. Winter term.

Phil 321 WORLD RELIGIONS (3-0) 3  
A study of the nature and history of the major contemporary religions of the East and the West. Winter term.

Phil 328 PHILOSOPHY OF SCIENCE (3-0) 3  
An examination of the field, structure, methodology, and spirit of science covering such topics as measurement, probability, theory, verification, and relations to other fields.

Phil 351 CONTEMPORARY PHILOSOPHICAL ISSUES (3-0) 3  
An examination of trends and issues in 20th Century philosophy. Topics may vary, but will be selected from pragmatism, process philosophy, logical positivism, ordinary language analysis, phenomenology, existentialism, and the new idealism. Winter term.  
*Prerequisite:* three hours of philosophy other than Phil 271, or consent of instructor.

Phil 499 INDEPENDENT STUDY 1-3  
Individual research is conducted under the supervision of a faculty member. Offered on demand.  
*Prerequisite:* approval of instructor.

## Physical Science Major

The physical science major provides excellent training in the physical sciences within the broad context of a liberal arts curriculum. The program offers a concentration of courses in which the student takes at least 20 credit hours in one of the three physical sciences (chemistry, geology, physics), 3 courses in a second physical science, and 2 courses in the third science.

The program is designed for students who intend to teach more than one science at the secondary school level or to do advanced work in physical science, earth science, or possibly one of the major fields of physical science (chemistry, geology, physics). Others may wish to use the program as a means of preparing for work as a science technician, or as a basis for continued training toward a career in medicine or dentistry. Any student planning a career in secondary education should consult the School of Education section of this bulletin for specific certification requirements.

A student who is admitted to the Teacher Education Program after September 1, 1978, must complete additional requirements as provided by the Colorado Teacher Certification Law of 1975. Information concerning these requirements may be obtained from the Department Chairman for Teacher Education or from the appropriate academic department chairman or academic advisor.

**BACHELOR OF SCIENCE DEGREE WITH A MAJOR IN  
PHYSICAL SCIENCE**

General Studies..... 41\*

*General requirements*

Chemistry 150-151	11
Geology 115, 115L, 116, 116L	9
Mathematics through Math 223	13
Physics (3 courses, preferably Phys 162, 262, 263)	9
Physics Laboratories (Phys 211, 212)	2
Senior Seminar or Independent Study in area of concentration	2

46 46

*Additional requirements depending on concentration selected*

(Choose the course in *one* of the sciences listed below; with the courses listed above as general requirements these courses will complete the required 20 hours concentration.)

Chemistry 231, 358 and one other course numbered above 231, or	12-14
Geology 207, 351, 365 and one other course numbered above 207 or	12-13
Physics — 3 courses numbered above 263 (Excluding Physics 299, 499)	10-14

Choose one additional course in either science not selected as the major concentration above. This will serve as the necessary third course in a second physical science.

3-5 13-19 13-19

*Electives* ..... 28-22

**TOTAL REQUIRED FOR GRADUATION**..... 128

\*Includes 10 hours of Group B which can be satisfied under "Additional Requirements."

## COURSES

**PhySc 100 PHYSICAL SCIENCE LABORATORY** (0-2) 1½  
Work covers experiments in the fields of physics, chemistry, meteorology, geology, and astronomy. Laboratory techniques and scientific processes are emphasized. Fall and Winter terms.

**PhySc 105 THE PHYSICAL SCIENCES** (3-0) 3  
History, processes, and methods of science. Study is made of the development of some of the most important concepts of science; modern developments, problems in science, and problems from science. Fall and Winter terms.

PhySc 200 INTRODUCTORY ASTRONOMY LABORATORY (0-3) 1  
Work is aimed toward a greater appreciation of the universe through selected observational laboratory experiments in astronomy. Fall and Winter terms.  
*Prerequisite:* PhySc 205 taken concurrently.

PhySc 205 INTRODUCTORY ASTRONOMY FOR THE LIBERAL ARTS (3-0) 3  
A course designed for students interested in elementary astronomy. A survey of modern observations of astronomy including the moon, planets, stars and their formations. A short history of astronomy is also included. Fall and Winter terms.

## Physics

Professors Daniel E. Gibbons and Robert N. Likes  
Associate Professors Jeffery A. Moore and Tom D. Norton

As an important part of the physical science program set within the framework of a liberal education, the Department of Physics offers a strong selection of the basic undergraduate courses in physics. These courses are used extensively by students as part of their General Studies program and to augment their work in such fields as biology, chemistry, geology, engineering, and mathematics. The study of physics enables a student of the sciences to apply his mathematical skill to the basic physical principles which underly all of the natural sciences. A student-constructed major is available in physics or in interdisciplinary fields with physics as one of the component areas.

A minor is available in Physics for students majoring in other disciplines. For details, interested students should consult with the Department Chairperson.

## COURSES

Phys 132 PHYSICS (3-0) 3  
An introductory course in physics covering the basic concepts of mechanics, including motion, energy, fluids, and materials. Calculus is not used. The course is intended to meet college physics requirements and also satisfy the curiosity of all students whose major interest is not in Engineering, Physical Science or Mathematics. Students who take Phys 162 will not receive credit toward graduation for Phys 132. Fall and Winter terms.  
*Prerequisite:* high school algebra and trigonometry.

Phys 162 PHYSICS FOR SCIENCE AND ENGINEERING (3-0) 3  
An introductory course in Physics covering the basic concepts of classical mechanics including motion, energy, fluids, and materials. Differential and integral calculus is used throughout the course. Physics 162 is required of engineering students and strongly recommended to all physical science majors. Fall and Winter terms.  
*Prerequisite:* Math 221; Math 222 should be taken concurrently.

- Phys 201 PHYSICS** (4-3) 5  
 A study of mechanics, wave motion, sound, and heat. Calculus is not used. The course is intended to meet college physics requirements and also satisfy the curiosity of all students whose major interests are not in engineering, physical science, or mathematics. Students who take Phys 217 will not receive credit toward graduation for Phys 201. Fall term. (Will not be offered after 1983-84).  
*Prerequisite:* high school algebra and trigonometry.
- Phys 202 PHYSICS** (4-3) 5  
 A continuation of Phys 201. The course includes topics in electricity and magnetism, light and optics, and modern physics. Calculus is not used. Students who take Physics 218 will not receive credit toward graduation for Phys 202. Winter term. (Will not be offered after 1983-84).  
*Prerequisite:* Phys 201.
- Phys 211 INTRODUCTORY PHYSICS LABORATORY** (0-2) 1  
 An introductory physics laboratory including experiments in mechanics, heat, and sound. Physics 211 required of engineering students and strongly recommended to all physical science majors. Fall term only.  
*Prerequisite:* Physics 132 or 162.
- Phys 212 INTRODUCTORY PHYSICS LABORATORY** (0-2) 1  
 An introductory physics laboratory including experiments in optics, electricity, electronics, and magnetism. Physics 212 is required of engineering students and strongly recommended to all physical science majors. Winter term only.  
*Prerequisite:* Physics 132 or 162.
- Phys 217 PHYSICS FOR SCIENCE AND ENGINEERING** (4-3) 5  
 An introductory course in physics covering the basic concepts of mechanics, wave motion, sound, fluids, and heat. Differential and integral calculus are used throughout the course. Physics 217 is required of engineering students and strongly recommended to all physical science majors. Fall term only. (Will not be offered after 1983-84).  
*Prerequisite:* Math 221; Math 222 should be taken concurrently.
- Phys 218 PHYSICS FOR SCIENCE AND ENGINEERING** (4-3) 5  
 An introductory course in physics covering the basic concepts of electrostatics, electric currents, magnetism, optics, and light. Physics 218 is required of engineering students and strongly recommended to all physical science majors. Winter term only. (Will not be offered after 1983-84).  
*Prerequisites:* Phys 217; Math 222.
- Phys 232 PHYSICS** (3-0) 3  
 An introductory course in Physics covering the basic concepts of heat and thermodynamics, wave motion, optics and sound. Calculus is not used. Students who take PHYS 262 will not receive credit toward graduation for PHYS 232. Fall term only.  
*Prerequisite:* PHYS 132.
- Phys 233 PHYSICS** (3-0) 3  
 An introductory course in Physics covering the basic concepts of electricity and magnetism and selected topics in relativity, atomic and nu-

clear physics. Calculus is not used. Students who take Phys 263 will not receive credit toward graduation for Phys 233. Winter term only.  
*Prerequisite:* Phys 132.

**Phys 262 PHYSICS FOR SCIENCE AND ENGINEERING (3-0) 3**  
An introductory course in Physics covering the basic concepts of heat and thermodynamics, wave motion, optics and sound. Physics 262 is required of engineering students and strongly recommended to all physical science majors. Fall term only.  
*Prerequisites:* Physics 162, Math 222.

**Phys 263 PHYSICS FOR SCIENCE AND ENGINEERING (3-0) 3**  
An introductory course in physics covering the basic concepts of electricity and magnetism and selected topics in relativity, atomic and nuclear physics. Physics 263 is required of engineering students and strongly recommended to all physical science majors. Winter term only.  
*Prerequisites:* Physics 162, Math 222.

**Phys 301 INTRODUCTION TO ELECTONICS (2-3) 3**  
A survey course of the theory and design of various electronic circuits and devices used in scientific instrumentation. Students receiving credit in Engineering 203 may not receive credit for Physics 301. Winter term, alternate years.  
*Prerequisite:* Math 221.

**Phys 320 MODERN PHYSICS (3-0) 3**  
A study in the modern theories of atomic and nuclear physics that have developed since 1900. An introduction to special relativity and elementary quantum mechanics is included. Fall term, alternate years.  
*Prerequisites:* Phys 233 or 263; Math 222.

**Phys 340 OPTICS (3-3) 4**  
A study of classical and modern theories of geometrical and physical optics including matrix methods for optical systems, diffraction theory, and an introduction to Fourier optics. Fall term, alternate years.  
*Prerequisites:* Phys 233 or 263 and Math 222.

**Phys 354 THEORETICAL MECHANICS (3-0) 3**  
The theoretical formulation of the kinematics and dynamics of particles and rigid bodies with an introduction to Lagrangian and Hamiltonian mechanics. An introduction to vector and tensor analysis is also included. Winter term, alternate years.  
*Prerequisites:* Phys 233 or 263, Math 223.

**Phys 361 PRINCIPLES OF ELECTRICITY AND MAGNETISM (4-0) 4**  
The mathematical theory of static electric and magnetic fields, time-dependent fields, and electromagnetic radiation. Offered on demand.  
*Prerequisites:* Phys 233 or 263, Math 327 taken concurrently.

- Phys 370 HEAT AND THERMODYNAMICS (3-0) 3  
 A study of classical thermodynamics which includes the first and second laws of thermodynamics and their applications in energy conversion. On demand.  
*Prerequisites:* Phys 232 or 262, Math 223.
- Phys 380 ADVANCED PHYSICS LABORATORY I (0-3) 1  
 Work will stress experiments in modern physics with emphasis on electronic instrumentation and subsequent data analysis. Offered on demand.  
*Prerequisite:* Physics 320 taken concurrently or equivalent.
- Phys 381 ADVANCED PHYSICS LABORATORY II (0-3) 1  
 Work will stress experiments in electricity and magnetism with emphasis on data collection and analysis. Offered on demand.  
*Prerequisite:* Physics 361 or concurrent enrollment.
- Phys 400 SCIENCE AND HUMAN VALUES (2-0) 2  
 A course designed to investigate the interaction between science and the world community. The course will be conducted on a seminar basis with either interdisciplinary instructors and/or invited instructors from the other areas of the college. Scientific, social, and human values will be discussed. Offered on demand.  
*Prerequisite:* At least 6 hours in the Natural Sciences.
- Phys 420 QUANTUM MECHANICS I (3-0) 3  
 An introduction to Schrodinger's formulation of wave mechanics including potential wells, harmonic oscillators, and energy and momentum operators. Offered on demand.  
*Prerequisites:* Phys 233 or 263, Math 223.
- Phys 421 QUANTUM MECHANICS II (3-0) 3  
 A continuation of the study of quantum systems via approximation techniques, theory of many electron atoms, identical particles and spin. Offered on demand.  
*Prerequisite:* Phys 420.
- Phys 499 INDEPENDENT STUDY 1-3  
 Individual research is conducted under the supervision of a faculty member. Offered on demand.  
*Prerequisite:* approval of instructor.

## Political Science

Professors LeRoy W. Goodwin, David J. Bass and  
 Edward L. Angus;  
 Associate Professor James C. Decker.

The study of political science is concerned with the relationship between the governed and the government, the nature of the political process and the role of the citizen in a democratic society.

The political science major provides excellent training for the person who (1) plans a career in law, journalism, or government; (2) hopes to

work abroad; (3) plans to enter graduate school and later teach or serve as an administrator at the college level; (4) expects to enter politics, either as a candidate or as an administrative aide to a public official.

Political science course offerings are available also to the student who is majoring in another area but who wants to learn something about politics and government.

A minor is available in Political Science for students majoring in other disciplines. For details, interested students should consult with the Department Chairperson.

Students majoring in Political Science may be certified to teach in the broad area of Social Studies at the secondary level. To obtain requirements for teacher certification, please contact the Department of Teacher Education.

#### BACHELOR OF ARTS WITH A MAJOR IN POLITICAL SCIENCE

General Studies .....		41
<i>Specific Departmental Requirements</i>		
PS 101, Introduction to Political Science	3	
PS 110, U.S. National Government: Power and Freedom in the Twentieth Century	3	
PS 386, Early Political Thought	3	
PS 487, Modern Political Thought	3	
PS 496, Seminar; or PS 499, Independent Study	2-3	
	—	
	14-15	
<i>Other Departmental Requirements</i>		
24 additional hours in Political Science with not more than 16 credits in internships	24	38-39
<i>Auxiliary Requirements from Other Departments</i>		
Hist 280 I and II, Survey of American History	6	
Two courses in any one of the following areas: Anthropology, Economics, Foreign Language, Mathematics, Philosophy, Psychology, or Sociology, 6-10		12-16
<i>Electives</i> .....		39-43
TOTAL REQUIRED FOR GRADUATION.....		128

### COURSES

PS 101 INTRODUCTION TO POLITICAL SCIENCE (3-0) 3  
An introduction to the study of politics; an examination of the relationship of man and government; and a study of the nature of the state, of the forms of rule evolved from the past, and of contemporary political systems. Fall and Winter terms.

PS 110 U.S. NATIONAL GOVERNMENT: POWER AND FREEDOM IN THE TWENTIETH CENTURY (3-0) 3  
A study of the policies, procedures, politics, and problems of the U.S. national government. Fall and Winter terms.



- PS 120 STATE AND LOCAL GOVERNMENT** (3-0) 3  
A study of the history, nature, organization, and operation of state and local government in the United States, Fall and Winter terms.
- PS 180 INTRODUCTION TO COMPARATIVE POLITICS** (4-0) 4  
A comparative study of the political systems of selected modern states, including examples of democratic, communist and developing societies. An emphasis is placed on the historical, social and economic environments as well as on political structures, participation, policy making and evaluating the effectiveness of political action.
- PS 220 U.S. PARTY AND INTEREST GROUP POLITICS** (3-0) 3  
An inquiry into the dynamics of the American representative system, stressing the roles of the two major parties in the nomination and election process and in the control and management of governmental power. Relationships among the government, parties, and interest groups are stressed. Fall term.
- PS 241 INTRODUCTION TO CRIMINAL JUSTICE SYSTEM** (4-0) 4  
The nature of crime, the role of police, attorneys, courts and corrections in our law enforcement system.
- PS 301 LOCAL GOVERNMENT INTERNSHIP** 8-16  
Practical half-time or full-time work at the regional, county, or municipal governmental level. Requires the keeping of a detailed journal and completion of a research paper on a local government topic. Winter and Summer terms, on demand.  
*Prerequisites:* Three courses selected from P.S. 101, 110, 120, 220, and 241 and consent of instructor.
- PS 320 CONTEMPORARY WORLD PROBLEMS** (3-0) 3  
An examination of the international struggle for power, with special emphasis on nationalism, economic objectives, armaments, multinational corporations, and the Third World. Winter term.  
*Prerequisite:* PS 101.
- PS 330 PUBLIC ADMINISTRATION** (3-0) 3  
Role of administration in government policy making and implementation. Course uses case study method from a variety of policy areas. Winter term.
- PS 337 U.S. FOREIGN POLICY** (3-0) 3  
A study of the United States foreign policy from the American Revolution to the present day, with emphasis on current policy and how it is made. Winter term.
- PS 340 CONSTITUTIONAL LAW: BILL OF RIGHTS** (3-0) 3  
Rights of citizens as elaborated through the Bill of Rights and Fourteenth Amendment to include freedom of speech and press, freedom of religion, privacy, discrimination and criminal rights. Recommended for political science majors and general advanced students.

**PS 341 CONSTITUTIONAL LAW: FEDERALISM AND THE SEPARATION OF POWERS** (3-0) 3

Powers and limitations of the national judiciary, Congress, the Presidency, war powers and the federal relationship of national government and state government.

**PS 350 STATE LEGISLATIVE INTERNSHIP** 16

Practical, full-time work in the Colorado General Assembly as a legislative intern. Each student works for a lawmaker in either the State Senate or the State House of Representatives. Requires the keeping of a detailed journal and the completion of a research paper. Winter term.  
*Prerequisites:* PS 101, 110, 120, 220, and consent of instructor.

**PS 380 SOVIET AND CHINESE POLITICAL SYSTEMS** (3-0) 3

A comparative study of the development of Soviet and Chinese ideologies from the perspective of their distinct cultural histories; their specific revolutionary conditions and their different levels of economic development. A comparison of their bureaucratic and party structure and the problem of leadership succession is also considered.

**PS 386 EARLY POLITICAL THOUGHT** (3-0) 3

A study of political philosophy from the earliest times to the Seventeenth Century. Readings in the works of the philosophers, including Plato, Aristotle, Machiavelli, and others. Fall term  
*Prerequisite:* PS 101.

**PS 450 NATIONAL GOVERNMENT INTERNSHIP** 16

Practical, full-time, intern work in Washington, D.C., in either the legislative or executive branch of the national government. Requires the keeping of a detailed journal and the completion of a research paper. Winter term, on demand.  
*Prerequisites:* PS 101, 110,(120 if appropriate), 220,(330 if appropriate), and consent of instructor.

**PS 487 MODERN POLITICAL THOUGHT** (3-0) 3

An examination of the main currents of political philosophy from the Seventeenth Century to the present. Readings in the works of the philosophers, including Hobbes, Locke, Rousseau, Marx, Tocqueville, and others. Winter term.  
*Prerequisite:* PS 101.

**PS 496 SEMINAR** (3-0) 3

Advanced study and research in selected topics.  
*Prerequisite:* senior standing and consent of instructor.

**PS 499 INDEPENDENT STUDY** 1-3

Individual research is conducted under the supervision of a faculty member. Offered on demand.  
*Prerequisite:* approval of the instructor and the Department Chairman.

## **SPANISH (see FOREIGN LANGUAGES)**

# Sociology and Human Services

Associate Professor Norman K. Linton;  
Assistant Professors Samuel A. Burns and  
Dennis W. Lum

Sociology seeks to explain how our individual and collective biographies intersect history within society. The relationships between social structure and individual consciousness, historical processes and everyday life, and collective interests and individual prerogatives, provides the sociological substance by which we become self-conscious. It is through the study of sociology that we become aware of the meaning of our everyday lives and recognize the extent to which we participate in the construction of social formations.

The sociological task of comprehending the relationships among individuals and groups is a significant part of any student's educational experience. Extensive work in sociology is recommended for students planning careers in human services. Health services administration, family case work, community planning and development, and criminal justice work are typical human service careers. Moreover, an emphasis in sociology provides foundational preparation for graduate work in sociology, social work, public administration, law, journalism, and other fields.

The sociology and human services curriculum is organized to reflect two central concerns: theory (reflection) and practice (action). Thus field experience, sociology practicum, and participation in the Co-operative Education Program form the nucleus for off-campus experience in applied sociology. This experience as conventional knowledge will be critically compared with sociological theory in terms of their human relevance, viability, and consequences for moral action.

A minor is offered in Sociology and Human Services. For details of required courses consult Department Chairman.

## CURRICULUM SOCIOLOGY AND HUMAN SERVICES

### BACHELOR OF ARTS DEGREE WITH A MAJOR IN SOCIOLOGY AND HUMAN SERVICES

General Studies .....	41
<i>Specific Departmental Requirements</i>	
Soc 100 Social Issues	3
Soc 110 Social Action and Human Services	3
Soc 209 Field Techniques	3
Soc 210 Sociological Inquiry and Research Methods	3
Soc 300 Theories of Social and Personal Life	3
Soc 317 Social Change and Human Services	3
Soc 320 Social Science Practicum	3
Soc 421 Contemporary Social Analysis	3
Soc 496 Senior Seminar	3

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*Other Departmental Requirements:*

1. A minimum of 15 additional hours in Sociology and Human Services	15
2. Math 201	3
<i>Electives</i> .....	41-42
<b>TOTAL REQUIRED FOR GRADUATION</b> .....	<b>128</b>

## COURSES

- Soc 100 SOCIAL ISSUES\*** (3-0) 3  
This introductory course seeks to examine the extent to which the crisis of institutions creates personal problems in our everyday lives. Conversely, it will explore the degree to which our personal troubles foster institutional contradictions. Topics for study may include the workplace, the environment, inequality, sexism, racism, health care, criminal justice, education, alienation, and social services. Fall and Winter, Freshman year.
- Soc 110 SOCIAL ACTION, HUMAN SERVICES** (3-0) 3  
An introduction to the field of Human Services and a survey of programs, basic policies and professional roles. This course is concerned with the extent to which Human Services can fulfill individual and community needs. Fall and Winter, Freshman year.  
*Prerequisite:* Soc 100 or concurrent registration.
- Soc 209 FIELD TECHNIQUES** (3-0) 3  
This course is an introduction to qualitative methods used in the social sciences. The emphasis will be upon interviewing, participant-observation and ethnographic approaches to data collection and the development of descriptions and interpretations of social settings. A research project will be completed in sophomore year as chosen by the student.  
*Prerequisite:* Soc 110 or concurrent registration.
- Soc 210 SOCIOLOGICAL INQUIRY AND RESEARCH METHODS** (3-0) 3  
This course is an introduction to quantitative methods used in social science. The appropriateness and application of various methods will be emphasized. To be taken in sophomore year. Data collection, reduction, analysis and interpretation will be covered. The course will include an introduction to computer applications and the use of descriptive and inferential statistics in research.  
*Prerequisites:* Math 201 or concurrent registration, Soc 209.
- Soc 275 FAMILIES, MARRIAGES, AND OTHER SEX-ROLE SYSTEMS\*** (3-0) 3  
Analysis of changing patterns of family life and sex roles in contemporary society, of the societal sources of these changes, and of their societal and individual consequences. Taught every other year.
- Soc 279 ETHNICITY IN THE SOUTHWEST\*** (3-0) 3  
A descriptive analytic inquiry into the historical, social and economic position of the Hispano and/or Indians of the Southwest. Taught every other year.

**Soc 300 THEORIES OF SOCIAL AND PERSONAL LIFE\* (3-0) 3**

This course will critically examine the classical and contemporary theories of self and society. The major paradigms of functionalism, Marxism, symbolic interactionism, structuralism, ethnomethodology, and critical theory will be evaluated.

*Prerequisite:* Soc 210.

**Soc 317 SOCIAL CHANGE AND HUMAN SERVICES (3-0) 3**

This course provides an examination of social organization and social change with a focus upon human services programs and the communities in which they exist. The relationship between man and the social environment will be used to explore the issue of change in the client versus change in the community. Human service settings, e.g., mental health, social services, corrections, etc. will be explored. (annually, junior year)

*Prerequisite:* Soc 300 or concurrent registration.

**Soc 320 SOCIAL SCIENCE PRACTICUM 3-6**

This course provides the student with experience in applied sociology. Students will be involved in human services, applied social research or other activities approved by the advisor and practicum coordinator. The emphasis is upon gaining experiential knowledge through active participation in sociological practice and sharing this in a classroom experience. Practicum may be taken for 3 or 6 credit per term, and for a maximum of 12 credits. A maximum of 6 credits can be applied towards the major in sociology.

*Prerequisites:* Soc 317, approval of the coordinator.

**Soc 340 RELIGION AND SOCIAL LIFE\* (3-0) 3**

An examination of, principally, contemporary religious phenomena from the viewpoint of social science. The course will also examine the significance of religious studies in the development of reasoning about society. Taught every other year.

**Soc 345 ART AND SOCIETY\* (3-0) 3**

An inquiry into the relationship between any historically specific art and the social setting in which it was created. The idea that art is a way of seeing, a worldview or a theoretic, will be explored. The focus of the course may be literature, the visual arts, music, theatre, or film. Taught every other year.

**Soc 353 THE SOCIAL DIMENSIONS OF HEALTH\* (3-0) 3**

A study of the social practices and beliefs which define and constitute the phenomena of health and illness. The current health care delivery system, including professional roles, patient participation, administration, medical education and planning, will be critically reviewed, and alternatives will be explored. This course is recommended for pre-health majors as well as social science majors.

**Soc 361 DEVIANCE\* (3-0) 3**

An examination of the traditional versions of deviance followed by modern critiques which emphasize "labeling" and the more phenomenological approaches to understanding human conduct.

- Soc 362 **CRIMINOLOGY AND CRIMINAL JUSTICE\*** (3-0) 3  
 An examination of the major "positivist" theories of crime and criminality (individual, familial, sub-cultural) followed by the modern critique of positivist criminology emphasizing the part played by the administration of criminal justice as an integral part of the characterizing and structuring of crime.
- Soc 363 **JUVENILE DELINQUENCY\*** (3-0) 3  
 A review of contemporary thinking about the development of juvenile delinquency and the linkages between juvenile delinquency and the administration of juvenile justice. Taught every other year.
- Soc 375 **SOCIOLOGY OF EDUCATION\*** (3-0) 3  
 Study of the organization and practices of educational institutions and of the transformation these institutions are now undergoing. Special attention to the nature of these changes and their impact on the learning process as well as their consequences for the larger society will be explored. Taught every other year.
- Soc 376 **LANGUAGE AND SOCIAL BEHAVIOR\*** (3-0) 3  
 A concentrated look at the social function of language use in society. The extent to which languages create social reality will receive scrutiny. Particular topics may include language and social class, language and sex, linguistic politics, language and culture/or language cognitive and development. Taught every other year.
- Soc 380 **WORK AND AUTHORITY IN SOCIETY\*** (3-0) 3  
 This course will explore the extent to which meaningful work is possible in any society. It will seek to account for the forms of authority in work and describe the impact that hierarchical structures have on the individual. Taught every other year.
- Soc 401 **SOCIOLOGY OF KNOWLEDGE\*** (3-0) 3  
 The idea that beliefs, norms, values, attitudes, motives, or theories are historically and socially situated will be examined. Importance will be placed on the extent to which social existence influences the production of ideas. Taught every other year.
- Soc 410 **MIND, SELF, SOCIETY\*** (3-0) 3  
 An examination into the ways in which society influences the self and the individual produces society. The relationship between consciousness and social structure will be discussed. Theoretical focus may include symbolic interactionism, ethnomethodology, and/or a Marxist perspective. Taught every other year.
- Soc 421 **CONTEMPORARY SOCIAL ANALYSIS  
 IN THE SOUTHWEST** (3-0) 3  
 A seminar in the application of theories of social change, social knowledge, and research into regional issues in the Southwest. Topics may vary but will critically address issues of water, energy, agriculture, urbanization, inequality, public morality, politics, education, and community. (annually, senior year)  
*Prerequisite: Soc 320.*

Soc 496 SENIOR SEMINAR

(3-0) 3

Advanced study and research in selected topics. The student will prepare and submit a senior seminar research paper to qualify for graduation.

*Prerequisite:* Soc. 421 or concurrent registration.

Soc 499 INDEPENDENT STUDY

1-3

Tutorial or individual research conducted in consultation with a member of the Sociology and Human Services faculty. Topic must be clearly defined in a written contract between student and faculty member.

\*Recommended for Distribution Requirement.

## THEATRICAL ARTS

Stage, Film and Television

Professor Kenneth E. Bordner;  
Associate Professor Dinah L. Leavitt.

The theatrical arts include all those activities by which human beings embody in themselves — either directly or through some medium like film or television — ideas and visions of themselves and their common humanity.

The theatrical arts at Fort Lewis College are taught in the attempt to further two liberal arts goals: to increase self-awareness and understanding and to heighten social awareness and responsibility.

The thrust of our program is to help our students realize that whenever we do anything as human beings we are using one or more of the principles, methods, techniques or devices of the theatrical arts; we are doing theatre in the process. Work and training in the theatrical arts, therefore, is useful and applicable no matter what one's specific career goals are.

The specific curricular offerings in the theatrical arts are organized in six divisions. The entire curriculum is taught in two year cycles, some courses every year, some every other year, and some every term.

Students may design a student constructed major in Theatrical Arts. These programs are specifically tailored to individual aspirations in consultation with the Coordinator of Theatre. Some of our recent graduates have gone on to graduate schools of theatre, professional acting programs, and careers in theatre management, the military, private business, law enforcement and other professions.

A minor is available in Theatre for students majoring in other disciplines. For details, interested students should consult with the Department Chairperson.

## COURSES

Thea 100 DRAMATIC THEATRE

(0-9) 1-3

A continuing practicum in public theatrical communication. Each term a major production requiring five to six weeks (about 140 hrs.) of rehearsal

and public performance time is offered as a keynote to the work of The Theatre Company of Fort Lewis College. Open to freshman and sophomore students and may be repeated for six credits. Enrollment by audition. Fall term.

**Thea 101 INTRODUCTION TO THEATRE (3-0) 3**

A general introduction to Theatre Arts. Work includes fundamental interpretive techniques in acting, directing and design. Interpretive techniques include an understanding of both physical methods and the function of theatre in its society and in its cultural and artistic context. Fall and Winter terms.

**Thea 102 FILM, TELEVISION AND HUMAN PERCEPTION (3-0) 3**

A basic study of the language and meaning of film and television. Fall term.

**Thea 103 PRINCIPLES OF HUMAN ATTIRE AND APPEARANCE (3-0) 3**

An historical, social, political and psychological look at the effects of clothing. Winter term.

**Thea 121 SPEECH COMMUNICATION (3-0) 3**

Through closely supervised activities in various speech forms, the student develops skills necessary to deal successfully with various speaking situations. Designated sections will be offered on demand for teacher candidates. Fall and Winter terms.

**Thea 125 THEORIES OF ACTING (3-0) 3**

The emphasis in the course will be on reading about and discussing the various theories of the craft and art of acting. Theories such as those of Diderot, Stanislavski, Brecht, Grotowski, Schechner, and others will be studied. Fall term.

**Thea 126 INTRODUCTION TO THEATRICAL DANCE (3-0) 3**

A course in the basics of dance — tap, modern, folk, jazz and ballroom — which emphasizes the performance aspects of dance. Students will find outlets for creative expression in Choreography and public performance. Fall term.

**Thea 132 CRAFTS AND DESIGN STUDIO (3-0) 3**

A studio course introducing all the design and crafts of the theatre and of the theatrical elements in film and television. Scenery, props, costumes, light, makeup, sound, and various skills and techniques are introduced through studio project work. On demand.

**Thea 150 INTRODUCTION TO PLAY READING (3-0) 3**

An introduction to the methods of understanding plays. Same as Engl 150. Offered on demand.

**Thea 170 DRAMATIC VISION AND SOCIAL CONTEXT:  
(TITLE OF WORK OF ART) (1-0) 1**

A close discussion of the vision of human life in a single work of dramatic art as the work expresses and emerges from its particular environment. This course may be repeated for a total of eight credits. Open to freshman and sophomore students.



- Thea 181 PLAYS: (THEME OR TOPIC) (3-0) 3  
A study of plays chosen from the entire canon of dramatic literature which relate to a specific theme or topic. The theme or topic is changed regularly, e.g., war, women, marriage, the family, and work.
- Thea 200 MUSIC THEATRE (0-9) 1-3  
A continuing practicum in public theatrical communication. Each term a major production requiring five to six weeks (about 140 hrs.) of rehearsal and public performance time is offered as a keynote to the work of The Theatre Company of Fort Lewis College. Open to freshman and sophomore students and may be repeated for six credits. Enrollment by audition. Winter term.
- Thea 222 CREATIVE DRAMATICS (3-0) 3  
Endeavors to develop creativity and imagination through theatre. While especially useful to those working with youngsters, these techniques which foster self-awareness and expression can be used by anyone. Students will conduct workshops with school children in Durango. On demand.
- Thea 223 CHILDREN'S THEATRE (0-9) 3  
A course whose purpose is to produce a children's play. All aspects of the production will be handled by the class who will also perform the play for child audiences in the Durango area. On demand.
- Thea 232 THEATRICAL COSTUMING (3-0) 3  
Principles of costume design and construction and theory and application of theatrical make-up. On demand.
- Thea 280 STUDIES IN INTERDISCIPLINARY THOUGHT (3-0) 3  
A group of plays which relate directly to another discipline, e.g., philosophy, political science, sociology, theology, are studied for their theatrical and dramatic qualities and also for their insights into the other discipline.
- Thea 300 DRAMATIC THEATRE (0-9) 1-3  
A continuing practicum in public theatrical communication. Each term a major production requiring five to six weeks (about 140 hrs.) of rehearsal and public performance time is offered as a keynote to the work of The Theatre Company of Fort Lewis College. Open to junior and senior students and may be repeated for six credits. Enrollment by audition. Fall term.
- Thea 301 FILM-MAKING (3-0) 3  
Introductory work in practical, expressive film-making. Fall term.  
*Prerequisite:* Thea 102 or Engl 370.
- Thea 302 FILM-MAKING LAB (0-3) 1  
An introduction to film processing and single and double system sound editing. Must be taken concurrently with Thea 301 but optional. On demand.

- Thea 303 **ADVANCED INDIVIDUAL FILM-MAKING** (0-9) 3  
 Independent Film-Making. On demand  
*Prerequisite:* Thea 301.
- Thea 304 **TELEVISION PRODUCTION** (3-0) 3  
 Introductory work in the arts and techniques of actual television production. Fall term.  
*Prerequisite:* Thea 102.
- Thea 324 **CLASSROOM TEACHER PERFORMANCE WORKSHOP** (0-3) 1  
 An intensive workshop in presentational skills and methods for the classroom teacher. Offered in cooperation with the School of Education. On demand.
- Thea 325 **INTERPRETIVE PROBLEMS IN ACTING** (0-9) 3  
 Work on a play which presents a specific problem for the actor, e.g., Shakespeare, farce, dialect, comedy. Enrollment by audition. Fall and Winter terms.
- Thea 326 **INTERPRETIVE PROBLEMS IN DANCE** (0-9) 3  
 Advanced dance class whose final production will be a dance production for public performance. Enrollment by audition. On demand.
- Thea 370 **DRAMATIC VISION AND SOCIAL CONTEXT:**  
**(TITLE OF WORK OF ART)** (1-0) 1  
 A close discussion of the vision of human life in a single work of dramatic art as the work expresses and emerges from its particular environment. This course and Thea 170 may be repeated for a total of eight credits. Open to juniors and seniors.
- Thea 400 **MUSIC THEATRE** (0-9) 1-3  
 A continuing practicum in public theatrical communication. Each term a major production requiring five to six weeks (about 140 hrs.) of rehearsal and public performance time is offered as a keynote to the work of The Theatre Company of Fort Lewis College. Open to junior and senior students and may be repeated for six credits. Enrollment by audition. Winter term.
- Thea 401 **ADVANCED STUDIES** (2-3) 3  
 Advanced study in analytical scene work, design, scripting, history and theory, acting, opera, cabaret and nightclub performance, readers' theatre and oral interpretation, style, dramatic literature, management, dance, directing and choreography.  
 The Advanced Studies Program is intended primarily for juniors and seniors of demonstrated talent, creative discipline and artistic ability, regardless of their major field of work. Admission to the program is in consultation with the faculty. Advanced Studies, Thea 401, may be taken four times for a total of twelve credits. On demand.
- Thea 449 **INDEPENDENT STUDY** 1-3  
 Individual research is conducted under the supervision of a faculty member. Offered on demand.  
*Prerequisite:* approval of Department Chairman.

# **SCHOOL OF BUSINESS ADMINISTRATION**

**ACCOUNTING**

**BUSINESS ADMINISTRATION**

**BUSINESS EDUCATION**

**ECONOMICS**

**AUBREY E. HOLDERNESS, Dean**

## **SCHOOL OF BUSINESS ADMINISTRATION**

The School of Business Administration prepares students for responsible positions in business and industry, for teaching, or for admission to graduate school. The school is accredited by The American Assembly of Collegiate Schools of Business.

In accordance with the highest standards of education for business, students are expected to acquire a sound background in the liberal arts as a basis for mature understanding of the problems of business leadership and management. Some basic business courses are offered in the student's first two years. The program is, however, largely at an upper-division level and students are advised to concentrate their professional courses in the junior and senior years.

The School is characterized by its professional attitude and its close student-faculty relationship. In addition to its concern for good classroom instruction, the faculty believes that much learning takes place through personal and informal contacts with students. There is an active Business Club on campus as well as a chapter of Beta Gamma Sigma, a national honorary business fraternity.

A student may earn a Bachelor of Arts Degree by majoring in one of the following areas:

- Accounting
- Business Administration
- Business Education
- Economics

or may earn an Associate of Arts Degree in Secretarial Studies.

## SCHOOL OF BUSINESS ADMINISTRATION FACULTY

Professors Bernard E. Anderson, Joseph C. Colgan,  
Edward S. Freienmuth, Donald L. James,  
John F. Hale, Aubrey E. Holderness,  
Vernon E. Lynch, Jr., Reed H. McKnight,  
Julian H. Murphy, John H. Zoller;

Associate Professors Leonard D. Atencio, James P. Clay,  
Jeremy Coleman, Reginald A. Graham, E. Lee Holehan,  
Richard A. Podlesnik;

Assistant Professors Stephen L. Gilsdorf,  
Dale Lehman, Miriam T. Henderson,  
L. J. Richardson, Harold B. Teer, Jr.,  
Faye P. Teer, Joseph J. Verce;

Instructor Lawrence S. Corman and Richard A. Huff

## The Curriculum

A student who majors in one of the Bachelor of Arts Degree programs in the School of Business Administration must complete:

- I. The General Studies Program as described in this catalog.
- II. The Common Requirements:
 

— Acc 225 Introduction to Financial Accounting	4	
— Acc 226 Introduction to Managerial Accounting	4	
— Econ 261 Principles of Economics-Macro	3	
— Econ 262 Principles of Economics-Micro	3	
— BA 251 Business Statistics I	3	
— BA 252 Business Statistics II*	3	
— BA 301 Management and Organizational Behavior	3	
— BA 330 Business Environment (3/2)	3	
— BA 340 Marketing	3	
— BA 350 Operations Management (3/2)	3	
— BA 380 Financial Management	3	
— BA 420 Management Information Systems	3	
— BA 496 Seminar in Administrative Strategy	4	42
- III. The following courses in the quantitative and computer science areas:
 

— CS 100 Basic Programming**	3	
— Math 210 Calculus for Business	4	7
- IV. Requirements that are listed on the following pages under each major.

- V. Sufficient elective hours to bring the student's total hours to 128 (the number required for graduation.) At least 40% but no more than 60% of the student's total hours must be taken outside of the School of Business Administration.

\*Not required of Business Education majors; others may substitute Math 260 or BA 360.

\*\*May substitute CS 120, CS 150 or CS 160.

For students with majors offered by the School of Business Administration, Acc 225, Acc 226, Econ 261 and Econ 262 are prerequisites for 300 and 400 level courses offered by the School of Business Administration.

Suggested course sequence for the common requirements. (It is recommended that courses in Box 1 be completed before taking courses in Box 2 and those in Box 2 be completed before taking courses in Box 3. It is required that the first 3 boxes be completed before taking BA 496.)

Box 1	Box 2	Box 3	Box 4
Acc 225			
Acc 226			
Econ 261	BA 301	BA 350	
Econ 262			
BA 251	BA 330	BA 380	BA 496
BA 252			
Math 210	BA 340	BA 420	
CS 100			

## Accounting

Department Chairman: Joseph C. Colgan

The objectives of the program in Accounting are: To provide opportunity for students to develop into thinking, well balanced, social beings; to become familiar with the economic, political, and social climate in which modern business is conducted; to familiarize the student with the primary analytical tools and methods; and to develop capacity for objective analysis, for leadership, for appreciation of cultural values, and an awareness of the individual's social responsibility.

Students successfully completing the major in Accounting are prepared to embark immediately upon a career as a public, private or governmental accountant, and are provided with a foundation in accounting and business administration that will enable them to pursue effectively graduate study in these fields.

The accounting major at Fort Lewis College is currently approved by the State Board of Accountancy of Colorado as preparation for the Certified Public Accountant Examination and for those receiving C.P.A. certificates.

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN ACCOUNTING

In addition to the college's General Requirements and the Common Requirements of the School of Business Administration, a student majoring in Accounting must complete the following major requirements:

### *Specific Major Requirements*

Acc 323 Intermediate Accounting I	4	
Acc 324 Intermediate Accounting II	4	
Acc 325 Cost Accounting I	3	
Acc 326 Cost Accounting II	3	
Acc 430 Income Tax Accounting	3	
		17

### *Other Major Requirements*

Acc 436 Auditing	4	
or		
Acc 437 Internship in Public Accounting	3	
Acc Elective	3	6

### *Auxillary Requirements from Other Areas*

BE 221 Business Communications	3	3
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## ACCOUNTING MAJOR

### Suggested Course Sequence

#### First Year

<i>FALL</i>		<i>WINTER</i>	
Freshman Composition Seminar	4	Econ 261	3
Math 210 or CS 100	3	CS 100 or Math 210	3
P.E.	1	P.E.	1
General Studies or Electives	8	General Studies or Electives	9
	<u>16</u>		<u>16</u>

#### Second Year

Sophomore Composition Seminar	4	Acc 226	4
*Acc 225	4	BA 252	3
BA 251	3	BE 221	3
Econ 262	3	Electives	3
General Studies	3	General Studies	3
	<u>17</u>		<u>16</u>

\*Accounting majors with strong high school backgrounds may desire to start the accounting sequence in the freshman year.

### Third Year

Acc 323	4	Acc 324	4
Acc 325	3	Acc 326	3
BA 330	3	BA 340, 350 or 380	3
BA 301	3	BA 312	3
General Studies	3	General Studies	3
	16		16

### Fourth Year

Acc 430	3	Acc 436 or 437	3-4
Acc 426	4	BA 340, 350 or 380	3
BA 340, 350 or 380	3	BA 496	4
BA 420	3	General Studies	6
General Studies	5		16-17
	16		

## COURSES

**Acc 225 INTRODUCTION TO FINANCIAL ACCOUNTING** (4-0) 4  
 Concepts related to the preparation of financial statements and reports for parties external to the firm, such as stockholders, creditors and labor unions, will be introduced. Understanding the information presented in the financial statements, the balance sheet, the income statement, and the statement of changes in financial position, will be the major emphasis of the course.

**Acc 226 INTRODUCTION TO MANAGERIAL ACCOUNTING** (4-0) 4  
 Concepts related to the preparation of reports useful to management in planning and controlling the operations of a business firm will be introduced. The primary emphasis in this course will be on using accounting information for management planning, control, and decision making. Topics included will be: Accounting for the costs of manufacturing a product, behavior of costs; standard costing; budgeting; cost-volume-profit analysis.

*Prerequisite:* Acc 225 or permission of instructor. Recommended: Math 210.

**Acc 232 PREPARATION OF YOUR INCOME TAX RETURN** (3-0) 3  
 A nontechnical approach to the fundamental concepts and mechanics of preparation of federal income tax returns. All classes of individual returns and commonly encountered business forms are covered. Offered summer term.

**Acc 319 MANAGERIAL ACCOUNTING** (3-0) 3  
 The application of accounting information for principal purposes of making managerial decisions is stressed. Topics include: the analysis and interpretation of financial statements, budgeting for planning and control, cost behavior (cost-volume-profit relationships), relevant cost anal-

ysis for making long- and short- range capital expenditure decisions, and the impact of income taxes on management planning. This course is not available to students who have over 14 semester credit hours of accounting. Offered on demand.

*Prerequisite:* Acc 226.

Acc 323 INTERMEDIATE ACCOUNTING I (4-0) 4

The fundamental process of accounting is analyzed. The proper treatment of business transactions in the recording and analyzing phases is reviewed. Financial accounting theory and problems are studied along with financial statement presentation. Offered fall term only.

*Prerequisite:* Acc 226.

Acc 324 INTERMEDIATE ACCOUNTING II (4-0) 4

Continuation of financial accounting theory and problems. In addition, partnership accounting and an introduction to business combinations are covered. Offered winter term only.

*Prerequisite:* Acc 323.

Acc 325 COST ACCOUNTING I (3-0) 3

This course develops cost accounting procedures applicable to job order and process cost systems. Emphasis throughout the course is on the processing and reporting of a firm's historical and projected cost data to assist management in planning, controlling, and analyzing operations and costs. Offered fall term.

*Prerequisite:* Acc 226.

Acc 326 COST ACCOUNTING II (3-0) 3

A continuation of the study of cost accounting with emphasis on standard costs, analysis of cost for profit decision-making purposes, and other special cost and analysis problems. Offered Winter term.

*Prerequisite:* Acc 325.

Acc 430 INCOME TAX ACCOUNTING (3-0) 3

A brief history of the income tax, income tax accounting, and a study of current federal income tax provisions are presented. Offered fall term.

*Prerequisite:* Acc 324 or consent of instructor.

Acc 431 ADVANCED INCOME TAX ACCOUNTING (3-0) 3

An introduction to tax research and planning. Federal income tax treatment of taxpayers other than individuals (corporations, subchapter S corporations, partnerships, trusts and estates), the treatment of property transfers subject to Federal and state gift and death taxes. The student will learn and utilize methodology of tax research. Offered on demand.

Acc 433 ADVANCED ACCOUNTING (3-0) 3

This course develops basic accounting principles relating to consolidated statements, fund and governmental accounting, bankruptcies, receiverships, estates and trusts, actuarial accounting. Offered fall term.

*Prerequisite:* Acc 324.



Acc 435 SURVEY OF ACCOUNTING THEORY TRENDS (4-0) 4  
The origin and development of accounting; a review of the ideas of leading accounting theoreticians; an examination of current accounting theory; a look at accounting theory as it relates to the C.P.A. examination. Offered winter term.  
*Prerequisite:* Acc 324.

Acc 436 AUDITING — THEORY AND PRACTICE (4-0) 4  
Functions of the independent public accountant are stressed. The course includes audit reports and opinions, account analysis, audit programs, working paper content and form, professional ethics, applications of accounting and auditing standards, SEC stock exchange regulations, investigations for purchase and financing, and current literature on auditing. Offered winter term.  
*Prerequisite:* Acc 324 and 326.

Acc 437 INTERNSHIP IN PUBLIC ACCOUNTING 3  
Accounting students in their senior year may be placed with a selected certified public accounting firm where they will serve as a member of the accounting staff. The planned program of activities is the basis for a term paper to be submitted to the supervising college faculty member at the end of the trimester. The student's performance will be evaluated periodically by his supervisors in the firm as well as the assigned college faculty member.  
*Prerequisite:* consent of department chairman.

BA 499 INDEPENDENT STUDY 1-3  
Individual research is conducted under the supervision of a faculty member. Offered fall and winter terms.  
*Prerequisite:* approval of Dean, School of Business Administration.

## **Business Administration**

Department Chairman: John H. Zoller

The Business Administration program prepares the student for leadership positions in today's society or for entrance into graduate school.

Students may elect courses that emphasize a particular area of management. All are, however, expected to develop a basic understanding of the social, legal and economic environment of business, including an introduction to international business; the principles of leadership and organization theory; the quantitative tools of decision making; and the functional areas of the firm.

Emphasis is placed on developing leaders and on a professional, well balanced understanding of management.

### **BACHELOR OF ARTS DEGREE WITH A MAJOR IN BUSINESS ADMINISTRATION**

In addition to the College's general requirements and the common requirements of the School of Business Administration, a student majoring in Business Administration must complete the following major requirements:

<i>Specific Major Requirements</i>	
—One 300 level Economics course .....	3

*Other Major Requirements*

A minimum of 15 hours of business administration courses at the 300 or 400 level, with at least one course from each group.

**GROUP A**

BA 342 Retailing	3
BA 343 Sales Management	3
BA 344 Advertising	3
BA 345 Professional Salesmanship	3
BA 445 Marketing Management	3
BA 446 Marketing Research	3
BA 390 Special Topics in Marketing	3

**GROUP B**

BA 302 Industrial Relations	3
BA 307 Personnel	3
BA 311 Business Law I	3
BA 312 Business Law II	3
BA 360 Operations Research	3
BA 370 Topics in International Business	3
BA 380 Financial Management	3
BA 382 Financial Institutions	3
BA 386 Insurance	3
BA 390 Special Topics in Management	3
BA 401 Entrepreneurship and Small Business Management	3
BA 407 Management Consulting	3
BA 481 Cases and Problems of Financial Management	3
BA 483 Investments	3
BA 484 Portfolio Management	3
BA 489 Real Estate	3
BE 308 Office Management	3

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## BUSINESS ADMINISTRATION MAJOR

### Suggested Course Sequence

#### First Year

#### FALL

#### WINTER

Math 210 or CS 100	3	Math 210 or CS 100	3
Freshman Composition Seminar	4	Econ 262	3
Econ 261	3	General Studies	9
General Studies	5	P.E.	1
P.E.	1		16
	<hr/> 16		

## Second Year

Sophomore Composition		BA 252	3
Seminar	4	Acc 226	4
BA 251	3	General Studies or	
Acc 225	4	Electives	9
General Studies or			
Electives	5		16
	16		

## Third Year

BA 301	3	BA Electives	6
BA 330	3	Electives	5
BA 340	3	General Studies	5
300 level Econ	3		
General Studies	4		16
	16		

## Fourth Year

BA 350	3	BA 496	4
BA 380	3	BA Electives	3
BA Electives	6	Electives	9
Electives	4		
420			16
	16		

## COURSES

**BA 251 BUSINESS STATISTICS I** (3-0) 3  
 An Introduction to the methods used in economics and business for the collection and analysis of numerical data for decision-making purposes. The course covers data collection, methods of statistical description, statistical inference including estimation, simple hypothesis testing and statistical decision theory and an introduction to index number construction. No more than a total of 3 credits can be earned toward graduation for BA 251, Math 201, or Psych 241 because of uniform syllabus. Offered fall and winter terms.  
*Prerequisite:* One semester of college mathematics or consent of instructor.

**BA 252 BUSINESS STATISTICS II** (3-0) 3  
 A continuation of Business Statistics I. Topics covered include simple and multiple regression and correlation, analysis of variance, and time series analysis. Offered fall and winter terms.  
*Prerequisite:* BA 251.

**NOTE:** For students with majors offered by the School of Business Administration, Acc 225, Acc 226, Econ 261 and Econ 262 are prerequisites for 300 and 400 level courses offered by the School of Business Administration.

- BA 301 MANAGEMENT AND ORGANIZATIONAL BEHAVIOR** (3-0) 3  
 A study of the principles, practices and processes of administration; the organization of a system; the behavior of people in the organization; and the development of organizational effectiveness. Offered fall and winter terms.
- BA 302 INDUSTRIAL RELATIONS** (3-0) 3  
 An adaptive approach to employer-employee relations. Included in an introduction to union-management relations which emphasize labor law, collective bargaining, and arbitration. Current theories of organizational behavior are studied as applied in the industrial relations system.  
*Prerequisite:* BA 301.
- BA 307 PERSONNEL** (3-0) 3  
 Nature of the personnel system in the firm; recruitment and selection; training and development; performance appraisal; wage and salary administration; role of the government in manpower administration; labor relations; and discipline.  
*Prerequisite:* BA 301.
- BA 311 BUSINESS LAW I** (3-0) 3  
 Basic principles of law as applied to business transactions. Study of the law of contracts and sales, sales warranties, law of agency, and personal property is included. The social and legal environment of business is examined. Offered fall and winter terms.
- BA 312 BUSINESS LAW II** (3-0) 3  
 Continuation of Business Law 311. Study of the law of partnerships, corporations, secured transactions, suretyship, real property and bankruptcy. Offered winter term.  
*Prerequisite:* BA 311.
- BA 330 BUSINESS ENVIRONMENT** (3-0) 3  
 An evaluation of the present interaction between business and the social, political and legal order, in both the domestic and international arenas. Special emphasis is given to the comprehensive range of governmental regulations, the ethical considerations faced by the business executives in the modern world, and the cultural and political challenges of doing business in international markets.
- BA 340 PRINCIPLES OF MARKETING** (3-0) 3  
 The course stresses marketing activities from a managerial perspective. It includes the marketing of goods and services and ideas in both business and non-business organizations. There is an emphasis of concepts of marketing and application of these concepts in the making of decisions and managing marketing variables within a dynamic environment. Offered fall and winter terms.  
*Prerequisite:* Econ 262.
- BA 342 RETAILING** (3-0) 3  
 An introduction to retailing from the management point of view; study of retail policies and organization, the operation of the buying and selling

functions, merchandise control, store systems, personnel management, retail accounting, and expense control. Offered winter term.

*Prerequisite:* BA 340.

**BA 343 SALES MANAGEMENT (3-0) 3**

The course is concerned primarily with the management of outside sales forces and their activities. It deals almost entirely with the management of sales forces of manufacturers and wholesaling middlemen.

*Prerequisite:* BA 340.

**BA 344 ADVERTISING (3-0) 3**

The course, which is a comprehensive survey of advertising, deals with the management, planning, creation and use of advertising. A non-technical approach is stressed.

*Prerequisite:* BA 340.

**BA 345 PROFESSIONAL SALESMANSHIP (3-0) 3**

The salesperson considered (viewed) as a consultant whose job is to assist buyers to make purchase decisions. Course examines the consultant relationship of a professional salesperson in assisting the buyers. The ethics, responsibilities, and sales skills of a professional salesperson will be examined.

*Prerequisite:* BA 340 or permission of instructor.

**BA 350 OPERATIONS MANAGEMENT (3-0) 3**

Concepts and methods for economical planning and control of activities required for transforming a set of inputs into specified products or services. Emphasis is given to investment and cost analysis, design of production systems, production marketing relationships, and operations planning and control. Offered fall and winter terms.

*Prerequisite:* BA 251 and Math 210. Recommended: BA 301, BA 330, BA 340.

**BA 360 INTRODUCTION TO OPERATIONS RESEARCH (3-0) 3**

(see Math — BA 360)

**BA 370 TOPICS IN INTERNATIONAL BUSINESS (3-0) 3**

An examination of selected topics and issues pertaining to the international market place. Students may take this course one or more times for credit, provided the subject is different on each occasion.

*Prerequisites:* Econ 261, 262 and Acc 225, 226.

**BA 380 FINANCIAL MANAGEMENT (3-0) 3**

The financial structure of various types of business organizations including sole proprietorships, partnerships, and corporations. Methods of securing and managing funds to meet short and long term capital requirements are presented. Offered fall and winter terms.

*Prerequisite:* Acc 226. Recommended: BA 301, BA 311, BA 340.

- BA 382 FINANCIAL INSTITUTIONS** (3-0) 3  
 Provides a descriptive and analytical understanding of financial markets, the major categories of financial institutions, the public policy toward these institutions, the nature of financial planning, interest rate analysis, and liquidity/credit management.  
*Prerequisite:* Acc 226.
- BA 386 INSURANCE** (3-0) 3  
 Coverage available, buying methods, and general procedures of operation of all types of insurance companies. Special emphasis on the analysis of the standard of more common forms of fire, marine, casualty, and life insurance contracts. Offered fall term.
- BA 401 ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT** (3-0) 3  
 Concepts and application of concepts useful in becoming and being an independent business person. Covers how to conceive, initiate, organize, manage and operate a small business.  
*Prerequisite:* Senior standing.
- BA 407 MANAGEMENT CONSULTING** (3-0) 3  
 The study of the concepts and models of management consulting and their application in business organizations. Emphasis is on practical application and the utilization of relevant tools and techniques. Students are required to engage in consulting activities.  
*Prerequisites:* BA 340; BA 350; BA 380; Senior standing.
- BA 415 MANAGEMENT IN ACTION** (4-0) 4  
 The study of management principles and their application through research, plant visits, and on-site interviews with top management personnel.
- BA 420 MANAGEMENT INFORMATION SYSTEMS (MIS)** (3-0) 3  
 A study of information processing, the systems concept, the analysis and design of information systems, and data-base hardware and software technology as they apply to producing information to be used in business decision making.  
*Prerequisites:* CS 100 or above, BA 340 and BA 350.
- BA 445 MARKETING MANAGEMENT** (3-0) 3  
 Detailed case analysis of corporate marketing problems. Cases include all of the marketing inputs and allied internal and external forces and resources. Offered winter term only.  
*Prerequisite:* BA 340 and senior standing.
- BA 446 MARKETING RESEARCH** (3-0) 3  
 Evaluates the role of research in marketing management. Includes the use of research in defining, analyzing and resolving marketing problems. Consideration is given to research procedures, sources of data, and the use of information for decision making. Offered winter term.  
*Prerequisites:* BA 252 and BA 340.

**BA 481 CASES AND PROBLEMS OF FINANCIAL MANAGEMENT (3-0) 3**

This course will apply the tools learned in BA 380 to a variety of business problems and cases. Areas of analysis will not be confined to finance but will include decision making in marketing, management, etc., realizing the interdisciplinary reality of business. Offered on demand.  
*Prerequisite:* BA 380.

**BA 483 INVESTMENTS (3-0) 3**

Analysis of several theories of investment followed by an investigation and study of security markets. Corporate bonds and stocks are stressed; however, federal and state bonds and private investment opportunities are also considered. Offered on demand.  
*Prerequisite:* Acc 226, BA 380.

**BA 484 PORTFOLIO MANAGEMENT (3-0) 3**

A continuation of analysis of investment theories from BA 483, followed by application of these theories through advanced security analysis. Institutional investors will be studied, and discussions of investment diversification, risk and return will be applied to both institutional and individual investing concepts. Offered on demand.  
*Prerequisite:* BA 483; recommended but not required: BA 380.

**BA 489 REAL ESTATE (3-0) 3**

The regulation, practices, legal aspects, and professional ethics of the real estate business. Some consideration is given to real estate appraisal techniques and theory. Offered winter term.  
*Prerequisite:* BA 311.

**BA 496 SEMINAR IN ADMINISTRATIVE STRATEGY (4-0) 4**

The integration of managerial theories, techniques, and skills. Provides vicarious experiences and research in administrative decision making, policy, strategy, and tactics. Emphasis is on the total organization and its internal and external relationships and responsibilities. An appropriate term paper is required. Offered fall and winter terms.  
*Prerequisites:* Completion of all other courses in the Common Requirements and senior standing.

**BA 499 INDEPENDENT STUDY 1-3**

Individual research is conducted under the supervision of a faculty member. Offered fall and winter term.  
*Prerequisite:* approval of Dean, School of Business Administration.

## **Business Education**

Department Chairman: John H. Zoller

There are three programs offered in Business Education: Business Education (Secretarial and Non-Secretarial) and Secretarial Studies.

The teacher-education curriculum is designed specifically for the preparation of teachers of business subjects. Students who are not en-

rolled in the teacher-education curriculum may elect to enter the vocationally oriented program in secretarial studies and, upon completion, receive an Associate of Arts Degree.

Each curriculum is constructed to ensure that the students receive a broad general education and a sound foundation in the basic areas of business knowledge.

The objective of the programs is to develop in each student a professional outlook and the ability to perform successfully the duties demanded in his pursuits.

#### BACHELOR OF ARTS DEGREE WITH A MAJOR IN BUSINESS EDUCATION (SECRETARIAL)

In addition to the college's general requirements and the common requirements of the School of Business Administration, a student majoring in business education (secretarial) must complete the following major requirements:

##### *Specific Requirements in Business Education:*

BE 108 Advanced Typing	2	
BE 144 Business Machine Calculations	2	
BE 213 Advanced Shorthand and Transcription	3	
BE 221 Business Communications	3	
BE 232 Secretarial Procedures	3	13

##### *Auxiliary Requirements from Other Departments*

Education courses (see secondary education section)	25	25
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A student who is admitted to the Teacher Education Program after September 1, 1978, must complete additional requirements as provided by the Colorado Teacher Certification Law of 1975. Information concerning these requirements may be obtained from the Department Chairman for Teacher Education or from the appropriate academic department chairman or academic advisor.

## BUSINESS EDUCATION MAJOR

### Suggested Course Sequence

#### First Year

FALL		WINTER	
Freshman Composition Seminar	4	Econ 261 or 262	3
		BE 144	2
BE 108	2	BE 213	3
Math 210 or CS 100	3	Math 210 or CS 100	3
General Studies	6	General Studies	5
P.E.	1	P.E.	1
	<hr/>		<hr/>
	16		17



### Second Year

Sophomore Composition		Acc 225	4
Seminar	4	BE 232	3
BE 221	3	Econ 262	3
Econ 261	3	Ed 212	2
ED 201	3	General Studies	5
Psych 157	3		17
	16		

### Third Year

Acc 226		BA 330	3
BA 251	3	BA 340	3
BA 301	3	BA 380	3
Psych 218	3	Ed 364	3
Ed 362	3	General Studies	5
	16		17

### Fourth Year

BA 350		ED 402	2
BA 496	4	ED 480	2
ED 401	2	ED 495	10
General Studies	5		14
BA 420	3		
	17		

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN BUSINESS EDUCATION (NON-SECRETARIAL)

In addition to the college's general requirements of the School of Business Administration, a student majoring in business education (non-secretarial) must complete the requirements for a degree in business administration and the following requirements:

### *Auxiliary Requirements from Other Departments*

Education courses (see secondary education section) 25

A student who is admitted to the Teacher Education Program after September 1, 1978, must complete additional requirements as provided by the Colorado Teacher Certification Law of 1975. Information concerning these requirements may be obtained from the Department Chairman for Teacher Education or from the appropriate academic department chairman or academic advisor.

## Secretarial Studies

### ASSOCIATE OF ARTS DEGREE IN SECRETARIAL STUDIES

The secretarial studies program provides the basic skills necessary for practicing secretaries. In addition, general studies, accounting, business administration, and economics courses are included to enable the secretary to function and communicate in a business environment.

These additional course requirements also make it very practical for the recipient of the Associate of Arts degree in Secretarial Studies to complete a Bachelor of Arts degree in Business Administration within a normal four-year span.

A minor is available in secretarial studies for students majoring in other disciplines. For details, interested students should consult with the Department Chairperson.

A student majoring in Secretarial Studies must complete the following requirements:

*General Studies*

Freshman Composition Seminar	4	
Sophomore Composition Seminar	4	
PE ACT Physical Activity	1	
PE ACT Physical Activity	1	
Four courses to be selected from the four distribution groups of General Studies, one from each group	12	22

*Specific Secretarial Studies Requirements*

BE 108 Advanced Typing	2	
BE 144 Business Machine Calculations	2	
BE 213 Advanced Shorthand and Transcription	3	
BE 221 Business Communications	3	
BE 232 Secretarial Procedures	3	13

*Other Requirements*

Four business courses to be selected from Accounting, Economics, Business Administration or Business Education; no more than two courses may be from Business Education	12	12
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*Auxiliary Requirements from Other Areas*

Acc 225 Intro to Financial Accounting	4	
Econ 261 Principles of Economics-Macro Electives	3	7
		10
		<hr/> 64

## SECRETARIAL STUDIES MAJOR

### Suggested Course Sequence

#### First Year

FALL		WINTER	
Freshman Composition Seminar	4	BE 108	2
BE 111 or BE 213	3	Econ 261	3
BE 144	2	Elective	6
Elective	3	General Studies	4
General Studies	3	P.E.	1
P.E.	1		<hr/> 16
	<hr/> 16		

## Second Year

Sophomore Composition	4	BE 232	3
Seminar	4	Electives	10
Acc 225	4	General Studies	3
BE 213 or elective	3		
BE 221	3		16
General Studies	2		
	16		

## COURSES

- BE 100 BEGINNING TYPING** (0-3) 1  
 The introduction of the keyboard, the development of touch-typewriting skills (both speed and accuracy), and all of the related components leading to the successful production of manuscript typewriting will be taught. No typewriting competency is presumed. This is a beginning course offered to provide college students an opportunity to learn to typewrite.
- BE 107 INTERMEDIATE TYPING** (2-3) 2  
 The development of speed and accuracy in producing business forms. Offered fall and winter terms.  
*Prerequisite:* One year of high school typing or ability to pass the typing qualification examination.
- BE 108 ADVANCED TYPING** (2-3) 2  
 The development of skill in office production. Business letters, business forms, tabulations, and manuscripts are presented. Use of electric machines. Offered fall and winter terms.
- BE 111 ELEMENTARY GREGG SHORTHAND** (2-3) 3  
 The basic principles of reading and writing shorthand, and dictation of practice material. Offered fall term.
- BE 144 BUSINESS MACHINE CALCULATIONS** (1-3) 2  
 The latest arithmetical techniques used in business and accounting. Stress is placed on applications including a thorough instruction in the use of rotary and listing calculators, electronic calculator, and ten-key adding machines. Offered fall and winter terms.
- BE 213 ADVANCED SHORTHAND SKILLS** (2-3) 3  
 The practice of dictation, transcription, speed building and vocabulary building toward the development of skill in shorthand. This course will be taught at two levels of skills development: Level II is required for Secretarial Studies majors. The course may be repeated once for credit. Offered fall and winter terms.  
*Prerequisite:* BE 111 or permission of instructor.
- BE 221 BUSINESS COMMUNICATIONS** (3-0) 3  
 A course built around the basic concept that both the functions and objectives of business are achieved through effective communication. Includes the processes of business communication and the conventions of business writing. Offered fall and winter terms.

**BE 232 SECRETARIAL PROCEDURES** (2-4) 3  
 Basic secretarial principles and procedures, including filing procedures, mail, telephone, and reception techniques; machine transcription; duplicating machines; receiving callers; business etiquette; expediting meetings; and legal facets of secretarial work. Also includes office simulation. Offered winter term.  
*Prerequisites:* BE 108 and BE 213, or permission of instructor.

**BE 308 OFFICE MANAGEMENT** (3-0) 3  
 The principles of office management. The responsibilities of management for office services, office layout and space utilization, office furniture and equipment, machines and appliances, branch office management, office personnel problems, training of office workers, office costs, and office methods and procedures are included. Individual research required. Offered winter term.

**BA 499 INDEPENDENT STUDY** 1-3  
 Individual research is conducted under the supervision of a faculty member. Offered fall and winter terms.  
*Prerequisite:* Approval of Dean, School of Business Administration.

## Economics

Department Chairman: Bernard E. Anderson

The program in Economics offers, within the general framework of the liberal arts, courses designed to meet the needs and desires of students who major in economics. The major in economics is designed to (1) provide the student with an understanding of our present-day economic system and an understanding of economics and its relationship to other disciplines, and (2) prepare the student for graduate work, employment in government and business.

A minor is offered in Economics in addition to a Bachelor of Arts degree with a major in Economics.

Students majoring in Economics may be certified to teach in the broad area of Social Studies at the secondary level. To obtain requirements for teacher certification, please contact the Department of Teacher Education.

### BACHELOR OF ARTS DEGREE WITH A MAJOR IN ECONOMICS

In addition to the College's general requirements and the common requirements of the School of Business Administration, a student majoring in economics must complete the following departmental requirements:

#### *Specific Major Requirements*

Econ 356 Intermediate Micro-theory	3	
Econ 364 Intermediate Macro-theory	3	6

#### *Other Major Requirements*

Any four of the following courses:		
Econ 310 Economic History of the United States	3	
Econ 320 Economics of the Southwest	3	

Econ 361 Managerial Economics	3	
Econ 365 Money and Banking	3	
Econ 367 Comparative Economic Systems	3	
Econ 369 Public Finance	3	
Econ 371 International Economics	3	
Econ 375 Industrial Organization	3	
Econ 390 Special Topics in Economics		
Econ 475 Regional Economics	3	12

## ECONOMICS MAJOR

### Suggested Course Sequence

#### First Year

<i>FALL</i>		<i>WINTER</i>	
Freshman Composition Seminar	4	Econ 261	3
**Math 210 or CS 100	3	Math 210 or CS 100	3
General Studies or Electives	8	General Studies	6
P.E.	1	Electives	3
	16		16

#### Second Year

Sophomore Composition Seminar	4	Acc 226	4
Acc 225	4	BA 252	3
BA 251	3	Electives	3
Econ 262	3	General Studies	6
General Studies	3		16
	17		

#### Third Year

BA 301	3	BA 340	3
BA 380	3	Econ 364	3
Econ 356	3	Econ Elective	3
Econ Elective	3	Electives	3
General Studies	4	General Studies	3
	16	PE	1
			16

#### Fourth Year

BA 330	3	BA 496	4
BA 350	3	Econ Electives	6
Econ 470	3	Electives	3
Econ Elective	3	General Studies	3
BA 420	3		16
	15		

\*\*Math 110 is recommended for students weak in math; Math 210 is recommended for students with a strong background in high school mathematics.

## COURSES

Econ 160 BASIC ECONOMICS (3-0) 3

Basic Economics is designed for students who do not intend to major in economics or business. This course covers both macro and micro subjects, and focuses on the individual and how he or she expresses his or her desires through the market system.

Econ 261 PRINCIPLES OF ECONOMICS-MACRO (3-0) 3

An introductory course on national income analysis. Included are an introduction to markets, the determination of prices via the market, income flows, macro-economic equilibrium, monetary and fiscal policy and an introduction to international economics. Offered fall and winter terms.

Econ 262 PRINCIPLES OF ECONOMICS-MICRO (3-0) 3

Price determination and income distribution in a capitalistic economy. Investigation of current economic issues with particular emphasis on labor-management relations, agriculture, international trade, and government regulation of business is included. Offered fall and winter terms.

*Prerequisite:* Econ 261.

Econ 310 ECONOMIC HISTORY OF THE UNITED STATES (3-0) 3

A study of the origin and development of the economic institutions of the United States from Colonial times to the present. U.S. Economic development is considered in relation to theories of economic growth and development. Offered on demand.

*Prerequisite:* Consent of instructor.

Econ 320 ECONOMICS OF THE SOUTHWEST (3-0) 3

A theoretical analysis of economic organization in the Southwestern U.S. from the colonial era to the present. Analysis includes models appropriate to economics in the process of development and the influence of cultures on the developmental process. Offered on demand.

*Prerequisite:* Consent of instructor.

Econ 356 INTERMEDIATE MICRO THEORY AND ANALYSIS (3-0) 3

This course deals with the price system as it directs resources to more efficient use. It deals with pricing under the various degrees of com-

petition and stresses demand analysis. The principles of production economics are explored. Offered on demand.

*Prerequisite:* Econ 262.

**Econ 361 MANAGERIAL ECONOMICS (3-0) 3**

A course designed to connect economic theory with business decision making. The course deals with the application of economic models to business decisions, quantitative methods for decision making, cost-benefit and cost-effectiveness analysis. Offered winter term.

*Prerequisite:* Econ 262, Math 210.

**Econ 364 INTERMEDIATE MACRO THEORY (3-0) 3**

A course that examines the economy as a whole. Included are an analysis of national income accounting, consumption, investment, government spending, the level of employment, monetary theory, monetary and fiscal policy and international economic policy. Offered on demand.

*Prerequisite:* Econ 261.

**Econ 365 MONEY AND BANKING (3-0) 3**

Money, deposit creation, central banking, financial institutions, banking structure, and the Dual Banking system. Monetary theory is developed from the Classical, the Keynesian, the fiscal policy to the current monetarist approach. Problems of inflation and unemployment are examined. International monetary problems are analyzed. Offered fall term.

*Prerequisite:* Econ 261, Econ 262.

**Econ 367 COMPARATIVE ECONOMIC SYSTEMS (3-0) 3**

An analysis and comparison of capitalism, socialism and communism and a survey of the historical background in which these systems developed. Offered on demand.

*Prerequisite:* consent of instructor.

**Econ 369 PUBLIC FINANCE (3-0) 3**

An analysis of the financing of federal, state, and local units of government. Emphasis given to problems of taxation, expenditures and debt management. Offered on demand.

*Prerequisite:* Econ 261.

**Econ 371 INTERNATIONAL ECONOMICS (3-0) 3**

Classical, neo-classical, and modern trade theory. Comparative analysis of marketing functions, institutions and structures in different national environments. Exchange rates, import-export monopolies, quotas, tariffs, and other foreign fiscal policies. Offered on demand.

*Prerequisite:* Econ 261 and 262.

**Econ 375 INDUSTRIAL ORGANIZATION (3-0) 3**

An empirical, theoretical, and legal analysis of economic concentration in the United States. Includes detail of market and aggregate concentration, alternative models of oligopoly behavior from economic theory, and studies of cases in antitrust law. Offered on demand.

*Prerequisite:* Econ 261 and Econ 262.

**Econ 475 REGIONAL ECONOMICS**

(3-0) 3

A study in the economic structure, stability and growth of regional and urban economics. Included is an analytical approach to the location of economic activity, and methods of measuring and analyzing regional and urban economic performance. Attention to be focused on problems unique to the southwestern region of the national economy. Offered on demand.

*Prerequisite:* Econ 364 or consent of instructor.

**BA 499 INDEPENDENT STUDY**

1-3

Individual research is conducted under the supervision of a faculty member. Offered fall and winter terms.

*Prerequisite:* approval of Dean, School of Business Administration.





# SCHOOL OF EDUCATION

ELEMENTARY EDUCATION

SECONDARY EDUCATION

PHYSICAL EDUCATION

PSYCHOLOGY

DONALD F. WHALEN, Dean

## TEACHER EDUCATION DEPARTMENT

Stephen A. Roderick, Chairman;  
Professors Edith W. Brochu, Marvin L. Giersch, Stephen A.  
Roderick, Donald F. Whalen and Raymond N. Wilson  
Associate Professors Gary D. Knight,  
Pamela R. Young and Virginia A. Regelman  
Assistant Professor, Charles H. Reid,  
Instructor Linda L. Simmons.

The Colorado Department of Education has approved Fort Lewis College for teacher education at the elementary level and at the secondary level in the following areas: Art, Business Education (secretarial and non-secretarial), English, Mathematics, Music, Physical Education, Sciences (Biology, Chemistry, Geology, General Science), Spanish, and Social Studies (includes an approved major, a support area, and required support courses.)

Students majoring in art, music, and physical education may elect certification for grades K-12 in their respective disciplines by completing additional requirements beyond their secondary certification program. Certification in sciences and social studies requires a composite major. See the Department of Teacher Education advisor for details.

The Teacher Education Program also is accredited by the National Council for the Accreditation of Teacher Education (NCATE). Accreditation by NCATE provides for reciprocal certification in 26 states.

The unique geographical location and the population characteristics of the student body and the service area dictate that the teacher education program of Fort Lewis College be cognizant of the need to prepare teachers to fulfill the requirements of the schools in the immediate area. The philosophy of education of the Teacher Education Department is that an adequate program of teacher preparation must select individuals who are capable of becoming effective teachers, and provide the pre-service teacher with the technical and attitudinal skills necessary for functioning in the public schools of the present, as well as the public schools of the future. Academic as well as experiential bases are a vital concern for a program oriented toward the individual student's acquisition of subject matter skills and development of attitudinal competencies. The goals of the program are:

## GOALS

1. To provide the pre-service teacher with orienting, formative and consolidating experiences in subject matter teaching.
2. To provide the pre-service teacher with experiences that will insure opportunities to learn about children and young adults, the community, and the teaching profession.
3. To provide the pre-service teacher with experiences that will enable the student to maximize his own potential as a person and to recognize that every other person is of great worth and is entitled to develop to his greatest potential.
4. To provide the pre-service teacher with experiences that will lead to an enthusiasm for life and a love of learning to help make it possible for each student to successfully meet the challenges he faces in a rapidly changing world.
5. To provide certified school personnel and others who work with children in the surrounding geographic area with professional growth opportunities to meet inservice needs.

Procedures have been established for a college student to complete the Teacher Education program and be recommended by the College to the Colorado Department of Education for a teaching certificate. Students from other areas of study may take education courses as electives if they desire a broad understanding of the American school systems. The College maintains a placement office which serves teaching candidates.

## ADMISSION TO THE PROGRAM

The student makes application for admission to the program while enrolled in Ed 201, the Teacher Education Admissions Seminar. Requirements for initial admission include demonstrated competencies in communicative skills, an overall grade point average of 2.0, 30 hours college credit and the recommendation of the Professional Education Review Committee. Requirements for admission to student teaching are more stringent than for initial admission. In addition to the criteria listed above, the Professional Education Review Committee considers each candidate in light of the following factors: character, personal adjustment, and physical condition.

Transfer or unclassified students will be accepted for the Teacher Education Program depending on prior preparation and scholastic achievement. Such students must meet residency requirements prior to the student teaching semester. In addition, the usual screening procedures and prerequisites to student teaching apply. Written approval of the teaching major by the appropriate academic department of Fort Lewis College is required.

## SECONDARY EDUCATION PROGRAM

General Studies .....	41
Courses in major academic field .....	32-42
<i>Specific Departmental Requirements:</i>	
Ed 201. Teacher Education Admission Seminar	3
Ed 205. Survey of Exceptionalities	2
Ed 215. Practicum: Exceptionality	1
Ed 217. Teacher Aide and AV Practicum-Secondary	2
Ed 303. Planning and Instructional Objectives	1
Ed 362. Developmental Reading in Secondary School	3
Ed 363. Methods of Teaching Exceptional Students-Secondary	2
Ed 373. Computer Assisted Instruction and Evaluation Techniques in the Secondary Classroom	1
Ed 406. Issues in Secondary Education	2
Ed 480. Methods of Teaching (Subject Area)	2
Ed 495. Laboratory Experience	15 34
<i>Auxiliary Requirements from Other Departments:</i>	
Psych 157. General Psychology	3
Psych 218. Psychological Foundations of Education	3 6
Electives .....	5-13
<b>TOTAL REQUIRED FOR GRADUATION .....</b>	<b>128</b>

### NOTE:

1. Ed 201 must be successfully completed, and admission to the program granted prior to taking any subsequent courses in the certification sequence.
2. All courses in the certification sequence must be completed satisfactorily prior to student teaching.
3. Students who intend to seek certification in states other than Colorado should contact their Department of Teacher Education advisor as early as possible for specific state requirements.

## ELEMENTARY EDUCATION PROGRAM

### BACHELOR OF ARTS WITH A MAJOR IN ELEMENTARY EDUCATION

General Studies .....	41
<i>Specific Departmental Requirements</i>	
Ed 201 Teacher Admissions Seminar	3
Ed 205 Survey or Exceptionalities	2
Ed 215 Practicum: Exceptionality	1

Ed 216 Teacher Aide and AV Practicum - Elementary	2	
Ed 261 Reading Skills in the Elementary School	3	
Ed 301 Classroom Practices and Instructional Strategies	2	
Ed 305 Mathematics in the Elementary School	2	
Ed 360 Methods of Teaching Diagnostic Reading in the Elementary Classroom	3	
Ed 367 Methods of Teaching Exceptional Students — Elementary	2	
Ed 374 Computer-Assisted Instruction and Evaluation Techniques in the Elementary Classroom	1	
Ed 411 Science in the Elementary School	2	
*Ed 415 Social Studies in the Elementary School	2	
Ed 433 Language Arts in the Elementary School	2	
*Ed 494 Laboratory Experience and Seminar in the Elementary School	15	
*Ed 496 Seminar	2	44

*Auxiliary requirements from other departments*

Psych 157 General Psychology	3	
Psych 218 Psychological Foundations of Education	3	
Psych 254 Life-Span Human Development	3	9

*Areas of Concentration*

Students majoring in elementary education will select two areas of concentration from the following areas: art, English, mathematics, music, physical education, science, social science, Spanish, bilingual education. They must also elect to follow one of two plans. Plan I requires that a minimum of 18 hours of approved course work be completed in each of the two concentration areas. Plan II requires the student to complete a minimum of 24 hours in one concentration area, and at least 12 hours in the other area.

In place of either Plan I or Plan II, a student may select a bilingual-bicultural emphasis of 36 hours.

Specific course requirements for each area of concentration should be obtained from the Office of Department of Teacher Education.

\*Courses to be taken during student teaching trimester.

*Additional Requirements from other Departments*

English (9-10 hours) Engl 363, or Engl 362; Engl 327 and one approved literature course	10	
<i>Mathematics</i> (6 hours) Math 215 and Math 216	6	

<i>Social Science</i> (6 hours) 6 hours of American and/or Latin American History	6	
<i>Science</i> (8 hours) Bio 100 and 110 Physical Science 100 and 105, or Geol 115 and 115L	8	
<i>Art 203</i> — Art in the Elementary School	3	
<i>Music 316</i> — Music in the Elementary School	3	
<i>Physical Education 370</i> — Methods of Teaching Elementary P.E.	3	
	39	39

The number of elective hours will depend on the areas of concentration selected.

TOTAL REQUIRED FOR GRADUATION ..... 128

## COURSES

- Ed 201 TEACHER EDUCATION ADMISSIONS SEMINAR** (3-0) 3  
A course designed to provide a foundation for advisement on admission to the School of Education and to orient prospective members to the teaching profession. Historical, philosophical, and sociological developments which have resulted in relevant contemporary educational issues are explored. Students normally will apply for admission to the teacher education program during this course. This course is a prerequisite for all other courses in the required professional education sequence and requires at least 30 hours of college credit. Offered every term.
- Ed 202 COMMUNICATION COMPETENCIES FOR CLASSROOM TEACHERS** (3-0) 3  
This course is designed to aid prospective teachers in the development of formalized communication skills. Offered every term.
- Ed 205 SURVEY OF EXCEPTIONALITIES** (2-0) 2  
Overview of exceptional conditions including visual impairment, hearing impairment, physical and other health impairments, mental retardation, learning disabilities, speech impairments, emotional and behavioral disturbances and giftedness.
- Ed 215 PRACTICUM: EXCEPTIONALITY** 1  
Field experience as tutor, volunteer, study-buddy, or Big Brother/Sister with one who experiences some kind of handicapping condition (exceptionality) in order to gain awareness of and sensitivity to individual differences.
- Ed 216 TEACHER AIDE AND AV PRACTICUM — ELEMENTARY** 2  
A course that gives students practical experience in an elementary school setting as well as instruction in group processes and basic audio-visual equipment and materials. It features placement in local or nearby

schools and the experience of a regular assignment in one teaching situation for the duration of the term — not to exceed 6 hours per week. Assignments are highly individualized and are monitored by the public school principal. There are weekly seminars and audio-visual instructional sessions. A minimum of 50 contact hours in the school is required.  
*Prerequisite:* Ed 201.

**Ed 217 TEACHER AIDE AND AV PRACTICUM — SECONDARY 2**

A course that gives students practical experience in a secondary school setting as well as instruction in processes and basic audio-visual equipment and materials. It features placement in local or nearby schools and the experience of a regular assignment in one teaching situation for the duration of the term — not to exceed 6 hours per week. Assignments are highly individualized and are monitored by the public school principal. There are weekly seminars and audio-visual instructional sessions. A minimum of 50 contact hours in the school is required.  
*Prerequisite:* Ed 201.

**Ed 261 READING SKILLS IN ELEMENTARY SCHOOL (3-0) 3**

The scope and sequence of reading skills in the elementary school with emphasis on readiness for the various aspects of the reading process. Offered fall and winter terms.  
*Prerequisite:* Ed 201 or prior approval of instructor.

**Ed 301 CLASSROOM PRACTICES AND INSTRUCTIONAL STRATEGIES (2-0) 2**

A course dealing with behavioral objectives, lesson planning, unit construction, testing, skill continuums, classroom management and discipline techniques and other subjects of a general nature as background for methods courses.  
*Prerequisite:* Admission to the Teacher Education Program.

**Ed 303 PLANNING & INSTRUCTIONAL OBJECTIVES (1-0) 1**

Development of curriculum principles involved in lesson planning, unit planning, and course planning for teaching: writing instructional objectives; selecting appropriate teaching strategies, materials student activities; and determining alternative evaluation methods.  
*Prerequisite:* Admission to the Teacher Education Program.

**Ed 305 MATHEMATICS IN THE ELEMENTARY SCHOOL (2-0) 2**

Content and procedures in the teaching of modern mathematics in the elementary school. Offered every term.  
*Prerequisite:* Math 216 and admission to teacher education program.

**Ed 310 ADVANCED ELEMENTARY TEACHER AIDE PRACTICUM 1-3**

A course that gives students additional practical experience in an elementary school setting. It features placement in local or nearby schools and the experience at a regular assignment in one teaching situation for the duration of the term — not to exceed 12 hours per week. Assignments are highly individualized and are monitored by the public school principal. Credit is based on the ratio of one hour per 35 contact hours. May be repeated for a total of 4 credits.  
*Prerequisite:* Ed 216 or Ed 217.

**Ed 311 ADVANCED SECONDARY TEACHER AIDE PRACTICUM 1-3**  
A course that gives students additional practical experience in a secondary school setting. It features placement in local or nearby schools and the experience of a regular assignment in one teaching situation for the duration of the term — not to exceed 12 hours per week. Assignments are highly individualized and are monitored by the public school principal. Credit is based on the ratio of one hour per 35 contact hours. May be repeated for a total of 4 credits.  
*Prerequisite:* Ed 216 or Ed 217.

**Ed 330 HUMAN RELATIONS IN THE CLASSROOM (3-0) 3**  
Designed to increase teacher effectiveness in the realm of inter-personal relations and group dynamics; analysis of individual and group behavior in a classroom setting; theoretical concepts and skill training in classroom management. Offered on demand.  
*Prerequisite:* admission to teacher education program or permission of instructor.

**Ed 331 THE SOUTHWESTERN MINORITY CHILD (3-0) 3  
IN THE CLASSROOM**  
Course is designed to provide a systematic analysis of the forces which shape the behavior of the American Indian or Chicano child in an educational setting. Major emphasis will be placed on the development of an understanding of the differences in culture, value systems, attitudes and feelings of these minority students as they relate to the education system.  
*Prerequisites:* Ed 201 and Admission to Teacher Education Program, or permission of instructor.

**Ed 332 MATERIALS AND METHODS OF BILINGUAL (3-0) 3  
EDUCATION**  
An introduction to the group and individual methods of teaching in a bilingual-bicultural setting and current methods for teaching cognitive areas in other languages. Also introduces bilingual materials available. Students required to make materials to meet S.W. classroom needs. Many in-class activities.

**Ed 333 SOUTHWEST LANGUAGE IMMERSION FOR TEACHERS 1-3**  
Language immersion is designed for prospective teachers who may encounter Native American languages or Southwest Spanish dialects in the school community. It provides the student with basic oral skills in the languages and the courses are taught almost entirely in the target languages. Students may enroll for one, two, or all of the courses for a total of 3 hours. Offered Fall and Winter terms.

**Ed 353 GROWTH & DEVELOPMENT OF THE YOUNG CHILD (3-0) 3**  
A study of the physical, mental, social, emotional, and psychological growth and development of the child from conception through early childhood. Emphasis is given to the child in the school setting. Offered on demand.  
*Prerequisite:* permission of instructor.

- Ed 355 METHODS AND TECHNIQUES FOR TEACHING PRE-SCHOOL CHILDREN (3-0) 3  
 Designed to acquaint the student with the pre-school curriculum and methods of teaching children, age 1-6. The student will have the opportunity to discover creative activities and their implementation in the classroom. An eclectic approach will be used. Offered on demand.  
*Prerequisite:* permission of instructor.
- Ed 360 METHODS OF TEACHING DIAGNOSTIC READING IN THE ELEMENTARY SCHOOL (3-0) 3  
 Methods and materials used in the teaching of elementary school reading. Emphasis will be placed on diagnosis and prescription and individualization of instruction. Offered every term.  
*Prerequisite:* Admission to Teacher Education Program and Ed 261 and 301.
- Ed 362 TEACHING READING IN THE CONTENT AREAS — HIGH SCHOOL (3-0) 3  
 The course includes reading theory, reading as skills development, techniques and materials for the detection of individual differences in reading ability, readiness for reading subject matter, vocabulary development in specific content areas, reading study skills, and increasing comprehension and reading rate. Offered every term.  
*Prerequisite:* permission of instructor.
- Ed 365 EDUCATIONAL MEASUREMENT (3-0) 3  
 A presentation of the applications of measurement and its contributions to and usefulness in the education program. On demand.  
*Prerequisite:* admission to teacher education program and Psych 218, or permission of instructor.
- Ed 367 METHODS OF TEACHING EXCEPTIONAL STUDENTS — ELEMENTARY (2-0) 2  
 Designed to prepare elementary classroom teachers to meet the needs of exceptional students. Emphases are on adapting teaching methods and materials.  
*Prerequisites:* Ed 205, Ed 201, Ed 301.
- Ed 368 METHODS OF TEACHING EXCEPTIONAL STUDENTS — SECONDARY (2-0) 2  
 Strategies and tactics for teaching mainstreamed secondary level exceptional students are presented and practiced in a workshop format.  
*Prerequisites:* Ed 201, Ed 205, Ed 303.
- Ed 373 COMPUTER ASSISTED INSTRUCTION AND EVALUATION TECHNIQUES IN THE SECONDARY CLASSROOM (0-2) 1  
 The impact of microcomputers on school curricula and teaching strategies for using them effectively will be covered. Major types of computer assisted instruction will be studied. Testing and other evaluation techniques relevant to the secondary classroom will be studied.  
*Prerequisites:* Ed 201, Ed 303.



- Ed 374 COMPUTER-ASSISTED INSTRUCTION AND EVALUATION TECHNIQUES IN THE ELEMENTARY CLASSROOM (0-2) 1**  
 The impact of microcomputers on school curricula and teaching strategies for using them effectively in the elementary classroom will be covered. Major types of computer-assisted instruction (CAI) will be studied. Testing and other evaluation techniques relevant to the elementary classroom will be studied.  
*Prerequisites:* Ed 201, Ed 301.
- Ed 387 PRACTICUM IN EXTRA-CURRICULAR ACTIVITIES 1-3**  
 Students will be assigned to a supervisor with responsibility for an extra-curricular activity. Examples include, but are not limited to: athletics, intramurals, drama, musicals, and speech teams. The student receives one hour credit for every 25 hours of actual experience. In addition, a paper is required. Placement is contingent upon availability of assignment. A maximum of 3 hours credit is permitted.
- Ed 406 ISSUES IN SECONDARY EDUCATION (2-0) 2**  
 This course is intended to sensitize the student to current issues in Secondary Education. School law, accountability, classroom management, cultural pluralism and the Junior High/Middle School concept will be areas of emphasis.
- Ed 411 SCIENCE IN THE ELEMENTARY SCHOOL (2-0) 2**  
 Emphasis on helping prospective teachers to (1) analyze the science needs of elementary school children in the modern world; (2) select subject matter which will help pupils meet these needs; and (3) develop methods of teaching which will encourage scientific inquiry on the part of the learner. Fall and Winter.  
*Prerequisite:* admission to teacher education program and 8 semester hours of laboratory science or approval of instructor.
- Ed 415 SOCIAL STUDIES IN THE ELEMENTARY SCHOOL (2-0) 2**  
 Content and procedures in the social studies program of the elementary school. Offered Fall and Winter terms.  
*Prerequisite:* admission to teacher education program and 6 semester credits of social science or approval of instructor.
- Ed 420 INSTRUCTIONAL MEDIA (3-0) 3**  
 A study of the importance of instructional media in the learning process; advanced principles underlying the selection and utilization of materials for instructional purposes; exploration of visual and auditory aids available to teachers in the elementary and secondary schools; demonstration and achievement of skills in the use of instructional media in teaching. Offered on demand.  
*Prerequisite:* Admission to the teacher education program or approval of instructor.
- Ed 433 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (2-0) 2**  
 The adaptation of the various language arts content subjects to the needs and maturity levels of elementary school children. Emphasis is given to instruction in grammar, composition, spelling, listening, writing and speaking. Offered fall and winter terms.  
*Prerequisite:* Ed 201, Engl 363 or Engl 362, or permission of instructor.

- Ed 454 LANGUAGE ARTS FOR EARLY CHILDHOOD (3-0) 3  
 The various skills of language development of the young child are considered, and language arts curriculum materials for early childhood are surveyed. Offered on demand.  
*Prerequisite:* junior standing and admission to teacher education program.
- Ed 455 MODERN TRENDS IN EARLY CHILDHOOD EDUCATION (3-0) 3  
 Emphasis is given to recent developments which have influenced early childhood education programs, such as Head Start, Day Care, Follow Through, and federal legislation. A consideration of appropriate curriculum materials is also included. Offered on demand.  
*Prerequisite:* junior standing and admission to teacher education program.
- Ed 461 DIAGNOSTIC AND REMEDIAL READING (3-0) 3  
 A study of the diagnosis and teaching of children with reading difficulties, with emphasis on the development of appropriate skills through laboratory experience. Offered on demand.  
*Prerequisite:* admission to teacher education program and Ed 261 or Ed 360 or Ed 362.
- Ed 480 METHODS OF TEACHING (SUBJECT MATTER AREAS) (2-0) 2  
 A course designed to show the prospective teacher how to teach specific subjects in high school. Attention is given to the historical development and new trends within the subject matter area and their influence upon curriculum, learning, and teaching. Check with department for term offered. Some sections of course only one term per year.  
*Prerequisite:* admission to student teaching.
- Ed 487 ADVANCED PRACTICUM IN EXTRA-CURRICULAR ACTIVITIES 1-3  
 Students will be assigned to a supervisor of an extra-curricular activity. The student receives one hour credit for every 35 hours of actual experience. In addition, a research paper is required. Placement is contingent upon availability of assignment. A maximum of 3 hours is permitted.  
*Prerequisite:* Ed 387.
- Ed 490 ADVANCED TOPICS IN EDUCATION 1-3  
 Designed to accommodate the needs or requests of school systems, teachers, or regular Fort Lewis College students who seek credit for topics of immediate concern. Course topic will be one not normally or regularly available through another course offering. Offered on demand.
- Ed 494 LABORATORY EXPERIENCE AND SEMINAR IN THE ELEMENTARY SCHOOL 4-15  
 Directed observation and teaching in the public schools at the elementary level. Periodic seminars are held in which relevant areas of elementary school organization and management are discussed. Fall and Winter terms.  
*Prerequisite:* admission to student teaching.

Ed 495 LABORATORY EXPERIENCE AND  
SEMINAR IN THE SECONDARY SCHOOL

4-15

Includes observation, participation, teaching, and allied activities under the direction of a selected regular teacher in a secondary school in consultation with College Supervisors. Fall and Winter terms.

*Prerequisite:* admission to student teaching.

Ed 496 SEMINAR

(2-0) 2

A senior seminar to be taken concurrently with elementary student teaching (Ed 494). The class will include information on placement files, job applications, teacher certification, health care and health education in the public schools, interview techniques, school and community relationships, professional organizations and negotiations and programs for exceptional children. In-class microteaching and school visitations will be required.

*Prerequisite:* Admission to student teaching.

Ed 499 INDEPENDENT STUDY

1-3

Individual research is conducted under the supervision of a faculty member. Offered every term.

*Prerequisite:* approval of Department Chairman.

## Physical Education

Troy D. Bledsoe, Chairman;

Professors Troy D. Bledsoe, Adolph M. Kuss and Joan M. Sanders;

Associate Professors Carol Seale  
and Charles H. Walker;

Assistant Professors

William E. Hayes and Jean Rhea;

Instructors Michael Allison, Gary L. Barnett, William M. Cooke,  
and Robert C. Hofman.

The objectives of the Department of Physical Education are:

To provide for the preparation of skilled teachers of physical education as well as qualified persons in the allied areas of recreation, coaching and athletic training;

To provide a meaningful program in individual and dual sports, stressing the carryover value of these activities for all students;

To provide extracurricular experiences for all students in health, physical education, recreation, and athletic training;

To provide professional leadership for the intramural, recreational, and athletic activities of the students.

BACHELOR OF ARTS DEGREE WITH A MAJOR IN  
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*Specific Departmental Requirements*

PE 165 Standard First Aid, Safety and CPR	2
PE 170 Introduction to Physical Education	2
PE 175 Field Experience in Physical Education	1
PE 198 Introduction to Kinesiology	2
PE 243 Personal Health	3
PE 254 Adapted Physical Education	2
PE 260 Anatomical Kinesiology	3
PE 340 Motor Learning: Principles and Practices	3
PE 350 Measurement and Evaluation	3
PE 360 Physiological Kinesiology	3
PE 370 Physical Education in Elementary School	3
PE 380 Methods of Teaching Secondary Physical Education	3
PE 480 Organization and Administration of Health and Physical Education Programs	3
PE 496 Seminar in Physical Education	2

35

*Other Departmental Requirements* ..... 10

1. Non-Teaching Concentration  
A non-teaching major will elect any 10 additional hours of physical education theory courses.
2. K-12 Teaching Concentration  
A teaching major who elects a K-12 concentration is required to take PE 371, PE 372, PE 381, and PE 410 and elect any three additional hours of physical education theory courses.
3. Secondary Teaching Concentration  
A teaching major who elects a secondary concentration is required to take PE 381, PE 410 and elect any six additional hours of physical education theory courses.
4. Coaching Concentration  
A teaching major who elects a coaching concentration is required to take the courses appropriate to a declared K-12 or secondary teaching concentration. In addition, he is required to take PE 224 and PE 375. Persons who have elected a secondary concentration will elect two additional hours of PE theory courses.
5. Athletic Training Concentration  
A teaching major who elects a concentration in athletic training is required to take the courses appropriate to a declared K-12 or secondary teaching concentration. In addition, he is required to take PE 224, PE 324, PE 253 and will elect three additional hours of PE theory courses.

6. Skills

All physical education majors must take six PE ACT skills courses from the following areas:

- a. Team Sports - 2 courses
- b. Individual and Dual Sports - 2 courses
- c. Dance - 1 course
- d. Gymnastics and Tumbling - 1 course

*Auxiliary Requirements from Other Departments:*

Biology 121 3      3

*Electives* ..... 39

TOTAL REQUIRED FOR GRADUATION ..... 128

\*A student who is admitted to the Teacher Education Program after September 1, 1978, must complete additional requirements as provided by the Colorado Teacher Certification Law of 1975. Information concerning these requirements may be obtained from the Department Chairman for Teacher Education or from the appropriate academic department chairman or academic advisor.

### Suggested Course Sequence

#### First Year

<i>Fall</i>		<i>Winter</i>	
PE 170	2	PE 165	2
PE 175	1	PE ACT	1
FCS	4	BIO 121 w/lab	3
PSYC 157	3	General Studies	9-10
General Studies	3		15-16
PE ACT	1		
BIO 101	3		
BIO Lab	1		
	17-18		

#### Second Year

<i>Fall</i>		<i>Winter</i>	
PE 198	2	PE 243	3
PE ACT	1	PE concentration	4
SCS	4	ED 205	2
PSYC 218	3	PSYC 254 (K-12)	3
General Studies	3	PE ACT	1
ED 201	3	General Studies	3
	16	ED 215	1
			17

### Third Year

<i>Fall</i>		<i>Winter</i>	
ED 303	1	PE 260	3
PE 340	3	PE 350	3
PE 370	3	PE ACT	1
PE 254	2	PE concentration	2
PE concentration	2	PE 496	2
ED 368	2	ED 362	3
PE ACT	1	ED 373	1
ED 217	2	ED 311	2
	16		15-17

### Fourth Year

<i>Fall</i>		<i>Winter</i>	
PE 360	3	ED 495	15
PE 480	3		
PE 380 instead of Ed 480	3		
PE concentration	2		
ED 406	2		
Elective	3		
	16		

K-12 must take both 216 and 217 and either Ed 310 or 311.  
 Secondary must take 217 and Ed 311.

## COURSES

**PE ACT PHYSICAL ACTIVITY** (0-2) 1  
 Seasonal physical activities during each trimester for men or for women up to a maximum of 6 credits can be counted toward graduation. No physical activity at the same level can be repeated for credit. Offered each term.

**PE 165 STANDARD FIRST AID, PERSONAL SAFETY,  
 AND C.P.R.** (2-0) 2  
 Study and practice of Red Cross First Aid Procedures in handling common injuries, accidents and medical emergencies. Fall and Winter terms.

**PE 170 INTRODUCTION TO PHYSICAL EDUCATION** (2-0) 2  
 Designed to orient the student to the field of physical education as a profession. Course will include discussion of the nature and scope of the field; its aims and objectives; mechanical, psychological, and physiological foundations; and professional opportunities, responsibilities and associations. Fall and Winter terms.

- PE 175 FIELD EXPERIENCE IN PHYSICAL EDUCATION (0-2) 1**  
 Observational experiences followed by discussions will be used to increase the students' understanding of the nature and role of physical education and coaching in the elementary and secondary school setting. Fall and Winter terms.
- P.E. 198 INTRODUCTION TO KINESIOLOGY (2-0) 2**  
 An introduction to the anatomical and physiological systems of the human body with an emphasis upon the interrelationships between the systems and human movement. Fall and Winter terms.  
*Prerequisite:* Bio 121.
- PE 224 BASIC PRINCIPLES OF ATHLETIC TRAINING (1-2) 2**  
 An introduction to the field of athletic training; professional opportunities in this field are discussed; students will develop a basic understanding of athletic injuries as they relate to prevention, nature and causes, recognition, and appropriate followup and rehabilitation.  
*Prerequisite:* PE 198 or permission of instructor.
- PE 225 TECHNIQUES OF COACHING FOOTBALL (2-0) 2**  
 Classroom instruction directed toward the various phases of American football: history, defensive theory, strategy and personnel, offensive theory, the kicking game, practice organization, relationship and influence of teachers, parents, booster clubs and news media. Winter terms.
- PE 226 TECHNIQUES OF COACHING VOLLEYBALL (2-0) 2**  
 Study of principles, methods, techniques and strategies involved in the coaching of volleyball. Winter term.
- PE 227 TECHNIQUES OF COACHING BASKETBALL (2-0) 2**  
 Analysis of the game of basketball in theory and application with special emphasis upon teaching the game. Development of offense, defense and special situations for both prospective coaches and enthusiasts. Fall term.
- PE 228 TECHNIQUES OF COACHING WRESTLING (2-0) 2**  
 Study of principles, methods, techniques, and strategies involved in the coaching of wrestling. Fall term - Alternate years.
- PE 229 TECHNIQUES OF COACHING TRACK AND FIELD (2-0) 2**  
 Designed to teach methods, techniques and principles of coaching all events in track and field at both the high school and college levels. Fall term - Alternate years.
- PE 233 OFFICIATING OF FOOTBALL (1-0) 1**  
 Designed to provide individuals with the rules, skills, and mechanics of officiating. Includes rules of the National Federation of High Schools, National Intercollegiate Athletic Association, and National Collegiate Athletic Association. Fall term.
- PE 234 OFFICIATING OF VOLLEYBALL (1-0) 1**  
 Instruction in the rules and practice of the mechanics and skills of officiating volleyball at the high school and college level. Fall term - Alternate years.

- PE 235 OFFICIATING OF BASKETBALL (1-0) 1  
Designed to teach the student the rules, skills and mechanics of officiating basketball. Winter term.
- PE 236 OFFICIATING OF WRESTLING (1-0) 1  
Discussion and practice in the techniques of officiating wrestling, with an intensive study of the rules of both high school and college. Winter term - Alternate years.
- PE 243 PERSONAL HEALTH (3-0) 3  
A study of the basic facts related to the health of the individual with a strong emphasis on the social implication of these facts. Fall and Winter terms.
- PE 253 BASIC PRINCIPLES OF NUTRITION (2-0) 2  
A study of the principles of nutrition science; guidelines for making healthful food choices; and techniques for evaluating nutrition information. The course will study the relationship between nutrition and general health.
- PE 254 ADAPTED PHYSICAL EDUCATION (2-0) 2  
Background and foundation - understanding the individual who is atypical. Sociological and psychological implication. How an adapted program is developed. Organization, administration, methods of teaching, test and measurements, relaxation and therapeutic exercises. Understanding specific disabilities. Fall term.  
*Prerequisite:* PE 198.
- PE 260 ANATOMICAL KINESIOLOGY (3-1) 3  
An in-depth study of the basic body movements; osteology, applied myology; spatial relations of muscles to joints; aggregate muscle action; kinesiologic constructs of summation of internal forces, aerodynamics, and hydrodynamics; techniques for cinematographic and non-cinematographic analysis of sport skills. Winter term.  
*Prerequisite:* PE 198
- PE 261 WATER SAFETY INSTRUCTOR (1-2) 2  
Water Safety Instructors Course designed to train and certify (Red Cross) teachers of Swimming and Lifesaving.  
*Prerequisite:* Current Advanced Lifesaving Certification (Red Cross).
- PE 265 HISTORY AND PHILOSOPHY OF PHYSICAL EDUCATION (2-0) 2  
The history of physical education from ancient civilization to the present day. Special emphasis given to the philosophical approaches to the profession by outstanding physical educators. Each student develops a philosophy of physical education. Fall term.
- PE 275 PRINCIPLES OF PHYSICAL EDUCATION (2-0) 2  
Examination of the psychological, sociological, and physiological principles underlying the philosophies, objectives, and curriculum of physical education. Winter term.



- PE 312 ADMINISTRATION OF INTRAMURAL PROGRAM (2-2) 3  
The course will give the student information in all pertinent areas of Intramural Administration. In addition, each student will have "hands on" experience working in the Fort Lewis College Intramural and Recreation Program.
- PE 324 ADVANCED TECHNIQUES OF ATHLETIC TRAINING (2-2) 3  
An in-depth study of the anatomical considerations, the prevention and recognition, the treatment and rehabilitation of athletic injuries.  
*Prerequisite:* PE 224.
- PE 340 MOTOR LEARNING: PRINCIPLES AND PRACTICES (3-0) 3  
Principles involved in learning motor skills, the individual variables which affect this learning, and the practice and techniques for improving motor performance. Fall term.
- PE 350 MEASUREMENT AND EVALUATION (3-0) 3  
Administration of tests in physical education. Obtaining data from test, analyzing this data, and the evaluation and interpretation of this data. Winter term.
- PE 360 PHYSIOLOGICAL KINESIOLOGY (3-1) 3  
Theory and laboratory investigations into the temporary and adaptional adjustments of selected bodily systems to the stress of human movement and under different intensities, durations, and environments. Fall term.  
*Prerequisite:* PE 198.
- PE 370 METHODS OF TEACHING ELEMENTARY PHYSICAL EDUCATION (3-0) 3  
Emphasis will be upon values, principles, objectives, growth and development characteristics, curriculum construction, and general methods of organizing and teaching physical education in Grade K-6. Fall and Winter terms.
- PE 371 ELEMENTARY PHYSICAL EDUCATION SKILLS (2-0) 2  
Experience in analyzing and presenting physical education skills with an understanding of progression and appropriate methods for elementary school children. Fall term.  
*Prerequisite:* PE 370.
- PE 372 MOTOR AND PERCEPTUAL-MOTOR DEVELOPMENT (1-0) 1  
Designed to acquaint classroom teachers and physical educators with theories, principles, activity selection, and relationships between motor, perceptual-motor and cognitive development of elementary and pre-school children. Winter term.  
*Prerequisite:* PE 370.
- PE 375 PSYCHOLOGY OF COACHING (2-0) 2  
Examination of psychological principles and concepts as they apply to athletes and coaches involved in competitive sports. Fall term.  
*Prerequisite:* Psych 157.

- PE 380 METHODS OF TEACHING PHYSICAL EDUCATION IN  
SECONDARY SCHOOLS (3-0) 3  
A teacher-candidate course designed to familiarize the student with methods and materials for successful teaching at the junior high and senior high levels. Emphasis is upon planning objectives, growth and development characteristics, curriculum construction, organization and today's issues and current trends. The course satisfies the Teacher Education requirements met with ED 480.
- PE 381 PHYSICAL EDUCATION SKILLS FOR SECONDARY  
SCHOOL TEACHERS (2-0) 2  
Experience in analyzing and presenting physical education skills with an understanding of progression and appropriate methods for teaching secondary school students.  
*Prerequisite:* PE 380.
- PE 400 OUTDOOR RECREATION-FIELD CAMP 6  
This five-week field camp will expose students to several outdoor recreation activities. The focus will be on leadership, planning, values, safety and natural freedom.  
*Prerequisite:* P.E. Act. Rock Climbing, P.E. Act. Kayaking, P.E. Act. Camping, P.E. Act. Ski Touring or have skills necessary for baseline participation.
- PE 410 CURRICULUM CONSTRUCTION IN PHYSICAL  
EDUCATION (2-0) 2  
Examination of principles, practices, functional philosophies and trends as they relate to curriculum construction of Grades K-12. Fall term.
- PE 420 SOCIAL DIMENSIONS OF PHYSICAL EDUCATION (2-0) 2  
Development of a theoretical framework and an analysis of research concerning socio-cultural influences on physical education activities and sport, interrelationships among forces in society and physical education and their effect upon the individual and the group. Winter term.
- PE 480 ORGANIZATION AND ADMINISTRATION OF  
HEALTH & PHYSICAL EDUCATION PROGRAMS (3-0) 3  
Relationships, procedure and problem solving approaches in effective organization and administration of health, physical education, recreation, and athletic programs. Budget, use of facilities and equipment, legal responsibilities, public relations, policy development and supervision are analyzed. Fall term.  
*Prerequisite:* junior standing.
- PE 496 SEMINAR IN PHYSICAL EDUCATION (2-0) 2  
Discussions and inquiries dealing with contemporary issues, trends and problems in physical education. Winter term.  
*Prerequisite:* junior standing.

Opportunity to investigate a significant problem through laboratory or library research under the supervision of a faculty member. Fall and Winter terms.

*Prerequisite:* approval of department chairman and instructor after presentation of a problem outline. Senior standing.

## Psychology

Robert M. Wageman, Chairman;  
Professors Nicholas J. Heidy, Roger Peters and  
Robert M. Wageman  
Associate Professor Harold L. Mansfield;  
Assistant Professor David Bullis and Gloria Manucia  
Instructor Piraye Bayman

### THE PSYCHOLOGY MAJOR

The Psychology Major is designed to meet the needs of several types of students, all of whom have an interest in the study of behavior —, which is, of course, the most general definition of modern Psychology.

Students of Psychology can be divided into the following types:

1. The student who wishes to prepare for admission to graduate school upon graduation from college, knowing that in order to serve in any responsible capacity as a professional psychologist, graduate level education beyond the Bachelor's degree is mandatory. This student is also aware of the intense competitive nature of gaining admission to such schools, and is willing to take a rigorous program of study which emphasizes preparation in basic concepts and research at the undergraduate level.
2. The student who wishes to seek employment upon graduation, perhaps in some helping agency where working with people and their problems can be done with a Bachelor's degree, and where experience can be gathered in order to decide if further education in Psychology is desirable.
3. The student who is unconcerned at present with specific career goals, but who is sufficiently interested in studying behavior to use a Psychology major as a basis of a liberal education.
4. The student who is interested in studying behavior, but who does not know to which of the above categories he or she belongs.

The needs of these students are provided by a major which is demanding, yet flexible; a major which ensures that exposure to the major currents and techniques of modern Psychology will be had by all students, but which permits sufficient choice to allow each student to explore his or her interests and to set goals and redefine them if need be.

The Psychology major also provides the opportunity for interdisciplinary study by encouraging students to take courses in other departments which can than be counted toward the requirements of the Psychology major.

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General Studies ..... 41

### *Specific Department Requirements*

(CORE Program: All Psychology majors must complete these courses)

1. Orientation to Psychology (ALL Required)

PY157	3 hours	
PY219	4 hours	10 hours
PY241	3 hours	

2. Research Experience (Select Two Courses)

PY327	4 hours	
PY330	4 hours	
PY365	4 hours	8 hours
PY426	4 hours	

3. Human Perspectives (Select 3 Courses)

PY242	3 hours	
PY254	3 hours	
PY387	3 hours	9 hours
PY425	3 hours	
PY483	3 hours	

4. Program Integration

PY396	3 hours	
PY496	3 hours	6 hours

TOTAL CORE HOURS = 33 hours

### *Additional Department Requirements*

Each Student must submit a proposal for an additional 24 hours of courses to be taken as an adjunct to the 33 hours of core Psychology courses presented above.

This additional 24 hours of courses must be arranged as follows:

1. No more than 9 hours can be in Psychology, and any of these must be at the 300 level or above.
2. At least 15 hours must be advanced courses from fields other than Psychology (300 level and above). These courses should be selected in accordance with the interests and the career plans of the student.
3. The proposal should be submitted to the Psychology Department for approval by the beginning of the Junior year. The proposal will be reviewed by the Psychology faculty and by *faculty members of the departments of study which offer the courses proposed by the student*. Upon agreement and approval, the proposal will become a contract which the student must complete in order to satisfy this requirement of the major.

This requirement is to encourage psychology majors to examine carefully and prepare for the opportunities they expect to have upon graduation, and also to encourage participation in the direction of interdisciplinary study which psychology appears to be taking at this point in its history.

Any discipline offered for study at Fort Lewis is eligible for consideration as an adjunct area of study. To offer some structure to this concept, the following suggestions are made:

1. The student who anticipates graduate school in psychology should plan an adjunct proposal that reflects the requirements for admission to the graduate schools and programs of study which are of interest. Most graduate schools of Psychology emphasize research experience and effective communication skills, including communication in mathematics and computer language. An adjunct program with this in mind would concentrate upon gaining this experience and acquiring these skills.
2. The student who is considering entering some social service agency upon graduation, let us say an agency located in the southwest, would do well to achieve fluency in Spanish and a thorough acquaintance with the history of cultural groups of the southwest, and a knowledge of current political issues concerning these groups.
3. A student using the study of Psychology as a focus of a liberal education could use the adjunct 24 hours in an endless array of very meaningful programs of study. It is fascinating to discover that anthropologists, biologists, economists, historians, political scientists, sociologists, journalists and novelists, philosophers, linguists, and poets also study behavior, and that these fields, as well as others, have enormous relevance to psychology and *vice versa*.

It is within this context that a student majoring in psychology as preparation for a career in law, medicine, diplomatic or military service, business, public relations, or teaching would be able to propose a highly interesting adjunct program.

4. Finally, for the student who is unclear as to just what he or she plans to do with his/her degree in Psychology, the adjunct proposal requires that this question be addressed early enough in the college experience for the dilemma to be resolved and action taken to better prepare for the world to be encountered upon graduation. Too often, in our experience, we have found career decision planning initiated by the student in the final trimester of the senior year. The adjunct proposal requirement allows exploration of alternatives during the freshman and sophomore years, but demands a degree of decision, setting, planning, and commitment by the junior year.

The requirements for the Bachelor's Degree in Psychology may be summarized as follows:

General Studies Requirements.....	41 Hrs.
Core Program in Psychology.....	33 Hrs.
Adjunct Study Proposal Courses .....	24 Hrs.
General Electives.....	30 Hrs.
Total Required for Graduation.....	128 Hrs.

## COURSES

- Psych 157 INTRODUCTION TO PSYCHOLOGY (3-0) 3**  
An introduction to the scientific study of behavior, the basic learning process, and motivation, with attention given to social behavior. Offered every term.
- Psych 218 PSYCHOLOGICAL FOUNDATIONS OF EDUCATION (3-0) 3**  
An introduction to the psychological principles relevant to education. Offered every term.  
*Prerequisite:* Psych 157.
- Psych 219 FOUNDATIONS OF EXPERIMENTAL PSYCHOLOGY (3-2) 4**  
Introduction to the basic assumptions, concepts, and methodology of experimentation in psychology. Includes the study of operational definitions, independent and dependent variables, measurement, techniques of observation, and experimental design. Laboratory is designed to provide skill in implementing simple experiments in a variety of psychological fields.  
*Prerequisite:* Psych 157.
- Psych 228 INDUSTRIAL PSYCHOLOGY (3-0) 3**  
An introduction to the application of psychology to the industrial and organizational environment, including personnel recruitment and selection, job analysis, leadership, training, advertising and marketing, labor relations and other relevant topics.
- Psych 241 BASIC STATISTICS FOR PSYCHOLOGISTS (3-0) 3**  
An introduction to the collection, organization and analysis of data from human and animal populations. Methods of sampling, treatment of data and reporting are covered. Descriptive statistics and statistical inference are taught as are the decision factors and errors. Offered Fall and Winter terms.  
*Prerequisite:* Psych 219.
- Psych 242 PSYCHOLOGICAL TESTING (3-0) 3**  
A course designed to introduce the student to the area of psychological tests and measurements, providing training in the concepts and application of intelligence tests, personality inventories, and projective techniques, as well as aptitude and interest scales. Fall and Winter terms.  
*Prerequisite:* Psych 241.
- Psych 254 LIFE-SPAN HUMAN DEVELOPMENT (3-0) 3**  
This course applies psychological principles to human perspectives of development. The first portion of the course is devoted to studying principles, processes, theories, and research methodology. The second part applies these concepts to each stage of the human life span from conception through aging and death and dying, with emphasis on child, pre-adolescent, and adolescent development. Community resources are used for field trips, guest speakers, etc. throughout the second part of the course. Fall, Winter, Summer terms.  
*Prerequisite:* Psych 157.

- Psych 327 **PHYSIOLOGICAL PSYCHOLOGY** (3-2) 4  
 Study of basic neuroanatomy, neurophysiology, and other physiological variables in the prediction and understanding of behavior. Attention is paid to contemporary and classical research. Winter term.  
*Prerequisite:* Psych 219 or consent of instructor.
- Psych 330 **ANIMAL BEHAVIOR** (2-4) 4  
 This course emphasizes techniques of observation of animal behavior, particularly in the field; techniques of description, analysis, and classification of behavior, critical analysis of theories of animal behavior, especially communication among mammals. The weekly lab is usually a field trip.  
*Prerequisite:* Psych 219.
- Psych 365 **PSYCHOLOGY OF LEARNING** (3-2) 4  
 The conditions of learning in animals and men as found in the experimental literature. Fall and Winter terms.  
*Prerequisite:* Psych 219 or consent of instructor.
- Psych 387 **ABNORMAL PSYCHOLOGY** (3-0) 3  
 A study of the development of the understanding of disturbed personalities. Theoretical and applied approaches to the treatment of disturbed persons and the use of the DSM III classification system.  
*Prerequisite:* Psych 219 or permission of instructor.
- Psych 391 **FIELD SCHOOL IN CLINICAL PSYCHOLOGY** 6  
 A one-month participation with a psychiatric team at the state hospital for mentally disturbed persons. Experiences include admission interviews, staffings, diagnostic techniques, treatment planning and implementation including occupational and recreational therapy. Offered Summer only.  
*Prerequisite:* Psych 387, recommended Psych 242.
- Psych 396 **TOPICS IN RESEARCH** (2-2) 3  
 A course in the methods and tools of research other than laboratory experimentation, such as historical, case study, descriptive, field, observational, and *ex post facto* investigations. Emphasis is on the design of psychological research and data collection and interpretation.  
*Prerequisite:* Psych 219
- Psych 425 **SOCIAL PSYCHOLOGY** (2-2) 3  
 An introduction to principles and methods in the empirical analysis of interpersonal influence. Examines roles, stereotypes, attitudes, and other socio-psychological phenomena. Students use the lab for experimental, observational, field research.  
*Prerequisites:* Psych 157, 241.
- Psych 426 **SENSATION AND PERCEPTION** (3-2) 4  
 This course explores the chemistry, physics, and physiology of sensation and the cognitive psychology of perception from an information-processing point of view. Students use the laboratory to develop demonstrations of sensory and perceptual phenomena.  
*Prerequisite:* Psych 219.

Psych 483 HISTORICAL INTRODUCTION TO MODERN PSYCHOLOGY (3-0) 3

A study of the philosophical and scientific antecedents of modern psychology, together with a review of the classical psychological systems and theories from ancient times to the present.

*Prerequisite:* Senior standing in Psychology and/or consent of instructor.

Psych 496 SEMINAR (3-0) 3

Advanced study and research in selected topics. Fall and Winter terms.

*Prerequisite:* senior standing and permission of instructor.

*Prerequisite:* Psych 396.

Psych 499 INDEPENDENT STUDY 1-3

Individual research is conducted under the supervision of a faculty member. Fall and Winter terms.

*Prerequisite:* approval of Department Chairman.





# **CENTER OF SOUTHWEST STUDIES**

## **MAJOR IN SOUTHWEST STUDIES**

**with concentrations in**

**ANTHROPOLOGY**

**HISTORY**

**SPANISH**

**ROBERT W. DELANEY, Director**

### **Southwest Studies**

**Professors Robert W. Delaney (Chairman),  
John C. Ives, and Duane A. Smith;  
Assistant Professor Reinaldo M. Alcazar**

The major in Southwest studies is an area major made up of courses in history, anthropology, and Spanish, as the central core of the major, plus certain auxiliary courses. All three of these are included in the major to some extent, but there are three separate patterns listed, and the student is to choose one of these for special emphasis. In considerable measure, programs will be tailored to each individual major. This

major would provide that a student be able to enter a graduate school in the field of his major emphasis, and it is expected that careers in state and local governments would be open to majors in Southwest studies.

Students majoring in Southwest Studies may be certified to teach in the broad area of Social Studies at the secondary level. To obtain requirements for teacher certification, please contact the Department of Teacher Education. A minor may be obtained in S.W. Studies. See Department Chairman.

#### BACHELOR OF ARTS DEGREE WITH A MAJOR IN SOUTHWEST STUDIES — HISTORY EMPHASIS

General Studies ..... 41

##### *History Requirements*

Hist 280, Survey of American History I	3
Hist 280, Survey of American History II	3
Hist 270, Survey of Latin American History I	3
Hist 370, History of Mexico	3
Hist 380, History of the Southwest	3
Hist 380, Transmississippi West	
or	
Hist 380, 20th Century U.S.	3
	<hr/>
	18

(Hist 120, 121, Social and Political History of Indians of the Southwest, may be substituted for one or two of the following courses: Hist 370, History of Mexico; Hist 480, Trans-Mississippi West; Hist 480, 20th Century U.S.)

##### *Language Requirement*

Competence in Spanish equal to 12 hrs. above Elementary Spanish I & II	12
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##### *Anthropology Requirements*

At least two courses dealing with anthropology of the Southwest as approved by the Director	6
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##### *Literature and Sociology Requirements*

Two of the following required:	
Engl 280, Literature of the Southwest	3
Engl 276, Folklore of the Southwest	3
Soc 279, The Hispano in the Southwest	3
	<hr/>
	6

##### *Science Requirements*

At least two courses selected from the biological and physical sciences which have to do with the Southwest	6
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<i>Research Requirements</i>		
SW 498, Problems in Southwest Studies I	3	
SW 499, Problems in Southwest Studies II	3	
SW 498 and SW 499 fulfill the requirements of Seminar or Independent Study required of other majors	6	54
<i>Electives</i> .....		33
<b>TOTAL REQUIRED FOR GRADUATION</b> .....		<b>128</b>
<b>BACHELOR OF ARTS DEGREE WITH A MAJOR IN SOUTHWEST STUDIES — ANTHROPOLOGY EMPHASIS</b>		
General Studies .....		41
<i>Anthropology Requirements</i>		
Anth 151, Introduction to Anthropology	3	
Anth 231, Archaeology of the Southwest, Part I: The Anasazi Culture	4	
Anth 331, Archaeology of the Southwest Part II: Hohokam and Mogollon Cultures	4	
Anth 259, Field Training in Archaeology	6	
Anth 321, Topics in Ethnography: Indians of the Southwest	3	
	—	
		20
<i>History Requirements</i>		
At least two courses dealing with Southwestern history to be approved by the Director, at least one of which must be History 480.	6	
Language, literature, social science, science and research requirements the same as in history emphasis	30	56
<i>Electives</i> .....		29
<b>TOTAL REQUIRED FOR GRADUATION</b> .....		<b>128</b>
<b>BACHELOR OF ARTS DEGREE WITH A MAJOR IN SOUTHWEST STUDIES — SPANISH EMPHASIS</b>		
General Studies .....		41
<i>Spanish Requirements</i>		
Foreign Language competence equivalent to FL 216, Intermediate Spanish II	14	
Three courses in advanced Spanish with Mexican Literature and Hispanic American Civilization (in Spanish and English) being recommended	9	

### History Requirements

Hist 270, Survey of Latin American History	3	
Hist 370, History of Mexico	3	
Hist 380, History of the Southwest	3	
(Hist 120 or 121, Social and Political History of Indians of the Southwest may be substituted for Hist 370, History of Mexico)		
Anthropology, literature, social science, science, and research requirements the same as in the history emphasis.	24	56

Electives ..... 31

TOTAL REQUIRED FOR GRADUATION ..... 128

## COURSES

SW 100 FUNDAMENTALS OF NAVAJO LANGUAGE (3-0) 3  
A course in the basic fundamentals of the Navajo language on the oral-aural approach. A native speaker is the instructor and much use is made of tapes, etc.

SW 101 NAVAJO LANGUAGE II (3-0) 3  
A continuation of Navajo I. Whereas Navajo I emphasized speaking, this course will center on reading and writing the Navajo language.  
*Prerequisite:* Navajo I or approval of instructor.

SW 111, 112 INDIAN ARTS AND CRAFTS 111—(0-6) 3  
112—(0-6) 3  
A two-term course which includes such media as weaving, silversmithing, pottery work, leathercraft, bead work, and basketry. Each course will end with an exhibition of student work. Fall and Winter terms.

SW 120, SOCIAL AND POLITICAL HISTORY OF (3-0) 3  
121 INDIANS OF THE SOUTHWEST  
These courses are the same as Hist 120 and 121. See History.

SW 211 ART HISTORY OF THE SOUTHWEST (3-0) 3  
A comprehensive study of the art forms developed in the Southwest, past and present.

SW 280 NATIVE AMERICAN IN THE MODERN WORLD (3-0) 3  
An advanced study of contemporary affairs that involve the American Indian. The historical beginnings, development, and current significance of issues will be studied.

SW 322 AMERICAN INDIAN PHILOSOPHIES (3-0) 3  
The course will look at the various aspects of American Indian philosophies and the manifestations of those philosophies. The course will study both traditional philosophies and those which have been changed through contact with American society.

SW 365 HISPANIC CIVILIZATION (3-0) 3  
Contributions of Spain and Portugal to the building of Western civilization. Topics include: Great Age of Exploration, Golden Age of Spanish-Portuguese Civilization, masterworks of literature, and History of Ideas. Offered on demand.

SW 375 HISPANIC-AMERICAN CIVILIZATION (3-0) 3  
The literature, culture, thought, art, anthropology, history, geography, and contemporary position of Hispanic-American civilization. Offered on demand.

SW 381 MEXICAN AMERICAN LITERATURE (3-0) 3  
A study of selected literary works by Mexican American authors (from the traditional Hispanic period to the current Chicano Movement). Designed to give an appreciation and awareness of the culture of Mexican Americans and to show their literary contributions to the main body of world literature.

SW 481 COLORADO HISTORY (3-0) 3  
The history and peoples of Colorado from the preterritorial days through the present.

SW 482 MINING IN THE AMERICAN WEST (3-0) 3  
From the days of the Spanish to today, a history of mining and its impact, with special emphasis on the Southwest.

SW 498 PROBLEMS IN SOUTHWEST STUDIES I 3  
A senior-level individual research project based on the needs and interests of the individual. Offered on demand.  
*Prerequisite:* approval of committee.

SW 499 PROBLEMS IN SOUTHWEST STUDIES II 3  
Same as above.

For other course descriptions, see listings under the appropriate disciplines.



# The Register

1983-84

## The State Board of Agriculture\*

	<i>Address</i>	<i>Term Ends</i>
PATRICK J. CONLEY .....	Durango	1984
THOMAS T. FARLEY .....	Pueblo	1986
JOHN D. FUHR .....	Denver	1984
JEAN C. GRAHAM .....	Lakewood	1983
BEVERLY HADDON .....	Denver	1985
EDMOND F. NOEL, JR. ....	Denver	1983
PAUL S. SALAS .....	Fort Collins	1985
JOHN STENCEL III .....	Aurora	1986

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J. R. HEHN .....	<i>Treasurer</i>
DANIEL E. BLACK .....	<i>Deputy Treasurer</i>

\*In addition, there is a faculty representative and a student representative elected annually from each school under the jurisdiction of the State Board of Agriculture as non-voting members.



# Fort Lewis College Foundation

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Assistant Director of Housing
- CONRAD L. CHAVEZ,  
Director of Financial Aids
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Director of Public Information
- CAROLYN J. DAILEY,  
Director of Institutional  
Research and Planning
- JAMES E. DEZENDORF,  
Contract Administrator  
and Purchasing Agent
- ROBERT W. DELANEY,  
Director, Center of  
Southwest Studies
- DAVID P. EPPICH,  
Director of College Union  
and Student Activities
- EUGENE T. FISHER,  
Director of Physical Plant  
and College Engineer
- MARCIA FRANZEN,  
Personnel Officer
- GARY E. GOOLD,  
Controller
- DIANE P. HAAGA,  
Director, Counseling  
and Student Development  
Center
- BILL G. HELMS,  
Assistant Controller
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Director of Support Services
- MERLE E. JOOSTEN,  
Operations Supervisor,  
Computer Center
- AUGUSTINE MARTINEZ,  
Coordinator, Title III  
and Director of Continuing  
Education
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Director of Cultural Studies  
Program
- JOSEPH P. PERINO,  
Asst. Vice President of  
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Manager, Computer Center
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Director of Records
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- HARLAN L. STEINLE,  
Director of Admissions  
and Development
- CATHY TURNER,  
Bookstore Manager
- JOE E. WOLCOTT,  
Director of Housing  
and Associate Dean of  
Student Affairs
- LINDA D. YEAGER,  
Asst. Director of Financial  
Aids

## Library

- RICHARD L. GOBBLE,  
Head Librarian
- JOHN CROWDER,  
Librarian
- MONICA ENGLE,  
Librarian
- JAMES S. NOLTE,  
Librarian
- DEBORAH SOWLE,  
Librarian
- JOHN E. STEUBEN, JR.,  
Librarian



## Emeriti

- BERG, DAVID, *Associate Professor of Speech Emeritus*  
B.A., Colorado College  
M.S., University of Utah
- BOWMAN, WILLARD O., *Professor of Psychology Emeritus*  
B.A., Berea College  
B.Eng., I.T.I., University of Chicago  
M.A., University of Colorado  
Ed.D., University of Colorado
- CANTILLANO, ODILIE A., *Associate Professor of Physical Education Emerita*  
B.A., West Virginia University, 1943  
M.A., West Virginia University, 1958  
Ph.D., University of Arizona, 1972
- CULLEN, LOUIS C., *Associate Professor of Foreign Languages Emeritus*  
B.S., University of New Mexico, 1948  
M.A., University of New Mexico, 1952
- DELANEY, MARIA, *Professor of Foreign Languages Emerita*  
Akademischer Übersetzer, University of Heidelberg  
Diplom-Dolmetscher, University of Heidelberg
- FOX, MAYNARD, *Professor of English Emeritus*  
A.B., Fort Hays Kansas State College  
M.A., Fort Hays Kansas State College  
Ph.D., University of Colorado
- LIU, ESTHER T.C., *Librarian and Associate Professor Emerita*  
B.A., National Fu Tah University  
M.A., University of Minnesota  
M.A., University of Denver  
Ed.D., University of Northern Colorado
- REED, JOHN F., *President Emeritus*  
B.A., Dartmouth College  
M.A., Duke University  
Ph.D., Duke University
- REEDER, RAY M., *Professor of History Emeritus*  
B.S., Utah State University  
Ph.D., Brigham Young University
- SHIPPS, HARROLD S., JR., *Librarian and Professor Emeritus*  
B.S., Bridgewater State College, 1949  
M.Ed., Bridgewater State College, 1960  
M.S.P.A., George Washington University, 1964  
M.A., Librarianship, University of Denver, 1967  
Ph.D., University of Denver, 1969

**TAPIA, JOHN R.,** *Professor of Foreign Languages Emeritus*  
B.A., West Virginia State College, 1960  
L.L.B., Blackstone School of Law, 1960  
J.D., Blackstone School of Law, 1961  
M.A., University of Utah, 1966  
Ph.D., University of Utah, 1969

**TATE, NORVEL G.,** *Professor of Secondary Education Emeritus*  
B.A., New Mexico Highlands University  
M.A., University of New Mexico  
Ed.D., University of Southern California

**TAYLOR, RANDALL D.,** *Professor of Physical Science Emeritus*  
B.S., University of Nebraska  
M.Ed., Adams State College



## Academic Faculty 1983-84

- ALCAZAR, REINALDO M. *Assistant Professor of Foreign Languages* (1983)\*  
B.A., University of Northern Colorado, 1965  
M.A., University of Colorado, 1970  
Ph.D., University of Colorado, 1976
- ALLISON, MICHAEL L., *Instructor of Physical Education* (1978)  
B.A., Adams State College, 1974  
M.A., Adams State College, 1977
- ANDERSON, BERNARD E., *Professor of Business Administration* (1971)  
B.S., Arizona State College, 1960  
M.A., University of Arizona, 1961  
Ph.D., The Ohio State University, 1964
- ANGUS, EDWARD L., *Dean, School of Arts and Sciences Professor of Political Science* (1981)  
A.B., University of Kentucky, 1961  
M.A., Pennsylvania State University, 1963  
Ph.D., Pennsylvania State University, 1970
- ASH, JAMES K., *Director of Cooperative Education and Career Services; Assistant Professor of History* (1970)  
B.A., University of California/Berkeley, 1967  
M.A., Harvard University, 1970
- ATENCIO, LEONARD D., *Associate Professor of Economics* (1968)  
B.A., Fort Lewis College, 1964  
Ph.D., Kansas State University, 1969
- BAKER, JAMES R., *Professor of Engineering* (1966-70; 1973)  
B.S.C.E., University of New Mexico, 1965  
M.S., University of New Mexico, 1966  
P.E., Colorado, 1968  
M.S.C.E., Purdue University, 1971  
L.S., Indiana, 1972; Colorado, 1973  
Ph.D., Purdue University, 1975
- BARNETT, GARY L., *Instructor of Physical Education and Head Football Coach* (1982)  
B.S.Ed., University of Missouri, 1969  
M.Ed., University of Missouri, 1971
- BARTLETT, WILLIAM R., *Associate Professor of Chemistry* (1978)  
B.A., Luther College, 1965  
Ph.D., Stanford University, 1969

\*Date after title denotes when appointment began at Fort Lewis College.

- BASS, DAVID J., *Professor of Political Science* (1970)  
 B.Sc., The Ohio State University, 1943  
 M.A., University of Chicago, 1947  
 Ph.D., University of Chicago, 1972
- BAYMAN, PIRAYE, *Instructor of Psychology*, (1983)  
 B.A., Bosphorous University, 1977  
 Doctoral Program, University of California/Santa Barbara
- BELL, GREGORY W., *Associate Professor of Mathematics* (1978)  
 B.A., University of Utah, 1969  
 M.A., University of Michigan, 1972  
 Ph.D., University of Michigan, 1976
- BERNDT, REXER, *President* (1969)  
 B.S., University of Denver, 1949  
 M.B.A., University of Denver, 1950  
 Ph.D., University of Colorado, 1956
- BIRD, G. LEONARD, *Professor of English* (1969)  
 B.A., San Diego State College, 1961  
 M.A., University of Utah, 1963  
 Ph.D., University of Utah, 1969
- BLAIR, ROBERT W., JR., *Associate Professor of Geology* (1973)  
 B.S., University of New Mexico, 1966  
 Ph.D., Colorado School of Mines, 1975
- BLEDSON, TROY, *Director of Athletics; Professor of Physical Education* (1974)  
 B.A., Hendrix College, 1949  
 M.A., Memphis State University, 1955  
 Ph.D., University of Denver, 1973
- BORDNER, KENNETH E., *Professor of Theatre* (1972)  
 B.A., Princeton University, 1963  
 M.A., University of Massachusetts, 1965  
 M.F.A., University of Massachusetts, 1966
- BOUCHER, PAUL, *Visiting Assistant Professor of Engineering*  
 B.J.C.E., Newark College of Engineering, 1973  
 M.R.P., University of Ohio, 1975  
 M.S.C.E., Oregon State University, 1983
- BOWMAN, FRANK O., JR., *Professor of Geology* (1959)  
 A.B., Williams College, 1941  
 B.S., University of North Carolina, 1942  
 Ph.D., University of North Carolina, 1954

- BREW, DOUGLAS, *Associate Professor of Geology* (1980)  
 B.S., Dartmouth College, 1957  
 M.S., Cornell University, 1963  
 Ph.D., Cornell University, 1965
- BROCHU, EDITH W., *Professor of Education* (1970)  
 B.S., University of Kansas, 1951  
 M.A., University of Northern Colorado, 1967  
 Ed.D., University of Northern Colorado, 1970
- BULLIS, DAVID, *Assistant Professor of Psychology* (1980)  
 L.S., B.A., SUNY/Plattsburg, 1968  
 M.S., SUNY/Plattsburg, 1970  
 Ph.D., Harvard University, 1976
- BURNS, SAMUEL A., *Director, Western Colorado Rural Community Program and Assistant Professor of Sociology* (1972)  
 B.A., University of San Francisco, 1963
- BUSHNELL, DONALD D., *Professor of Mathematics* (1960)  
 B.S., Kearney State College, 1951  
 M.A., University of Northern Colorado, 1957  
 Ed.D., University of Northern Colorado, 1969
- CAMPBELL, JOHN A., *Professor of Geology* (1980)  
 B.G., University of Tulsa, 1955  
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 A.M., Fletcher School of International Law and Diplomacy, Harvard and Tufts University, 1953  
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 B.A., University of Wisconsin/Madison, 1971  
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# FORT LEWIS COLLEGE ACADEMIC CALENDAR 1983-84

## Fall 1983-84

Faculty Meetings, Seminars & Workshops	Thursday—Friday	September 1-2
Confirm Registration & New Student Orientation	Tuesday	September 6
Registration & Confirm Registration	Wednesday	September 7
Classes Begin	Thursday	September 8
*Deadline for Adding Classes (Census Date)	Wednesday	September 21
Mid-term Grades Due	Friday	October 21
Deadline for Dropping Classes	Friday	October 28
Thanksgiving Break	Wednesday— Sunday	November 23-27
Classes Resume	Monday	November 28
Advising & Winter Pre-registration	Monday—Friday	Nov. 28-Dec. 2
Last Day of Classes	Friday	December 9
Final Exams	Monday—Friday	December 12-16
Term Ends	Friday	December 16
Christmas Holiday		December 17 - January 2, 1984

## Winter 1984

Confirm Registration	Monday—Tuesday	January <del>3</del>
Registration	<del>Tuesday</del> Wed.	January <del>4</del>
Classes Begin	Wednesday Thurs.	January <del>5</del>
*Deadline for Adding Classes (Census Date)	Wednesday Thurs.	January <del>19</del>
Mid-term Grades Due	Friday	February 17
Deadline for Dropping Classes	Friday	February 24
Spring Break	Monday—Sunday	Feb. 27-March 4
Classes Resume	Monday	March 5
Advising and Fall 1983 Pre-registration	Monday—Friday	March 26-30
Last Day of Classes	Friday	April 20
Final Exams	Sat. & Mon.—Wed.	April 21, 23-25
Graduation	Saturday	April 28

### 1st 5 Week Session 1984

Registration & Classes Begin-Afternoon	Tuesday	May 1
*Deadline for Adding Classes (Census Date)	Friday	May 4
Deadline for Dropping Classes	Friday	May 18
Term Ends	Friday	June 1

### 2nd 5 Week Session 1984

Registration & Classes Begin-Afternoon	Tuesday	June 5
*Deadline for Adding Classes (Census Date)	Friday	June 8
Deadline for Dropping Classes	Friday	June 22
Term Ends	Friday	July 6

### 3rd 5 Week Session 1984

Registration & Classes Begin-Afternoon	Tuesday	July 10
*Deadline for Adding Classes (Census Date)	Friday	July 13
Deadline for Dropping Classes	Friday	July 27
Term Ends	Friday	August 10

\* Census date is also deadline for consideration for any changes in tuition classification for the indicated term.



# FORT LEWIS COLLEGE ACADEMIC CALENDAR 1984-85

## Fall 1984-85

Faculty Meetings, Seminars & Workshops	Monday	September 3
Confirm Registration & New Student Orientation	Tuesday	September 4
Registration & Confirm Registration	Wednesday	September 5
Classes Begin	Thursday	September 6
*Deadline for Adding Classes (Census Date)	Thursday	September 20
Mid-term Grades Due	Friday	October 19
Deadline for Dropping Classes	Friday	October 26
Thanksgiving Break	Wednesday— Sunday	November 21-25
Classes Resume	Monday	November 26
Advising & Winter Pre- registration	Monday—Friday	November 26-30
Last Day of Classes	Friday	December 14
Final Exams	Saturday, Monday— Thursday	December 15, 17-20
Term Ends	Friday	December 20
Christmas Holiday		December 21 January 6, 1985

## Winter 1985

Confirm Registration	Monday—Tuesday	January 7-8
Registration	Tuesday	January 8
Classes Begin	Wednesday	January 9
*Deadline for Adding Classes (Census Date)	Tuesday	January 22
Mid-term Grades Due	Friday	February 22
Deadline for Dropping Classes	Friday	March 1
Spring Break	Monday—Sunday	March 4-10
Classes Resume	Monday	March 11
Advising and Fall 1985 Pre- Registration	Monday—Friday	March 25-29
Last Day of Classes	Friday	April 19
Final Exams	Sat. & Mon.-Wed.	April 20, 22-24
Graduation	Saturday	April 27

### 1st 5 Week Session 1985

Registration & Classes Begin-Afternoon	Tuesday	April 30
*Deadline for Adding Classes (Census Date)	Friday	May 3
Deadline for Dropping Classes	Friday	May 17
Term Ends	Friday	May 31

### 2nd 5 Week Session 1985

Registration & Classes Begin-Afternoon	Tuesday	June 4
*Deadline for Adding Classes (Census Date)	Friday	June 7
Deadline for Dropping Classes	Friday	June 21
Term Ends	Friday	July 5

### 3rd 5 Week Session 1985

Registration & Classes Begin- Afternoon	Tuesday	July 9
*Deadline for Adding Classes (Census Date)	Friday	July 12
Deadline for Dropping Classes	Friday	July 26
Term Ends	Friday	August 9

\* Census date is also deadline for consideration for any changes in tuition classification for the indicated term. This is a planning calendar, subject to annual revision.





FORT LEWIS COLLEGE  
Durango, Colorado 81301

BRIEF ADDENDUM TO 1983-85 CATALOG  
(effective Fall Trimester, 1984)

REVISED GENERAL STUDIES PROGRAM

Group A. VALUE STRUCTURE

Three courses must be chosen, at least one from each sub group.

1. English (except Engl 189, Engl 208, and courses numbered below Engl 130.)  
Foreign Language
2. Art (except Art 203)  
See page 39 for other music and theatre courses.

Group B. QUANTITATIVE AND NATURAL SCIENCE

Three courses required; at least one must be a natural science with laboratory; the three must be chosen from at least two different fields.

Biology  
Chemistry  
Geology  
Physical Science  
Physics  
Mathematics (except Computer Science)

The following individual courses outside these fields may also be chosen:

BA 251, 252, Business Statistics  
Psych 241, Basic Statistics for Psychologists  
Phil 271, Logic

Group C. FOUNDATIONS OF SOCIETY

Two courses required.

History  
Philosophy (except Phil 271)  
Anthropology

Group D. SOCIAL STRUCTURE AND BEHAVIOR

Two courses required

Economics  
Political Science  
Psychology (except Psych 218)  
Sociology



## Group E. NON-WESTERN STUDY

At least one course must be taken in Non-Western studies. These courses are culturally rather than geographically defined and focus on Latin America, Asia, Africa, Eastern Europe, the Islamic World, and Native American Culture. Courses meeting this requirement will be so designated in each term course schedule.

The purpose of this requirement is to help students understand a cultural view quite different from their own (generally American and European), in order to broaden their horizons of thought and their understanding of the world's people, to promote peace and understanding, and to help students have more objectivity toward and appreciation of their own culture as seen from another perspective.



GRADE REPLACEMENT POLICY FOR PAGE 42  
1983-85 CATALOG

When a course is repeated, all grades for that course will remain on the student's record, but the credit will count only once. For the first twelve hours of repetition of courses in which the initial grade was C- or less only the last grade earned will be counted in the grade point average. When a course for which the initial grade was C or better is repeated, or when a student has already excluded twelve hours of C- or lower grades from his grade point average, there shall be no exclusion of grades from the grade point average.



BACHELOR OF ARTS DEGREE WITH A MAJOR IN ART

General Studies.....		44
Specific Departmental Requirements		
Art 101, Drawing	3	
Art 109, Basic Design	3	
Art 262, Art History to the Renaissance	3	
Art 263, Art History from the Renaissance	3	
Art 486, Theory and Aesthetics	3	
Art 496, Seminar		
or		
Art 499, Independent Study	2	
	17	
Other Departmental Requirements		
15 hours from the remainder of art offerings with the exception of Art 273, Art for Elementary Teachers	15	
		32
Electives.....		52
TOTAL REQUIRED FOR GRADUATION.....		128

A major revision of course offerings and numbers in the Art Department was completed for Fall 1984. For course numbers and changes see the Art offerings in the 1985-86 catalog.





BACHELOR OF SCIENCE DEGREE WITH A MAJOR IN PHYSICS

General Studies ..... 31

Specific Departmental Requirements

Phys 162, 262, 263, Physics for Science and Engineering	9
Phys 211, 212, Physics Lab	2
Phys 320, Modern Physics	3
Phys 354, Theoretical Mechanics	3
Phys 361, Principles of Electricity and Magnetism	4
Phys 380, Advanced Lab I	1
Phys 381, Advanced Lab II	1
Phys 400, Science & Human Values	2
Phys 420, Introductory Quantum Mech. I	3
Phys 496, Seminar or	
Phys 499, Independent Study	2

30

Additional Departmental Requirements

Additional physics courses numbered above 300 6

- \*Phys 301, Introduction to Electronics (3)
- Phys 340, Optics (4)
- Phys 370, Heat & Thermodynamics (3)
- Phys 421, Quantum Mechanics II (3)
- \*Phys 454, Advanced Topics in Physics (1-4)

6

Auxiliary Requirements from Other Departments:

Chem 150, 151, General Chemistry	11
Math 221, Calculus I	5
Math 222, Calculus II	4
Math 223, Calculus III	4
Math 327, Differential Equations	3
Engr 201, Electric Networks I	3
Engr 202, Electric Networks II, or	
*Engr 203, Electronics	3
Engr 104, Engr. Principles I (Fortran Prog)	3
Math 311, Matrices and Linear Algebra, or	
Math 320, Numerical Analysis, or	
Math 401, Probability and Statistics	3

39

Electives..... 22

TOTAL REQUIRED FOR GRADUATION .....128





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