

# FORT LEWIS COLLEGE

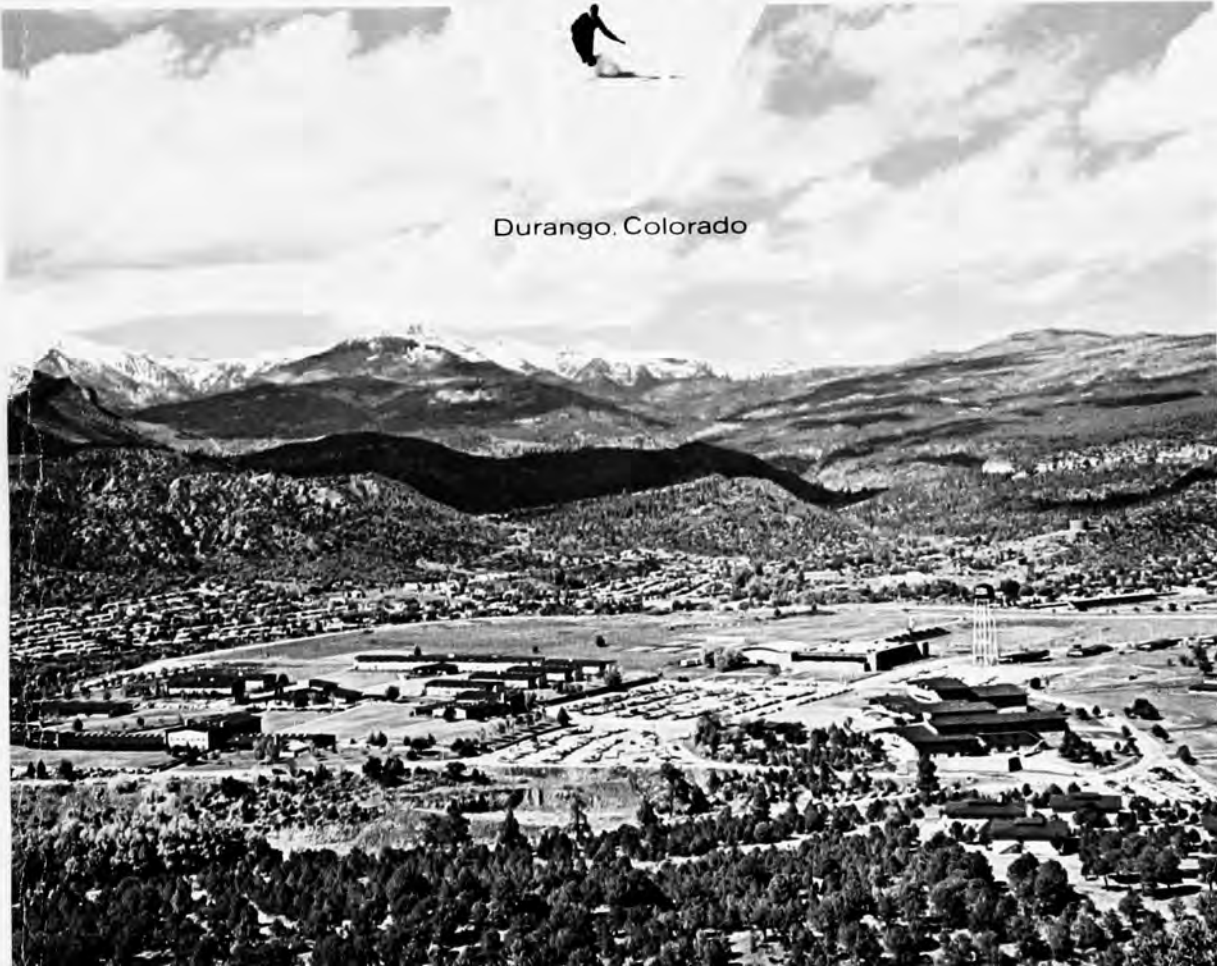
1976—Colorado's 100th Birthday  
The Nation's 200th Birthday

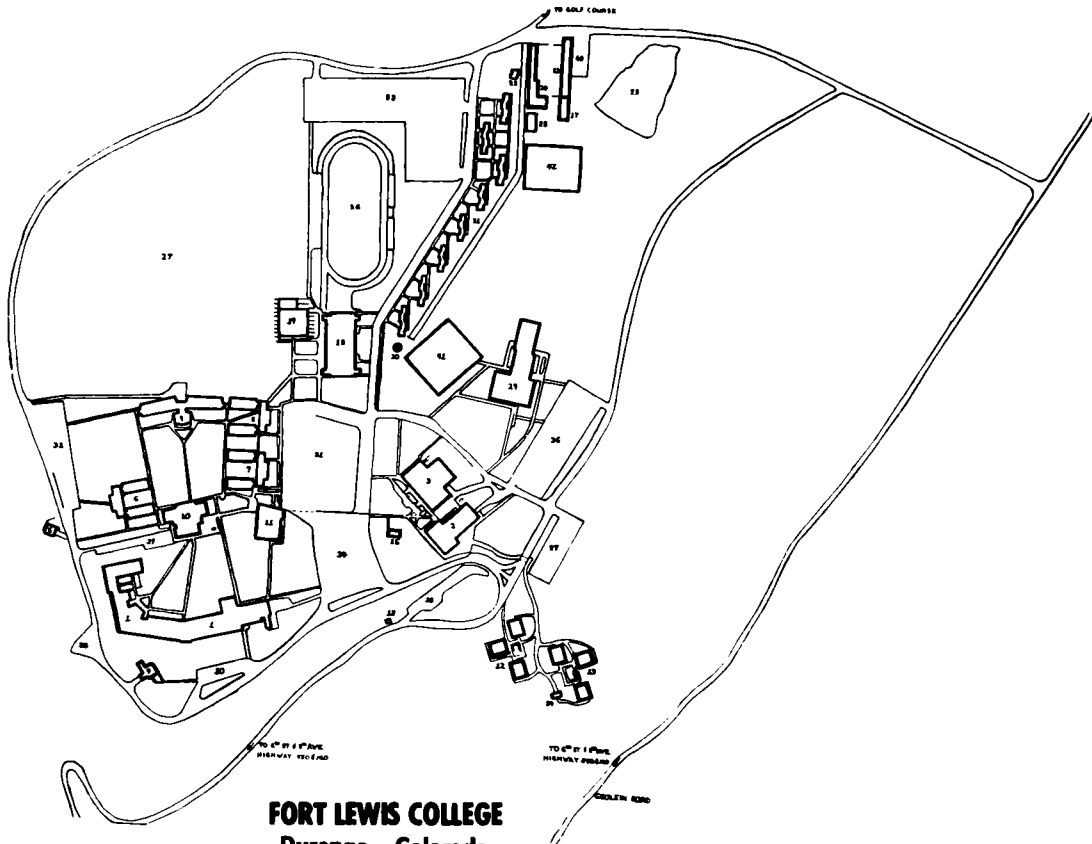
**F L C**

CATALOG 1976-77



Durango, Colorado





**FORT LEWIS COLLEGE**  
Durango, Colorado

- |  |  |                               |                                  |
|--|--|-------------------------------|----------------------------------|
| 1. Administration/Main Academic Building | 12. Sheridan Halls                     | 23. Physical Plant            | 33. Parking Lot D                |
| 2. College Union                         | 13. Bader Halls                        | 24. Supply and Receiving      | 34. Parking Lot G                |
| 3. Library                               | 14. Picnic Shelter                     | 25. Warehouse                 | 34. Parking Lot I                |
| 4. President's Home                      | 15. Buddy Stop                         | 26. Dennison Memorial Stadium | 35. Parking Lot L                |
| 5. Chapel                                | 16. Health Center                      | 27. Outdoor Recreational Area | 37. Parking Lot M                |
| 6. Escalante/Palmer Halls                | 17. Industrial Arts Building           | 28. Irrigation Reservoir      | 38. Parking — Staff              |
| 7. Camp/Snyder Halls                     | 18. Gymnasium                          | 29. Fine Arts Building        | 39. Parking — Life Science       |
| 8. Crofton/Mears Halls                   | 19. Natatorium                         | 30. Parking Lot A             | 40. Parking — Physical Plant     |
| 9. Cooper Hall                           | 20. Water Tower                        | 31. Parking Lot B             | 41. Classroom Building           |
| 10. Roman A. Miller Student Center       | 21. Married Student Housing Apartments | 32. Parking Lot C             | 42. State Forest Service Complex |
| 11. Theatre                              | 22. Archaeology Field Lab              |                               |                                  |

# **FORT LEWIS COLLEGE**

**DURANGO, COLORADO 81301**

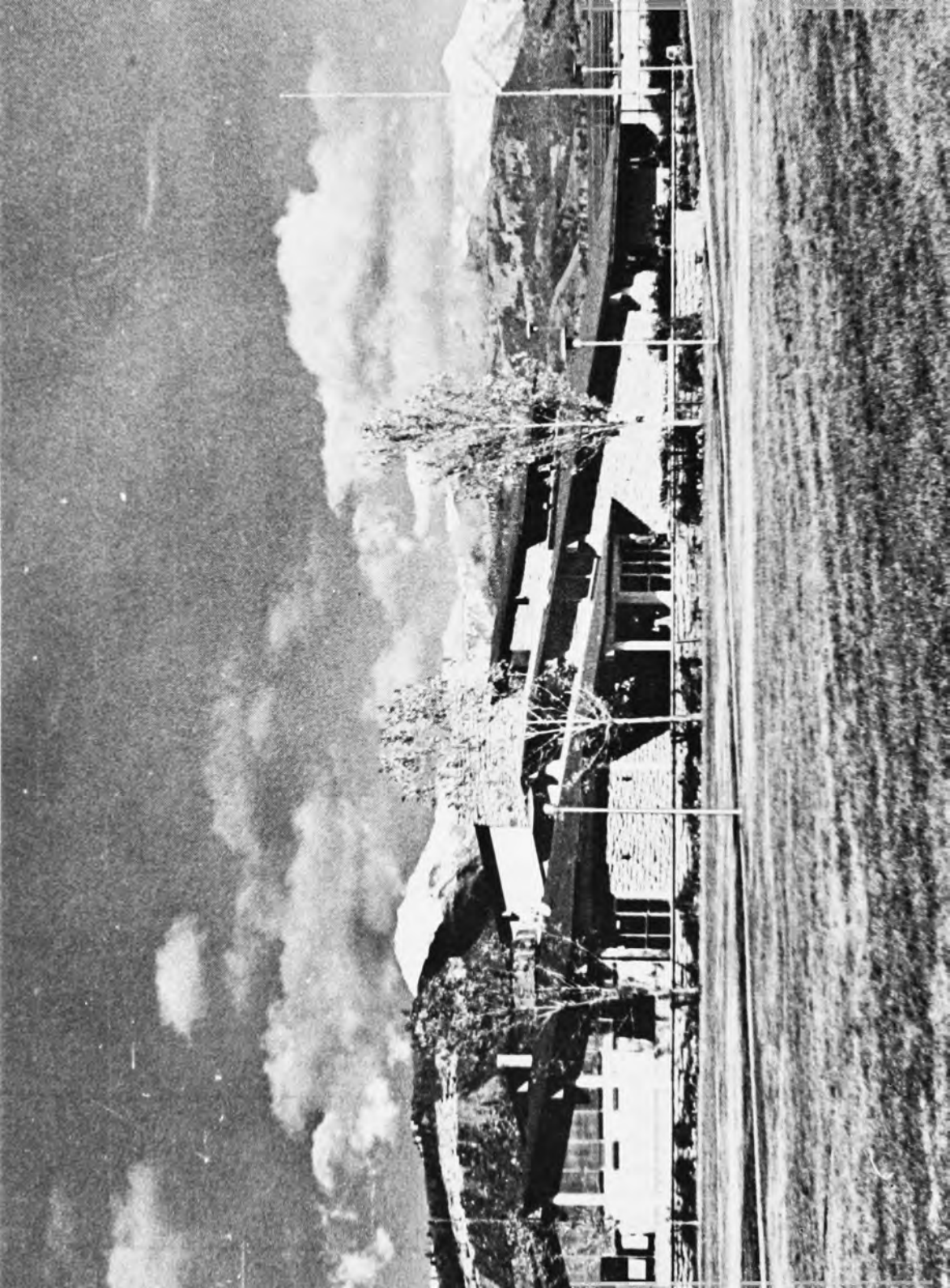
**CATALOG FOR THE  
1976-77 ACADEMIC YEAR**

Discrimination on the grounds of race, color, religion, sex, 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 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 1975 the enrollment approached 2800. 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, Married Students Apartments, the Chapel, and seven additional residence halls.

A Natatorium was completed in 1975. A new complex of playing fields and a new classroom building will be opened in 1976.

The College has a faculty of over 130 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. 66 percent of the faculty have earned doctoral degrees.

## EDUCATIONAL GOALS

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.

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 summer 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 early 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.



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.

## **SUMMER SESSIONS**

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 four 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 and Records, Fort Lewis College.

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* and have the results sent to Fort Lewis College. It is suggested that this test be taken at least by December of the senior year. Complete information regarding the test 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, Iowa 52240.

The entering freshman class is selected from applicants who, by their records from high school and the American College Test results, show promise of profiting from the educational opportunities offered by Fort Lewis College. The Director of Admissions and Records 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.

## FRESHMEN

In keeping with the theme of academic excellence at Fort Lewis College, each year a limited number of entering freshmen will be awarded Honors at Entrance.

## **TRANSFER STUDENTS**

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

Request a transfer student application form from the Office of Admissions and Records.

Complete the application and send it to the Admissions Office at Fort Lewis College with a \$10 application fee. Persons desiring evaluation of credits (transcripts) for transfer from other institutions must send \$10 with their request. This is not refundable, but is credited as the Application Fee if admission is desired.

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

Request the Dean of Students or appropriate personnel officer at the previously attended college or university to forward a completed Part II of the Transfer Application form to the Admissions Office.

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 hours 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. An effort will be made to bring college transfer students into the Fort Lewis College program without loss of previously earned credits.

## **FORMER STUDENTS**

Former students are those who officially withdrew or who are returning to the College after an absence of more than one trimester. 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.

Fort Lewis College has been approved by the United States Department of Justice as an institution of higher learning for non-quota foreign students.

## **FOREIGN 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 and Records.

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 a special student may qualify one for regular admission.

## **SPECIAL STUDENTS**

Fort Lewis College is privileged by Colorado Revised Statutes as follows:

## **INDIAN STUDENTS**

124-14-1. *Legislative declaration.* The general assembly hereby finds, determines, and declares: That Fort Lewis College had its beginnings on land originally set aside by the federal government as an Indian School; that a sizeable Indian student population on the campus of Fort Lewis College is desirable; that the state will continue and improve the outstanding Indian education program now in existence at Fort Lewis College; that although this article is intended to establish the obligation of the state of Colorado in this regard, the state intends to pursue all other possible sources of funding for program development and student aid for the Indian education program . . .

124-14-5. Tuition fees—Indians. (1) The state Board of Agriculture shall fix tuition, in accordance with the level of appropriations set by the general assembly for the college, subject to the restriction that all qualified Indian pupils whose domicile lies within the geographic boundaries of the state of Colorado, who qualify for in-state tuition under article 18 of this chapter, and who are not otherwise able to pay tuition, shall at all times be admitted to such school free of charge for tuition and on terms of equality with other pupils.

(2) Special programs may also be offered to assist Indian pupils to prepare for, begin, or continue their college education at Fort Lewis College. Indian pupils whose domicile lies within the geographic boundaries of the state of Colorado, who qualify for in-state tuition under article 18 of this chapter, and who are not otherwise able to pay tuition, shall not be charged tuition for such programs. The size of any special programs offered pursuant to this subsection (2) shall be limited by the facilities and revenues available and by the level of appropriations set therefor by the general assembly. Indian pupils whose domicile lies within the geographic boundaries of the state of Colorado shall have preference over all other pupils for admission to such programs.

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 members 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.)

The Colorado Revised Statutes have been declared invalid by the U.S. District Court and this decision was upheld by the Court of Appeals, Tenth Circuit.

Fort Lewis College will review all applications of American Indian students to determine if they qualify for admission under the previous Colorado Statutes which admitted American Indian students free. If an American Indian qualifies, 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.

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.

## **PART-TIME STUDENTS**

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

The state approving agency has approved Fort Lewis College for training of veterans; therefore, the Veterans Administration provides appropriate benefits to the veteran student. Also, veterans from Colorado who are eligible pursuant to law are entitled to a reduced tuition.

## **VETERAN STUDENTS**

## **COLLEGE CREDIT BY EXAMINATION**

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.

## **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.

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 and Records.

## **ACT TESTS**

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.

## **COLLEGE LEVEL EXAMINATIONS**

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 Admissions and Records Office or from C.L.E.P., Box 1821, Princeton, N. J. 08540.

ANY QUESTIONS ABOUT ADMISSION  
NOT ANSWERED HERE SHOULD BE  
ADDRESSED TO:  
OFFICE OF ADMISSIONS AND RECORDS  
FORT LEWIS COLLEGE  
DURANGO, COLORADO 81301





## Costs

Costs for students attending Fort Lewis College will vary in accordance with the number of trimesters they attend. The cost for the Colorado resident who attends two trimesters, an academic year, will amount to approximately \$1600 which includes tuition, fees (including 12-month health and accident insurance coverage), room, and twenty meals per week. Out-of-state-students will pay approximately \$2800. Reference should be made to the current Schedule of Fees card for a listing of all charges.

A student, by the act of registration, automatically incurred an obligation to the College. This obligation must be satisfied by payment to the College.

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.

### **FEE REGULATIONS**

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

**REFUND OF TUITION AND FEES.** A student withdrawing from College within 6 days from the official registration date may obtain 90% refund of tuition and refundable student fees only. A student withdrawing after the first 6 days and before the 20th day may obtain a refund of one-half tuition and refundable student fees only. No refund will be made twenty days after the official registration date. A student dismissed or suspended from the College as a result of official College action will automatically forfeit all tuition and fees.

### **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 for the Fall Trimester. The \$50 security deposit will be returned approximately thirty (30) days after the close of the Winter Trimester less any damages and/or obligations owing to the College.

For those students reserving space for only the Winter Trimester, a \$50 security deposit is required and students will receive their refund according to the above policy procedure.

Refunds of room 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	\$25.00 Charge
During or Before End of the Second Week	50% Refund
During or Before End of the Third Week	25% Refund
After Third Week	No Refund

### **REFUND OF ROOM 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.

### **REFUND OF BOARD CHARGES**

For the 1976 Fall Trimester, all students intending to enroll must make an advance payment of \$55.00 on or before August 1, 1976. This advance payment is in addition to the \$50.00 security deposit required of all students who reserve space in the College residence halls.

### **ADVANCE PAYMENT REQUIREMENT**

A student is classified initially as an in-state or out-of-state registrant for tuition purposes at the time an application and all supporting credentials have been received in the Office of Admissions and Records. The classification is based upon information furnished by the student and from other relevant sources. The requirements for establishing residency for tuition purposes are defined by law of the State of Colorado (Title 23, Article 7, Colorado Revised Statutes, 1973, as amended).

### **RESIDENCY CLASSIFICATION FOR TUITION PURPOSES**

Out-of-state students desiring to become in-state students for tuition purposes must comply with the provisions of the law. Information on "How to Establish Domicile" as well as the petition for change of tuition classification may be obtained from the Records Office in Room 132 of the Academic Building.



# 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 Dean of Students is responsible for the coordination of the various activities needed to achieve this purpose.

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

## HOUSING

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.

The basic premise assumed by the administrative officers of Fort Lewis College is that all students will be expected to live on campus to the extent that the College is able to provide housing for them. Because housing facilities are very limited, upper-division students and students who are 21 years of age or older are exempt from this policy.

All residence hall space is assigned on a first-come, first-served basis. The College Housing Office assists those unable to secure on-campus accommodations in finding off-campus housing.

It is the student's responsibility to make proper application for housing upon receipt of the permit to register or acceptance by the College. A \$50 security deposit must accompany the housing application for campus housing. 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. The residents must use their individual keys to gain entrance. Alcoholic beverages

are not permitted on campus with the exception of 3.2 beer under circumstances approved by City Ordinance, the College, and the Residence Hall Association. The use, possession, or distribution of narcotic or dangerous drugs is not permitted on campus.

Each residence complex is staffed by a 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.

## COUNSELING

Counseling services at Fort Lewis College are based on the philosophy that a student's personal as well as intellectual growth and development are objectives of the College. The Office of Counseling Services coordinates services designed to implement those objectives at Fort Lewis College. Counseling is available from all Student Services Staff members serving students in specialized need situations, such as: financial planning, housing, health, campus activities, and student government. Students with general questions or concerns should start at the Counseling Office located in Room 108 of the College Union Building. The telephone number is 247-7628.

The Counseling Office is primarily a service agency for student use offering professional counseling for individuals and small groups. The service exists to assist students concerned with their personal growth and development in such areas as: academic achievement and learning skills, occupational choice and career planning, clarification of personal value systems, personal identity and autonomy, the choice of a college

major or alternatives to college, interpersonal communication and relationships, dating and marriage relationships, religious and philosophical issues, life-style alternatives, etc.

Some testing resources are available for help in offering specific information to students as a supplement to the counseling process or when necessary for the validation of individual student decision making. Since not all students either need or desire psychological testing services, the College offers psychological test administration and interpretation at minimal cost to those students who apply through the Counseling Office, and for whom the counseling staff discerns testing to be appropriate.

The counseling staff works with the entire Student Services staff in a decentralized manner, extending services throughout the campus to wherever students are. This decentralized model involves a cooperative effort with faculty advisors, Intercultural Program Staff, Special Services Staff, the residence hall staffs, the Health Service, Student Government organizations and officers, College administrative personnel, and anyone else having contact with students. Consultative psychiatric services are available by referral from the College Physician. Referrals are made, when appropriate, among the various campus offices and to community agencies and religious organizations.

Courses through academic departments and specialized programs are offered to groups of students by Student Services staff from time to time in such areas as communication skills, values clarification, couples' relationships and communication, career and life planning, leadership training, peer counselor training, etc.

Fort Lewis College endeavors to maintain good student health through a program of preventive and therapeutic medicine. Every effort is made by the College physicians and nurse to serve the individual needs of students.

Student Health Service, an out-patient treatment center, is located near the center of the campus and residence halls. A registered nurse is on duty during the daytime hours and on call evenings and nights. The campus hours of the College physicians are posted in the Student Health Center. One of the College physicians is on call after Student Health Center hours.

Student Health Center provides general medical care and minor surgical procedures. It issues certificates of exemptions from or limitations to any required physical education program for health reasons.

## **HEALTH SERVICES**

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.

Accident and sickness (hospitalization) insurance is sold to students through an independent carrier and may be purchased at registration.

A complete physical examination is only required for participation in intercollegiate athletics.

A physician's statement of approval for participation in intramural athletics is required. In the case of a serious, chronic illness or medical problem the family 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. Basic Educational Opportunity Grant (BEOG)
2. National Direct Student Loan (NDSL)
3. Supplemental Educational Opportunity Grant (SEOG)
4. College Work-Study (CWS)

### *State Funded Programs*

1. Colorado Student Grant (CSG)
2. Colorado Scholars Program
  - a. Presidential Scholarship (entering Freshman only)
  - b. Continuing Student Scholarship (Juniors and Seniors only)
3. Athletic Scholarship (Men and Women)
4. Colorado Work-Study Program
5. State Student Incentive Grant (SSIG)

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.

### *Application Procedure*

All students wishing to be considered for student financial aid must submit *both* the Basic Educational Opportunity Grant (BEOG) "Application for Determination



of Basic Grant Eligibility” and the American College Test “Family Financial Statement.”

BEOG and ACT-FFS applications 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 June 1, for complete consideration for the next academic year. Applications for Summer aid are to be completed by March 15.

The College has a full time placement and career counseling service. The placement service is located in the Office of Auxiliary Services. In addition to the Auxiliary Services personnel, faculty members are available for career counseling. Faculty advisors and department chairmen actively assist students and alumni seeking career opportunities. The placement office works closely with the Cooperative Education Program.

It is suggested that students register with the Placement Office upon completion of their junior year.

Interviews with representatives of business, industry, government agencies as well as schools are arranged for students through the Placement Office. The Placement Office also tries to assist students in securing summer jobs as well as part time positions during the school year.

The Alumni Association of Fort Lewis College is now duly constituted and incorporated by the State of Colorado as a non-profit organization. Every effort is being exerted to maintain an up to date mailing list.

Regular semi-annual newsletters are planned starting each year. 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.

The Fort Lewis College Student Union contains lounges, meeting rooms, a ballroom, a dining room, and a snack bar.

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.

## **PLACEMENT SERVICE**

## **ALUMNI ASSOCIATION**

## **STUDENT UNION**

## **BOOKSTORE**

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**

All students are permitted to have their cars on campus, although freshmen often find that the ready availability of a car has been a contributing factor to a poor academic record. The student faculty advisor, the Academic Standards Committee, or the Dean of Students may restrict the use of an automobile 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 with the Campus Security Officer 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.

## **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, skiing, golf, and tennis. The Women's Intercollegiate program includes College-sponsored teams in volleyball, basketball, skiing, 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, 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 Interecollegiate Athletics for Women, and the National Association for Intercollegiate Athletics for Women.

An excellent intramural athletic program is offered at Fort Lewis College. The following activities are provided: flag football, baseball, softball, basketball, track and field, tennis, golf, volleyball, badminton, wrestling, and a women's intercollegiate program.

The physical education program for both men and women at Fort Lewis College emphasizes individual and dual sports. Facilities and equipment for golf, tennis, badminton, bowling, archery, weight training, swimming, and skiing are available.



# Student Life

## **STUDENT GOVERNMENT: GENERAL DESCRIPTION**

The Student Senate of Fort Lewis College is the central agency for student policy, planning, coordinating, and budgeting for all College 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. Two of the largest committees in scope and in membership are the Student Union Board (SUB) and the Clubs and Organizations Activities Council (COAC).

The Student Union Board formulates policies for the operation of the Student Centers. Events and programs sponsored by the Board are planned through the following committees: Cultural, Education, Entertainment, Recreation, and Special Events. The Board is chaired by the Publicity Vice President. Interested students may become Board members and committee chairmen. The Director of the Union is a non-voting member.

The Clubs and Organizations Activities Council (COAC) membership consists of presidents of all clubs, classes, and organizations chartered or constituted through the Student Government and the College. Budgets prepared by the member groups are reviewed by COAC before being presented to the Senate Budget Committee.

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

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 meetings and is responsible for preparing the agenda.

The Publicity Vice President is responsible for overseeing the budget committee and other committees. He is also responsible for submitting reports as directed by the President.

The Activities Vice President presides over COAC and along with the other members of the executive branch plays a major role on the Student Union Board.

## **CAMPUS BROADCASTING**

The STUDENT COURT has three Court Justices. One Court Justice is elected each trimester for a term of one year, and the senior member serves as Chief Justice. Adjudication of on-campus parking and traffic violations and student affairs that cannot be settled elsewhere are brought before the court by petition for a decision.

KDUR is a 10 watt, 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. A Third Class Radiotelephone License is required to be an announcer at KDUR. This license may be acquired by passing a Federal Communications Commission test which is given on a regular basis in many large cities. KDUR not only serves the student body, faculty and staff of Fort Lewis College but also the community of Durango.

## **STUDENT CONDUCT CODE**

Fort Lewis College believes that learning and day-to-day living cannot be separated. They go hand in hand. Therefore, student behavior which seriously 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 no voluminous rules and regulations published concerning student conduct. The College relies instead on good taste and maturity of college students and on their assumption of full adult responsibility for the consequence 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 specific College policies, rules, and regulations. It also includes the policies and procedures of the Committees on Student Life and Student Discipline which inform students of their rights and responsibilities to insure due process. The Student Handbook is provided to each student and may be secured in advance of arrival on campus from the Office of the Dean of Students.

The Dean of Students 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 considers all cases of misconduct and, to insure due process, will refer those of an especially serious nature to an appropriate committee for advice. 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 will 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 is 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.

## **DISCIPLINARY ACTION**

## **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 of peaceful assembly and that of free speech.

The primary purpose of Fort Lewis College is to provide facilities for obtaining an education to 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.

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 seriously threatens the individual or the community will not be tolerated.

### **GUNS AND WEAPONS**

Guns and other lethal weapons are not allowed on the Fort Lewis College 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.

### **RELIGIOUS ACTIVITY**

One of the standing committees of the College, the Religious Affairs Committee, concerns itself with religious organizations and activities of the students. The College encourages a student to pursue the religion of his choice. Active organized groups on campus are the Newman Club, Baha'i, Raider Christian Fellowship, Student Association of the Church of Jesus Christ of Latter Day Saints (LDSSA), the Campus Crusade for Christ, and the Church of Christ.

### **IDENTIFICATION CARDS**

Identification cards are required of all students and are important in helping a student establish his identification for cashing checks and for admission to many campus events.



# 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 Science 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.

## **BACHELOR DEGREES**

## THE ACADEMIC PROGRAMS

The majority of the academic programs at Fort Lewis College is offered through the three instructional Schools: Arts and Sciences, Business Administration, and Education.

Curricula in Agriculture, Anthropology, Art, Biology, Chemistry, Engineering, English, Forestry, French, Geology, German, History, Industrial Arts, 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.

The School of Business Administration provides instruction in Accounting, Business Administration, Business Education, Economics, and Secretarial Science.

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.

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.

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.

## **ARTS AND SCIENCES**

## **BUSINESS ADMINISTRATION**

## **EDUCATION**

## **STUDENT CONSTRUCTED PROGRAM**

## **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 100,000 volumes of books, 7,000 reels of microfilm, 800 magazine subscriptions, and approximately 30,000 volumes of microfiche, include a wide selection of audiovisual materials. The approximately 2,000 recordings, individually cataloged as a convenience to library patrons, include popular and classical music, poetry, and dramatic readings and speeches. Films, filmstrips, and some 10,000 overhead projector transparencies are likewise important components of the audiovisual collection.

Individualized reference service by a professional librarian is provided during all hours of library operation, normally about eighty 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.

Through such individualized services the library staff seeks to develop in Fort Lewis students a lifelong interest in cultural growth and genuine respect for the wealth of stimulating and rewarding material that abounds in libraries everywhere.

## **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 purpose of the Intercultural Program is fourfold. First, through a series of courses, offered as part of the regular curriculum, Fort Lewis College is aiding the American Indians and Spanish Americans in their efforts to understand and enrich their cultural heritage. Both groups are also developing in Miller Student Center collections of books, magazines, and artifacts to make their traditions a part of the daily life of the campus. Second, special sections of courses are conducted bilingually (for example, in Spanish and English).

Also, special courses and sections in English and in Mathematics for the bilingual student are offered. Third, counseling (personal and academic) and tutorial services in nearly all areas of study are being made available. Finally, the staff extends considerable effort seeking out those American Indians and Spanish-Americans not now in college and acquainting them with the accessibility and value of an undergraduate education.

In an increasingly interdependent world, a quality undergraduate education must sensitize students to the global dimensions of most significant issues confronted by modern society. In the content of the curriculum, as well as through the provision of opportunities for some students to be exposed directly to the cultural settings of major societies overseas, Fort Lewis College hopes to relate meaningfully its educational process to the fast changing world environment. The presence of foreign students on campus, the visits of foreign scholars, and the involvement of faculty in educational programs overseas are also assets to be capitalized on and constitute important Fort Lewis College objectives.

Currently under way, or planned for the near future, are study abroad programs to Mexico, South America, Europe and Japan.

Cooperative Education 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.

## **INTERCULTURAL PROGRAM**

## **INTERNATIONAL CONTENT AND EXPERIENCE**

## **COOPERATIVE EDUCATION**

Students work with employers throughout the Southwest in jobs related to their academic fields. Cooperative Education helps students better define career goals.

Industry and government cooperate with Fort Lewis College in identifying appropriate jobs for students. Students may enter the Cooperative Education program at any of three levels.

**Level I.** This is a three level placement introductory to the world of work. Students are expected to learn working skills, how to follow instructions, and ways to participate in group efforts within a working organization. Students will begin to understand the adult working world while starting the process of career identification. One to five degree credits may be earned.

**Level II.** This is an intermediate level working experience which requires more skills, maturity, and judgment. The level II experience usually relates to the student's major academic field with direct emphasis on personal development and general education. Students earn one to ten degree credits through a level II experience.

**Level III.** This advanced level placement is considered a professional or intern arrangement and closely related to the student's career interests and academic major. The character and quality of the level III placement opportunity depends on satisfactory progress through level I, and or level II jobs. Students may earn one to ten degree credits through a level III experience.

Students from all disciplines participate in the program at each experience level. During 1973 and 1974, Fort Lewis College students earned an average of \$100.00 per week on their Co-Op jobs.

Participants in the Cooperative Education program are registered as full-time students during their work term and pay full-time tuition. Students working outside a twenty mile radius of the college are exempt from payment of student fees; those working within twenty miles of Durango must pay fees in addition to tuition. Students can earn a maximum of ten units toward graduation through one Cooperative Education work experience, and they can earn a maximum of twenty degree credits by participating in the three level pro-

gram. Each Co-Op student has one or more faculty sponsors who help him to define the learning goals for his work experience and who determine the form that the student's documentation of his experience should take. The sponsoring faculty also makes the final decision to award credit based on the student's successful completion of the cooperative job and on the student's documentation of that job.

Any student who has sophomore standing is eligible to apply for a Co-Op job and the department places students during all three academic trimesters. Interested students should contact the Cooperative Education department at registration the term before they wish a work experience. The department can then work with the student's faculty sponsors to achieve an appropriate job placement.

Off-campus work experiences help Fort Lewis students extend learning in both general and special areas of college. The participant gains a better appreciation of career opportunities while growing personally through participation in the working world.

The Fort Lewis College Computer Center is equipped with an IBM 360, Model 22 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.

## **COMPUTER CENTER**

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 "C" 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 engineering. These programs are, of course, transferable to other schools as well on the basis of a course-by-course evaluation.

## **COOPERATION WITH OTHER INSTITUTIONS**

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 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 student works out his program of study in cooperation with his faculty adviser at the beginning of each term to assure that the courses selected ensure progression toward a degree.

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 30 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 Dean of Academic Affairs on recommendation of the appropriate School Director. 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 Director, and the Dean of Academic Affairs.

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. 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.

## **SECOND BACHELOR'S DEGREE**

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 own needs and interests.

## **GENERAL STUDIES**

### **I. FRESHMAN SEMINAR**

Every beginning freshman will take a freshman seminar in each of his first two semesters at Fort Lewis. (Freshmen in the Intercultural Program may postpone their first seminar for one or two semesters if this is recommended by their advisers.) The two seminars are to be chosen from different fields. 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.

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)  
Industrial Arts 111, 112, 220, 221  
Music (except Mu 314, Mu 315, Mu 316)  
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. This ordinarily will be of an interdisciplinary character and should be worked out with an adviser or school director and submitted to the Curriculum Committee for approval not later than the end of the sophomore year.

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.

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 three semester hours. For both Thea. 300 Rehearsal and Performance and Thea. 393 Theatre Practicum a student may earn a total of nine credits. Thea. 100 Rehearsal and Performance may be repeated for a total of 6 credits. The courses, General Studies 200 & 300, may be taken three times for a total of nine credits. String, brass, woodwind and vocal ensembles may be repeated once for a total of two credits in each ensemble. Applied music in each instrument or voice and level may be repeated once for a total of 2 credits each. A student may earn up to six credit hours in each of the following: Mu 105, Mu 106, Mu 107, Mu 110 and Mu 115 with a maximum of 12 credit hours allowable toward graduation in any combination of these courses.

#### THE MAJOR

#### ELECTIVES

#### REPEATABLE COURSES

## 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.

The following grading pattern is used in the evaluation of academic work:

A	Excellent	D	Passing
B	Very Good	F	Failure
C	Satisfactory		

### GRADING

The grade of I means that the student's work is incomplete and additional time has been granted. It is the student's responsibility to make up the work in order to remove the grade of I. An appropriate grade will be recorded by the instructor if and when the work is completed.

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. Each instructor will determine the circumstances under which such a grade may be given.

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	D	1 point
B	3 points	F	0 points
C	2 points		

The grade point average, carried to one decimal point, will be computed by dividing the total number of grade

points by the total number of credit hours attempted. Grades of I, 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.

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.

A student with at least a C cumulative average is permitted to take up to four Pass-Fail electives during his 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 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.

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 "C" is considered satisfactory progress toward a degree. A grade-point average of less than "C" 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.

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.

## **CREDIT-NO CREDIT**

## **PASS-FAIL ELECTIVES**

## **ACADEMIC PROGRESS**

## **DEAN'S LIST**

To be eligible for 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. 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.

### **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 Admissions and Records.

### **CREDIT FOR MILITARY SERVICE**

Credit for military service may be allowed according to the recommendations established by the American Council on Education.

### **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 this trimester.

A fee is charged for late registration.

### **COURSE LOAD**

The normal student load in a given trimester is 16 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 Director. A student should plan to spend a minimum of two hours of outside preparation for every hour of classroom or laboratory attendance.

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 28 semester hours
Sophomore	28-59 semester hours
Junior	60-91 semester hours
Senior	92 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.

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.

With the consent of the adviser and the instructors, courses may be dropped at any time during the semester. However, a grade of W or F will be recorded at the discretion of the instructor. A student seeking to drop courses after the second week of the semester should inquire about his grade from the instructor before dropping a course.

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

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

## **CLASSIFICATION**

## **PROGRAM CHANGES**

## **ATTENDANCE**

## 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 Dean 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 Dean of Academic Affairs for use of an earlier catalog.



# 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 each week, the second to hours spent in the laboratory or in practical work 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.\*

### FS 101, 102 FRESHMAN SEMINAR (4-0) 4

Freshman Seminars are offered in a variety of fields of study. They are problem-centered courses, the central purpose of which is to teach scholarly procedures and attitudes to students at the beginning of their college careers. The problem for research will vary from term to term. Each instructor will choose the problem for his seminar; he may consult his students on the choice. The seminars will emphasize both research techniques and communication skills. Students will write frequent papers and give and defend oral reports. These will be graded for English and oral presentation as well as content pertinent to the seminar problem. Each beginning freshman will take a seminar in his first semester at Fort Lewis College and a second in his next semester. These must be chosen from different disciplinary fields. Seminars have limited enrollments so that the individual student can express himself and can receive personal attention.

### 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.

\*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.

## COURSES COMMON TO ALL PROGRAMS



**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 Director and the Dean 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.

**499 INDEPENDENT STUDY** 1-3

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.

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

Under the direction of an Honors Committee, the College offers an Honors Program for students of superior ability. With its stress on reading, on independent creative work, and on developing the tools of analysis and reflection, the program is designed to enrich the participants' education.

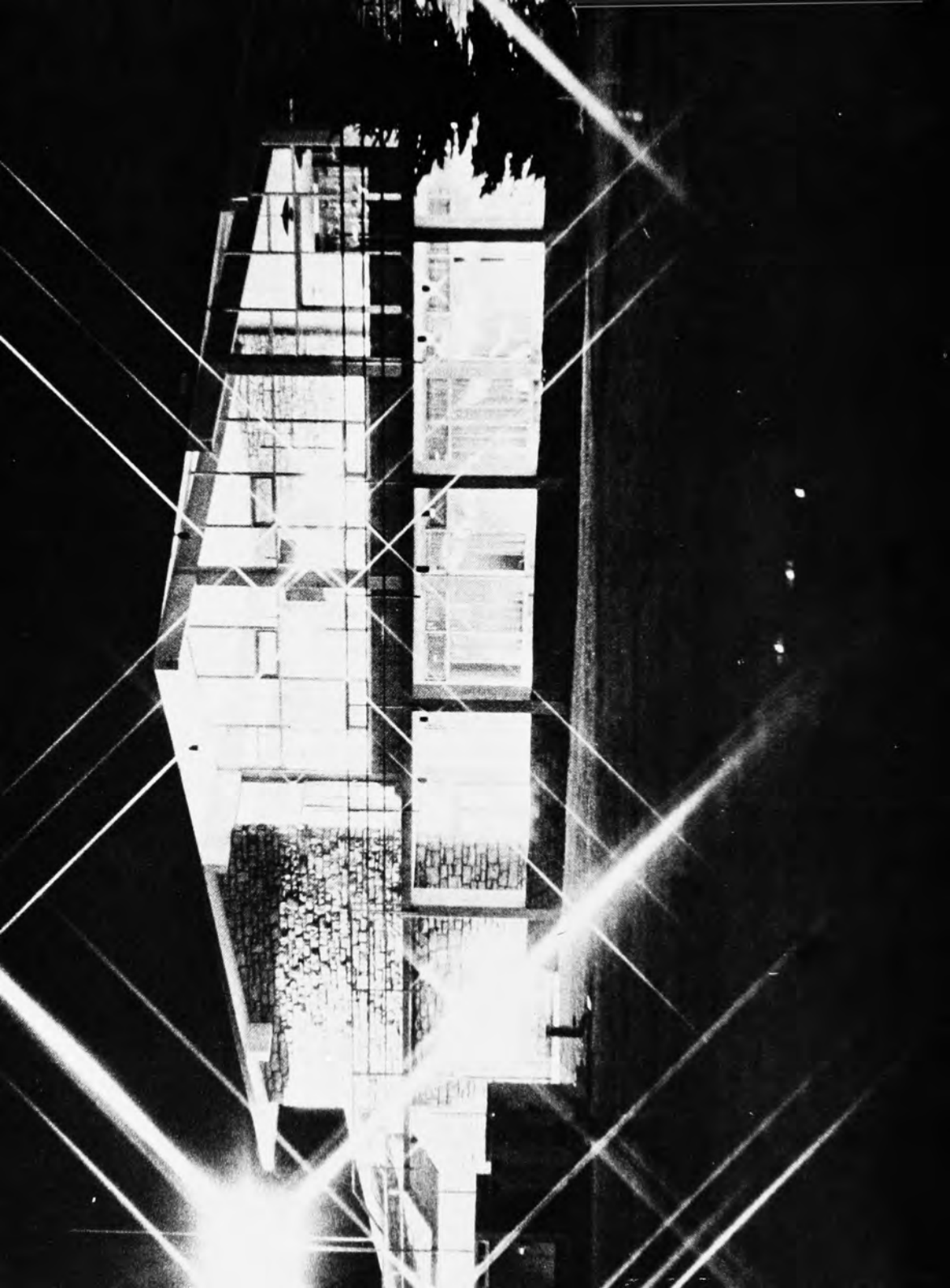
Incoming Freshmen may be admitted to the Honors Program on the basis of high school records and ACT scores. Sophomores and Juniors may be admitted on the basis of academic achievement, faculty recommendations and interviews.

Major aspects of the Program include two special Honors Freshman Seminars, conducted each Fall and Winter; a number of special interdisciplinary Honors seminars, each to be taught by two faculty members; a Senior Honors project demonstrating a high level of creative, scholarly accomplishment; a monthly meeting of all Honors students to discuss ideas and readings. At the discretion of the particular department, a course taken in the Honors Program can be accredited to one major field of study.

An Honors student must maintain a minimum cumulative GPA of 3.2; can leave the Program at any time without the loss of academic credit; and upon successful completion of an academic career as an Honors student, will receive Honors recognition at graduation and on the transcript.

For additional information, contact the Admissions Office.

**HONORS  
PROGRAM**



# SCHOOL OF ARTS AND SCIENCES

ANTHROPOLOGY

ART AND INDUSTRIAL ARTS

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

LARRY S. JOHNSON, Director

# THE SCHOOL OF ARTS AND SCIENCES

*Director*—LARRY S. JOHNSON

## The Departments:

Anthropology—Susan M. Applegarth, Chairman  
Art and Industrial Arts—Stanton Englehart, Chairman  
Biology, Agriculture, and Forestry—Charlotte C. Schwab, Chairman  
Chemistry—John M. Ritchey, Chairman  
English and Theatre—Carroll V. Peterson  
Foreign Languages—John R. Tapia, Chairman  
Geology—Jack A. Ellingson, Chairman  
History—Gilbert C. Din, Chairman  
Mathematics—Gary W. Grefsrud, Chairman  
Music—Sherman Friedland, Chairman  
Physics and Engineering—Robert N. Likes, Chairman  
Political Science and Philosophy—David J. Bass, Chairman  
Sociology and Human Services—Leland E. Stuart, Chairman

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

## Agriculture

## Agriculture

Associate Professor Robert Marquiss;  
Assistant Professor Danny D. Simms.

## PRE-AGRICULTURE

The agricultural science program provides the student with the equivalent background of the first two years of a four-year agricultural college. This part of the agricultural science program is designed for those students pursuing a professional career where a transfer to a four-year agricultural college is necessary for completion.

Pre-agriculture course requirements:

### *Freshman level*

	<i>Units</i>
FS 101 Freshman seminar	4
FS 102 Freshman seminar	4
(Two of the following agriculture courses are recommended):	
Ag 101 Introduction to Livestock	4
Ag 102 Forage and Crop Production	4
Ag 150 Farm Records and Accounts	3
Two courses from Group A distribution requirements	6-8
Two courses from Group B distribution requirements	6-8

*Sophomore level*

**Agriculture**

(Two of the following agriculture courses are recommended):

Ag 231 Range and Pasture Management	4	
Ag 235 Soils	4	
Ag 240 Feeds and Feeding	4	
Ag 250 Farm Management	3	
Ag 390 Special Topics as offered	3	6-8

Completion of general distribution requirements

Group A—1 or more courses	3-6	
Group B—1 or more courses	3-6	
Group C—2 courses	6-7	
Group D—2 courses	6-7	18-26
Electives	2-6	2-6

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26-34

**TWO-YEAR AGRICULTURAL SCIENCE**

The agricultural science program provides the necessary basic background courses plus additional practical and vocational courses designed to fill the needs of those student pursuing an agricultural career on a ranch, farm, or other agriculture-oriented business and industry. Upon completion of the two-year requirements of this program, the students will be awarded an Associate of Arts degree.

A student enrolled in the two-year Agriculture Science Program must complete the following requirements:

General Studies		<i>Units</i>
FS 101 Freshman Seminar		4
FS 102 Freshman Seminar		4
An approved math course		3
Four courses to be selected from the four distribution groups of General Studies, one from each group.		12
Physical Education		2
Specific Agriculture Science Requirements:		14
Ag 101 Introduction to Livestock	4	
Ag 102 Forage and Crop Production	4	
Ag 150 Farm Records and Accounts	3	
Ag 250 Farm Management	3	
Ag Experience—A student is required to have a minimum of 15 weeks or one summer experience on the farm, ranch, or other agriculture business prior to the Associate Degree.		

## Agriculture

Agriculture Electives: (At least four courses selected from the following):	12
Ag 201 Livestock Judging	2
Ag 202 Weeds and Weed Control	4
Ag 231 Range and Pasture Management	4
Ag 235 Soils	4
Ag 240 Feeds and Feeding	4
Ag 243 Irrigation & Fertilizer Prac.	3
Ag 390 Special Topics (as offered)	3-6
Ag 473 Mammalian Physiology	4
Electives: (Four courses should be selected from the following):	12
IA 101 Elementary Woodworking	3
IA 102 Advanced & Machine Woodworking	3
IA 150 Principles of Drafting	3
IA 201 Electric Welding	3
IA 202 Advanced Metal Working	3
Engr 205 Elementary Surveying	3
<b>TOTAL REQUIRED FOR GRADUATION</b> .....	<b>64</b>

### COURSES

Ag 101 INTRODUCTION TO LIVESTOCK	(3-3) 4
Basic elements of animal husbandry, with emphasis on beef, sheep, swine, and dairy production.	
Ag 102 FORAGE AND CROP PRODUCTION	(3-3) 4
Principles of forage and field crop production, with special attention to 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 judging of modern types of livestock. <i>Prerequisite:</i> Ag 101.	
Ag 202 WEEDS AND WEED CONTROL	(3-3) 4
Principles and practices of weed control and recognition of important weed species.	
Ag 231 RANGE AND PASTURE MANAGEMENT	(3-3) 4
A study of the management, development, and utilization of range land and pasture and a short survey of the more common poisonous plants.	
Ag 235 SOILS	(3-3) 4
A basic course dealing with formation, properties, and management of soils with special attention to (a) soil conditions that affect moisture relations and (b) elementary fertility analysis. <i>Prerequisite:</i> Chem 115.	
Ag 240 FEEDS AND FEEDING	(3-3) 4
Principles of feeding livestock, with emphasis on the use of feeds available in the western states. <i>Prerequisite:</i> permission of instructor.	

Ag 243 IRRIGATION AND FERTILIZER PRACTICES Techniques of irrigation and fertilizer recommendations.	(3-0) 3	<b>Agriculture</b>
Ag 250 FARM MANAGEMENT Basic economic principles applied to farm and ranch operations. <i>Prerequisite:</i> Ag 150.	(3-0) 3	
Ag 473 MAMMALIAN PHYSIOLOGY See Biology 473.	(3-3) 4	

## Anthropology

## Anthropology

Professor John C. Ives;

Assistant Professors Susan M. Applegarth, Donald R. Gordon;

Instructor John Van Ness.

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.

### 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 312, Topics in Archaeology: Old World Prehistory	3		
Anth 496, Senior Seminar or 499 Independent Study	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	3	3	
<i>Electives</i> .....		37	
TOTAL REQUIREMENTS FOR GRADUATION .....		128	

## 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.	

## Anthropology

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 focuses on the development of cultural and social anthropology and includes studies of the major concepts used in past and present anthropological studies. Fall and winter terms.

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 PRIMITIVE RELIGION (3-0) 3

A study of religious behavior in non-literate societies. Alternate years.

Anth 231 ARCHAEOLOGY OF THE SOUTHWEST, PART I: THE ANASAZI CULTURE (3-2) 4

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. Some topics may include laboratory.

*Prerequisite:* Anth 151 or Anth 231 or Anth 259.

Anth 321 TOPICS IN ETHNOGRAPHY AND SOCIAL ANTHROPOLOGY (3-0) 3

The intensive study of a culture or of a particular problem topic in cultural anthropology. The course may be repeated for different topics.



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.

## Anthropology

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.  
*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. On demand.  
*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

## Art

Professor Stanton Englehart; Assistant Professors Mick Reber, and  
C. Gerald Wells; Instructors Kathryn P. Arviso, Ellen Cargile  
and Jill M. Diemer.

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.

## Art

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

General Studies .....	41
<i>Specific Departmental Requirements</i>	
Art 210, Art History to the Renaissance	3
Art 211, Art History from the Renaissance	3
Art 401, 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 general 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 Design	3
SW 111 or 112 Indian Arts and Crafts	3-4

*Recommended courses are:*

201 Drawing, 203 Art for Elementary Teachers, 208 Basic Photography

## 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**

- 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 (2-4) 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. Fall and Winter terms.
- 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. Fall and Winter terms.
- Art 206 CERAMICS (0-6) 3  
A continuation of Art 105. Fall and Winter terms.  
*Prerequisite:* Art 105.
- Art 208 BASIC PHOTOGRAPHY (2-4) 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.
- Art 210 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 211 ART HISTORY FROM THE RENAISSANCE (3-0) 3  
A continuation of Art 210. Winter term.
- 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.  
*Prerequisites:* Art 102, 202.
- Art 303 ADVANCED STUDIO (0-6) 3  
Special Topics. Fall and Winter terms.  
*Prerequisite:* consent of instructor.

- Art**      Art 306    **ADVANCED PRINTMAKING**      (2-4) 3  
 Advanced development of printmaking skills with opportunity to do specialized work in one or more areas.  
*Prerequisite:* 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 401    **THEORY AND AESTHETICS**      (3-0) 3  
 Appreciation and understanding of various art forms through the study of aesthetics. Winter term.
- Art 403    **ADVANCED STUDIO**      (0-6) 3  
 Special Topics. Fall and Winter terms.  
*Prerequisite:* consent of instructor.
- Art 404    **ADVANCED STUDIO**      (0-6) 3  
 Special Topics. Fall and Winter terms.  
*Prerequisite:* consent of instructor.
- Art 496    **SEMINAR**      (2-0) 2  
 Advanced study and research in selected topics. On demand.  
*Prerequisite:* consent of instructor.
- Art 499    **INDEPENDENT STUDY**      1-3  
 Individual research is conducted under the supervision of a faculty member. Offered on demand.  
*Prerequisite:* approval of Department Chairman.

## Biology

## Biology

Professors James G. Erickson and Herbert E. Owen; Associate Professors John E. Dever, Jr., Lee P. Somers III, and Albert W. Spencer; Assistant Professor Charlotte C. Schwab;  
 Instructors Robert F. Grier and Harlo H. Hadow.

The biology curriculum is designed to fit the needs of many types of students. Although all of the tracks within the course structure lead to a Bachelor of Science degree in biology, there are two major avenues, each with variations, leading to the degree: general biology and natural history. Students expecting to teach biology at the secondary school level; those entering pre-professional training for such areas as medicine, dentistry, and veterinary medicine; and students enrolled in the cooperative program in medical technology are expected to take the general biology track.

The natural history track is particularly valuable for those students who plan to work for the National Parks Service or some other such governmental agency. It may also be used by prospective secondary teachers, although usually the general biology is better for this purpose.

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. Careers may be found in government service with the Food and Drug Administration and with a variety of conservation and recreation agencies. Laboratory and development work is available with the aerospace industry and with several government agencies. A few sales positions, especially for pharmaceutical houses, require a biology background. Many biologist positions require a graduate degree for which a liberal arts biology major is an excellent background.

### General Biology Curriculum

A student selecting general biology must complete the following courses:

General Studies ..... 41

*Specific Departmental Requirements*

Bio 100, Laboratory Experiences in Biology	1	
Bio 101, General Biology	3	
Bio 102, General Botany	4	
Bio 103, General Zoology	4	
Bio 371, Genetics	4	
Other biology courses	19	
Bio 496, Seminar; or Bio 499, Independent Study	2	
	—	
	37	37

(At least two biology courses in the 300 series [excluding Co-operative Education] and one in the 400 series, other than 496 and 499, must be taken.)

*Auxiliary Requirements from Other Departments*

Four courses in chemistry 18-20 18-20

Electives .....30-32

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

The student is strongly urged to take one year of German or French, Advanced Composition (Engl 263), physics and mathematics. Additional courses in mathematics and the physical sciences will be useful in graduate school.

### Natural History Curriculum

A student who selects natural history must complete the following courses:

General Studies ..... 41

*Specific Departmental Requirements*

Bio 100, Laboratory Experiences in Biology	1	
Bio 101, General Biology	3	
Bio 102, General Botany	4	
Bio 103, General Zoology	4	
Bio 201, Systematic Botany	4	
Bio 203, Field Zoology	5	
Bio 471, Ecology	5	
Bio 496, Seminar; or Bio 499, Independent Study	2	
Other biology courses	8	
	—	
	36	36

## Biology

(At least two biology courses in the 300 series [excluding Co-operative Education] must be taken.)

### *Auxiliary Requirements from Other Departments*

Three courses in one of the following fields:

anthropology, chemistry, geology, mathematics, physics 9-12

*Electives* .....39-42

TOTAL REQUIRED FOR GRADUATION .....128

## Secondary Education

A student planning to enter the secondary education field in biology should take the general biology curriculum and plan his biology electives in such a way as to insure that he has a broad background in both botany and zoology. He must also take the education courses required.

## Medical Technology

Fort Lewis College offers a medical technology program in affiliation with such hospitals as the Colorado State Hospital School of Medical Technology of Pueblo, Parkview Episcopal Hospital of Pueblo and Memorial Hospital of Colorado Springs. Students spend six terms at Fort Lewis College, completing at least 90 hours. They are then eligible to apply for a 12-month training program at one of the hospitals, after which they are eligible to become certified, and the B.S. degree in Biology is awarded. Dr. John E. Dever, Associate Professor of Biology, is the adviser for the program. In addition to fulfilling the normal requirements of the general biology curriculum, students who pursue this program must complete the following courses:

Bio 231, Comparative Anatomy	4
Bio 431, Microbiology	4
Approved course in mathematics	3
Physics—one course	5
Biology—approved elective	4

## Pre-Medical, Pre-Veterinary Medicine, and Pre-Dental Studies

Most medical schools require a baccalaureate degree as an entrance requirement, so do many schools of veterinary medicine and dentistry. Many students preparing for these professions specialize in chemistry or in biology, but some major in totally different fields. Members of the Pre-Medical Committee (Drs. Dever, Erickson, Harrison, Ritchey, Simms and Wageman) should be consulted regarding course selection.

**Preparation for graduate school.** Students who major in biology and who plan to earn advanced degrees will be required to complete the general and departmental requirements for the bachelor's degree. In addition, their preparation for graduate school should include the following courses:

Inorganic and organic chemistry

## Physics

One year of a foreign language, preferably German  
Advanced composition

## Biology

Additional chemistry and mathematics will be useful in graduate school

Many graduate schools for study in zoology and botany require satisfactory scores on the Graduate Record Examination (GRE) as part of their admission requirements. Students planning to work for advanced degrees should take this examination during their senior year at least three months prior to graduation.

## COURSES

### Bio 100 LABORATORY EXPERIENCES IN BIOLOGY (0-3) 1

This course is designed to accompany Bio 101, General Biology. It is optional for students who do not plan to take further biology courses but it is mandatory for students who continue in biology. Fall and Winter terms.

### Bio 101 GENERAL BIOLOGY (3-0) 3

An introduction to the life sciences. The course is designed to familiarize the student with some biological principles which are significant in everyday life and also to prepare him for the more specialized courses in biology. Fall and Winter terms.

### Bio 102 GENERAL BOTANY (3-3) 4

Study of the development of the plant kingdom. Fall and Winter terms.

*Prerequisite:* Bio 101.

### Bio 103 GENERAL ZOOLOGY (3-3) 4

Study of the development of the animal kingdom from the protozoans through the vertebrates. Winter term.

*Prerequisite:* Bio 101.

### 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.

### Bio 121 HUMAN ANATOMY & PHYSIOLOGY (2-3) 3

An introduction to the structure and function of the human body. Fall and Winter terms.

### Bio 201 SYSTEMATIC BOTANY (3-3) 4

A study of the classification and relationship of the major flowering plant groups; use of plant keys and related terminology. Fall term.

### Bio 203 FIELD ZOOLOGY (4-3) 5

Collection, identification, and museum preparation of the vertebrate animals of the region. Summer term.

### Bio 205 ENTOMOLOGY (2-3) 3

A study of the general anatomy and physiology of insects, their identification and control. Offered on demand.

## Biology

- Bio 221 GENERAL PHYSIOLOGY** (3-3) 4  
Studies of functions of animal and plant cells, tissues, organs, and whole organisms, with emphasis on the basic processes common to all organisms. Fall term.  
*Prerequisites:* Bio 101 and concurrent enrollment in Chem 116 or 148.
- 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. Offered on demand.  
*Prerequisite:* Bio 103.
- Bio 232 VERTEBRATE EMBRYOLOGY** (2-6) 4  
A detailed study of reproduction and development in representative vertebrates. Winter term.  
*Prerequisite:* Bio 103.
- Bio 301 PLANT MORPHOLOGY** (3-3) 4  
Study of structure, reproduction, modifications, and evolutionary development of vascular plants. Winter term.  
*Prerequisite:* Bio 102.
- Bio 303 HISTOLOGY** (2-3) 3  
Study of the microscopic anatomy of the vertebrate body. Fall term.  
*Prerequisite:* Bio 103.
- Bio 343 PLANT PHYSIOLOGY** (3-3) 4  
Study of growth and metabolism in plants: mineral nutrition, water relations, photosynthesis and other biosynthetic pathways, respiration, development, and responses to the environment. Fall term.  
*Prerequisites:* Chem. 231; concurrent enrollment in Chem 232; Bio 102; Bio 221.
- 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 103 or permission of instructor.
- Bio 407 EVOLUTION** (3-0) 3  
A study of the origin of living populations and the factors influencing genetic change.  
*Prerequisites:* Bio 371 or consent of instructor.
- Bio 431 MICROBIOLOGY** (3-3) 4  
Studies of bacteria and related groups with emphasis on their functions, culture, and identification, including diseases of economically important plants. Winter term.  
*Prerequisites:* Chem 231; concurrent enrollment in Chem 232; Bio 221.
- Bio 455 CELL STRUCTURE & PHYSIOLOGY** (3-3) 4  
Examination of the ultrastructure of the cell. Metabolic mechanisms are studied at the molecular, organelle, and cellular levels. Winter term.  
*Prerequisites:* Chem 232; Bio 343, or Bio 431. Biochemistry is strongly recommended.



- Bio 471 **ECOLOGY** (4-3) 5  
 An introductory study of the relationships between animals, plants and their environment. Summer term.  
*Prerequisites:* Bio 100, 101, 102, 103. Bio 201 and 203 strongly recommended.
- Bio 473 **MAMMALIAN PHYSIOLOGY** (3-3) 4  
 Functions of the mammalian organ systems with emphasis on nutrition, metabolism, and reproduction.  
*Prerequisite:* Bio 221.
- Bio 475 **BIOGEOGRAPHY** (3-0) 3  
 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 conducted under the supervision of a faculty member. Offered on demand.  
*Prerequisite:* approval of Department Chairman.

## Biology

## Chemistry

## Chemistry

Visiting Professor David T. Bailey; Associate Professors E. Merle Harrison, Rodney D. Hamilton, and John M. Ritchey; Assistant Professors James W. Mills and Thomas G. Squires; Instructor Doreen M. Mehs.

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 encompassing three separate tracks has been designed, thus giving the student an opportunity to tailor his degree to fulfill his 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. Two extended majors are recommended for students contemplating advanced study—one appropriate for the pre-professional programs of pre-dentistry, pre-medicine, pre-pharmacy or pre-veterinary, and one suited for entrance into graduate study in chemistry or chemical engineering.

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. The majority of all 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.

## Chemistry

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 and government.

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

General Studies ..... 41

#### *Specific Departmental Requirements:*

Chem 147-148 (or Chem 115-116*), Freshman Chemistry	10	
Chem 231-232, Organic Chemistry	10	
Chem 265, Analytical Chemistry	4	
Chem 358-359, Physical Chemistry	8	
Chem 367, Instrumental Methods of Analysis	4	
Chem 496-497, Seminar	2	38

#### *Auxiliary Requirements from Other Departments:*

Mathematics through Math 222	13	
Phys 217-218 (Phys 201-202*)	10	
Two trimesters of either German, French, or Computer Science	6-8	29-31

\*Chem 115-116 and Phys 201-202 not recommended for  
EXTENDED MAJORS.

*Electives* .....20-22

TOTAL REQUIRED FOR GRADUATION .....128

### EXTENDED MAJOR FOR PROFESSIONAL SCHOOL PREPARATION

Because chemistry is of fundamental importance to other scientific areas, the student may elect to take an extended major if his professional goal is medicine, dentistry, medical technology or pharmacy. In addition to the chemistry major, 12-16 credits in following courses are recommended:

- Bio 221, General Physiology
- Bio 231, Vertebrate Comparative Anatomy
- Bio 232, Vertebrate Embryology
- Chem 310, Biochemistry
- Chem 351, Pharmacology
- Bio 371, Genetics
- Bio 431, Microbiology
- Bio 455, Cell Structure and Physiology

### EXTENDED MAJOR FOR GRADUATE SCHOOL PREPARATION

Students planning to earn an advanced degree in chemistry or engineering 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 310, Biochemistry
- Phys 320, Modern Physics
- Chem 351, Pharmacology
- Phys 370, Heat and Thermodynamics
- Phys 420, Quantum Mechanics I
- Chem 431, Advanced Organic Chemistry
- Chem 454, Advanced Topics in Chemistry
- Chem 464, Advanced Inorganic Chemistry

Chem 499, Independent Studies  
 Math 223, Calculus  
 Math 327, Differential Equations  
 Math 401, Probability and Statistics

**SECONDARY TEACHING IN CHEMISTRY**

A student who wishes to obtain a teaching certificate in chemistry should complete at least 12 upper division credits in chemistry and six upper division credits in related disciplines—either mathematics or physics. The School of Education should be consulted concerning education courses which are required for the general secondary teaching certificate.

*Specific Departmental Requirements:*

Chem 147-148 (or Chem 115-116)	10
Chem 231	5
Chem 265	3
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) 5

This course provides the necessary scientific and mathematical background for those students not qualified for Chem 115 or 147. 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 115 GENERAL CHEMISTRY (4-3) 5

A conceptual approach to fundamental principles of chemistry, including atomic and molecular theory, the periodic table, bonding, stoichiometry, gases, chemical equilibria and kinetics, thermodynamics and electrochemistry. A student will not receive credit toward graduation for both this course and Chem 147. Fall and winter terms.

Chem 116 GENERAL CHEMISTRY (4-3) 5

A continuation of Chem 115. A student will not receive credit toward graduation for both this course and Chem 148. Winter term.

*Prerequisite:* Chem 115.

Chem 147 PRINCIPLES OF CHEMISTRY (4-3) 5

A quantitative, physical approach to chemistry including electronic structure of atoms and molecules, solutions and states of matter, chemical thermodynamics and equilibrium, reaction kinetics, and electrochemistry. It is the recommended beginning course for science majors. A student will not receive credit toward graduation for both this course and Chem 115. Fall term.

*Prerequisite:* one year of high school chemistry and two years of high school mathematics. Concurrent enrollment in mathematics is recommended.

## Chemistry

- Chem 148 PRINCIPLES OF CHEMISTRY** (4-3) 5  
A continuation of Chemistry 147. A student will not receive credit toward graduation for both this course and Chemistry 116. This course is recommended for science majors. Winter term.  
*Prerequisite:* Chem 147, or Chem 115 and 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. Fall term.  
*Prerequisite:* Chem 116 or Chem 148.
- Chem 231 ORGANIC CHEMISTRY** (4-3) 5  
Nomenclature, structure, spectroscopy and stereochemistry of aliphatic and aromatic compounds. The laboratory is designed to acquaint the student with fundamental isolation and identification techniques. Fall term.  
*Prerequisite:* Chem 116 or Chem 148.
- Chem 232 ORGANIC CHEMISTRY** (4-3) 5  
Studies of free radical and ionic substitution and addition reactions of aliphatic and aromatic compounds. The laboratory consists of studies in synthesis and kinetics. 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 148 or Chem 116.
- Chem 265 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 environmental concerns will be emphasized. Fall term.  
*Prerequisite:* Chem 116 or Chem 148; Chem 231 recommended.
- Chem 310 BIOCHEMISTRY** (4-3) 5  
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. The laboratory is designed to acquaint the student with basic biochemical techniques. Winter term.  
*Prerequisite:* Chem 231.
- 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** (3-3) 4  
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 reaction rate theory. The laboratory consists of quantitative study of physical properties. Fall term.

*Prerequisites:* Chem 116 or Chem 148, Phys 218 (or 202), and concurrent enrollment in Math 222.

**Chem 359 PHYSICAL CHEMISTRY (3-3) 4**

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. The laboratory emphasizes spectroscopic and computational experiments. Winter term.

*Prerequisite:* Chem 358.

**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. Winter term.

*Prerequisite:* Chem 265 or consent of instructor.

**Chem 431 ADVANCED ORGANIC CHEMISTRY (3-3) 4**

Advanced studies in reaction mechanisms, molecular structure, stereochemistry, energy relationships, spectroscopy, and the application of quantum mechanics to organic chemistry. The laboratory emphasizes advanced topics in synthesis, kinetics and structural elucidation.

*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 464 ADVANCED INORGANIC CHEMISTRY (3-3) 4**

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—alternate years.

*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.

**Chem 497 SEMINAR (1-0) 1**

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.

Associate Professor James R. Baker;  
Assistant Professor Tom D. Norton.

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 a formal engineering program agreement with Colorado State University at Fort Collins, Colorado. Two options are available to the student under this agreement. One option is the block transfer plan. Under this agreement, 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 2.0 in the courses listed is sufficient for the collective transfer of the courses as a block and to Colorado State University for advanced standing as a junior in that institution. The block transfer sequence may be complete in two years residence at Fort Lewis College.

The second option is the 3-2 program in which a student attends Fort Lewis College for six terms (equivalent to three academic years), and Colorado State University's College of Engineering for two academic years. During his residence at Fort Lewis, the student completes the requirements for the basic engineering core, and most of the requirements for a mathematics major. At Colorado State University 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 Colorado State University.

Although the above plans pertain specifically to the agreement with Colorado State University, 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 pre-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.

## 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, <i>Or</i>	3
Engr 203	Electronics	
Engr 217	Statics	3
Engr 221	Dynamics	3

### *Auxiliary Requirements*

FS 101	Freshman Seminar	4
Math 221, 222, 223	Calculus I, II, III	12
Math 311	Matrices and Linear Algebra	3

Math 327	Differential Equations	3	<b>Engineering</b>
Phys 217, 218	Physics for Scientists and Engineers I, II	10	
Phys 370	Heat and Thermodynamics	3	
Chem 147	Principles of Chemistry	5	
	General Studies—Group A, C, D (Humanities and Social Sciences)	9	
PE 101, 102	Physical Activity I, II	2	
		51	
		69	

### 3-2 PROGRAM

#### *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, <i>Or</i>	3	
Engr 203	Electronics		
Engr 217	Statics	3	
Engr 221	Dynamics	3	
Engr	Electives	3-6	21-24

#### *Auxiliary Requirements*

FS 101, 102	Freshman Seminar I, II	8	
Math 221, 222, 223	Calculus I, II, II	12	
Math 301	Foundations for Advanced Math	3	
Math 311	Matrices and Linear Algebra	3	
Math 327	Differential Equations	3	
Math 401	Probability and Statistics	3	
Math 385, 386	Algebraic Structures I, II, <i>Or</i>	6	
Math 422, 423	Advanced Calculus I, II		
Math 496	Seminar, <i>Or</i>		
Math 499	Independent Study	2	
Phys 217, 218	Physics for Scientists & Engineers I, II	10	
Phys 370	Heat and Thermodynamics	3	
Chem 147	Principles of Chemistry	5	
	General Studies—Groups A, C, D (Humanities and Social Sciences)	15	
PE 101, 102	Physical Activity I, II	2	75 95-99

### COURSES

Engr 104 ENGINEERING PRINCIPLES I (3-0) 3  
Engineering computational skills. Computer programming with application to engineering problems.

Engr 105 ENGINEERING PRINCIPLES II (3-0) 3  
Solution of fundamental engineering analysis and design problems utilizing digital computation and graphical techniques.

*Prerequisite:* Engr 104

## Engineering

- 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 221
- Engr 202 ELECTRIC NETWORKS II** (2-3) 3  
Topics include polyphase circuits, complex frequency and frequency response of linear networks, magnetically coupled circuits, two part 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 non-linear devices. Applications of the devices discussed along with their mathematical models are also covered.  
*Prerequisite:* Engr 201
- Engr 205 ELEMENTARY SURVEYING** (2-4) 3  
Care and use of surveying instruments. Fundamental surveying computations. Applications in traversing and topographic mapping. Sources and evaluation of errors.  
*Prerequisite:* Math 121 or knowledge of trigonometry.
- Engr 206 ADVANCED SURVEYING** (2-4) 3  
Topics include the Public Land Survey system, coordinate systems, astronomic observations, and route surveys.  
*Prerequisite:* Engr 205
- 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 245 MECHANICS OF MATERIALS** (3-0) 3  
Stresses and deformations in structural members and machine elements, combined stresses, and stress transformations.  
*Prerequisite:* Engr 217
- Engr 276 FLUID MECHANICS** (3-0) 3  
Fluid properties. Statics, kinematics, and kinetics of fluids including gravitational and viscous effects.  
*Prerequisite:* Engr 221



Professors Maynard Fox and Carroll V. Peterson; Associate Professors G. Leonard Bird, Roland C. Jones, and Kenneth I. Periman; Assistant Professors David F. Beer, Mark D. Coburn, and Shaila Eldridge; Instructors Geraldine Lam, Lillian B. Lang, Roger H. Malstead, Mary Jean Moseley, and Charles Oliver.

The work offered in English deals with several aspects of a liberal education: the literary, linguistic, 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. The various options under the major include careful attention to a great variety of vocational opportunities open to English graduates.

*The four options are:*

- Option 1. English Major, no vocational goal declared.
- Option 2. English Major, preparation for graduate or professional school.
- Option 3. English Major, preparation for other vocations.
- Option 4. English Major, preparation for teaching in the secondary school.

Because many students wonder what employment an English major can find besides teaching, the department has designed the four options to indicate the career opportunities available to English graduates. We believe that the English major, combined with the college distribution requirements, provides a broad and liberating education which will give the student a high degree of literacy and flexibility valued in many fields, including business, industry, government, law, education, and the ministry.

Details given below about the options will guide the student toward preparing himself for one of many careers available to the English major. English department advisers, in cooperation with advisers in other departments, have specialized information about the four options and the careers connected with them.

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, and the Elementary Education major.

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN ENGLISH

*Options 1, 2, and 3*

General Studies ..... 41

Specific Departmental Requirements

A minimum of 34 hours from English courses designated in the catalog course offerings as "applicable to the major." These must be distributed minimally among the following areas:

- One course in World Literature (161, 162, 163, 221, or 222)
- One course in American Literature (242 or 243)
- One course in Composition (263 or 364)
- One course in English Language (362 or 461)
- Two courses in English Literature (any two from 331-335, 431, 432)
- Engl 496 Seminar; or Engl 499 Independent Study (at least 2 hrs.)
- Other English courses "applicable to the major" .....13-15

TOTAL HOURS IN ENGLISH ..... 34

## English

(Option 2: Two additional courses in English Literature, including 431 and 432 required, for those students taking Option 2 who wish to qualify for graduate study in English.)

(TOTAL HERE 40 HOURS)

Auxiliary requirements from other curricula

<i>Option 1</i> .....	(
<i>Option 2</i> : 2 to 4 courses in a foreign language when needed to qualify for graduate or professional school. Regularly applies to those who intend to qualify for graduate work in English .....	0-14
<i>Option 2</i> : 5 or more courses in the arts and humanities or in the sciences, as applicable for the chosen graduate or professional school .....	15-52

(It is incumbent upon the student to fulfill the requirements for admission to a particular graduate or professional school. He should study appropriate catalogs. Besides graduate study in English and other subject areas under the arts and humanities, the student majoring in English can go on to law school, seminary, the Master of Business Administration, medical school, or any other health career. The most stringent requirements apply to admission to medical schools. English advisers, as well as those in Chemistry and Biology, have hand-outs showing science courses required by medical schools and other health careers.)

<i>Option 3</i> : 5 or more courses constituting a coherent body of knowledge and/or skill in the chosen area .....	15-17
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(The student may work toward any one of various careers in industry, business, or government service, state or federal. These careers include but are not limited to publishing and editing positions. There are thousands of trade journals in the United States and many other publishers, large and small, which use well qualified people with the B.A. in English. In addition, English students can enter sales, marketing, personnel, and other jobs in business and industry. Government jobs are open to those who rank high in civil service examinations.)

(One example of recommended courses to meet the requirement under Option 3 includes five of the following courses: Psych 157, Freshman Seminar in Business, Econ 261, 262, and 369, BE 221, BA 251, 301, 302, and 340.)

Electives (varying from 1 hour in Option 3 to 53 in Option 1) .....	1-52
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(However, since many of the courses under "auxiliary requirements" may also apply toward the general studies requirements, all curricular combinations under these options will have a number of electives available, the smallest of which would be in the pre-medical area.)

TOTAL REQUIRED FOR GRADUATION (Options 1, 2, or 3) .....	121
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<i>Option 4</i> : English Major, preparation for teaching in Secondary Schools General Studies .....	4
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## English

### Specific Departmental Requirements for Option 4

*Engl 101	Basic Composition (or pass profi. exam.)	0-3	
Engl 263	Advanced Composition	3	
Engl 242, 243	American Literature	6	
Engl 331-335	Select 3 of the 5 courses	9	
Engl 362	Introduction to Linguistics	3	
Engl 432	Shakespeare	3	
Engl 461	History of the English Language	3	
Engl 496	Seminar or 499 Independent Study	2-3	30-33

(Additional courses will be recommended to candidates to round out knowledge and appreciation of literature and language.)

### Auxiliary courses required:

Engl 225	Semantics (from general studies electives)	3	
Educ 362	Developmental Reading in the Secondary School	3	
*Thea 121	Speech Communication (section designated for teachers)	3	
Engl 463	Methods of Teaching English as a Second Language	3	12
Required Secondary Education Program (See Sec. Education)			26
Electives			14-20

(However, since various of the courses required above can also be counted toward the general studies requirements, the number of electives will be greater than shown.)

TOTAL REQUIRED FOR GRADUATION (Option 4) .....128

\*Teacher candidates will be expected to pass a proficiency examination in composition in their sophomore year or offer credit in Engl 101, Basic Composition. Candidates who have sufficient background in speech and theatre work may apply to the Theatre faculty for waiving of the Thea 121 requirement.

## ENGLISH COURSE OFFERINGS

### Preparatory English

Engl 019 INTRODUCTION TO WRITING (3-0) 0  
Designed exclusively and strongly recommended for students with special writing problems. This intensive free writing clinic provides individualized instruction for those students needing proficiency in basic English skills in order to effectively communicate ideas and information in writing and/or orally. Admission by referral and/or consent of instructor. Offered on demand.

Engl 100 DEVELOPMENTAL READING (0-3) 1  
A course designed to increase the student's reading rate and comprehension level. Primarily for bi-lingual students. Fall and Winter terms.

## 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. Will satisfy one Freshman Seminar requirement. Sections will be provided for bilingual students. Admission by referral or with approval of instructor. Offered on demand.

### General English Electives

Not Applicable to the Major

Engl 130 THE ENGLISH TRADITION IN 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 THE DRAMATIC TRADITION (3-0) 3  
European and American dramatic literature presented in its historical context, with emphasis placed on Greek, Elizabethan, and modern plays. Same as Thea 150. Fall term.

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.

Engl 208 ADVANCED 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.

Engl 225 SEMANTICS (3-0) 3  
A study of the application to the communication process of the meaning of words in context. An introductory course intended for the general student. Fall and Winter terms.

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

Applicable to the Major

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

Eng 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 NON-WESTERN WORLD LITERATURE: (3-0) 3  
20th CENTURY  
A study of selected 20th century literary works in translation from Asia, Africa, and elsewhere outside the Western world. Designed to give an appreciation and awareness of cultures other than Euro-American. Offered on demand.
- 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 and Winter terms.
- Engl 242 AMERICAN LITERATURE TO 1865 (3-0) 3  
A study of American literature before the Civil War, with emphasis on the American Renaissance. Fall term.
- Engl 243 AMERICAN LITERATURE, 1865-1914 (3-0) 3  
A study of American literature from the Civil War to World War I, with emphasis on the development of realism and naturalism. Winter term.
- Engl 276 FOLKLORE OF THE SOUTHWEST (3-0) 3  
A study of Anglo-American, Hispanic, and Amerind 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. Winter 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. Fall term.
- Engl 331 ENGLISH LITERATURE THROUGH (3-0) 3  
THE RENAISSANCE  
A study of the literature of England from Malory to Milton. Offered on demand.
- Engl 332 NEOCLASSICAL LITERATURE (3-0) 3  
A study of the literature of England from about 1600 to 1798, with emphasis on satire and social and literary commentary. On demand.
- 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. Fall 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. On demand.
- Engl 335 THE ENGLISH NOVEL (3-0) 3  
A study of the development of the English novel from its beginnings to World War I. Winter term.
- Engl 350 DRAMATIC LITERATURE (3-0) 3  
A study and analysis of plays from the Greeks to the present, with emphasis on theme and structure. Same as Thea 350. Offered alternate years.

## English

- 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. Offered on demand.
- 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. Fall and Winter terms.
- Engl 411 TWENTIETH CENTURY ENGLISH AND AMERICAN POETRY (3-0) 3  
A study of twentieth century poetry from 1914 to present. Fall term
- 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. On demand.
- Engl 431 CHAUCER (3-0) 3  
A study of the writings of Geoffrey Chaucer. Winter term.
- 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

Applicable to the Major

- Engl 362 INTRODUCTION TO LINGUISTICS (3-0) 3  
An introduction to the study and comparison of grammatical systems that have been devised for the description of the English language. Includes general introduction to other basic aspects of linguistic study. Fall and Winter terms.
- Engl 363 ADVANCED COMPOSITION (3-0) 3  
An advanced writing course with emphasis on the common forms of writing used by educated adults. Fall and Winter terms.  
*Prerequisite:* Freshman Seminars 101, 102.
- Engl 364 CREATIVE WRITING (3-0) 3  
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.

### Capstone Courses

Applicable to the Major

- 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

English

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

*Prerequisite:* approval of Department Chairman.

**English Education Course**

Applicable to Option 4 only

Engl 463 METHODS OF TEACHING ENGLISH  
AS A SECOND LANGUAGE

(3-0) 3

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.

*Prerequisite:* Engl 362.

NOTE: Engl 390 Special Topics and Engl 496 Seminar provide greater depth in English offerings. In recent years, English 390 and 496 topics have included Recent American Fiction, Recent American Poetry, Mark Twain, The Short Story, The American Short Story, American History Through Fiction, Modern Grammar, Theme and Form in Verse; Myths, Dreams, and Creativity; D. H. Lawrence and Others.

**Foreign Languages**

Foreign Languages

Professor Maria Delaney; Associate Professor John R. Tapia;  
Assistant Professors M. Federico Cano, Odilie A. Cantillano,  
and Deborah A. O'Sullivan.

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.

**COURSES**

**French**

FL 147 ELEMENTARY FRENCH I

(4-0) 4

A course in grammar, prose composition, reading, and conversation. Fall term.

FL 148 ELEMENTARY FRENCH II

(4-0) 4

Further study of French with emphasis on reading, composition, and conversation. Winter term.

## Foreign Languages

- 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 124 ELEMENTARY GERMAN II (4-0) 4  
A continuation of FL 123. Winter term.
- FL 223 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 MASTERPIECES OF 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 (4-0) 4  
A continuation of FL 109. Winter term.  
*Prerequisite:* FL 109 or equivalent.



## Spanish

## Foreign Languages

Fort Lewis College offers a major in Spanish. It provides students with proficiency in spoken Spanish and an insight into Spanish-American culture, while preparing them for professional employment and graduate work. Students who desire to teach will take the required education courses. Incoming students with some knowledge of Spanish are placed in appropriate courses.

### BACHELOR OF ARTS DEGREE 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	
	8	8
<i>Other Departmental Requirements</i>		
12 hours from the remainder of the Spanish offerings numbered above 300	12	
<i>For those who need it:</i>		
FL 115 and FL 116, Elementary Spanish	8	
FL 215 and FL 216, Intermediate Spanish	6	
	26	26
<i>Auxiliary Requirements from other departments</i>		
SW 365, Hispanic Civilization	3	
SW 375, Hispanic American Civilization	3	
	6	6
<i>Electives</i> .....		47
<b>TOTAL REQUIRED FOR GRADUATION</b> .....		<b>128</b>

## COURSES

FL 115 ELEMENTARY SPANISH I	(4-0) 4
A course in grammar, prose composition, reading, and conversation. Fall and Winter terms.	
FL 116 ELEMENTARY SPANISH II	(4-0) 4
A continuation of FL 115. Fall and Winter terms.	
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.	
<i>Prerequisite:</i> FL 216.	

## Foreign Languages

- 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 LINGUISTICS AND (3-0) 3  
ADVANCED COMPOSITION  
Intensive study of the linguistic structure of Spanish and extensive application through written and spoken exercises. Winter term.  
*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 495 TRANSLATION OF HISTORICAL DOCUMENTS (3-0) 3  
Translation of Spanish documents concerning the American Southwest. Offered  
on demand.  
*Prerequisite:* consent of instructor.

## Foreign Languages

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

## Forestry

Professor Herbert E. Owen.

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.

FRENCH (see FOREIGN LANGUAGES)

GEOGRAPHY (see SOCIOLOGY AND GEOGRAPHY)

GERMAN (see FOREIGN LANGUAGES)

## Geology

## Geology

Professors Donald Lee Baars and Frank O. Bowman, Jr.;  
Associate Professor Jack A. Ellingson; Assistant Professor  
Robert W. Blair, Jr.; Instructor Thomas N. Westervelt.

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

## Geology

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 valuable 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; such a sequence is invaluable in the study of the principles of sedimentation and stratigraphy.

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

General Studies (including ten hours of auxiliary requirements from other sciences .....		41
<i>Specific Departmental Requirements</i>		
Geol 113—Physical Geology	4	
Geol 114—Historical Geology	4	
Geol 207—Mineralogy	3	
Geol 208—Optical Mineralogy and Petrography	4	
Geol 334—Structural Geology	4	
Geol 351—Igneous Petrology	3	
Geol 352—Metamorphic Petrology	3	
Geol 361—Stratigraphy	4	
Geol 441—*Field Geology	6	
Geol 496—Seminar or Geol 499—Independent Study	2	
	<hr/>	
	37	37
<i>Auxiliary Requirements from Other Departments</i>		
Chemistry 115-116 or 147-148	10	
Mathematics 221, or Math 121 and Math 201	4-7	
Physics 201-202 or 217-218	10	
	<hr/>	
	24-27	
(ten hours included in the 41 hours of general studies)		14-17
<i>Electives</i> .....		36-33
<b>TOTAL REQUIRED FOR GRADUATION</b> .....		<b>128</b>

\*Approved field work for two summers may substitute for Geol 441.

### Preparation for Graduate School

The following courses are recommended for students majoring in geology who plan to earn advanced degrees:

Geol 223—Geomorphology

Geol 233—Paleontology

Geol 362—Sedimentary Petrology

Additional work in the physical sciences and mathematics

IA 150 and Engineering 104, 105 and 205

French or German

## COURSES

## Geology

**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.

*Prerequisite:* permission of instructor.

**Geol 113 PHYSICAL GEOLOGY (3-3) 4**

Processes and agents at work on Earth and resultant land forms and structural features. Laboratory work on minerals, rocks, and maps. Field trips. Fall and winter terms.

**Geol 114 HISTORICAL GEOLOGY (3-3) 4**

The geologic history and development of life on the Earth as recorded by rocks and fossils. Winter term.

*Prerequisite:* Geol 113.

**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 113 and completion of, or concurrent enrollment in, Chem 115 or 147.

**Geol 208 OPTICAL MINERALOGY AND PETROGRAPHY (2-6) 4**

Procedures for identification of minerals in thin section, with emphasis on the optical determination of rock-forming minerals. Winter term.

*Prerequisite:* Geol 207.

**Geol 223 GEOMORPHOLOGY (3-3) 4**

The relationship of geologic processes to the development of land forms. Fall term.

*Prerequisite:* Geol 113.

**Geol 233 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 334 STRUCTURAL GEOLOGY (3-3) 4**

The analysis of structural features in the Earth's crust. Fall term.

*Prerequisites:* Geol 114 and Math 121.

**Geol 351 IGNEOUS PETROLOGY (2-3) 3**

The origin, occurrence, and classification of igneous rocks. Fall term.

*Prerequisite:* Geol 208 or permission of instructor.

## Geology

- Geol 352 METAMORPHIC PETROLOGY** (2-3) 3  
The origin, occurrence, and classification of metamorphic rocks. Winter term.  
*Prerequisite:* Geol 351.
- Geol 361 STRATIGRAPHY** (3-3) 4  
The dating, correlation, classification, mapping, and significance of the stratified rocks. Fall term.  
*Prerequisites:* Geol 114 and Geol 207.
- Geol 362 SEDIMENTARY PETROLOGY** (2-3) 3  
The origin, classification, and significance of sedimentary rocks with regard to depositional environment. Winter term.  
*Prerequisites:* Geol 208 and Geol 361.
- 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. Alternate years.  
*Prerequisite:* Geol 113 or permission of the instructor.
- Geol 409 ECONOMIC MINERAL DEPOSITS** (3-3) 4  
Geologic occurrence of metallic and non-metallic mineral deposits.  
*Prerequisites:* Geol 352 and Geol 334 or permission of instructor.
- Geol 410 PETROLEUM GEOLOGY** (3-0) 3  
The origin, migration, and entrapment of petroleum, and the methods employed in exploration and development of petroleum occurrences.  
*Prerequisites:* Geol 361 and Geol 334 or permission of the instructor.
- Geol 413 ADVANCED PHYSICAL GEOLOGY** (3-0) 3  
Further study of geological subjects not covered elsewhere in the geology curriculum; e.g., geophysical methods. Geology majors will write technical papers on various topics.  
*Prerequisite:* Geol 334 or permission of instructor.
- Geol 420 INTRODUCTION TO GEOCHEMISTRY** (3-0) 3  
Behavior of the common rock forming oxides in endogenic and exogenic processes; isotope geochemistry; geochemical exploration.  
*Prerequisites:* Geol 207, or permission of instructor.
- Geol 423 PHOTOGEOLOGY** (1-6) 3  
Stereoscopic interpretation of topographic and geologic features and preparation of geologic maps and cross sections from aerial photographs. Field trips required. Alternate years.  
*Prerequisite:* Geol 223 and Geol 334.
- Geol 433 MICROPALAEONTOLOGY** (3-3) 4  
The study of fossil micro-organisms with regard to their morphology, classification, paleoecology, and chronostratigraphy, with emphasis on the foraminifera, ostracodes, and algae. Alternate years.  
*Prerequisites:* Geol 233 and Geol 361 or permission of instructor.

Geol 434 ADVANCED STRUCTURAL GEOLOGY (3-0) 3  
Structural styles and evolution of the Rocky Mountains in terms of the new  
global tectonics.  
*Prerequisite:* Geol 334.

## Geology

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.  
*Prerequisites:* Senior standing in geology or permission of instructor.

Geol 496 SEMINAR (2-0) 2  
Advanced study and research in selected topics. Fall and Winter terms.  
*Prerequisite:* permission of instructor.

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

## GERMAN (see FOREIGN LANGUAGES)

## History

## History

Professors Robert W. Delaney, Gilbert C. Din, and Duane A. Smith;  
Associate Professors Thomas R. Eckenrode and Ray M. Reeder;  
Assistant Professors James K. Ash, Maurice B. Conway,  
Reece C. Kelly, and Ira L. Plotkin.

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.

## History

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 intending to acquire a teaching credential should consult the School of Education section of this bulletin for specific requirements for certification.

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

General Studies .....	41
<i>Areas of Concentration</i>	
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
<b>TOTAL REQUIRED FOR GRADUATION</b> .....	<b>128</b>



## COURSES

## History

Hist 120, 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 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 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. This course may be taken only with instructor's permission. 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. This course may be taken only with instructor's permission. 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. This course may be taken only with instructor's permission. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and Winter terms.

Hist 460 STUDIES IN EUROPEAN HISTORY (3-0) 3

A study of the history of Europe. The specific topic will vary. May be taken only with the instructor's permission. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and Winter terms.

## History

**Hist 480 STUDIES IN AMERICAN HISTORY** (3-0) 3  
A study of the history of the United States and Canada. The specific topic will vary. May be taken only with instructor's permission. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and Winter terms.

**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, Literature, Anthropology, Political Science, Foreign Language, Theatre, 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 college foreign language	6-9	50-53	
<i>Electives</i> .....		20-47	
<b>TOTAL REQUIRED FOR GRADUATION</b> .....			128

## Industrial Arts

## Industrial Arts

Assistant Professor Donald Spangenberg

This curriculum is designed to augment a liberal education with the skills of the traditional craftsman. It also provides basic work toward an Industrial Arts degree which may be obtained by transferring to an institution offering such a degree.

## COURSES

## Industrial Arts

- IA 101 ELEMENTARY WOODWORKING (2-3) 3  
Basic techniques in woodwork, with emphasis in designing, layout, and construction of projects through use of hand tools. The care of tools and shop maintenance is also stressed. Fall term.
- IA 102 ADVANCED AND MACHINE WOODWORKING (2-3) 3  
Introduction to the use of woodworking machines. Students concentrate on advanced techniques of design and the use of new finishes. Winter term.  
*Prerequisite:* IA 101.
- IA 111 INDIAN ARTS AND CRAFTS (0-6) 3  
See SW 111.
- IA 112 INDIAN ARTS AND CRAFTS (0-6) 3  
See SW 112.
- IA 150 PRINCIPLES OF DRAFTING (2-3) 3  
A basic course in drafting concentrating on geometric construction, orthographic projection, sectional views, dimensioning, layout, and working drawings. Fall and Winter terms.
- IA 201 ELECTRIC WELDING (2-3) 3  
The fundamentals of how to use welding equipment and to operate different kinds of welding machines. Includes flat, vertical, and overhead welding and the use of the cutting torch. Fall and Winter terms.
- IA 202 ADVANCED METAL WORKING (2-3) 3  
Continuation of IA 201. The welding and identification of different metals. Wrought iron work and design of metal projects. Use of the gas torch. On demand.  
*Prerequisite:* IA 201.
- IA 220 CRAFTS I: ART METAL WORK (2-3) 3  
Emphasis on individual design in the ornamentation of aluminum, copper, brass, the etching of aluminum. Winter term.
- IA 221 CRAFTS II: LAPIDARY AND JEWELRY (2-3) 3  
Cutting and polishing of gem quality rocks. Fall term.

## Mathematics

## Mathematics

Professor Donald D. Bushnell; Associate Professors Richard A. Gibbs, Gary W. Grefsrud, and Larry S. Johnson; Assistant Professors William C. Ramaley, Harry C. Rosenberg, and Harold E. Stocker; Instructors Clifford B. Capp, Dorothy McShan, O. D. Perry, and Ray E. Williams.

The Mathematics Department functions primarily in two ways: (1) it provides students who major in mathematics with preparation for graduate school, teaching careers, or employment in industry, and (2) it is a service department offering courses for students majoring in other fields.

## Mathematics

The mathematics major begins his studies with Math 121, College Mathematics, if his high school background contains at least three years of mathematics, including two years of algebra and one of geometry. A more advanced student may begin with Math 221, Calculus, if his background is deemed sufficient. Students lacking sufficient background for Math 121 should begin with Math 120, Introduction to College Mathematics. Credit for Math 120 and Math 121 does not count toward the 35-hour mathematics major. In fact, no course numbered 121 or lower will count toward the mathematics major, and neither will those courses numbered 160, 201, 215, 216, 260, 315.

No student will receive credit for both Math 100 and Math 120.

Students wanting to enroll in a mathematics course which is a prerequisite for a previously completed mathematics course should consult the Chairman of the Mathematics Department. Some courses may not be taken for credit after the student has taken other mathematics courses. EXAMPLE: Math 121 may not be taken for credit after Math 221 has been completed.

The mathematics major must complete 23 hours of credit in mathematics courses numbered higher than 300 (with the exceptions noted above). Math 301, Foundations for Advanced Mathematics, Math 401, Probability and Statistics, and one of the sequences, Math 385 and 386, Algebraic Structures, or Math 422 and 423, Advanced Calculus, must be taken. Also, 2 or more hours of credit must be completed in either Math 496, Seminar, or Math 499, Independent Study. Those majors who intend to enroll in a graduate program should take Math 385, Math 386, Math 422, and at least one year of German or French. They should also consult the department Chairman in mathematics at schools of intended enrollment to learn of any special requirements.

The teaching major should take Math 385, and Math 386, Algebraic Structures; and Math 342, College Geometry.

For the elementary education major, the Mathematics Department offers the sequence of courses Math 215, Sets, Natural Numbers, and Integers; Math 216, Rational Numbers; Math 315, Real Numbers and Geometry; and Math 316, Topics in Number Theory. Those students wanting an 18- or a 24-hour concentration in mathematics should consult the Chairman of the Mathematics Department for appropriate courses.

Students with weak backgrounds in mathematics may choose to begin their studies with Math 120, Introduction to College Mathematics. Math 201, Elementary Statistics, is offered for students who want an introduction to statistics without a calculus background.

In addition to the Mathematics courses, the Mathematics Department also offers the computer science courses, Comp Sci 100, Introduction to Computing Science; Comp Sci 150, Introduction to Programming Systems; and Comp Sci 160, Business Programming. These courses do not satisfy mathematics requirements such as that of Group B of the Liberal Arts Distribution Requirements.

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

General Studies ..... 41

#### *Specific Departmental Requirements*

Mathematics courses through Math 223, Calculus	12
Math 385 and Math 386 or	
Math 422 and Math 423	6

Math 301	3	
Math 401	3	
<i>Other Departmental Requirements</i>		
Additional courses numbered above Math 300	9	
Math 496, Seminar; or Math 499, Independent Study	2	
TOTAL .....		35
<i>Auxiliary Requirement</i>		
CS 150		3
<i>Electives</i> .....		49
TOTAL REQUIRED FOR GRADUATION .....		128

**COURSES**

\*These courses do not count toward the mathematics major.

\*Math 100 MATHEMATICS FOR LIBERAL ARTS (4-0) 4  
 A course in mathematics especially for the non-mathematics and non-science major. It includes topics from logic, algebraic structures, number theory, set theory, probability theory, and history of mathematics. Credit will not be given for both Math 100 and Math 120. Fall and Winter terms.

\*Math 120 INTRODUCTION TO COLLEGE MATHEMATICS (4-0) 4  
 Designed for students with weak high school mathematics backgrounds, this course includes a discussion of such topics as sets and set operations; the real number system and its properties, including signed numbers, fractions, and the simplification of algebraic expressions; exponents, and solution of equations and inequalities and their graphs. Credit will not be given for both Math 120 and Math 100. Fall and Winter terms.

\*Math 121 COLLEGE MATHEMATICS (4-0) 4  
 This course will include a discussion of such topics as elementary functions, their graphs and applications; systems of equalities and inequalities; the trigonometric functions, identities, and applications to triangle trigonometry; complex numbers; analytic geometry and applications. Fall and Winter terms.  
*Prerequisites:* Three years of high school mathematics or Math 120 or equivalent.

\*Math 160 LINEAR MATHEMATICS (3-0) 3  
 A first course in linear mathematics for students in business, biology, geology, the behavioral and social sciences. This course includes such topics as set theory, logic, matrix algebra, linear systems, linear programming, game theory, and model building. Fall and Winter terms.

\*Math 201 ELEMENTARY STATISTICS (3-0) 3  
 An introduction to basic ideas in probability and statistics; analysis (and actual collection) of numerical data and descriptive statistics, probability and probability models for statistics, sampling and statistical inference, which will be illustrated by examples from a variety of fields. Fall and Winter terms.

## Mathematics

### \*Math 215 SETS, NATURAL NUMBERS, AND INTEGERS (3-0) 3

This course includes a presentation of sets, set operations, elementary logic, base and base free systems, construction of a number system, and the integers. It is intended primarily for elementary teachers. Fall term.

### \*Math 216 RATIONAL NUMBERS (3-0) 3

This course includes a presentation of further topics of integers, equivalence relations, construction of the rational numbers, properties and operations with rational numbers, decimal systems, sequences, and shortcomings of the rational numbers. Winter term.

*Prerequisite:* Math 215.

### Math 221 CALCULUS (4-0) 4

Differential and integral calculus of the elementary functions with associated geometry. Fall and Winter terms.

*Prerequisite:* Math 121 or permission of instructor.

### Math 222 CALCULUS (4-0) 4

A continuation of Math 221. Techniques of single-variable and multi-variable calculus. Fall and Winter terms.

*Prerequisite:* Math 221.

### Math 223 CALCULUS (4-0) 4

A continuation of Math 222. Multi-variable calculus, sequences and series. Fall and Winter terms.

*Prerequisite:* Math 222.

### \*Math 260 LINEAR MATHEMATICS AND PROBABILITY (3-0) 3

A survey course in Calculus and Probability for students who have not enrolled in the Calculus sequence Math 221-223. This course is designed for students in business, biology, geology, behavioral and social sciences. It will include such topics as limits, differential calculus, integral calculus, and series and sequences, Boolean algebra and probability. Fall and/or Winter terms.

*Prerequisite:* Math 120 or Math 160 or permission of instructor.

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

A study of axiomatic systems including axiomatic development of logic, set theory, and a number system; and a study of applications of logic and sets to mathematical structures. Fall term.

*Prerequisite:* Math 222 or permission of instructor.

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

Topics to include Matrices, Determinants, Similarity, Canonical forms, Quadratic forms, Vector Spaces, Linear transformations, Linear Algebra and their applications. Winter term.

### \*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.

*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 combinatorics. Winter term.

*Prerequisite:* Math 315 or permission of instructor.

**Math 320 NUMERICAL ANALYSIS (3-0) 3**

Numerical methods in calculus, differential equations, linear algebra, matrix inversion, and estimation of characteristic roots. The course is oriented toward machine computation. Fall or Winter term. (Will not be offered the same term as Math 327.)

*Prerequisite:* Math 223 or permission of instructor.

**Math 327 DIFFERENTIAL EQUATIONS (3-0) 3**

An introduction to ordinary differential equations and applications. Fall or Winter term.

*Prerequisite:* Math 301 or permission of instructor.

**Math 342 MODERN COLLEGE GEOMETRY (3-0) 3**

A course in college geometry which includes topics in Euclidean and non-Euclidean geometries. Fall term.

*Prerequisite:* Math 301 or permission of instructor.

**Math-BA 360 INTRODUCTION TO OPERATION 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.

*Prerequisite:* Math 160 or Math 221 or permission of instructor.

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

A first course in abstract algebra which will cover a thorough discussion of groups, rings and isomorphism theorems. Fall term.

*Prerequisite:* Math 301 or permission of instructor.

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

A continuation of Math 385. Topics will include a continuation of Ring Theory and Field Theory through Galois Theory. Winter term.

*Prerequisite:* Math 385 or permission of instructor.

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

This course covers topics in distribution theory, conditional probability, independence, moment generating functions, limiting distributions, estimation procedures, and hypothesis testing. Fall term.

*Prerequisite:* Math 223 or permission of instructor.

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

Structure of the real number system, elementary topology of the real numbers and of the Euclidean spaces, general theory of limits and continuity, differentiation of functions in Euclidean spaces. Fall term of alternate years (even numbered). Will not be offered in 1975.

*Prerequisite:* Math 301 or permission of instructor.

## Mathematics

**Math 423 ADVANCED CALCULUS** (3-0) 3  
A continuation of Math 422. Topics include the Stieltjes integral on the line and in Euclidean spaces, infinite series, and an introduction to function spaces. Winter term of alternate years (odd numbered). Will not be offered in 1976.  
*Prerequisite:* Math 422 or permission of instructor.

**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. On demand.  
*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.

**\*CS 100 INTRODUCTION TO COMPUTING SCIENCE** (3-0) 3  
Programming and computing systems. Data representation and characteristics of computers. Survey of computers, languages, systems and applications. Binary and hexadecimal arithmetic. Designed for the student who is interested in a knowledge of computers and how they operate but not actually learning to program.

**\*CS 150 INTRODUCTION TO PROGRAMMING SYSTEMS** (3-0) 3  
Introductory programming and program structure using primarily Fortran IV. Debugging and verification. Fall and Winter terms.

**\*CS 160 BUSINESS PROGRAMMING** (3-0) 3  
Basic programming and program structure. Debugging and verification. Computer solution of several business oriented problems. Programs will be written in COBOL. (Common Business Oriented Language.)

\*These courses do not count towards the mathematics major.

## Music

## Music

Associate Professors Ralph A. Downey, Sherman Friedland,  
Maurice LeGault, and Patricia E. Weaver;  
Assistant Professor Richard G. Strawn.

The Fort Lewis College Music Department offers a major in music for those planning to enter graduate study, for those planning teaching careers in elementary or secondary education and offers to any student the opportunity to participate in the understanding and enjoyment of 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.

## Music

### BACHELOR OF ARTS DEGREE WITH A MAJOR IN MUSIC—INSTRUMENTAL EMPHASIS

General Studies .....		41
<i>Specific Departmental Requirements</i>		
Mu 122, Sight Singing and Ear Training I	3	
Mu 123, Sight Singing and Ear Training II	3	
Mu 221, Theory I	3	
Mu 222, Theory II	3	
Mu 231, Music History I	3	
Mu 232, Music History II	3	
Mu 250, Conducting	3	
Mu 315, Methods and Principles of Teaching Instrumental Music	3	
Mu 321, Advanced Theory	3	
Mu 322, Advanced Theory	3	
Mu 423, Instrumental and Choral Arranging	3	
Music 496, Seminar or		
Music 499, Independent Study	2	
	—	
	35	35

#### *Other Departmental Requirements*

At least six credit hours in one of the following:

Mu 105, Mu 106, Mu 107, Mu 110, Mu 115, with a maximum of 12 credit hours allowable toward graduation in any combination of these courses 6-12

Applied Music (8 to 16 hours) 8-16 14-28

*Electives* ..... 39-25

TOTAL REQUIRED FOR GRADUATION ..... 128

### BACHELOR OF ARTS DEGREE WITH A MAJOR IN MUSIC—VOCAL EMPHASIS

For those students who wish to major in vocal music, the courses above are required, except that Music 314 must be substituted for Music 315, and the 8 to 16 hours of applied music must be directed toward vocal. Two semesters of piano and the proficiency test are required. Chorus participation in 6 to 8 trimesters is required.

## Piano Proficiency

All music majors must pass a piano proficiency examination based on the fundamental knowledge of the instrument which a non-piano major should have. This examination, held before the department faculty, consists of sight-reading,

## Music

harmonization at sight of a simple melody, ability to play all major and harmonic minor scales one octave, the presentation of a memorized composition of at least two pages in length from the traditional piano repertoire, and knowledge adequate to answer basic questions about the instrument.

### Music for Teachers

Those who wish to teach music in the secondary schools should elect the necessary education courses. Those who wish to major in elementary education with an option in music should take the above required courses, except that MU 314 should be substituted for Mu 315.

### COURSES

- Mu 100 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 102 INTRODUCTION TO MUSIC** (3-0) 3  
A music appreciation course designed for students seeking to fulfill General Studies requirements. Deals with major musical trends from medieval times to the present. 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. Fall and Winter terms.
- Mu 104, 204, 304, 404 APPLIED MUSIC (A, B, C, D, E & F)** (0-½) 1  
A one-half hour private lesson per week. The course is open to all students. The number of the course varies with the level of the student proficiency. Each course may be repeated once for credit.
- Mu 105 CONCERT CHOIR** (0-3) 1  
Thorough study and performance each trimester of larger choral work for chorus. Open to all students through audition. 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 ½ 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 122 SIGHT-SINGING AND EAR-TRAINING I** (3-0) 3  
A study of, and practice in, rhythmic, melodic, and harmonic ear-training, and sight-singing. Fall term.  
*Prerequisite:* Mu 100.
- Mu 123 SIGHT-SINGING AND EAR-TRAINING II** (3-0) 3  
To provide further training to students who are essentially without sufficient musical background.  
*Prerequisite:* Mu 122.
- Mu 221 THEORY I** (3-1) 3  
The study of harmony in the 18th and 19th centuries using four-part writing as a basis. Diatonic modulations and seventh chords, melodic and rhythmic dictation, keyboard harmony studies, analysis of chorales and selected excerpts from traditional literature. Fall term.  
*Prerequisite:* Mu 100. Recommended: Mu 103A or 104A.
- Mu 222 THEORY II** (3-0) 3  
Continuation of Mu 221. Winter term.  
*Prerequisite:* Mu 221.
- Mu 250 CONDUCTING** (3-2) 3  
A course in basic instrumental and choral conducting including stick-technique, score-reading, and various cueing and rhythmic aspects concerned with ensemble control.
- Mu 300 VOCAL ENSEMBLE** (0-2) 1  
A study through performance of the literature for vocal ensemble and a vehicle for the "pop" group. May be repeated once for credit.
- 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. May be repeated once. Fall and Winter terms.  
*Prerequisite:* consent of instructor.

- Music**
- 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 contemporary periods will be studied and performed. The course may be repeated once. 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 contemporary period will be studied and performed. May be repeated once. 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. Winter term.
- 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. Winter term.
- Mu 316 MUSIC IN THE ELEMENTARY SCHOOL** (3-0) 3  
 A class for elementary classroom teachers. A study of basic music and basic music teaching. Fall term.
- Mu 321 ADVANCED THEORY** (3-1) 3  
 Continuation of Mu 222. Ninth chords, chromatic harmony, elements of dissonance found in late 19th century music. Two and three-part melodic dictation; analysis of selections from 18th and 19th century literature. Fall term.  
*Prerequisite:* Mu 222.
- Mu 322 ADVANCED THEORY** (3-1) 3  
 Continuation of Mu 321. Winter term.  
*Prerequisite:* Mu 321.
- Mu 331 MUSIC HISTORY I** (3-0) 3  
 Study of the history of music from classical antiquity to 1750. Fall term.
- Mu 332 MUSIC HISTORY II** (3-0) 3  
 Study of the history of music from 1750 through 1900. Winter term.
- Mu 333 TWENTIETH CENTURY MUSIC** (3-0) 3  
 A survey of 20th century trends, styles, techniques, and composers, including the current electronic and avant garde movements.  
*Prerequisites:* Mu 231 and 232 or permission of instructor.

**Mu 423 INSTRUMENTAL AND CHORAL ARRANGING** (3-0) 3  
A course designed to equip music majors with the skills and techniques of arranging for instrumental and choral ensembles. Fall term.  
*Prerequisites:* Mu 221, 222, 321, and 322.

**Music**

**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.

## **Philosophy**

**Philosophy**

Professor Paul W. Pixler; Associate Professor 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.

## **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. Winter term.

**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. Fall term.

## Philosophy

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 Rationalism 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.

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

## Physical Science

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.

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

General Studies ..... 41\*

#### *General requirements*

Chemistry (2 courses, preferably Chem 147-148)	10	
Geology 113-114	8	
Mathematics through Math 222	13	
Physics (2 courses, preferably Phys 217-218)	10	
Senior Seminar or Independent Study in area of concentration	2	
	43	43

#### *Additional requirements depending on concentration selected*

(Choose the courses 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 <i>or</i>	12-14	
Geology 207, 351, 361 and one other course numbered above 207 <i>or</i>	12-13	
Physics—3 courses numbered above 218	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* .....31-25

TOTAL REQUIRED FOR GRADUATION .....128

\*Includes 10 hrs. of Group B which can be satisfied under "Additional Requirements."

## Physical Science

## COURSES

**PhySc 100 LABORATORY** (0-3) 1  
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 and 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

## Physics

Associate Professor Daniel E. Gibbons;  
Assistant Professors Robert Likes and Tom D. Norton.

As an important part of the physical science program set within the framework of a liberal arts 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.

## COURSES

**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.  
*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 in modern physics. Calculus is not used. Students who take Physics 218 will not receive credit toward graduation for Phys 202. Winter term.  
*Prerequisite:* Phys 201.



**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.

*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.

*Prerequisite:* Phys 217; Math 222.

**Phys 301 INTRODUCTION TO ELECTRONICS (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.

*Prerequisite:* Phys 202 and 218; Math 222.

**Phys 340 OPTICS (3-3) 4**

The 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.

*Prerequisite:* Phys 202 or 218 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.

*Prerequisite:* Phys 202 or 218, 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.

*Prerequisite:* Phys 202 or 218, Math 327 taken concurrently.

**Phys 370 HEAT AND THERMODYNAMICS (3-0) 3**

The study of classical thermodynamics which includes the first and second laws of thermodynamics and their applications in energy conversion. On demand.

*Prerequisite:* Phys 201 or 217, Math 327.

**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.

**Physics**

- 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 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.  
*Prerequisite:* Phys 202 or 218, Math 327.
- 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**

**Political Science**

Professor LeRoy W. Goodwin; Associate Professors David J. Bass and James C. Decker; Assistant Professor Barry M. Schutz

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; or (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.

**BACHELOR OF ARTS WITH A MAJOR IN POLITICAL SCIENCE**

General Studies ..... 41

*Specific Departmental Requirements*

- PS 110, U.S. National Government: Power and Freedom in the Twentieth Century 3
- PS 488, Contemporary Political Analysis 3
- PS 496, Seminar; or PS 499, Independent Study 2-3
- 8

*Other Departmental Requirements*

- 24 additional hours in Political Science 24 32

*Auxiliary requirements from other departments*

Hist 280 I and II, Survey of American History	6
Two courses in any of the following areas: Anthropology, Economics, Foreign Language, Mathematics, Philosophy, Psychology, or Sociology.	
	6-10 12-16
<i>Electives</i> .....	39-43
<b>TOTAL REQUIRED FOR GRADUATION</b> .....	<b>128</b>

**COURSES**

PS 101 POLITICS: THE PROBLEM OF FREEDOM AND COERCION (3-0) 3

An introduction to the relationship of man and government, man's role as a political animal; a study of the nature of the state and the forms of rule evolved from the past. 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. Winter term.

PS 180 WORLD POLITICS: AN INTRODUCTION (4-0) 4

A study of the political cultures, ideas, and institutions of specific modern states with special emphasis on public participation, legitimacy, and tendencies toward revolutionary change. The comparative impact of industrial and technological change upon existing patterns of political culture and ideology is also analyzed.

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 230 PUBLIC ADMINISTRATION (3-0) 3

An examination of the role of administration in government, with special attention given to the relationship of the bureaucracy to the policy-formulating branches of the government. Winter term.

PS 241 INTRODUCTION TO THE LEGAL SYSTEM (4-0) 4

An introduction to the American legal system from the citizen's point of view, stressing the processes of criminal justice, and law as a social institution examined through study of the criminal justice system.

PS 260 POLITICS AND CHANGE IN AFRICA (3-0) 3

An examination of the sources of stability and change in Africa. Stress is placed on the substance of African history, the richness of traditional African political life, and the devastating impact of European colonization. The contemporary dilemmas of economic dependence on the West; ethnic conflict, political instability, and white minority rule in southern Africa are also covered.

## Political Science

- PS 270 POLITICS AND CHANGE IN LATIN AMERICA** (3-0) 3  
An analysis of the causes of continuity and change in the states of Latin America. The contemporary tendencies toward revolutionary change are studied against the backdrop of persisting feudal ideas and institutions. The consequences of economic dependency on the U.S. and the distinct capacity of most Latin American cultures to assimilate racially and culturally divergent peoples is also examined.
- PS 320 INTERNATIONAL RELATIONS** (4-0) 4  
An examination of international politics, with special emphasis on the relationships of security, sovereignty, nationalism, economic objectives, power, and international law to peace and war. Winter term.
- PS 331 CONSTITUTIONAL LAW** (4-0) 4  
A study of the nature and scope of American constitutional principles as developed through studies of Supreme Court decisions. The emphasis is on cases dealing with civil rights, federalism, powers of the national government, and interstate obligations. Fall term.
- PS 337 U.S. FOREIGN POLICY** (3-0) 3  
A study of 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 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 POLITICAL THOUGHT** (4-0) 4  
Primarily a study of the ideas of both early-day and present-day political philosophers. Students read the original writings of the philosophers. Strongly recommended before taking PS 488. Fall term.  
*Prerequisite:* consent of instructor.
- PS 488 CONTEMPORARY POLITICAL ANALYSIS** (3-0) 3  
A course for senior political scientists stressing contemporary methods of political research. Students apply research technique to areas of interest developed in previous political science and other social science courses. PS 386 is strongly recommended before taking this course. Fall term.
- 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 Department Chairman.

# Sociology and Human Services

# Sociology and Human Services

Associate Professor Norman K. Linton; Assistant Professors Dennis W. Lum and Leland E. Stuart; Instructor Samuel A. Burns.

Sociology is the study of how social relationships affect human action and belief and the examination of the ways human actions and beliefs create the social world. Face-to-face encounters, the ordering of everyday life, the operation and structure of complex bureaucracies, the historical development and ongoing transformation of urban, industrial society are equally subjects of sociological investigation. Sociological investigation is a process of using careful, rigorous empirical methods to address meaningful questions about the social world.

Doing work in sociology, learning to comprehend more clearly the relationships among men in society, can be 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. Also, a major in sociology provides good preparation for graduate level work in sociology and related social sciences, law, journalism, media, and other fields.

Students who plan to major in Sociology and Human Services are strongly encouraged to participate in the Co-operative Education Program and other off-campus educational experiences offered by Fort Lewis College. These off-campus educational experiences should also establish contacts for employment after graduation.

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN SOCIOLOGY AND HUMAN SERVICES

General Studies .....		41	
<i>Specific Departmental Requirements:</i>			
Soc 101 Sociological Inquiry and Perspectives	3		
Soc 220 Field Techniques in Sociology <i>or</i>			
Soc 221 Social Science Practicum	3		
Soc 420 History of Sociological Thought	3		
Soc 421 Contemporary Sociological Analysis	3		
Soc 496 Seminar	3	15	
<i>Other Departmental Requirements:</i>			
A minimum of 15 additional hours in Sociology and Human Services		15	
<i>Auxiliary Requirements from Other Departments:</i>			
Math 201 or Phil 271	3		
Engl 263 or Engl 364	3		
Two courses from the following:			
Political Science 386	4		
Political Science 488	3		
Phil 351	3	12-13	
<i>Electives</i> .....		44-45	
<b>TOTAL REQUIRED FOR GRADUATION</b> .....		<b>128</b>	

**COURSES**

- Soc 101 SOCIOLOGICAL INQUIRY AND PERSPECTIVES (3-0) 3**  
An introduction to the sociological perspective, to sociological ways of addressing the problem of understanding humans in society. Fall and Winter terms.
- Soc 220 FIELD TECHNIQUES (3-0) 3**  
Development of participant-observer methodology and procedures for the conduct of narrative and ethnographic descriptions. Techniques of field research in community settings; research projects chosen by the student in consultation with faculty will be carried out during the course. Fall term.
- Soc 221 SOCIAL SCIENCE PRACTICUM 1-3**  
An experiential learning course. Students are involved with social service agencies or other organized settings in the community to work and to conduct a study of their work setting. An hour of credit will be offered for each 25 hours of service to the agency, up to a maximum of 3 hours credit. Offered upon demand.
- Soc 247 SOCIAL ORGANIZATION AND STRATIFICATION (4-0) 4**  
Study of basic processes and patterns of social organization, of the systems which order human social action. Contemporary patterns of stratification and bureaucratization emphasized. Winter term.
- Soc 251 COMMUNITIES (3-0) 3**  
A study of various types of human communities from rural settlement to cosmopolitan urban centers, how they change, develop, respond to problems. Both theories of community and the practical, urgent problems now facing communities are examined. Winter term.
- Soc 265 SOCIAL PROBLEMS AND SOCIAL MOVEMENTS (4-0) 4**  
Contemporary social problems and issues and the social movements which have accompanied them are examined and analyzed from the perspective of several different models and theories of society. Fall term.
- 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.
- Soc 279 HISPANO IN THE SOUTHWEST (3-0) 3**  
A study of the historical, social, and economic position of the Hispano in the southwestern portion of the United States. Offered on demand.
- Soc 317 SURVEY OF HUMAN SERVICE PROGRAMS (3-0) 3**  
Public assistance, housing, health care, and delinquency prevention programs are examined in historical perspective. Questions will be raised about how such programs begin, gain community support, and meet real needs. Students will examine administrative approaches, consumer participation, agency responsibilities for federal resources, and evaluation procedures. Students will be required to examine ongoing projects and will complete reports on their activities. Fall term.

- Soc 321 URBAN SOCIAL SYSTEMS (3-0) 3  
A study of the city in terms of its various social systems, group life, residential and institutional patterns, processes of interaction, demographic processes and patterns of growth and change. Offered on demand.
- Soc 337 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. Offered on demand.
- Soc 353 THE SOCIOLOGY OF HEALTH (3-0) 3  
A study of the social practices and beliefs which define and constitute the phenomena of health and illness. An examination and critique of the current health care delivery system, including professional roles, patient participation, administration, medical education and planning. Winter term.
- 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. Fall term.
- Soc 362 CRIMINOLOGY AND CRIMINAL JUSTICE (3-0) 3  
An examination of the major "positive" theories of crime and criminality (individual, familial, sub-cultural) followed by the modern critique of positive criminology emphasizing the part played by the administration of criminal justice as an integral part of the characterizing and structuring of crime. Winter term.
- 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. The affects of these institutions upon those they educate and upon the larger society are examined. Winter term.
- Soc 420 HISTORY OF SOCIAL THOUGHT (3-0) 3  
An examination of the major historical sources for the formulation of modern sociological issues. The course will emphasize, primarily, 19th and early 20th century sources: Marx, DeTocqueville, Durkheim, Weber, Simmel, and others at the discretion of the instructor. Fall term.
- Soc 421 CONTEMPORARY SOCIOLOGICAL ANALYSIS (3-0) 3  
An application of theories of social change, social knowledge, and interaction to the general questions of human development. Topics will vary but will address the issues of growth, progress, decision-making, environment, learning, urbanization, poverty, traditional societies, justice, and science. Winter term.
- Soc 496 SEMINAR (3-0) 3  
Advanced study and research in selected topics.  
*Prerequisite:* Senior standing and permission of instructor.
- Soc 499 INDEPENDENT STUDY 1-3  
Individual research is conducted under the supervision of a faculty member. Offered on demand.





# Theatre

# Theatre

Associate Professors David Berg and Kenneth E. Bordner;  
Assistant Professor Paul B. Abe.

Theatre at Fort Lewis College stresses the creative development of the individual. For this reason, the program is in a constant state of renewal to keep abreast of the latest approaches to human growth and development. Aware of the need, however, of training the person for a future in academic community or professional theatre, the faculty members involved give equal stress to technical aspects of staging and production.

## COURSES

### Thea 100 REHEARSAL AND PERFORMANCE 1-3

A practical experience in theatre production for students who have acting, directing, technical or design responsibilities in studio, experimental or major productions. The amount of credit is determined by the degree of responsibility. Open to all freshmen and sophomores. Three credits could be earned in one trimester only if a student had a major responsibility in two productions. May be repeated for up to six credits.

*Prerequisite:* permission of instructor.

### 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.

### 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 Diederot, Stanislavski, Brecht, Grotowski, Schechner, and others will be studied.

### Thea 131 SCENIC ELEMENTS (3-0) 3

Theories and principles in theatre scenery and property construction and execution. Fall term.

### Thea 150 THE DRAMATIC TRADITION (3-0) 3

European and American dramatic literature presented in its historical context, with emphasis placed on Greek, Elizabethan, and modern plays. Same as Engl 150. Fall term.

### Thea 151 ORAL INTERPRETATION OF LITERATURE (3-0) 3

Exploration of the layers of meaning in the basic forms of literature for the purpose of interpreting them orally to audiences. Fall and Winter terms.

### Thea 215 FUNDAMENTALS OF PLAYWRITING (3-0) 3

A course in the principles and practice of writing for the stage and dramatic material for television. The student is encouraged to take a two-hour lab in theatre workshop while enrolled in this course. The student should have a prior background in dramatic literature. Alternate years.

## Theatre

- Thea 220 STAGE MAKEUP (0-4) 2  
Theory and application of theatrical makeup.
- Thea 221 LIGHTING AND SOUND (3-0) 3  
Introduction to design and execution theories, principles and techniques of theatre lighting and sound. Fall term.
- Thea 225 METHODS OF ACTING (0-6) 3  
The emphasis in the course will be on the theories studied in Thea 125. Scenes will be worked on in a laboratory situation.  
*Prerequisite:* Thea 125.
- Thea 230 THEATRES AND AUDITORIUMS (3-0) 3  
The examination of various forms of physical theatres with emphasis on the design of the buildings and their performance areas. The designs will be analyzed in relation to the attending functions of the buildings.
- Thea 231 SCENIC DESIGN AND HISTORY I (2-2) 3  
A historical analysis of scenic design. The student will be introduced to basic design techniques and scenography for the theatre.  
*Prerequisite:* Permission of instructor.
- Thea 245 DIRECTING I (3-0) 3  
A study of the fundamental theories of stage direction. Emphasis is placed on the director's preparation for production: script analysis, preliminary work with design concepts, and preparation for rehearsals.  
*Prerequisite:* One acting *and* one technical theatre course or equivalent production experience.
- Thea 252 READERS' THEATRE (2-2) 3  
Readers' Theatre goes beyond the fundamental concepts of individual oral interpretation. Here the class explores ensemble oral interpretation of literary materials for the purpose of public performance. Winter term.  
*Prerequisite:* Thea 151.
- Thea 300 REHEARSAL AND PERFORMANCE 1-3  
A practical experience in theatre production for students who have acting, directing, technical or design responsibilities in studio, experimental or major productions. The amount of credit is determined by the degree of responsibility. Designed for upper-division students not emphasizing theatre. Three credits can be earned in one trimester only if a student has a major responsibility in two productions. May be repeated up to a maximum of six credits or a total of nine credits to be earned in both this course and Thea 393.  
*Prerequisite:* permission of instructor.
- Thea 321 ADVANCED LIGHTING (2-2) 3  
A continuation of the historical analysis of stage lighting through the present. Emphasis will be placed on design of theatre lighting, equipment and techniques.  
*Prerequisite:* Thea 221 or permission of instructor.

- Thea 330 ADVANCED STAGING TECHNIQUES** (3-0) 3  
An investigation of theatrical machinery from pariahtoids to air suspension systems. Throughout the investigation these techniques will be examined in relation to the design, mounting and running of a production.  
*Prerequisite:* Thea 230 or permission of instructor.
- Thea 331 SCENE DESIGN AND HISTORY II** (2-2) 3  
A historical analysis of scenic design and its transitional periods. The concentration will be on student designing using advanced techniques and elements.  
*Prerequisite:* Thea 231
- Thea 341 COSTUME HISTORY** (3-0) 3  
A preliminary historical research into design concepts and into the construction of costumes from select periods, beginning with ancient and continuing through the present.
- Thea 345 DIRECTING II: REHEARSAL TECHNIQUES** (2-3) 3  
The course is designed to deal directly with the problems that a director faces working with actors in a rehearsal situation. The classroom section will anticipate the most common rehearsal problems and discuss them in advance. In the laboratory/rehearsal sections, the directors will deal with these problems and also discover others to be discussed in the classroom.  
*Prerequisite:* Thea 245.
- Thea 347 HISTORY OF THE THEATRE** (5-0) 5  
A study of the theatre from the ancient Greeks to the moderns. Emphasis will be on theatre scholarship, chief periods of dramatic literature, architectural development of the physical theatre, and the chief styles of acting and theatre production. Alternate years.
- Thea 350 DRAMATIC LITERATURE** (3-0) 3  
A study and analysis of plays from the Greeks to the present, with emphasis on theme and structure. Same as Engl 350. Offered alternate years.
- Thea 393 THEATRE PRACTICUM** 1-3  
A laboratory taken in conjunction with a theatre course in which theoretical concepts of the course are applied to a production. Designed for upper-division students emphasizing theatre. Three credits can be earned in one trimester only if a student has a major responsibility in two productions. May be repeated up to a maximum of nine credits or a total of nine credits to be earned in both this course and Thea 300.  
*Prerequisite:* permission of instructor.
- Thea 430 THEATRE MANAGEMENT** (3-0) 3  
Theatre management is the control, direction and handling of all commercial aspects of a theatre production program including: budget preparation and control, purchasing, advertising and publicity, ticket sales and house management. The emphasis will be placed on organization and methods used specifically for the theatre.  
*Prerequisite:* permission of instructor.
- Thea 499 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

EDWARD S. FREIENMUTH, Director

## 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.

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 Science.

### SCHOOL OF BUSINESS ADMINISTRATION FACULTY

Professors Bernard E. Anderson, Arthur K. Brintnall, Edward N. Dubois, and Jerry M. Kaufman; Associate Professors Leonard E. Atencio, Bill D. Cox, Edward S. Freienmuth (Director), Reginald A. Graham, Aubrey E. Holderness, William W. Hollis, and Donald L. James; Assistant Professors Clinton M. Bidwell, Dennis R. Ehlers, Eugene L. Holehan, Vernon E. Lynch, Jr., and John H. Zoller; Instructor Miriam T. Henderson.

### The Curriculum

### 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.

In satisfying this requirement one term of the freshman seminar must have been in "Business in Modern Society."

## Business Administration

### II. The Common Requirements:

Acc 225	Elementary Accounting I	4	
Acc 226	Elementary Accounting II	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	Organization Theory	3	
BA 311	Business Law I	3	
BA 340	Marketing	3	
BA 350	Operations Management	3	
BA 380	Financial Management	3	
BA 405	Business Policies	3	38
BA 496	Seminar		
	or		
BA 499	Independent Study	2	40

### III. The following courses in the quantitative and computer science areas:

CS 150	Computer Science**	3	
Math 160	Linear Mathematics	3	6

### IV. Departmental requirements that are listed on the following pages under each department.

### 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 100 or CS 160.

## Accounting

## Accounting

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 has been 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.

## Accounting

### 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 departmental requirements:

#### *Specific Departmental Requirements*

Acc 323	Intermediate Accounting I	4	
Acc 324	Intermediate Accounting II	4	
Acc 325	Cost Accounting I	3	
Acc 430	Income Tax Accounting	3	
Acc 433	Advanced Accounting	4	18

#### *Other Departmental Requirements*

Acc 436	Auditing	3	
	or		
Acc 437	Internship in Public Accounting	3	
Acc	Elective	3	6

#### *Auxiliary Requirements from Other Departments*

BE 221	Business Communications	3	3
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## ACCOUNTING MAJOR

### Suggested Course Sequence

#### *First Year*

<i>FALL</i>		<i>WINTER</i>	
FS 101	4	FS 102	4
Math 160 or CS 150	3	CS 150 or Math 160	3
P.E.	1	P.E.	1
General Studies or Electives	8	General Studies or Electives	8
	<hr/>		<hr/>
	16		16

#### *Second Year*

*Acc 225	4	Acc 226	4
BA 251	3	BA 252	3
Econ 261	3	BE 221	3
General Studies	3	Econ 262	3
Electives	3	General Studies	3
	<hr/>		<hr/>
	16		16

\*Accounting majors with strong high school backgrounds may desire to start the accounting sequence in the freshman year.



## Accounting

### Third Year

Acc 323	4	Acc 324	4
Acc 325	3	Acc Elective (Cost 326 or	
BA 311	3	Managerial 319)	3
BA 340	3	BA 301, 350 or 380	3
General Studies	3	BA 312	3
	—	General Studies	3
	16		—
			16

### Fourth Year

Acc 430	3	Acc 436 or 437	3
Acc 433	4	BA 301, 350 or 380	3
BA 301, 350 or 380	3	BA 405	3
Electives	3	Seminar 496	2
General Studies	3	General Studies	5
	—		—
	16		16

## COURSES

Acc 225 ELEMENTARY ACCOUNTING I (4-0) 4  
Double-entry accounting, its meaning and purpose, is introduced. Accounting for business transactions from inception through the accounting cycle is covered. Specialized topics include: special journals, the voucher system, internal control, valuation of accounts and notes receivable, inventories, fixed assets and depreciation, manufacturing and payroll accounting. Offered fall and winter terms.

Acc 226 ELEMENTARY ACCOUNTING II (4-0) 4  
Major emphasis is on accounting for corporations which covers organization and operations, stock transactions, retained earnings, investments, and the flow of funds. Introduction to partnership, cost, and tax accounting are included. Offered fall and winter terms.  
*Prerequisite:* Acc 225.

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 analysis 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 winter term.  
*Prerequisite:* Acc 226.

## Accounting

- 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 on demand.  
*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 433 ADVANCED ACCOUNTING** (4-0) 4  
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** (3-0) 3  
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, SFC stock exchange regulations, investigations for purchase and financing, and current literature on auditing. Offered winter term.  
*Prerequisite:* Acc 433 or consent of instructor.

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 experience gained in this program will provide a basis for a term paper to be submitted at the end of the trimester. The student's performance will be periodically evaluated by his supervisors in the firm. Offered on demand.

*Prerequisite:* consent of the instructor.

BA 496 SEMINAR (2-0) 2

Advanced study and research in selected topics. Offered fall and winter terms.

*Prerequisite:* senior standing and permission 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 Director, School of Business Administration.

## Accounting

## Business Administration

## Business Administration

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 and economic environment of 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 departmental requirements:

#### *Specific Departmental Requirements*

One 300 level Accounting course (Acc 319 suggested)	3	
One 300 level Economics course .....	3	6

# Business Administration

## Other Requirements

A minimum of 15 hours from the following with at least one course from each group:

### GROUP A

BA 342	Retailing	3
BA 343	Sales Management	3
BA 344	Advertising	3
BA 445	Marketing Management	3
BA 446	Marketing Research	3

### GROUP B

BA 302	Industrial Relations	3
BA 312	Business Law II	3
BA 360	Operations Research	3
BA 483	Investments	3
BA 486	Insurance	3
BA 489	Real Estate	3

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## BUSINESS ADMINISTRATION MAJOR

### Suggested Course Sequence

#### First Year

<i>FALL</i>		<i>WINTER</i>	
Math 160 or CS 150	3	Math 160 or CS 150	3
FS 101	4	FS 102	4
Acc 225, Econ 261 or Econ 262	3 or 4	Acc 226, Econ 261 or Econ 262	3 or 4
General Studies	5 or 4	General Studies	5 or 4
P.E.	1	P.E.	1
	—		—
	16		16

#### Second Year

BA 251	3	BA 252	3
Acc 225, Econ 261 or Econ 262	4 or 3	Acc 226, Econ 261 or Econ 262	3 or 4
General Studies or Electives	9 or 10	General Studies or Electives	9 or 10
	—		—
	16		16

#### Third Year

BA 301	3	Acc 319	3
BA 311	3	BA Elective	3
BA 340	3	Electives	5
Econ 361 or 365	3	General Studies	5
General Studies	4		—
	—		16
	16		

## Business Administration

<i>Fourth Year</i>			
BA 350	3	BA 405	3
BA 380	3	BA 496 or BA 499	2
BA Electives	6	BA Electives	6
Electives	4	Electives	5
	<hr/>		<hr/>
	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. Offered fall and winter terms.

*Prerequisite:* One semester of mathematics.

### 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.

### BA 301 ORGANIZATION THEORY (3-0) 3

A study of the management of people; the practices of management and the behavior of individuals and groups in organizations. Focuses on the development of greater effectiveness in business organizations. Offered fall term only.

### BA 302 INDUSTRIAL RELATIONS (3-0) 3

An introduction to the field of union-management relations; an adaptive managerial approach to the practices and theories of administration and organizational behavior as they apply in the industrial relations system. Offered winter term only.

*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, negotiable instruments and personal property is included. 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.

## **Business Administration**

- BA 340 PRINCIPLES OF MARKETING** (3-0) 3  
The first part of the course is devoted to a broad investigation of the channels of distribution with an emphasis on marketing functions, policies and costs. The courses are concluded with an investigation of the marketing institutions, with special emphasis on retailing. Offered fall and winter terms.  
*Prerequisite:* Econ 262 or concurrent registration.
- 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  
Advanced consideration of the firm's marketing objectives and policies and their implementation and control. Involvement of the entire organization in the marketing function is stressed. Offered fall term.  
*Prerequisite:* BA 340.
- BA 344 ADVERTISING** (3-0) 3  
Basic principles of a marketing communication system are developed, with emphasis on media selection and feedback requirements. The role of research is emphasized. Offered fall term.  
*Prerequisite:* BA 340.
- 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 in fall term.  
*Prerequisite:* BA 251 and Math 160.
- BA—Math 360 (see Math—BA 360) INTRODUCTION TO OPERATIONS RESEARCH** (3-0) 3
- 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 term.  
*Prerequisite:* Acc 226.
- BA 405 BUSINESS POLICIES** (3-0) 3  
An integration of the required courses in accounting, business administration and economics into a managerial concept of business decision making and corporate strategy through the study of the problems of policy formulation and administration. Offered fall and winter terms.  
*Prerequisite:* senior standing.
- 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 251 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. Recommended but not required: 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 486 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 or more common forms of fire, marine, casualty, and life insurance contracts. Offered on demand.

**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 on demand.  
*Prerequisite:* BA 311.

**BA 496 SEMINAR** (2-0) 2  
Advanced study and research in selected topics. Offered fall and winter terms.  
*Prerequisite:* Senior standing and permission 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 Director, School of Business Administration.

## Business Education

## Business Education

There are three programs offered in Business Education: Business Education (Secretarial and Non-Secretarial) and Secretarial Science.

The teacher-education curriculum is designed specifically for the preparation of teachers of business subjects. Students who are not enrolled in the teacher-education curriculum may elect to enter the vocationally oriented program in secretarial science 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 departmental requirements:

#### *Specific Requirements in Business Education:*

BE 108	Advanced Typing	2	
BE 112	Intermediate Shorthand	3	
BE 144	Business Machine Calculations	2	
BE 213	Advanced Shorthand and Transcription	3	
BE 221	Business Communications	3	
BE 232	Secretarial Procedures	3	16

#### *Auxiliary Requirements from Other Departments*

Education courses (see secondary education section)	25	25
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## BUSINESS EDUCATION MAJOR

### Suggested Course Sequence

#### *First Year*

	<i>FALL</i>		<i>WINTER</i>	
FS 101	4	FS 102	4	4
BE 108	2	BE 144	2	2
BE 112	3	BE 213	3	3
Math 160 or CS 150	3	Math 160 or CS 150	3	3
General Studies	3	General Studies	3	3
P.E.	1	P.E.	1	1
	<hr/>		<hr/>	<hr/>
	16			16



## Business Education

<i>Second Year</i>		
BE 221	3	Acc 225 4
Econ 261 or 262	3	BE 232 3
ED 201	3	Econ 262 or Econ 261 3
Psych 157	3	Electives 2
General Studies	4	General Studies 5
	—	—
	16	17
<i>Third Year</i>		
Acc 226	4	BA 311 3
BA 251	3	BA 340 3
BA 301	3	BA 380 3
Psych 218	3	Electives 3
General Studies	4	General Studies 5
	—	—
	17	17
<i>Fourth Year</i>		
BA 350	3	ED 402 3
BA 405	3	ED 480 2
BA 496 or BA 499	2	ED 495 8
ED 401	1	—
General Studies	7	13
	—	
	16	

### BACHELOR OF ART DEGREE WITH A MAJOR IN BUSINESS EDUCATION (NON-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 (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
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## Secretarial Science

## Secretarial Science

### ASSOCIATE OF ARTS DEGREE IN SECRETARIAL SCIENCE

A student majoring in Secretarial Science must complete the following requirements:

#### *General Studies*

FS 101 Freshman Seminar*	4
FS 102 Freshman Seminar*	4
PE 101 Physical Activity	1
PE 102 Physical Activity	1

Four courses to be selected from the four distribution groups of General Studies, one from each group	12
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## Business Education

### *Specific Secretarial Science 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 Science	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 Departments*

Acc 225	Principles of Accounting I	4	
Econ 261	Principles of Economics-Macro	3	7
Electives			10
			—
			64

\*One term of the Freshman Seminar must be in "Business in Modern Society."

## SECRETARIAL SCIENCE MAJOR

### Suggested Course Sequence

		<i>First Year</i>	
	<i>FALL</i>		<i>WINTER</i>
FS 101	4	FS 102	4
BE 101 or BE 112	3	BE 112 or BE 213	3
BE 144	2	Econ 261	3
Elective	3	Elective	3
General Studies	3	General Studies	3
P.E.	1	P.E.	1
	—		—
	16		17

		<i>Second Year</i>	
Acc 225	4	BE 232	3
BE 213	3	Electives	10
BE 221	3	General Studies	3
Elective	3		—
General Studies	3		16
	—		
	16		

## COURSES

BE 107 INTERMEDIATE TYPING (2-0) 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 112 INTERMEDIATE SHORTHAND (2-3) 3**

The practice of dictation and transcription including shorthand vocabulary building. Offered fall and winter terms.

*Prerequisite:* BE 111 or permission of instructor.

**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 AND TRANSCRIPTION (2-3) 3**

The practice of advanced dictation and speed building, and development of skill in shorthand. Offered fall and winter terms.

*Prerequisite:* BE 112 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 112, 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 496 SEMINAR (2-0) 2**

Advanced study and research in selected topics. Offered fall and winter terms.

*Prerequisite:* Senior standing and permission 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 Director, School of Business Administration.

## Economics

## Economics

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.

### 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 Departmental Requirements*

Econ 356	Intermediate Micro-theory	3	
Econ 364	Intermediate Macro-theory	3	
Econ 470	Introduction to Econometrics	3	9

#### *Other Departmental Requirements*

Any five of the following courses:

Econ 310	Economic History of the United States	3	
Econ 361	Managerial Economics	3	
Econ 365	Money and Banking	3	
Econ 367	Comparative Economics Systems	3	
Econ 369	Public Finance	3	
Econ 371	International Economics	3	
Econ 475	Regional Economics	3	15

## ECONOMICS MAJOR

### Suggested Course Sequence

#### *First Year*

<i>FALL</i>		<i>WINTER</i>	
FS 101	4	FS 102	4
Math 160 or CS 150	3	Math 160 or CS 150	3
General Studies or Electives	8	General Studies or Electives	8
P.E.	1	P.E.	1
	—		—
	16		16

#### *Second Year*

Acc 225	4	Acc 226	4
BA 251	3	BA 252	3
Econ 261	3	Econ 262	3
General Studies	6	General Studies	6
	—		—
	16		16

<i>Third Year</i>			<b>Business Administration</b>
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		15
<i>Fourth Year</i>			
BA 311	3	BA 405	3
BA 350	3	BA 496 or BA 499	2
Econ 470	3	Econ Electives	6
Econ Elective	3	Electives	3
Electives	4	General Studies	3
	—		—
	16		17

## COURSES

## Economics

Econ 261 PRINCIPLES OF ECONOMICS-MACRO (3-0) 3

A course in economic life, institutions, and problems, stressing the national income approach. Introduction to demand, supply, and prices is included. 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.

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.

*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 competition and stresses demand analysis. The principles of production economics are explored. Offered fall term.

*Prerequisite:* Econ 262.

Econ 361 MANAGERIAL ECONOMICS (3-0) 3

This course bridges the gap between economic theory and business decision. It shows how to measure profits for management decisions and how to use demand analysis for improving sales forecasting, pricing, promotional planning, and new product development. Offered winter term.

*Prerequisite:* Econ 262 and Math 160.

Econ 364 INTERMEDIATE MACRO THEORY (3-0) 3

The goal is to enable the student to discuss analytically current policy problems.

## Economics

An analysis of the forces which generate fluctuations in the level of economic activity of the country. Offered winter term.

*Prerequisite:* Econ 261.

### Econ 365 MONEY AND BANKING

(3-0) 3

Money, monetary systems, control banking, monetary theory, and the functions of various financial institutions including commercial banks. Included is a historical, statistical, and analytical consideration of the business cycle using modern techniques of national income accounting. Offered fall term.

*Prerequisite:* Econ 261.

### 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 470 INTRODUCTION TO ECONOMETRICS

(3-0) 3

An introduction of the methods and procedures for quantifying economic relationships. Included are mathematical economics, statistical procedures in economics, and the formulation and estimation of economic models. Offered on demand.

*Prerequisite:* BA 251, 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 496 SEMINAR

(2-0) 2

Advanced study and research in selected topics. Offered fall and winter terms.

*Prerequisite:* senior standing and permission 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 Director, School of Business Administration.

# SCHOOL OF EDUCATION

ELEMENTARY EDUCATION

SECONDARY EDUCATION

PHYSICAL EDUCATION

PSYCHOLOGY

DONALD F. WHALEN, Director

## Teacher Education Department

Bill D. Engman, *Chairman*

Professors Bill D. Engman and Donald F. Whalen; Associate Professor Edith W. Brochu; Assistant Professors Donald E. Holes, Myron W. Johns, Gary D. Knight, June D. McGee, Michael S. Nyikos, Charles H. Reid, Jr., and Ray N. Wilson.

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, Biology, Business Education (secretarial and non-secretarial), Chemistry, English, General Science, History, Mathematics, Music, Physical Education, Physical Science, and Spanish. The Teacher Education Program is also accredited by the National Council for the Accreditation of Teacher Education (NCATE). Accreditation by NCATE provides for reciprocal certification in 31 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 to 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 the surrounding geographical area with professional competencies to meet the inservice needs of presently certified school professional personnel who work with children.

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

## Teacher Education

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 Screening Committee. Requirements for admission to student teaching are more stringent than for initial admission. In addition to the criteria listed above, the Professional Education Screening 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 a residency requirement 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.

The State of Colorado requires individuals who seek Colorado teaching credentials to have demonstrated competencies in the area of learning disabilities. Course content, as well as specific courses in this area, are provided in the professional sequence.

## SECONDARY EDUCATION PROGRAM

General Studies .....	41
Courses in major academic field .....	32-42
<i>Specific Departmental Requirements</i>	
Ed 201, Teacher Education Admissions Seminar	3
<sup>1</sup> Ed 401, Seminar for Laboratory Experience in the Secondary School	1
<sup>2</sup> Ed 402, Secondary Education	3
<sup>2,3</sup> Ed 480, Methods of Teaching (subject matter)	2
<sup>2</sup> Ed 495, Laboratory Experience & Seminar in Secondary School	10
	19
<i>Additional Departmental courses recommended</i>	
Ed 211 Teacher Aide Practicum and Seminar	1-3
Ed 330 Human Relations in the Classroom	3
Ed 362 Developmental Reading in the Secondary School	3
<sup>4</sup> Ed 363 Learning Disabilities	3
Ed 365 Educational Measurement	3
Ed 420 Instructional Media	3
Ed 425 Guidance in the Public Schools	3
<i>Auxiliary Requirements from other departments</i>	
Psych 157, General Psychology	3
Psych 218, Psychological Foundations of Education	3
	6
<i>Electives</i> .....	22-32
<b>TOTAL REQUIRED FOR GRADUATION</b> .....	<b>128</b>

<sup>1</sup>Must be taken the semester prior to student teaching. Application for student teaching will be made in this course.

<sup>2</sup>Courses to be taken during the student teaching semester.

<sup>3</sup>Check department for term offered.

<sup>4</sup>For Colorado Certification Ed 363 Learning Disabilities must be taken.

ELEMENTARY EDUCATION PROGRAM

BACHELOR OF ARTS WITH A MAJOR IN ELEMENTARY EDUCATION  
 General Studies ..... 41

*Specific Departmental Requirements*

Ed 201, Teacher Education Admissions Seminar	3	
Ed 260, Reading in the Elementary School	3	
Ed 305, Mathematics in the Elementary School	3	
*Ed 415, Social Studies in the Elementary School	3	
Ed 411, Science in the Elementary School	3	
Ed 433, Language Arts in the Elementary School	3	
*Ed 494, Laboratory Experience & Seminar in the Elementary School	10	
Additional approved course in education	3	
	29	31

*Auxiliary requirements from other departments*

Psych 157, General Psychology	3	
Psych 218, Psychological Foundations of Education	3	
Psych 254, Developmental Psychology	3	
	9	9

*Additional Departmental courses recommended*

Ed 211 Teacher Aide Practicum and Seminar	1-3
Ed 330 Human Relations in the Classroom	3
Ed 365 Educational Measurement	3
Ed 420 Instructional Media	3
Ed 461 Diagnostic & Remedial Reading	3

*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 and Spanish. 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.

*Ed 363, Learning Disabilities*, must be taken for Colorado certification.

\*Courses to be taken during student teaching trimester.

*Additional Requirements from other Departments*

<i>English</i> (9 hours)	
Engl 263, or Engl 362; Engl 327	9
and one approved literature course	
<i>Mathematics</i> (6 hours)	6
Math 215 and Math 216	
<i>Social Science</i> (6 hours)	6
6 hours of American or Latin American History	
<i>Science</i> (8 hours)	8
Bio 100 and 101	
Physical Science 100 and 105, or Geol 113	
<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> —P.E. in the Elementary School	3

38

The number of elective hours will depend on the areas of concentration selected.

TOTAL REQUIRED FOR GRADUATION .....128

**EARLY CHILDHOOD EDUCATION**

A program in early childhood education is available for students wishing to specialize in teaching the kindergarten or nursery school age child. This specialization is in addition to the regular elementary education program requirements.

*Specific Department Requirements:*

Ed 355, Methods and Techniques for Teaching Pre-School Children	3
Ed 353, Growth and Development of the Young Child	3
Ed 454, Language Arts for Early Childhood	3
Ed 455, Modern Trends in Early Childhood Education	3
	12

**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.

## Teacher Education

- Ed 211 **TEACHER AIDE PRACTICUM AND SEMINAR** 1-3  
A course that gives students practical experience in a 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 25 contact hours. There are also weekly seminar meetings. May be repeated for a total of 6 credits if on different levels. Permission of instructor.
- Ed 260 **READING IN THE ELEMENTARY SCHOOL** (3-0) 3  
Scope and sequence of reading in the elementary school with emphasis on methods of teaching reading at the various maturity levels of children. Offered Fall and Winter terms.  
*Prerequisite:* Ed 201 or prior approval of instructor.
- Ed 305 **MATHEMATICS IN THE ELEMENTARY SCHOOL** (3-0) 3  
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 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 IN THE CLASSROOM** (3-0) 3  
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 educational system.  
*Prerequisites:* Ed 201 and Admission to Teacher Education Program, or permission of instructor.
- 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 362 **DEVELOPMENTAL READING IN THE SECONDARY 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 Fall term only.

*Prerequisite:* permission of instructor.

**Ed 363 LEARNING DISABILITIES (3-0) 3**

Deals with teaching students in the regular classroom who have learning disabilities. Emphasis is on screening of potential handicaps and methods of remediating diagnosed problems. Required for Colorado certification. Offered every term. Elementary and Secondary-oriented sections offered; students must enroll for the section appropriate to the teaching certificate sought. Offered every term.

*Prerequisite:* Ed 201, Psych 157, Psych 218 or 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 401 SEMINAR FOR LABORATORY EXPERIENCE (0-2) 1  
IN THE SECONDARY SCHOOL**

Discussion of education topics pertinent to and in preparation for student teaching. *The course must be taken prior to student teaching.* Fall and Winter terms.

*Prerequisite:* admission to teacher education program and senior standing, or second semester junior. (See *Student Teaching Handbook*).

**Ed 402 SECONDARY EDUCATION (3-0) 3**

Organization and management of instruction and the principles of teaching as applied to the secondary school; case studies; and materials of instruction. Fall and Winter terms.

*Prerequisite:* Ed 401, admission to student teaching.

**Ed 411 SCIENCE IN THE ELEMENTARY SCHOOL (3-0) 3**

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 (3-0) 3**

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 place of instructional media in the learning process; general principles underlying the selection and use of materials for instructional purposes; exploration of visual and auditory aids available to teachers in the elementary and secondary schools; demonstration and practice in the use of instructional media in teaching. Offered every term.

*Prerequisite:* admission to teacher education program or approval of instructor.

## Teacher Education

- Ed 425 GUIDANCE IN THE PUBLIC SCHOOLS** (3-0) 3  
An introduction to the principles of guidance with emphasis on the role of the teacher and on guidance as an intrinsic part of teaching. On demand.  
*Prerequisite:* admission to teacher education program or approval of instructor.
- Ed 433 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL** (3-0) 3  
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 every term.  
*Prerequisite:* Ed 201, Engl 263 or Engl 462, 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. Winter.  
*Prerequisite:* admission to teacher education program and Ed 260 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 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** (0-10) 10  
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 (0-10) 10

**Teacher Education**

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 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**

**Physical Education**

Troy D. Bledsoe, *Chairman*

Associate Professors Troy D. Bledsoe, Louis C. Cullen, Marvin L. Giersch, Adolph M. Kuss, and Joan M. Sanders; Assistant Professors Carol Seale and Charles H. Walker; Instructors Daniel Antolik, William E. Hayes, John McNitt, and Karen Spickard.

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 and coaching;

To provide a meaningful program in individual and dual sports, stressing the carry-over value of these activities for all students;

To provide extracurricular experiences for all students in health, physical education, and recreation;

To provide professional leadership for the recreational and athletic activities of the students.

**BACHELOR OF ARTS DEGREE WITH A MAJOR IN PHYSICAL EDUCATION**

General Studies ..... 41

*Specific Departmental Requirements*

PE 170, Introduction to Health, Physical Education, and Recreation	2
PE 189, Foundation of Physical Education I	3
PE 191, Foundation of Physical Education II	3
PE 200, Foundation of Physical Education III	2
PE 243, Health and Safety Education	3
PE 254, Adaptive Physical Education	2
PE 260, Anatomical Kinesiology	3
PE 360, Physiological Kinesiology	3
PE 370, Physical Education in Elementary School	3
PE 496, Seminar in Current Issues, Trends, and Problems	2
	—
	26

*Other Departmental Requirements*

Six hours to be selected from the courses listed below.

PE 165, First Aid	2
PE 224, Prevention & Care of Athletic Injuries	2

## Physical Education

PE 300, Theory & Teaching of Folk & Social Dance	3	
PE 315, Rules & Mechanics of Officiating	2	
PE 350, Tests & Measurements in Physical Education	3	
PE 375, Psychology of Coaching & the Conduct of Competitive Sports	3	
PE 480, Organization & Administration of Health, Physical Education and Recreation	3	
PE 499, Independent Study	1-3	
	6	32
<i>Auxiliary Requirements from other Departments</i>		
Bio 121, Human Anatomy & Physiology	3	3
<i>Electives</i> .....		52
<b>TOTAL REQUIRED FOR GRADUATION</b> .....		<b>128</b>

## COURSES

PE 101, 102, 103 PHYSICAL ACTIVITY (0-2) 1  
Seasonal physical activities during each trimester for men or for women. Offered every term.

PE 165 FIRST AID (2-0) 2  
Designed to meet the needs of special-interest groups who have opportunity to give first aid care frequently. Fall and Winter terms.

PE 170 INTRODUCTION TO HEALTH, (2-0) 2  
PHYSICAL EDUCATION & RECREATION  
Orientation to the field of physical education as a professional career. Students become familiar with the nature and scope of physical education, as well as its history, aims, objectives, and values. Also included are qualifications and professional preparation, opportunities for service, allied fields, and professional associations. Fall and Winter terms.

PE 189 FOUNDATION OF PHYSICAL EDUCATION I (0-6) 3  
Designed to acquaint the student with the philosophical background of physical education, and to develop skills and understandings in social and square dance, tumbling, gymnastics, golf, tennis, archery, and other activities commonly found in a public school program. Students are required to meet minimum levels of proficiency in the activities covered before enrolling in advanced professional courses. Fall term.

PE 191 FOUNDATION OF PHYSICAL EDUCATION II (0-6) 3  
Continuation of Physical Education 189. Winter term.

PE 200 FOUNDATION OF PHYSICAL EDUCATION III (0-4) 2  
Designed to acquaint the student with the philosophical background of physical education, and to develop skills and understandings in soccer, field hockey, softball, volleyball, basketball, and other activities commonly found in public school programs. Students will be required to meet minimum levels of proficiency in the activities covered before enrolling in advanced professional courses. Fall term.



PE 224 PREVENTION & CARE OF ATHLETIC INJURIES (2-0) 2  
Intensive course in care and prevention of athletic injuries. Students are instructed in signs and symptoms, treatment, and adapted activities for the minor injuries. Fall and Winter term.

PE 243 HEALTH & SAFETY EDUCATION (3-0) 3  
Modern health problems, aspects of disease, mental health, drugs, nutrition, school health, safety and accident prevention, curriculum development, and legal aspects of school health and safety education. Fall term.

PE 254 ADAPTIVE PHYSICAL EDUCATION (2-0) 2  
Analysis and methods of correction of individual postural, physical, and mechanical deviations; and adaptations of physical education activities for the physically handicapped. Fall term.  
*Prerequisite:* Bio 121, Human Anatomy & Physiology.

PE 260 ANATOMICAL KINESIOLOGY (2-2) 3  
A study of the principles of mechanics and anatomy in relation to human movement. Winter term.  
*Prerequisite:* Bio 121, Human Anatomy & Physiology.

PE 300 THEORY AND TEACHING OF (3-0) 3  
FOLK AND SOCIAL DANCE  
Course deals with fundamental rhythms, basic structure, and the teaching of folk and social dances. Material presented is for both elementary and secondary school use. Winter term.

PE 315 RULES AND MECHANICS OF OFFICIATING (2-0) 2  
Designed to provide individuals with the skills, knowledge, and techniques necessary to officiate competitive sports. Fall and Winter terms.

PE 350 TESTS AND MEASUREMENTS IN (3-0) 3  
PHYSICAL EDUCATION  
Techniques to determine abilities, needs, placement, and evaluation in the physical education program. Winter term.

PE 360 PHYSIOLOGICAL KINESIOLOGY (2-2) 3  
A study of the physiological components of human movements as they relate to motor performance and the effects of exercise. Fall term.  
*Prerequisite:* Bio 121, Human Anatomy & Physiology.

PE 370 PHYSICAL EDUCATION IN ELEMENTARY SCHOOL (3-0) 3  
The physical and emotional growth and development of elementary school children in relation to physical activities. The course emphasizes organization and administration of the elementary school physical education program and includes methods of teaching and evaluation of students. Fall and Winter terms.

PE 375 PSYCHOLOGY OF COACHING AND THE (3-0) 3  
CONDUCT OF COMPETITIVE SPORTS  
Examination of the basic sociological and psychological concepts manifested in coaching as well as the administrative problems confronted by the coach. Attention is given to the techniques, strategy, and principles of selected inter-scholastic sports. Fall and Winter terms.

## Physical Education

- PE 480 ORGANIZATION AND ADMINISTRATION OF HEALTH, PHYSICAL EDUCATION, RECREATION (3-0) 3  
Program building, including criteria for the selection of activities and progression, and other factors affecting course of study construction, such as facilities, equipment, budget, laws, policies, and professional responsibilities. Fall and Winter terms.
- PE 496 SEMINAR IN CURRENT ISSUES, TRENDS & PROBLEMS (2-0) 2  
Designed to provide opportunities for analysis, direct discussion, and observation of problems, methods, and techniques in physical education. Fall and Winter terms.
- PE 499 INDEPENDENT STUDY 1-3  
Individual research is conducted under the supervision of a faculty member. All terms.  
*Prerequisite:* approval of Department Chairman.

## Psychology

## Psychology

John F Hale, *Chairman*

Professor John F. Hale; Associate Professors Nicholas J. Heidy, Robert M. Wageman, and Edwin W. Wallace; Assistant Professors Norma J. Groth, Harold L. Mansfield, and Roger Peters.

Psychology is the study of behavior. The basic problems of the field of psychology are describing, understanding, predicting, and controlling behavior. The curriculum in psychology attempts to expose the student to the approaches taken to these basic problems. He is presented with current research findings and theoretical positions regarding motivation, perception, personality, adjustment, learning, and thinking. He is trained in research procedures, and in the application of psychological principles to the solution of problems of personal and social relevance.

Course offerings are designed to serve three purposes: (1) to give students an insight into human behavior and thus prepare them to live a more productive and enjoyable life; (2) to meet needs of students planning to enter vocations such as teaching, business, law, or nursing where a psychological understanding is required or desirable; and (3) to prepare students for graduate study in psychology or allied fields such as social work, counseling, or medicine.

A Handbook for Psychology Majors is available to assist the student in preparing a program of courses to effectively achieve the purposes described.

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

General Studies .....41

#### *Specific Departmental Requirements*

Psych 157 General Psychology	3
Psych 159 General Psychology	3
Psych 219 Experimental Psychology	4
Psych 241 Quantitative Methods in Psychology	3

Psych 242 Psychological Testing	3	
Psych 254 Developmental Psychology	3	
Psych 365 Psychology of Learning	4	
Psych 385 Historical Intro. to Modern Psychology	4	
Psych 387 Abnormal Psychology	3	
Psych 496 Senior Seminar	2	32
Additional Departmental Requirement .....	12	
Twelve additional hours in either Psychology electives or <i>electives from related fields</i> , or a combination of both. Electives should be selected in consultation with Psychology Adviser.		
A list of "related field" electives is as follows:		
Any Foreign Language		
Biology 100 and 101		
Biology 121—Human Anatomy and Physiology		
Biology 371—Genetics		
Physical Science 105 or above		
Chemistry 115 or above		
Math 160 and 260—Linear Math and Probability		
Philosophy 351—Contemporary Philosophical Issues		
Anthropology 151 or above		
Sociology 101 or above		
Economics 261 and 262		
English 362—Linguistics		
This list can be extended to include any course or program which is reviewed and accepted by the Psychology faculty. It should be noted that courses on this list should <i>not</i> be counted toward both Psychology Department requirements and General Distribution Requirements.		
General Electives .....	43	
<b>TOTAL REQUIRED FOR GRADUATION .....</b>	<b>128</b>	

**COURSES**

Psych 157 GENERAL 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 159 GENERAL PSYCHOLOGY (3-0) 3  
 An extension of basic principles to the area of complex human behavior. An attempt is made to integrate these principles with other approaches such as that of Freud. The course includes basic experimentation in both lectures and laboratory. Offered every term.  
*Prerequisite:* Psych 157.

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. The course includes a study of general scientific

## Psychology

concepts, definition of terms, measurement, techniques of observation, and experimental design. Laboratory is designed to provide skill in implementing simple experiments in various psychological fields. Fall term.

*Prerequisite:* Psych 159.

### Psych 225 PRINCIPLES OF OPERANT BEHAVIOR (3-2) 4

An introduction to the experimental analysis of human and animal behavior. The student learns basic operant conditioning methodology and applies operant principles to problems of everyday life. It is an applied psychology course suitable for education and other non-psychology majors as well as psychology majors. Winter term.

*Prerequisite:* Psych 157.

### Psych 228 INDUSTRIAL PSYCHOLOGY (3-0) 3

An introduction to the application of psychology to the industrial environment, including personnel recruitment and selection, job analysis, supervisory practices, training, systems design, decision-making, and organizational theory. Winter term—alternate years.

### Psych 241 QUANTITATIVE METHODS IN PSYCHOLOGY (3-0) 3

Introduces student to basic data analysis procedure used in psychology. Presents descriptive and inferential statistics with practice in their use with behavioral data. Fall and Winter terms.

*Prerequisite:* Psych 159.

### 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 DEVELOPMENTAL PSYCHOLOGY (3-0) 3

Principles of development in childhood and adolescence. Fall and Summer terms.

*Prerequisite:* Psych 159 or Psych 218 or consent of instructor.

### Psych 300 RESEARCH DESIGN IN HUMAN BEHAVIOR (3-0) 3

The course is designed to supplement Psych 219, Foundations of Experimental Psychology. It includes methods and tools of research other than laboratory experimentation, such as historical, case study, descriptive, field, observational and *ex-post facto* investigations. An emphasis will be made on the design of psychological research. Psychological and educational models, social system models, and computer simulation will also be a part of this course.

*Prerequisite:* Psych 241 or Math 201, or consent of instructor.

### 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—alternate years.

*Prerequisite:* Psych 219 or consent of instructor.

Psych 365 PSYCHOLOGY OF LEARNING (3-2) 4

The conditions of learning in animals and men as found in the experimental literature. Fall and Summer terms.

*Prerequisite:* Psych 159 or Psych 218 or consent of instructor.

Psych 368 CULTURE AND PERSONALITY (3-0) 3  
(same as Anthropology 368)

A study of the cultural determinants of perception and behavior. Fall and Summer terms.

*Prerequisite:* Psych 159 or consent of instructor.

Psych 385 HISTORICAL INTRODUCTION TO MODERN PSYCHOLOGY (4-0) 4

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. Fall term.

*Prerequisite:* Psych 159 or consent of instructor.

Psych 387 ABNORMAL PSYCHOLOGY (3-0) 3

A review of the various models employed in the understanding, prediction and change of disorganized behavior. Winter and Summer terms.

*Prerequisite:* Psych 159 or consent of instructor.

Psych 472 PSYCHOLOGY OF PERSONALITY (3-0) 3

The psychological and physiological nature of personality. The course devotes study to individual differences and the development of personality. Winter and Summer terms.

*Prerequisite:* Psych 159 or consent of instructor.

Psych 496 SEMINAR (2-0) 2

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

*Prerequisite:* senior standing and permission of instructor.

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

Professors Robert W. Delaney (Chairman) and John C. Ives;  
Associate Professor John Tapia.

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. A committee of three faculty members, one each from history, anthropology, and Spanish, will supervise and advise each major to suit his program to his needs. 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.

SECONDARY TEACHERS: Majors who intend to teach in the secondary schools in the area of their emphasis will be expected to apply for candidacy in the teacher education program and acquire the necessary credits for certification.

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 480, History of the Southwest	3
Hist 480, Transmississippi West	
or	
Hist 480, 20th Century U.S.	3
	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, Transmississippi West; Hist 480, 20th Century U.S.)

*Language Requirement*

Competence in Spanish equal to 12 hrs. above Elementary Spanish I & II	9
FL 495, Translation of Historical Documents	3
	12

*Anthropology Requirements*

At least two courses dealing with anthropology of the Southwest as approved by the Committee	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	
	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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*Research Requirements*

SW 301, Problems in Southwest Studies	3	
SW 302, Problems in Southwest Studies	3	
SW 301 and SW 302 fulfill the requirement of Seminar or Independent Study required of other majors	6	54

*Electives* ..... 33

TOTAL REQUIRED FOR GRADUATION .....128

BACHELOR OF ARTS DEGREE WITH A MAJOR IN  
SOUTHWEST STUDIES—ANTHROPOLOGY EMPHASIS

General Studies ..... 41

*Anthropology Requirements*

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	

*History Requirements*

At least two courses dealing with Southwestern history to be approved by the Committee, at least one of which must be History 480.	6	
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Language, literature, social science, science and research requirements the same as in history emphasis 30 56

*Electives* ..... 29

TOTAL REQUIRED FOR GRADUATION .....128

BACHELOR OF ARTS DEGREE WITH A MAJOR IN  
SOUTHWEST STUDIES—SPANISH EMPHASIS

General Studies .....	41
<i>Spanish Requirements</i>	
Foreign Language competence equivalent to FL 216, Intermediate Spanish II	14
FL 495, Translation of Historical Documents	3
Two courses in advanced Spanish with Mexican Literature and Hispanic American Civilization (in Spanish and English) being recommended	6
<i>History Requirements</i>	
Hist 270, Survey of Latin American History	3
Hist 370, History of Mexico	3
Hist 480, 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
<i>Electives</i> .....	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.

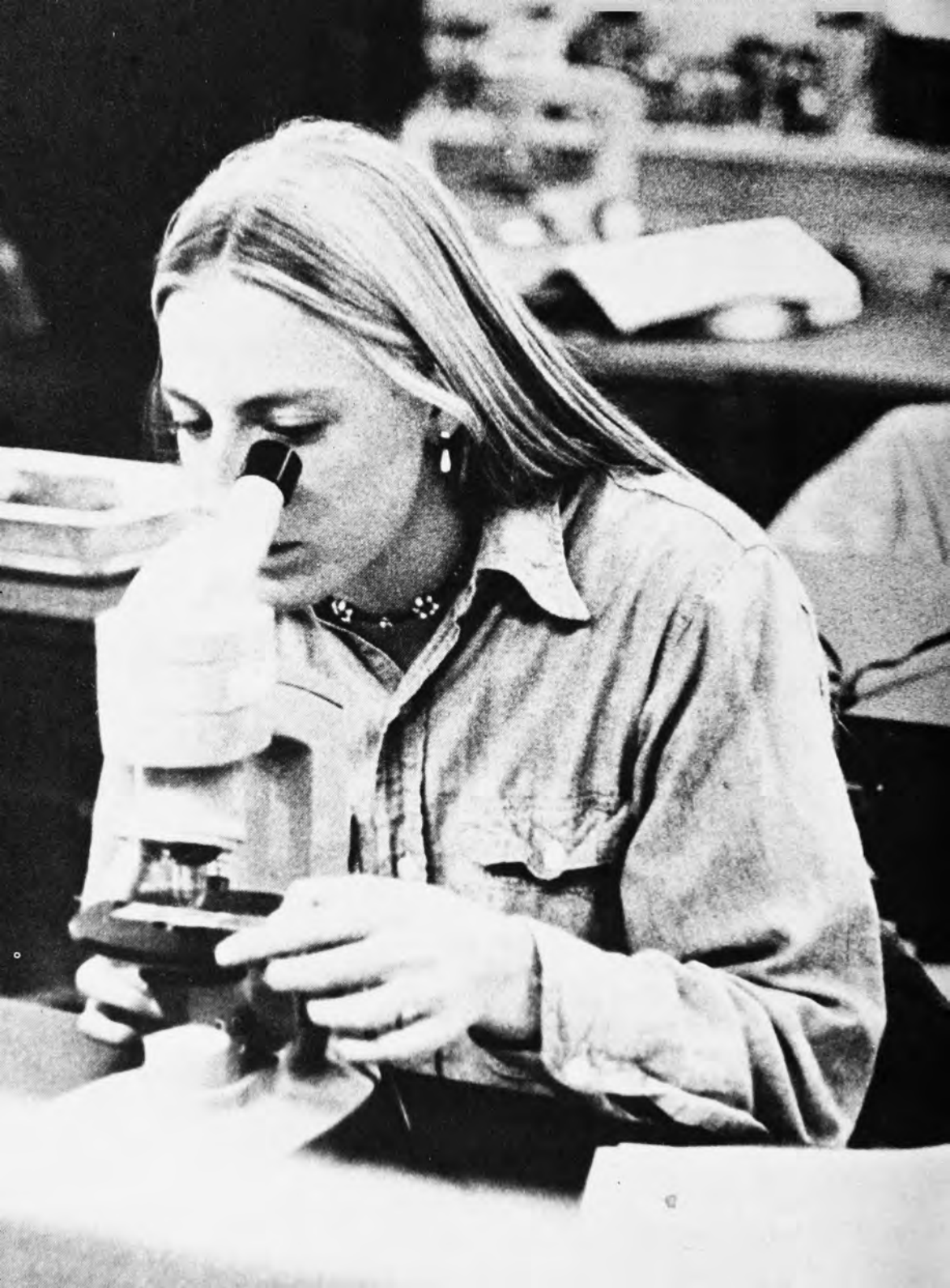
**SW 365 HISPANIC CIVILIZATION** (3-0) 3  
Contributions of Spain and Portugal to the building of Western civilization. Topics include: Great Age of Exploration, Golden Age of Spanish-Portuguese Civilization, masterworks of literature, and History of Ideas. Offered on demand.

**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 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

1975-76

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CARL G. BREEZE .....	Kremmling	1979
ROBERT S. EVERITT .....	Fort Collins	1981
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LLOYD J. HODGES .....	Julesburg	1977
EDWARD C. HOFMANN .....	Littleton	1977
EDMOND F. NOEL, JR. ....	Denver	1979
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The Register

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Dean of Administration

DONALD F. WHALEN,  
Director  
School of Education

## Administration and Programs

JAMES K. ASH, Supervisor  
Cooperative Education

TROY D. BLEDSOE  
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CONRAD L. CHAVEZ,  
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CYNTHIA BISIO DAVIS  
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Contract Administrator and  
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NANCY ELLIOTT  
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PEGGY W. HAYWARD  
Assistant Director of Housing

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Controller

BILLIE G. HELMS  
Assistant Controller

LOUISA T. HELMS  
College Nurse

JAMES J. JONES, Supervisor  
Auxiliary Services and  
Placement

ROBERT W. JONES, Assistant  
Supervisor of Physical Plant

MERLE JOOSTEN, Operations  
Manager, Computer Center

CLAY KYLE  
Assistant Business Manager

AUGUSTINE MARTINEZ  
Supervisor of Records

LEON MILLS, Coordinator of  
Institutional Research and  
Planning

ALLEN J. MURDOCK  
Supervisor of Physical Plant  
and College Engineer

JOSEPH P. PERINO  
Assistant Controller

O. D. PERRY, Manager  
Computer Center

ROBERT C. PIVONKA, M.D.  
College Physician

CHARLES H. REID, JR.  
Director of Admissions  
and Records

J. A. RUDY ROYBAL  
Supervisor of Special Services

BETTY K. SHOULDERS  
Supervisor of College Union  
and Student Activities

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HARLAN L. STEINLE  
Supervisor of Admissions

JACK SYLVESTER  
Bookstore Manager

BUFORD WAYT, Supervisor  
Intercultural Program

JOE E. WOLCOTT, Supervisor  
of Housing and Assistant Dean  
of Students

## Faculty

RICHARD L. GOBBLE,  
Head Librarian  
JOHN CROWDER, Librarian  
ESTHER T. C. LIU, Librarian

## Library

ANN F. MILLER, Librarian  
HARROLD S. SHIPPS, JR.,  
Librarian  
SANDRA SMAGALA, Librarian

## Emeriti

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

HOWARD, LYLE, *Assistant Professor of Languages Emeritus*  
B.A., Kansas State Teachers College  
M.A., Western State College of Colorado

KELLY, FLOYD, *Asst. Professor of Business Emeritus*  
A.B., Colorado State College; M.A., Colorado State College;  
Advanced Graduate Work, Columbia University and Colorado State  
College.

REED, JOHN F., *President Emeritus*  
B.A., Dartmouth College  
M.A., Duke University  
Ph.D., Duke University

TATE, NORVELL 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

## Faculty

1975-76

(Date after title indicates first year at Fort Lewis College)

ABE, PAUL B., *Asst. Professor of Speech and Theatre* (1971)

B.A., University of Northern Colorado, 1965

M.A., Purdue University, 1969

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

ANTOLIK, DANIEL, *Instructor of Physical Education* (1972)

B.A., Fort Lewis College, 1969

M.A., Adams State College, 1974

APPLEGARTH, SUSAN M., *Asst. Professor of Anthropology* (1971)

B.A., Eastern New Mexico University, 1964

M.A., University of Wisconsin, 1970

Ph.D. candidate, University of Wisconsin

ARVISO, KATHRYN P., *Instructor-Counselor, American Indian*  
*Program* (1970)

B.S., University of New Mexico, 1965

ASH, JAMES K., *Asst. Professor of History* (1970)

B.A., University of California (Berkeley), 1967

M.A., Harvard University, 1970

Ph.D. Candidate, University of Washington

ATENCIO, LEONARD D., *Assoc. Professor of Economics* (1968)

B.A., Fort Lewis College, 1964

Ph.D., Kansas State University, 1969

Ed.S., University of New Mexico, 1973

BAARS, DONALD L., *Professor of Geology* (1968)

B.S., University of Utah, 1952

Ph.D., University of Colorado, 1965

BAILEY, DAVID T., *Visiting Professor of Chemistry* (1975)

B.A., University of Colorado, 1964

Ph.D., Iowa State University, 1968

- Faculty**
- BAKER, JAMES R.**, *Assoc. Professor of Engineering* (1966/1973)  
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  
P.L.S., Indiana, 1972  
Ph.D., Purdue University, 1975
- BASS, DAVID J.**, *Assoc. Professor of Political Science* (1970)  
B.Sc., The Ohio State University, 1943  
M.A., University of Chicago, 1947  
Ph.D., University of Chicago, 1972
- BEER, DAVID F.**, *Asst. Professor of English* (1975)  
B.A., University of Arizona, 1963  
M.A., Arizona State University, 1965  
Ph.D., University of New Mexico, 1972
- BERG, DAVID**, *Assoc. Professor of Speech and Theatre* (1953)  
B.A., Colorado College, 1951  
M.S., University of Utah, 1952
- BERNDT, REXER**, *President* (1969)  
B.S., University of Denver, 1949  
M.B.A., University of Denver, 1950  
Ph.D., University of Colorado, 1956
- BIDWELL, CLINTON M., III**, *Assistant Prof. of Business Adm.* (1974)  
B.A., University of Calif. (Berkeley), 1964  
M.B.A., University of Calif. (Berkeley), 1966  
D.B.A., University of Southern Calif., 1974
- BIRD, G. LEONARD**, *Assoc. 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.**, *Asst. Professor of Geology* (1973)  
B.S., University of New Mexico, 1966  
Ph.D., Colorado School of Mines, 1975
- BLEDSON, TROY D.**, *Director of Athletics; Associate Prof. of Physical Education* (1974)  
B.A., Hendrix College, 1949  
M.A., Memphis State University, 1955  
Ph.D., University of Denver, 1973
- BORDNER, KENNETH E.**, *Assoc. Professor of Theatre* (1972)  
B.A., Princeton University, 1963  
M.A., University of Massachusetts, 1965  
M.F.A., University of Massachusetts, 1966

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

BRINTNALL, ARTHUR K., *Dean of Academic Affairs; Professor of Business Administration* (1970)  
 A.B., Denison University, 1935  
 Ph.D., University of California (L.A.) 1939

BROCHU, EDITH W., *Assoc. Professor of Education* (1970)  
 B.S., University of Kansas, 1951  
 M.A., University of Northern Colorado, 1967  
 Ed.D., University of Northern Colorado, 1970

BURNS, SAMUEL A., *Instructor of Sociology* (1972)  
 B.A., University of San Francisco, 1963  
 Ph.D. Candidate, University of Colorado

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

CANO, M. FEDERICO, *Asst. Professor of Foreign Languages* (1974)  
 B.S., University of Mexico, 1956  
 B.S., Saint Louis University, 1963  
 M.A., Saint Louis University, 1966  
 Ph.D., Saint Louis University, 1973

CANTILLANO, ODILIE A., *Asst. Professor of Spanish* (1971)  
 Certificates and Diplomas, Cambridge and Nottingham Universities  
 Ph.D., University of Arizona, 1972

CAPP, CLIFFORD B., *Instructor of Mathematics, American Indian Program* (1970)  
 B.S., Colorado State University, 1962  
 M.S., Colorado State University, 1969

CARGILE, ELLEN, *Instructor, American Indian Program* (1973)  
 B.S., University of Texas, 1953  
 M.Ed., Arkansas University, 1967

COBURN, MARK D., *Asst. Professor of English* (1971)  
 A.B., University of Chicago, 1963  
 M.A., Stanford University, 1966  
 Ph.D., Stanford University, 1969

- Faculty**
- COE, WILLIAM, *Assoc. Professor of Philosophy* (1971)  
 A.B., Dartmouth College, 1957  
 M.A., Vanderbilt University, 1959  
 Ph.D., The Pennsylvania State University, 1967
- CONWAY, MAURICE B., *Asst. Professor of History* (1972)  
 A.B., Boston College, 1960  
 M.A., Boston College, 1963  
 Ph.D., University of California (Santa Barbara), 1974
- COX, BILLIE D., *Assoc. Professor of Accounting* (1975)  
 B.B.A., Baylor University, 1961  
 M.B.A., Baylor University, 1968  
 Ph.D. candidate, University of Missouri
- CROWDER, JOHN, *Librarian and Instructor* (1973)  
 B.A., University of Colorado, 1969  
 M.A., University of Denver, 1973
- CULLEN, LOUIS C., *Assoc. Professor of Physical Education* (1963)  
 B.S., University of New Mexico, 1948  
 M.A., University of New Mexico, 1952
- DECKER, JAMES C., *Assoc. Professor of Political Science* (1966)  
 B.A., University of Illinois, 1953  
 M.A., University of Colorado, 1963  
 Ph.D., University of Colorado, 1966
- DELANEY, MARIA, *Professor of Foreign Languages* (1958)  
 Akademischer Ubersetzer, University of Heidelberg, 1955  
 Diplom-Dolmetscher, University of Heidelberg, 1956
- DELANEY, ROBERT W., *Director, Center of Southwest Studies; Professor of History and Southwest Studies* (1957)  
 B.S., Northeast Missouri State College, 1948  
 A.B., Northeast Missouri State College, 1948  
 M.A., University of New Mexico, 1950  
 Ph.D., University of New Mexico, 1955
- DEVER, JOHN E., JR., *Assoc. Professor of Biology* (1967)  
 B.S., Rutgers University, 1960  
 M.S., Oregon State University, 1962  
 Ph.D., Michigan State University, 1967
- DIEMER, JILL M., *Asst. Professor of Art* (1972)  
 B.S., Ball State University, 1967  
 M.F.A., Indiana University, 1972
- DIN, GILBERT C., *Professor of History* (1965)  
 A.B., University of California (Berkeley) 1957  
 M.A., University of California (Berkeley) 1958  
 Doctor en Filosofia y Letras, University of Madrid, 1960

- DOWNEY, RALPH A., *Assoc. Professor of Music* (1969)  
 B.S., Lebanon Valley College, 1949  
 M.M., University of Montana, 1965  
 Ed.D., University of Montana, 1974
- DUBOIS, EDWARD N., *Professor of Business Administration* (1968)  
 B.A., University of Wyoming, 1946  
 M.B.A., University of Pennsylvania, 1948
- ECKENRODE, THOMAS R., *Assoc. Professor of History* (1969)  
 A.B., St. Vincent College, 1958  
 M.A., University of Colorado, 1964  
 Ph.D., St. Louis University, 1970
- EHLERS, DENNIS R., *Asst. Professor of Business Administration*  
 (1975)  
 B.S., U.S. Army Air Force Academy, 1971  
 M.S., University of California (L.A.), 1972  
 J.D., University of Denver, 1975
- ELDRIDGE, SHAILA, *Asst. Professor of English* (1974)  
 B.A., Carleton College, 1956  
 M.A., Occidental College, 1959  
 Ph.D., University of Denver, 1975
- ELLINGSON, JACK A., *Assoc. Professor of Geology* (1970)  
 B.S., University of Washington, 1958  
 M.S., University of Washington, 1959  
 Ph.D., Washington State University, 1968
- ENGLEHART, STANTON, *Professor of Art* (1961)  
 B.F.A., University of Colorado, 1960  
 M.F.A., University of Colorado, 1968
- ENGMAN, BILL D., *Professor of Education* (1970)  
 B.A., Eastern New Mexico University, 1957  
 M.N.S., Eastern New Mexico University, 1963  
 Ed.D., University of New Mexico, 1966
- ERICKSON, JAMES G., *Professor of Biology* (1964)  
 B.A., Doane College, 1950  
 M.S., Iowa State University, 1951  
 Ph.D., University of Wyoming, 1964
- FOX, MAYNARD, *Professor of English* (1964)  
 A.B., Fort Hays Kansas State College, 1937  
 M.S., Fort Hays Kansas State College, 1939  
 Ph.D., University of Colorado, 1963
- FREIENMUTH, EDWARD S., *Director, School of Business Administration; Assoc. Professor of Accounting* (1969)  
 J.D., University of Colorado, 1949  
 C.P.A., Colorado, 1964

- Faculty** FRIEDLAND, SHERMAN, *Assoc. Professor of Music* (1969)  
B.M., New England Conservatory of Music, 1960  
Diploma Cum Laudes, Conservatoire Americain, 1960  
Master of Music, University of Massachusetts, 1967
- GIBBONS, DANIEL E., *Assoc. Professor of Physics* (1968)  
B.S., University of Houston, 1964  
M.S., University of Houston, 1967  
Ph.D., University of Houston, 1969
- GIBBS, RICHARD A., *Assoc. Professor of Mathematics* (1971)  
B.A., Michigan State University, 1964  
M.S., Michigan State University, 1965  
Ph.D., Michigan State University, 1970
- GIERSCH, MARVIN L., *Assoc. Professor of Physical Education*  
(1970)  
B.S., Fort Hays Kansas State College, 1959  
M.S., Baylor University, 1960  
Ed.D., University of Northern Colorado, 1970
- GOBBLE, RICHARD L., *Head Librarian and Assoc. Professor* (1967)  
B.S.B.A., University of Denver, 1948  
M.A., University of Denver, 1950
- GOODWIN, LeROY W., *Professor of Political Science* (1957)  
B.A., University of Colorado, 1947  
M.A., University of Colorado, 1955  
Ph.D., Columbia University, 1970
- GORDON, DONALD R., *Asst. Professor of Anthropology* (1975)  
B.A., California State University (San Francisco), 1964  
M.S., University of Oregon, 1969  
Ph.D., University of Oregon, 1974
- GRAHAM, REGINALD A., *Assoc. Professor of Business  
Administration* (1971)  
B.S., Miami University, 1955  
M.B.A., Kent State University, 1958  
Ph.D., Case Western Reserve University, 1970
- GREFSRUD, GARY W., *Assoc. Professor of Mathematics* (1971)  
B.S., Montana State College, 1960  
M.S., Montana State College, 1962  
Ph.D., Montana State University, 1971
- GRIER, ROBERT E., *Laboratory Instructor in Biology* (1975)  
A.B., Kansas Wesleyan College, 1970  
M.S., North Carolina State University, 1972
- GROTH, NORMA J., *Asst. Professor of Psychology* (1973)  
B.S., University of Minnesota, 1951  
M.A., Calif. State University (Northridge), 1968  
Ed.D., University of Southern California, 1973

- HADOW, HARLO H., *Instructor in Biology* (1972)  
 B.A., Milton College, 1967  
 M.A., University of Colorado, 1972  
 Ph.D. Candidate, University of Colorado
- HALE, JOHN F., *Professor of Psychology* (1970)  
 A.B., Brown University, 1957  
 M.A., Brown University, 1959  
 Ph.D., Carnegie-Mellon University, 1963
- HAMILTON, RODNEY D., *Assoc. Professor of Chemistry* (1969)  
 B.S., Marietta College, 1960  
 Ph.D., Indiana University, 1964
- HARRISON, MERLE, *Assoc. Professor of Chemistry* (1968)  
 (1968)  
 B.S., Brigham Young University, 1955  
 M.S., Colorado State University, 1957  
 Ph.D., Colorado State University, 1960
- HAYES, WILLIAM E., *Instructor of Physical Education* (1971)  
 B.S., University of New Mexico, 1962  
 M.A., University of New Mexico, 1968
- HEIDY, NICHOLAS J., *Assoc. Professor of Psychology* (1962-68/  
 1970)  
 A.B., Adams State College, 1962  
 M.A., Adams State College, 1964  
 Ed.D., University of Northern Colorado, 1971
- HENDERSON, MIRIAM T., *Instructor of Business Education* (1974)  
 B.S., University of Utah, 1941  
 M.S.B.A., University of Denver, 1967
- HOLDERNESS, AUBREY E., *Assoc. Professor of Business  
 Administration* (1965)  
 B.A., Adams State College, 1962  
 M.A., Adams State College, 1965  
 Ph.D., University of Northern Colorado, 1972
- HOLEHAN, EUGENE L., *Asst. Professor of Business Education*  
 (1972)  
 B.A., Arizona State University, 1957  
 M.A., Northern Arizona University, 1965  
 Ed.D., Arizona State University, 1972
- HOLES, DONALD E., *Asst. Professor of Education* (1974)  
 A.B., University of Northern Colorado, 1962  
 M.A., University of Northern Colorado, 1966  
 Ed.D., University of Northern Colorado, 1971

- Faculty**      HOLLIS, WILLIAM W., *Assoc. Professor of Accounting* (1964-69/73)  
                       B.S., Oklahoma State University, 1958  
                       M.S., Oklahoma State University, 1961  
                       C.P.A., 1962
- IVES, JOHN C., *Professor of Anthropology* (1966)  
                       B.A., State University of Iowa, 1954  
                       A.M., State University of Iowa, 1956  
                       Ph.D., Harvard University, 1960
- JAMES, DONALD L., *Assoc. Professor of Business Adm.* (1974)  
                       B.S., Oklahoma State University, 1957  
                       M.S., Oklahoma State University, 1960  
                       D.B.A., University of Colorado, 1970
- JOHNS, MYRON W., *Asst. Professor of Education* (1970-72/73)  
                       B.S., Kansas State College, 1960  
                       M.S., Kansas State College, 1966  
                       Ed.D., University of Wyoming, 1970
- JOHNSON, LARRY S., *Director, School of Arts and Sciences; Assoc. Professor of Mathematics* (1970)  
                       B.A., Western State College of Colorado, 1964  
                       M.S., University of Wyoming, 1966  
                       Ph.D., University of Wyoming, 1969
- JONES, ROLAND C., *Assoc. Professor of English* (1967)  
                       B.A., University of Michigan, 1956  
                       M.A., Northern Arizona University, 1963  
                       Diploma for Advanced Graduate Studies, Michigan State University, 1970
- KAUFMAN, JERRY M., *Professor of Accounting* (1963)  
                       B.S., Southwestern State College of Oklahoma, 1959  
                       M.S., Oklahoma State University, 1961  
                       C.P.A., 1962  
                       Ph.D., Oklahoma State University, 1974
- KELLY, REECE, C., *Asst. Professor of History* (1971)  
                       B.A., Eastern Washington State College, 1964  
                       M.A., University of Washington, 1967  
                       Ph.D., University of Washington, 1973
- KNIGHT, GARY D., *Asst. Professor of Education* (1972)  
                       B.S., East Central State College, 1962  
                       M.T., East Central State College, 1964  
                       Ed.S., Eastern New Mexico University, 1970  
                       Ed.D., University of New Mexico, 1972
- KUSS, ADOLPH M., JR., *Assoc. Professor of Physical Education and Ski Coach* (1964)  
                       B.A., Western State College of Colorado, 1952  
                       M.A., Western State College of Colorado, 1964



- LAM, GERALDINE C., *Instructor-Counselor, Intercultural Program* (1972)  
B.S., Texas Tech University, 1941
- LANG, LILLIAN B., *Instructor of English* (1973)  
B.A., Portland State University, 1961  
M.A., University of Calif. (Santa Barbara), 1967  
Ph.D., University of Calif. (Santa Barbara), 1976
- LeGAULT, MAURICE E., *Assoc. Professor of Music* (1972)  
B.S., University of Minnesota, 1957  
M.A., University of Minnesota, 1961  
Ph.D., University of Minnesota, 1969
- LIKES, ROBERT N., *Assistant Professor of Physics* (1974)  
B.A., Wayne State College, 1960  
M.Sci.Ed., University of Utah, 1965  
Ph.D., University of Wyoming, 1973
- LINTON, NORMAN, *Assoc. Professor of Sociology* (1973)  
B.A., Reed College, 1958  
M.A., University of Oregon, 1960  
Ph.D., University of Calif. (Berkeley), 1972
- LIU, ESTHER T. C., *Librarian and Asst. Professor* (1963)  
B.A., National Fu Tah University, 1944  
M.A., University of Minnesota, 1953  
M.A., University of Denver, 1954  
Ed.D., University of Northern Colorado, 1976
- LUM, DENNIS W., *Asst. Professor of Sociology* (1975)  
B.A., University of Nevada (Reno), 1966  
M.A., University of Nevada, 1971  
M.A., University of California (San Diego), 1973  
Ph.D. candidate, University of California (San Diego)
- LYNCH, VERNON E., JR., *Asst. Professor of Economics* (1972)  
B.A., University of Texas, 1965  
M.A., University of Texas, 1967  
Ph.D., University of Arizona, 1976
- MALSTEAD, ROGER H., *E.S.L. Specialist, American Indian Program* (1970)  
B.A., Haigazian College, Beirut, 1968  
M.A., University of California (L.A.), 1970
- MANSFIELD, HAROLD L., *Assistant Professor of Psychology* (1974)  
B.S., Colorado State University, 1958  
M.A., University of Denver, 1967  
Ph.D., University of Denver, 1974

- Faculty** MARQUISS, ROBERT W., *Assoc. Professor of Agriculture* (1971)  
 B.S., University of Wyoming, 1956  
 M.S., University of Wyoming, 1957  
 Ph.D., University of Arizona, 1967
- McGEE, JUNE D., *Asst. Professor of Education* (1974)  
 B.A., Texas State College for Women, 1956  
 B.S., Texas State College for Women, 1956  
 M.E., Texas A&M University, 1971  
 Ph.D., Texas Woman's University, 1973
- McNITT, JOHN B., *Instructor of Physical Education and Football Coach* (1970)  
 B.S., University of New Mexico, 1962  
 M.A., University of New Mexico, 1968
- McSHAN, DOROTHY, *Instructor of Mathematics* (1973)  
 B.A., Texas Christian University, 1964  
 M.S., Oklahoma State University, 1966
- MEHS, DOREEN M., *Laboratory Instructor in Chemistry* (1973)  
 B.A., Harpur College, SUNY Binghamton, 1966  
 M.A., State University of N.Y., Binghamton, 1972
- MILLER, ANN F., *Librarian and Instructor* (1974)  
 B.A., Indiana University, 1972  
 M.A., University of Wisconsin, 1974
- MILLS, JAMES W., *Asst. Professor of Chemistry* (1973)  
 A.B., Earlham College, 1963  
 Ph.D., Brown University, 1967
- MILLS, LEON R., *Coordinator of Institutional Research and Planning; Instructor of Biology-Agriculture* (1972)  
 B.S., Colorado State University, 1954  
 M.S., Colorado State University, 1956
- MOSELEY, MARY J., *Instructor, American Indian Studies* (1973)  
 B.A., University of New Mexico, 1964  
 M.A., University of New Mexico, 1970  
 Ph.D. candidate, University of North Dakota
- NORTON, TOM D., *Asst. Professor of Physical Sciences and Engineering* (1973)  
 B.S., University of Oklahoma, 1966  
 M.S., University of Oklahoma, 1971  
 Ph.D., University of Oklahoma, 1972
- NYIKOS, MICHAEL S., *Dean of Students; Asst. Professor of Education* (1964/1970)  
 B.A., New Mexico Highlands University, 1958  
 M.A., University of Michigan, 1959  
 Ph.D., University of Michigan, 1970

- OLIVER, CHARLES W., *Coordinator of Curriculum Development, Faculty  
American Indian Program (1971)*  
B.A., Grand Canyon College, 1958  
M.A., Arizona State University, 1967
- O'SULLIVAN, DEBORAH ANN, *Asst. Professor of French and  
Spanish (1972)*  
Degre Superieur, Sorbonne, 1965  
B.A., University of Arizona, 1966  
M.A., University of Arizona, 1969  
Ph.D., University of Arizona, 1972
- OWEN, HERBERT E., *Professor of Biology (1955)*  
B.S., University of Tulsa, 1950  
M.S., Oregon State College, 1953  
Ph.D., Oregon State College, 1957
- PERIMAN, KENNETH I., *Assoc. Professor of English (1962)*  
B.A., University of Colorado, 1951  
M.A., University of Colorado, 1953
- PERRY, O. D., *Manager of Computer Center; Instructor of  
Mathematics (1972)*  
B.B.A., New Mexico State University, 1968  
M.S., New Mexico State University, 1970
- PETERS, ROGER, *Asst. Professor of Psychology (1975)*  
B.A., University of Chicago, 1965  
Ph.D., University of Michigan, 1974
- PETERSON, CARROLL V., *Professor of English (1968)*  
B.S., University of Minnesota, 1958  
M.A., University of Iowa, 1959  
Ph.D., University of Iowa, 1963
- PIXLER, PAUL W., *Professor of Philosophy (1967)*  
A.B., Kletzing College, 1944  
B.D., Asbury Theological Seminary, 1947  
S.T.M., Harvard University, 1949  
Ph.D., Boston University, 1958
- PLOTKIN, IRA L., *Asst. Professor of History (1975)*  
B.A., University of Rochester, 1964  
M.A., University of Michigan, 1966  
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- RAMALEY, WILLIAM C., *Asst. Professor of Mathematics (1973)*  
B.Sc., The Ohio State University, 1961  
M.A., University of Colorado, 1963  
Ph.D., University of Colorado, 1969
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B.F.A., Brigham Young University, 1966  
M.F.A., Brigham Young University, 1968

- Faculty**
- REEDER, RAY M., *Assoc. Professor of History* (1966)  
 B.S., Utah State University, 1939  
 M.S., Utah State University, 1957  
 Ph.D., Brigham Young University, 1966
- REID, CHARLES H., JR., *Director of Admissions and Records; Asst. Professor of Education* (1950)  
 A.B., Montclair State College, 1948  
 M.Ed., University of Colorado, 1949
- RITCHEY, JOHN M., *Assoc. Professor of Chemistry* (1972)  
 B.A., Wichita State University, 1962  
 Ph.D., University of Colorado, 1968
- ROSENBERG, HARRY C., *Assoc. Professor of Mathematics* (1964)  
 B.A., University of Northern Colorado, 1956  
 M.A., University of Northern Colorado, 1957  
 M.A., University of Illinois, 1964
- ROYBAL, RUDY, *Supervisor-Counselor, Special Services Program* (1974)  
 B.A., University of New Mexico, 1973
- SANDERS, JOAN M., *Assoc. Professor of Physical Education* (1972)  
 B.A., Stanford University, 1950  
 M.A., Stanford University, 1951  
 Ph.D., University of Denver, 1970
- SCHUTZ, BARRY M., *Asst. Professor of Political Science* (1973)  
 A.B., Indiana University, 1960  
 M.A., University of California (L.A.), 1965  
 Ph.D., University of California (L.A.), 1972
- SCHWAB, CHARLOTTE A., *Asst. Professor of Biology* (1973)  
 B.S., Western Kentucky University, 1965  
 Ph.D., Iowa State University, 1971
- SEALE, CAROL MEYER, *Asst. Professor of Women's Physical Education* (1969)  
 B.A., Carroll College, 1962  
 M.A., University of Northern Colorado, 1968
- SHIPPS, HARROLD S., JR., *Librarian; Assoc. Professor* (1970)  
 B.S., (Ed.) Bridgewater State College, 1949  
 M.Ed., Bridgewater State College, 1960  
 M.S.P.A., George Washington University, 1964  
 M.A. in Librarianship, University of Denver, 1967  
 Ph.D., University of Denver, 1969
- SIMMS, DANNY D., *Asst. Professor in Biology-Agriculture* (1973)  
 B.S., California State University (Chico), 1967  
 Ph.D., Oregon State University, 1974

**Faculty**

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B.A., Western State College, 1964  
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B.A., University of Colorado, 1959  
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Ph.D., University of Colorado, 1964

SNYDER, DONOVAN, *Director of Continuing Education* (1974)  
B.A., Fort Lewis College, 1965

SOMERS, LEE PRESTON, *Assoc. Professor of Biology* (1969)  
B.S., Wake Forest University, 1967  
M.A., University of Colorado, 1969  
Ph.D., University of Colorado, 1971

SPANGSBERG, DONALD, *Asst. Professor of Industrial Arts* (1957)  
B.A., Kearney State Teachers College (1950)  
M.A., University of Northern Colorado, 1957

SPENCER, ALBERT W., *Assoc. Professor of Biology* (1965)  
B.S., Colorado State University, 1957  
M.S., Colorado State University, 1961  
Ph.D., Colorado State University, 1965

SPICKARD, KAREN, *Instructor of Physical Education* (1975)  
B.A., Illinois State University, 1971  
M.A., University of Northern Colorado, 1975

SQUIRES, THOMAS G., *Asst. Professor of Chemistry* (1975)  
B.S., Davidson College, 1961  
Ph.D., University of Florida, 1966

STOCKER, HAROLD E., *Asst. Professor of Mathematics* (1967)  
B.A., Fort Lewis College, 1965  
M.A., University of Wyoming, 1967  
Ph.D. candidate, Colorado State University

STRAWN, RICHARD G., *Asst. Professor of Music* (1973)  
B.M., University of Redlands, 1959  
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STUART, LELAND E., *Asst. Professor of Sociology* (1972)  
A.B., Chico State College, 1962  
M.A., University of Oregon, 1964  
Ph.D., University of Oregon, 1971

- Faculty**      TAPIA, JOHN R. *Assoc. Professor of Spanish* (1972)  
                          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
- VAN NESS, JOHN R., *Instructor of Anthropology* (1974)  
                          B.A., The Colorado College, 1964  
                          M.A. and Ph.D., candidate, The University of Pennsylvania
- WAGEMAN, ROBERT M., *Assoc. Professor of Psychology* (1969)  
                          B.S., Arizona State University, 1961  
                          M.A., Arizona State University, 1963  
                          Ph.D., Arizona State University, 1968
- WALKER, CHARLES H., *Asst. Professor of P.E.; Basketball Coach*  
                          (1972)  
                          B.S., University of Nevada, 1960  
                          M.Ed., University of Nevada, 1964  
                          Ph.D., University of Utah, 1972
- WALLACE, EDWIN W., *Dean of Administration; Assoc. Professor of*  
                          *Psychology* (1950)  
                          B.S., University of New Mexico, 1949  
                          Ed.M., Adams State College, 1960
- WAYT, BUFORD, *Supervisor, American Indian Program* (1967)  
                          B.A., Western State College, 1943  
                          M.A., Western State College, 1950
- WEAVER, PATRICIA E., *Assoc. Professor of Music* (1969)  
                          M.B., Baylor University, 1955  
                          M.M., University of Illinois, 1958
- WELLS, C. GERALD, *Asst. Professor of Art* (1970)  
                          B.A., University of Mississippi, 1959  
                          M.F.A., University of Mississippi, 1964
- WESTERVELT, THOMAS N., *Instructor of Geology* (1975)  
                          B.A., Middlebury College, 1967  
                          Ph.D. candidate, University of Wyoming
- WHALEN, DONALD F., *Director, School of Education; Professor of*  
                          *Education* (1959)  
                          B.S., Northern Arizona University, 1954  
                          M.A., Northern Arizona University, 1955  
                          H.Ed.D., Indiana University, 1962

## Faculty

WILLIAMS, RAYMOND, *Instructor of Mathematics* (1974)

B.A., Hendrix College, 1965

M.S., University of Arkansas, 1967

Ph.D., candidate, University of New Mexico

WILSON, RAY N., *Asst. Professor of Education* (1971)

A.B., University of Northern Colorado, 1961

M.A., University of Northern Colorado, 1964

Ph.D., University of Northern Colorado, 1968

ZOLLER, JOHN H., *Asst. Professor of Business Administration* (1971)

B.B.A., University of Minnesota, 1948

M.B.A., University of New Mexico, 1968

Ph.D. candidate, University of Arizona

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# FORT LEWIS COLLEGE

## Academic Calendar

### *Fall, 1976*

September 3	Friday	Faculty Workshop
September 7	Tuesday	Freshman Orientation and Advising
September 8	Wednesday	Registration
September 9	Thursday	Classes begin
Nov. 24-28	Wed.-Sunday	Thanksgiving break
Nov. 29	Monday	Classes resume
Dec. 14	Tuesday	Last day of classes
Dec. 15-18	Wed.-Saturday	Final Exams
Dec. 18	Saturday	Term ends

### *Winter, 1977*

Jan. 4	Tuesday	Registration
Jan. 5	Wednesday	Classes begin
Feb. 28-March 6	Mon.-Sunday	Spring break
March 7	Monday	Classes resume
April 14	Thursday	Last day of classes
April 15; 18-20	Fri., Mon., Tues., Wed.	Final Exams
April 23	Saturday	Graduation

### *Summer 1977*

First Session	April 26-May 27
Second Session	May 31-July 1
Third Session	July 5-August 5

Fort Lewis College has placed more skiers on the United States' Nordic Combined Olympic team than any other college.

At the Winter Olympics at Sapporo, Japan, there were four members of the United States' Nordic Combined Ski team who were either students or alumni of Fort Lewis. They are Jim Miller, Mike Devecka, Larry Martin and Mike Elliott. As recognition of the college's international reputation in skiing, Dolph Kuss, the FLC ski coach, was the head coach of the Nordic Combined Ski team at Sapporo. Other FLC skiers are on the United States ski team. The campus is only 35 minutes away from the Purgatory Ski area, site of FLC's ski classes which are part of its physical education program.

