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Durango, Colorado



## FORT LEWIS

## COLLEGE

## DURANGO, COLORADO 81301

CATALOG FOR THE
1974-75 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

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 1973 the enrollment exceeded 2400 . 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 humanitiesfine 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.

At present a new Classroom and Office Building and a Natatorium are being planned for completion in the autumn of 1975. A new complex of playing fields and pienic area will be opened in 1974.

The College has a faculty of over 120 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. 56.8 percent of the faculty have, carned doctoral degrees.

GENERAL
DESCRIPTION

## 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 SpanishAmericans.

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.
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 sugge cted 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.

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.

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 of the College returning after an absence of more than one trimester must petition to resume studies. If the student has attended other collegiate institutions in the interval, he must file complete transcripts of all work taken.

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

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

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 sizcable 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.

## SPECIAL

 STUDENTSINDIAN STUDENTS

## FOREIGN STUDENTS

(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 geographich 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 $1+$ acceptable units in high school maly 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 centers may be admitted as part-time freshmen students in order to take one or two courses. Ordinarily such students are expected to meet early admission requirements and must have the approval of the high school administration.

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

## COLLEGE CREDIT BY EXAMINATION

Fort Lewis College participates in the Advanced Placement Program of the College Entrance Examination Board. Under this plan outstanding secondary school students may take certain college-level courses in their own high school. Satisfactory scores on an examination administered and graded by the College Board are forwarded to Fort Lewis and may serve as a basis for credit and/or advanced placement.

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

Superior scores on the ACT Assesmment 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.

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

Students who obtain at least a standard score of 500 or the 50 th 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.

PART-TIIME STUDENTS

## ADVANCED PLACEMENT

ACT TESTS

COLLEGE LEVEL 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 and Financial Aids 

Academic Year 1973-74

| cosTS |  | Fall Trimester | Winter <br> Trimester | Academic Year |
| :---: | :---: | :---: | :---: | :---: |
|  | ITEMIZED ( ${ }^{\text {costs* }}$ |  |  |  |
|  | Registration Fee | \$ 10.00 | \$ 10.00 | \$ 20.00 |
|  | Resident Tuition | 150.50 | 150.50 | 301.00 |
|  | Non-Resident Tuition | 602.50 | 602.50 | 1,205.00 |
|  | COLLEGE FEES | 56.00 | 56.00 | 112.00 |
|  | BOARD (7 days per week)* <br> *Does not include sales tax-4\% | 292.00 | 292.00 | 584.00 |
|  | ROOM | 165.00 | 165.00 | 330.00 |
|  | Students living in the residence halls shall take their meals in the College cafeterias. |  |  |  |
|  | BOOKS (approximate cost) | 75.00 | 75.00 | 150.00 |
|  | ESTIMATED COST PER TRIMESTER-RESIDENT |  |  |  |
|  | For Room, Board, Tuition and Books | 748.50 | 748.00 | 1,497.00 |
|  | ESTIMATED COST PER <br> TRIMESTER-NON-RESIDE |  |  |  |
|  | For Room, Board, Tuition and Books | 1.200 .50 | 1.200.50 | 2,401.00 |

Personal expenses, such as clothing, travel, social activities, books and supplies will depend upon the individual and are in addition to the above expenses. The State Board of Agriculture, governing body for Fort Lewis College, reserves the right to change any charges at any time without prior notice. Reference should be made to the current Schedule of Fees for a listing of all charges and payment or refund policies.

Fort Lewis Collegc offers a complete financial aids program of scholarships, grants, loans, and part-time emplovment for its students. All students are eligible for consideration when they have been accepted for admission or are in attendance and in good standing. Every effort is made by the Office of Financial Aid to provide the best type of aid or combination of aid to assist deserving students in completing a college education. A student's demonstrated financial need and academic record are prime factors considered in making awards.

The awards which are not based entirely upon financial need are Recognition of Merit Grants, Music Grants, Speech-Drama Grants, and Athletic Grants. A limited number of part-time jobs are available on a no-need basis.

Most awards are made on the basis of financial need. The Office of Financial Aid follows a procedure which assures each applicant consideration for all types of awards based on the information supplied in the student's application for financial aid.

## HOW TO APPLY-WHEN TO APPLY

Students may initiate an application for financial aid by filing the family financial statement of the American College Testing Service (ACT); application forms are available in the Colorado High Schools or by request from the College. Directions for completion are supplied with the forms. Normally, applications should be completed by June 1 for complete consideration for all awards for the next academic year. Inquiries should be addressed to the Office of Financial Aid, Fort Lewis College.

HOW TO APPLY FOR FINANCIAL AIDS


## Student Life

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.
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.

PROMINENT WITHIN THIS POLICY IS THE REQUIREMENT THAT ALL SINGLE STUDENTS WHO ARE FRESHMEN OR SOPHOMORES AND FIRST TIME ATTENDING STUDENTS WILL LIVE ON CAMPUS UNLESS THEY ARE LIVING AT HOME WITH THEIR PARENTS. EXCEPTIONS TO THIS ARE RARE AND THE RESPONSIbILITY OF THE OFFICE OF THE DEAN OF STUDENTS.

In order to gain exemption, a student and his parents should communicate with the Office of the Dean of Students well in advance of the student's arrival on campus stating the reasons under which exemption is sought. No requests will be considered on days of registration. All residence hall space is assigned on a space-available basis. The College Housing Office assists those unable to secure on-campus accommodations in finding off campus housing.
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. All residence halls are locked at 11:00 p.m. each night, and 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 live. Fort Lewis College does not believe that such principles are best served through elaborate facilities or completely open facilities.

It is the student's responsibility to make proper application for housing upon receipt of the permit to register. A $\$ 50.00$ advance payment is required and 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 Trimester of an academic year.

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. RHA traditionally sponsors Residence Hall Week and the Intramural Sports Program.

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.

## STUDENT GOVERNMENT

## STUDENT <br> GOVERNMENT: <br> 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-third 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 representatives 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.

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 student affairs that cannot be settled elsewhere are brought before the court by petition for a decision.

## STUDENT CODE

## STUDENT CODE

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.

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.

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.

PEACEFUL ASSEMBLY

## DISCIPLINARY ACTION

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.

## STUDENT SERVICES

HEALTH SERVICES

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.
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 available to all students.

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.

Counseling at Fort Lewis College is a multiple contact procedure with all staff members in Student Services serving the student in a specialized need situation; e.g., financial planning, or by being available for help in a situational nature such as personal problems. Some testing resources are available for help in choosing an appropriate occupational field; help is also available in developing study techniques and adjustment to college life. Consultative psychiatric services are obtainable by referral from the College Medical Officer. Through the team counseling approach, help is individualized and designed to assist the student in meeting particular needs by gaining a greater sense of self-understanding about his or her problems.

Since all students neither need nor 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.
Testing will not be done routinely, but only when seen as a helpful supplement to the counseling process, with the prospect of it offering specific information unavailable from any other source, or when seen as necessary for the validation of decision-making regarding an individual student.

Fort Lewis College has a comprehensive men's intercollegiate athletic program and sponsors teams in the following sports: football, basketball, wrestling, skiing, golf, tennis, and track. All Raider teams compete against four-year colleges in the Rocky Mountain and Southwestern areas. Facilities include six tennis courts, two gymnasiums, football stadium, 440 yard track, and ice skating pond. 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, and the National Collegiate Athletic Association.
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, ice skating, and skiing are available.

RELIGION

## PLACEMENT <br> SERVICE

ALUMNI ASSOCIATION

STUDENT UNION

## BOOKSTORE

One of the standing committees, 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), and the Campus Crusade for Christ.
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 seek 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 quarterly 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 hall, and a snack bar. The building is open until 10:00 p.m., seven days a week.

The campus bookstore, called The Sutler's Shop, is located in the basement of the New Student 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, twiletries, and various other sundries. The bookstore is designed to serve the students' needs, especially those who live on campus. The hours are 8 a.m. to 5 p.m., Monday through Friday.

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.

A post office is maintained in the New Student Union 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.

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 the rate of $\$ 1.00$ per month from the time of the student's first registration until August 31 of the academic year.

IDENTIFICATION CARDS

MAIL SERVICE

## MOTOR VEHICLES



## 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. The program is administered by the School of Business Administration and described in the course listings under Business Education.

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

## THE ACADEMIC PROGRAMS

The 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 StudentConstructed 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.

BACHELOR DEGREES

> ARTS AND SCIENCES

BUSINESS
ADMINISTRATION

EDUCATION

LIBRARY

CENTER OF
SOUTHWEST STUDIES

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, 7000 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 muisc, 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.

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 SpanishAmericans not now in college and acquainting them with the accessibility and value of an undergraduate education.

Because Fort Lewis College is culturally unique, it has joined a federally funded Consortium with Concordia College in Moorhead, Minnesota and Virginia Union University in Richmond, Virginia. Fort Lewis College students may, if they wish, study with complete exchange of credits for a full semester at either Concordia College or Virginia Union University. Joint, team-taught seminars such as the study of Urban Sociology conducted in Richmond in May, 1972 are also part of the Consortium program.

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

INTERCULTURAL PROGRAM

CONCORDIA, VIRGINIA UNION CONSORTIUM

INTERNATIONAL CONTENT AND EXPERIENCE
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 India.

## FORT LEWIS COLLEGE THIRD WORLD STUDIES PROGRAM

COOPERATIVE<br>EDUCATION

A program currently being formulated focuses upon the relationship of such less developed regions of the world as Africa, Asia, and Latin America to the more developed entities of the United States, Japan, and the European community. The emphasis is on the problems of development rather than on any one cultural area. Internationally recognized academic specialists on our faculty in such fields as anthropology, economics, education, history, political science, philosophy, and sociology are teaching in the program.

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.
Students work with employees 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 program. 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

COMPUTER CENTER

## COOPERATION WITH OTHER INSTITUTIONS

## CONTINUING EDUCATION

and students without charge for normal academic use; when possible, programming assistance is provided.

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

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 work 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 gradepoint average of 2.0 for those courses accepted to mect 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 graduatoin 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, 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 has earned a bachelor's degree, and for special reasons desires to secure an additional bachelor's degree, must earn 28 hour at Fort Lewis College beyond any other bachelor's degree he holds, fulfill all general graduation requirements, and the specific requirements for the major chosen.

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.

## 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 125.)
Foreign Language
2. Art (except Art 203)

Industrial Arts 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, 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
THE MAJOR

ELECTIVES 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. In Theatre Workshop a student can earn up to a maximum of four credits. The course,

REPEATABLE COURSES

General Studies 200, 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. 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.

## ACADEMIC PERFORMANCE

## EXAMINATIONS

GRADING

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 |  |  |

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 $\mathbf{P}$ 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.
Grade reports are ordinarily mailed to the parents and guardians of students but may be received directly by self-supporting students upon request.

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.

PASS.FAIL ELECTIVES

ACADEMIC PROGRESS

GRADUATION WITH HONORS

CREDIT BY
SPECIAL EXAMINATION

CREDIT FOR MILITARY SERVICE AUDIT

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

To 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 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 may be allowed according to the recommendations established by the American Council on Education.

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.

Advanced registration periods and terminal dates for registration are announced each trimester. A fee is charged for late registration.

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 $\quad 92$ 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 secking to drop courses after the second week of the semester should inquire about his grade from the instructor before dropping a course.

ATTENDANCE

TRANSCRIPTS

EFFECTIVE
CATALOG

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.

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.

Academic policies and regulations are changed by Fort Lewis College from time to time. Which set of regulations, as published in the catalog apply to a given student are 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

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

## 299 INDIVIDUALIZED STUDY

Independent study for lower division and non-major students. Available in all 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.

## HONORS PROGRAM

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.

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.


## SCHOOL OF ARTS AND SCIENCES

## ANTHROPOLOGY

ART AND INDUSTRIAL ARTS
BIOLOGY, AGRICULTURE, AND FORESTRY CHEMISTRY

ENGLISH AND THEATRE FOREIGN LANGUAGES

## GEOLOGY

 HISTORYMATHEMATICS MUSIC PHYSICS AND ENGINEERING POLITICAL SCIENCE AND PHILOSOPHY SOCIOLOGY AND HUMAN SERVICES

ROBERT W. DELANEY, Acting Director

# the school of arts and sciences 

Acting Director-ROBERT W. DELANEY

The Departments:
Anthropology—John C. Ives, Chairman
Art and Industrial Arts-Mick Reber, Chairman
Biology, Agriculture, and Forestry-James G. Erickson, Chairman
Chemistry-John M. Ritchey, Chairman
English and Theatre-Maynard Fox, Chairman
Foreign Languages-John R. Tapia, Chairman
Geology-Jack A. Ellingson, Chairman
History-Gilbert C. Din, Chairman
Mathematics-Larry S. Johnson, Chairman
Music-Sherman Friedland, Chairman
Physics and Engineering-Daniel E. Gibbons, 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

## COURSES

Ag 101 INTRODUCTION TO LIVESTOCK
(3-3) 4
Basic element of animal husbandry, with emphasis on beef, sheep, swine, and dairy production.

Ag loz FORACIE AND CROP PRODUCTION
(3-3) 4
Principles of forage and field coop production, with special attention to the crop of Colorado.
Prerequisite: Biology 102.

## Agriculture

Assistant Professor Robert Marquiss; Instructor Danny D. Simms.
The agricultural program in the equivalent of that offered in the first two years at an agricultural college, but with the added benefit of a liberal arts background. Provided the student has earned at least a $C$ average in each course, he may then transfer his credits to Colorado State University or another agricultural school with a four-year program.
Ag loz FORACit: AND CROP PRODUCTION
Principles of forage and field wop production, with special attention to the
crop of Colorado.
Prerequiste: Biology 102 .

## Ag 201 LIVESTOCK JUDGING

Selection and judging of modern types of livestock.
Prerequisite: Ag 101.

## Ag 202 WEEDS AND WEED CONTROL

(3-2) 4
Principles and practices of weed control and recognition of important weed species.
Prerequisite: Ag 102.


#### Abstract

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. Prerequisites: Biology 102 and Ag 102.


Ag 235 SOILS
(3-2) 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.
Ag 240 FEEDS AND FEEDING ..... (3-3) 4
Principles of feeding livestock, with emphasis on the use of feeds available in the western states.

Prerequisite: permission of instructor.
Ag 243 IRRIGATION AND FERTILIZER PRACTICES ..... (3-0) 3
Techniques of irrigation and fertilizer recommendations.
Prerequisite: Ag 102.
Ag 250 FARM MANAGEMENT ..... (3-0) 3
Basic economic principles applied to farm and ranch operations.
See Biology 473. ..... (3-3) 4

## Anthropology

Professors Robert C. Euler and John C. Ives;

## Instructor Susan M. Applegarth

Fort Lewis College offers a program of courses leading to the Bachelor of Arts degree with a major in Anthropology. In addition, a range of courses is offered to serve the interests of the College as a whole, especially as electives in the broad liberal arts tradition. The scope is sufficiently broad to serve the needs of the amateur archaeologist and also to satisfy the requirements of those engaged in the scholarly study of ethnic groups.
BACHELOR OF ARTS DEGREE WITH A MAJOR IN ANTHROPOLOGYGeneral Studies41
Specific Deparimental Requirements
Anth 151, Introduction to Anthropology ..... 3
Anth 201, Human Evolution ..... 4
Anth 496, Seminar or
Anth 499, Independent Study ..... 2
9
Other Departmental Requirements
One course in cultural anthropology
One course in archaeology or prehistory Plus anthropology electives to total ..... 32
Electives ..... 55
TOTAL REQUIREMENTS FOR GRADUATION ..... 128

## COURSES

Anth 151 INTRODUCTION TO ANTHROPOLOGY
A comprehensive study of general anthropology. Fall and Winter terms.

Anth 201 HUMAN EVOLUTION
A review of the fossil evidence for human evolution, and human and infrahuman primate anatomy. It may be elected as a first course in anthropology. Fall term.

Anth 202 THE NATURE OF CULTURE
(3-0) 3
An examination of the important contemporary concepts of culture in Anthropology; acculturation, cultural relativism, cultural ecology, cognition and ethnoscience, ethnohistory, structure and function, multilinear evolution, and culture as a system. The course includes the relationships of the anthropological concepts of culture to psychology, sociology, and other social sciences.

Anth 211 PRIMITIVE CULTURES
(3-0) 3
An ethnographic survey of the peoples and cultures of Africa, Eurasia, and Oceania and the New World. Fall term.

Anth 215 PRIMITIVE RELIGION

Anth 259 FIELD TRAINING IN ARCHAEOLOGY
(0-6) 6
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. Because of the necessity of limiting enrollment, preference will be given to students who have taken Anth 231 and to seniors. The course is, however, open to and suitable for all students. Summer term.

Anth 276 FOLKLORE OF THE SOUTHWEST
See English 276. Winter term.
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
(3-0) 3
A survey of a particular culture area of the world. May be repeated for different topics. Offered on demand.

Anth 361 THE NORTH AMERICAN INDIAN
Archaeology, ethnology, and linguistic relationships of the Indians of North 3
Anth 361 THE NORTH AMERICAN INDIAN
Archaeology, ethnology, and linguistic relationships of the Indians of North America. Alternate years.

Anth 368 CULTURE AND PERSONALITY
See Psych 368.
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
Advanced study and research in selected topics. On demand.
Prerequisite: senior standing and permission of instructor.
Anth 499 INDEPENDENT STUDY
Individual research is conducted under the supervision of a faculty member.
Offered on demand.
Prerequisite: approval of Department Chairman.


#### Abstract

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.


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.

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN ART

$\qquad$Specific Departmental Requirements
Art 210, Art History to the Renaissance ..... 3
Art 211, Art History from the Renaissance ..... 3
Art 401, Theory and Aesthetics ..... 3
Art 496, Seminaror
Art 499, Independent Study ..... 211
Other Departmental Requirements
21 hours from the remainder of art offerings with the exception of Art 203, Art for Elementary Teachers ..... 21Electives55
TOTAL REQUIRED FOR GRADUATION ..... 128

## 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 till 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 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.

An elementary course in the principles of composition utilizing line, mass, and color theory with emphasis on space and formal design related to both art and industrial art. An introduction to the basic tools and materials of both areas. Fall and Winter terms.

## Art 105 CERAMICS

(0-6) 3
Individual projects and forming of pottery of varied styles. Emphasis will be placed on expressive forms. Practice in ceramic procedures and use of mat terials: 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 THRFE DIMENSIONAL SCULPTURE $(0.6) 3$
A course in two-dimensional design in bas-lelief 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 tone. Fall and Winter terms.

Art 206 CERAMICS
(0-6) 3
A continuation of Art 105. Fall and Winter terms.
Prerequisite: Art 105.


#### Abstract

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 photogtaphic 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
A continuation of Art 210. Winter term.

A continuation of Art 202. Fall and Winter terms.
Prerequisites: Art 102, 202.

Art 303 ADVANCED STUDIO
Special Topics. Fall and Winter terms.
Prerequisite: consent of instructor.

## 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
Special Topics. Fall and Winter terms.
Prerequisite: consent of instructor.

Art 404 ADVANCED STUDIO
Special Topics. Fall and Winter terms.
Prerequisite: consent of instructor.

Art 496 SEMINAR
Advanced study and research in selected topics. On demand.
Prerequisite: consent of instructor.

Art 499 INDEPENDENT STUDY
Individual research is conducted under the supervision of a faculty member. Offered on demand.
Prerequisite: approval of Department Chairman.

## Biology

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

The biology curriculum is designed to fit the needs of many types of students. Although all of the trachs within the cousse 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 496and 499 , must be taken.)
Auxiliary Requirements from Other Departments
Four courses in chemistry ..... 18-2018-20
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.
A student who selects natural history must complete the following courses:
General Studies ..... 41
Specific Departmintal 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; ог Bio 499, Independent Study ..... 2
Other biology courses ..... 8
36
(At least two biology courses in the 300 series [excluding Cooperative Education] must be taken.)

## Auxiliary Requirements from Other Departments

Three courses in one of the following fields: anthropology, chemistry, geology, mathematics, physics9-12
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 ha, a bioad 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, Parhview Episcopal Hospital of Pueblo and Memorial Hospital of Colorado Springs. Students pead si^ 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. 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 dentitry. 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 and Ritchey) 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
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 pror 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

An introduction to the life sciences. The course is designed to familiarize the student with some biological principles which are significant in everyday life

Biology 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 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.

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 COMPARATINE 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.

Study of the microscopic anatomy of the vertebrate body. Fall term.
Prerequisite: Bio 103.


#### Abstract

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 431 MICROBIOLOGY 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.

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
Advanced study and research in selected topics. Fall and winter terms.
Prerequisite: senior standing and permission of instructor.

Bio 499 INDEPENDENT STUDY

Chemistry

## Chemistry

Associate Professors E. Merle Harrison and Martin E. Fuller;

## Assistant Professors Rodney D. Hamilton and John M. Ritchey; Visiting Asst. Professor James Mills; Instructor Doreen 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, forensic science, paper, food, rubber, plastics, and textiles. Thus, the graduate will find many applications for his training-e.g., teaching, research, management, production and sales-in the fields of education, business, industry 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 ..... 3
Chem 367, Instrumental Methods of Analysis ..... 3
Chem 358-359, Physical Chemistry ..... 8
Chem 496-497, Seminar ..... 2
Auxiliary Requirements from Other Departments:
Mathematics through Math 222 ..... 13
Phy, 217-218 (or Phys 201-202*) ..... 10
Two trimesters of either German, French or Computer Science ..... 6.8
*Chem 115-116 and Phys 201-202 not recommended for EXTENDED MAJORS. Electives ..... 20-22

## 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
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 225, Environmental Chemistry
Chem 264, Inorganic Chemistry
Chem 320, Modern Physics
Chem 370, Heat and Thermodynamics
Chem 420, Quantum Mechanics
Chem 454, Advanced Topics in Chemistry
Chem 463, 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

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.

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 CHFMISTRY
(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 in devigned to acquaint the student with fundamental isolation and identificatuon techniques Fall term.
Prerequisite: Chem 116 or Chem 148.

## Chem 232 ORGANIC CHEMISTRY

(3-6) 5
Studies of free radical and ionic substitution and addition reactions of aliphatic and aromatic compounds. The laboratory connhts of studies in synthesis and kinetics. Winter term.
Prerequisite: Chem 231.
structure, stereochemistry of non-transition elements, coordination compounds, acidity and basicity, energy and chemical change, solution chemistry, solidliquid phase equilibria, periodic relationships, and organo-metallic compounds. Winter term.
Prerequisite: Chem 148 or Chem 116.

## Chem 265 ANALYTICAL CHEMISTRY

(2-3) 3
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 320 MODERN PHYSICS

(3-0) 3
A course in modern physics. A study of current theories in atomic and nuclear physics. Fall term—alternate years.
Prerequisites: Phys 201 or 217 and Math 222.

## 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 phystcal properties. Fall term.
Prerequisites: Chem 116 or Chem 14X. 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

(2-3) 3
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-alternate years.
Prerequisite: Chem 265 or consent of instructor.

## Chem 464 ADVANCED INORGANIC CHEMISTRY

(4-3) 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 358 or consent of instructor.
Chem 496 SEMINAR
(1-0) 1
Advanced study and research in selected topics. Fall terms. Prerequisites: Senior standing or consent of instructor.

## Chem 497 SEMINAR

Advanced study and research in selected topics. Winter terms. Prerequisites: Senior standing or consent of instructor.

## Chem 499 INDEPENDENT STLDY

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: Senior standing and permission of instructor.

## Engineering

## Assistant Professor James R. Baker.

The engineering program offers the equivalent of the first two years of college engineering. It also provides the engineering student with a liberal arts background and the strong mathematical foundation necessary for pursuing upper-level classes and graduate studies in engineering.

Fort lewis College participates in a cooperative engineering program with Colorado state Universty at Fort Collins, Colorado. Two options are available to the student. One option is the 3-2 program in which a student attends Fort Lewi College for sis terms (equivalent to three academic years); then he spends two years at Colorado State University in the College of Engineering. During hi enrollment at Fort Lewis College, the student completes the requirements for the first two years of the engineering curriculum and most of the requirement, for a major in mathematics. At Colorado State University he
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.

The second option provides for two years' attendance at Fort Lewis College during which the student completes the engineering requirements for the first two years at Colorado State University. Successful completion of courses with an average grade point of 2.0 is sufficient for the collective transfer of the courses as a block to Colorado State University and for advanced standing as a junior in that institution.

Although the foregoing plans pertain specifically to the agreement with Colorado State University, the courses offered are accepted for credit toward comparable courses in other engineering institutions.

## 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 3
${ }^{\dagger}$ Engr 205, Elementary Surveying (3)
*Engr 206, Advanced Surveying (3)
Engr 217, Statics 3
Engr 221, Dynamics 3
Engr 276, Fluid Mechanics 3
$\dagger$ Requirements for agricultural engineering, taken in lieu of an elective.
*Requirements for civil engineering, taken in lieu of electives.

Auxiliary requirements from other departments
FS 101, 102, Freshman Seminars 8
Mathematics (Math 221, 222, 223, 327) 16
(for Math degree, additional courses above Math 301) 11
Chem 147, 148, Principles of Chemistry 10
Physics 217, $218 \quad 10$
PE 101, 102, Physical Activity 2
General Studies-College requirements from
Groups A, C, and D.
Math 496, Seminar; or Math 499, Independent Study 2

## Engineering 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 ..... 3
${ }^{\dagger}$ Engr 205, Elementary Surveying ..... (3)
*Engr 206, Advanced Surveying ..... (3)
Engr 217, Statics ..... 3
Engr 221, Dynamics ..... 3
Engr 276, Fluid Mechanics ..... 3
Auxiliary requirements from other departments
FS 101, 102, Freshman Seminars ..... 8
Mathematics (Math 221, 222, 223, 327) ..... 16
Physics 217, 218 ..... 10
Chem 147, Principles of Chemistry ..... 5
General Studies-From Group A, C, or D (Humanities and Social Sciences) ..... 3
PE 101, 102, Physical Activities ..... 244
$\dagger$ Requirements for agricultural engineering, taken in lieu of an elective.
*Requirement for civil engineering, taken in lieu of electives.

## COURSES

Engr 104 ENGINEERING PRINCIPLES I
(2-4) 3 An introduction to the FORTRAN computing language. Use of the slide rule and electronic calculators. An introduction to the engineering profession.

Engr 105 ENGINEERING PRINCIPLES II
(2-3) 3
Introduction to measurement, measurement theory, and errors Solution of fundamental engineering problems using computers, graphics, and other techniques. Engineering economy. Engineering analysis and design using the team approach.
Prerequisite: Engr 104

Engr 201 ELECTRIC NETWORKS I
Element variable-voltage and current: Kirchoff's laws, network theory, systems of network equations, RC and RL network analysis. Fall term.
Prerequisite: Math 222 must be taken at least concurrently.

> Engr 202 ELECTRIC NETWORKS II
> (2-3) 3 Winter Transient analysis, phasors, resonance, R.M.S., and average values term.
> Prerequisite: Engr 201.
> Engr 205 ELEMENTARY SURVEYING
> (2-4) 3
> Introduction to use of surveying equipment and solution of fundamental surveying problems. Fall term.

## Engr 206 ADVANCED SURVEYING

(2-4) 3
General surveying, astronomical observations, route surveying, and their field applications. Winter term.
Prerequisite: Engr 205.

## Engr 217 STATICS

(3-0) 3
Composition and resolution of forces, equilibrium of force systems. Fall term. Prerequisite: Math 222 must be taken at least concurrently.

## Engr 221 DYNAMICS

(3-0) 3
The mechanics of bodies in motion and the resulting effects of force, motion, and acceleration. Winter term.
Prerequisite: Engr 217.

## Engr 245 STRENGTH OF MATERIALS

(3-0) 3
Physical properties of materials; stresses and strains in members subjected to tension, compression, and shear; riveted and welded joints; flexual and shearing stresses in beams; deflection of beams; column analysis; principal stress. On demand.
Prerequisite: Engr 217.

## Engr 276 FLUID MECHANICS

Statics, kinematics and dynamics of fluids. On demand.
Prerequisite: Engr 221.

## English

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

The work offered in English at Fort Lewis College deals with several aspects of liberal education: the literary and linguistic history of Western culture; human values; and written and oral communication. In the major in English, various emphases are recommended: (1) an emphasis on general culture without a specific vocational goal, (2) preparation for public school English teaching, (3) preparation for graduate study in English, and (4) preparation for advanced study in Theatre. Students from other areas of study find many of the courses in English valuable for their general educational development. In addition, supporting courses are offered for the Southwest Studies major, the Humanities major, and the Elementary Education major.
English BACHELOR OF ARTS DEGREE WITH A MAJOR IN ENGLISH
General Studies
Specific Departmental Requirements41
A minimum of 34 hours from English courses designated in thecourse offerings as "applicable to the major." These must bedistributed minimally among the following areas:
One course in World Literature (161, 162, 221, or 222)
One course in American Literature (241, 243, or 342)
One course in Composition (263 or 364)
One course in English Language (461 or 462)
Two courses in English Literature (any two from 331-335, 431,and 432)
Engl 496, Seminar: or Engl 499, Independent Study Other courses bringing the total to 34 hours ..... 34
Auxiliary courses especially recommended
a. For students preparing for graduate study in English: Two or more courses in a college foreign language ..... 6-8
b. For students preparing for secondary school teaching: Ed 362, Developmental Reading in the Secondary School ..... 3-8
Electives ..... 45-50(Those who wish to teach in secondary schools must take the required Edu-cation courses. See "Secondary Education Program" listed under the De-partment of Teacher Education. Recommended electives for English teachersinclude Thea 151 and other speech and theatre courses, work on thestudent newspaper, and Ed 362.)
TOTAL REQU1RED FOR GRADUATION ..... 128

## COURSES

## Preparatory English

## Engl 019 INTENSIVE ENGLISH

(5-0) 0
An intensive course in English as a second language, designed for students without sufficient grasp of basic English structure and vocabulary to communsate ideas orally and/or in writing. Course work is tailored to individual needs. Primarily for bilingual students. Fall and Winter terms. for bilingual students. Fall and Winter terms.

## Engl 101 A LINGUISTIC APPROACH TO THE

(5-0) 2 English

## ENGLISH LANGUAGE

Intended only for bilingual speakers of English, including foreign students. The primary aim of the course is to extend the ability to think verbally in English and to express experiences and reflections effectively. Fall and Winter terms.

## Engl 103 FRESHMAN ENGLISH

Training in good usage in written and oral expression. On demand.
Prerequisite: satisfactory score on ACT and permission of instructor.

## Engl 104 FRESHMAN ENGLISH

(3-0) 3
A continuation of Engl 103 with emphasis on longer units of composition. On demand.
Prerequisite: Engl 103.

## General English Electives

(not applicable to the major)

## Engl 125 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 130 THE ENGLISH TRADITION IN LITERATURE

The English literary and cultural heritage presented in its historical context. Fall 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 189 NEWS WRITING

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.

## English

Engl 161 WORLD LITERATURF TO 1914
(3-0) 3
A study of selected masterpieces of world literature to 1914. Fall 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 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 241 AMERICAN LITERATURE TO 1835
(3-0) 3
A study of the literature of the Colonies and the early Republic. On demand.

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 full understanding and appreciation of folk traditions and cultures of the Southwest. Winter term.

Engl 280 LITERATURE OF THE SOLTHWEST
(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
A study of the literature of England from Maiory to Milton. Offered on demand.

Engl 332 ENGLISH LITERATURE, 1660-1798
(3-0) 3
A study of the ages of Dryden, Pope, and Johnson. Fall term.

Engl 333 ENGLISH LITERATURE, 1798-1850
(3.0) 3

A study of the literature of England of the Romantic period. Einphasis on poetry and non-fictional prose. Winter term.

Engl 334 ENGLISH LI'TERATURE, 1850-1914
(3-0) 3
A study of the literature of England of the Victorian and Edwardian periods. Emphasis on poetry and non-fictional prose. Winter term.

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 342 LITERATURE OF THE AMERICAN RENAISSANCE (3-0) 3A study of such writers as Hawthorne, Emerson, Thoreau, Melville, Whitman,and Emily Dickinson. Winter term.
Engl 371 DRAMATIC LITERATURE ..... (4-0) 4
A study and analysis of plays exclusive of Shakespeare. Alternate years.
Engl 411 TWENTIETH CENTURY ENGLISH AND ..... (3-0) 3 AMERICAN POETRY
A study of 20th Century poetry from 1914 to the present. On demand.
Engl 412 TWENTIETH CENTURY ENGLISH AND ..... (3-0) 3 AMERICAN FICTION
A study of selected 20th Century English and American writers, concentratingon the novel. On demand.
Engl 431 CHAUCER ..... (3-0) 3A study of the writings of Geoffrey Chaucer. Winter term.
Engl 432 SHAKESPEARE(3-0) 3A study of Shakespearean drama. Fall term.
English Language and Composition Courses
Applicable to the Major
Engl 263 ADVANCED COMPOSITION ..... (3-0) 3An advanced writing course with emphasis on the common forms of writingused by educated adults. Fall and Winter terms.
Prerequisite: Freshman Seminar 102.
Engl 364 CREATIVE WRITING ..... (3-0) 3An advanced writing course with concentration in such writing areas as poetry,short stories, and magazine articles. 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 thepresent. Winter term.
Engl 462 ENGLISH LINGUISTICS(3-0) 3
A study of English linguistic theory and grammar. Fall and Winter terms.
Capstone Courses Applicable to the Major
Engl 496 SEMINAR(2-0) 2 or (3-0) 3Advanced study and research in selected topics. Offered on demand.Prerequisite: senior standing and permission of instructor.
Engl 499 INDEPENDENT STUDY ..... 1-3
Individual research is conducted under the supervision of a faculty member.Offered on demand.Prerequisite: approval of Department Chairman.

Associate Professor Maria Delaney; Assistant Professors Odilie A. Cantillano, Deborah A. O’Sullivan, and John R. Tapia;<br>Instructor James G. Fitzgerald.

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.

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
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 masterpieces. Offered on demand.
Prerequisite: FL 248.
FL 308 MASTERPIECES OF 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.
FL 224 INTERMEDIATE GERMAN IIContinuation of FL 223. Winter term.(3-0) 3FL 323 THIRD-YEAR GERMAN I(3-0) 3
Emphasis on literature, advanced reading, conversation, and composition. ..... Fallterm.
FL 324 THIRD-YEAR GERMAN II ..... (3.0) 3
Emphasis on literature, advanced reading, conversation, and composition. Winterterm.
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) 4An 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
Fort Lewis College offers a major in Spanish. It provides students withproficiency in spoken Spanish and an insight into Spanish-American culture,while preparing them for professional employment and graduate work. Stu-dents who desire to teach will take the required education courses. Incomingstudents with some knowledge of Spanish are placed in appropriate courses.
BACHELOR OF ARTS DEGREE WITH A MAJOR IN SPANISH General Studies ..... 41
Specific Departmental Requirements
FL 311 and FL 312, Survey of Spanish Literature I \& II orFL 321 and FL 322, Survey of Hispanic American
Literature I \& II ..... 6
FL 496, Seminar; or FL 499. Independent Study ..... 2
8 ..... 8
Other Departmental Requirements
12 hours from the remainder of the Spanishofferings numbered above 30012
For those who need it:
FL 115 and FL 116, Elementary Spanish ..... 8
FL 215 and FL 216, Intermediate Spanish ..... 6$26 \quad 26$
Auxiliary Requirements from other departments
SW 365, Hispanic Civilization ..... 3
SW 375, Hispanic American Civilization ..... 3
6 ..... 6
Electives ..... 47
TOTAL REQUIRED FOR GRADUATION ..... 128

## COURSES

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

FL 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 18 th centuries. Fall term.
Prerequisite: FL 216.

## FL 312 SURVEY OF SPANISH LITERATURE II

(3-0) 3
A survey of the literature of Spain from 1824 to the present. Winter term. Prerequisite: FL 311 or permission of instructor.

FL 319 ADVANCED SPANISH CONVERSATION
(3-0) 3
Conversation based on current events and literary material. Fall term. Prerequisite: FL 216 or equivalent.

FL 320 SPANISH LINGUISTICS AND 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 AMERIC.AN 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. Reahsts, 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: 11.321 or permission of instructor. de Cervantes, writings of the Spanish mystics, and the picaresque novel. Alternate years.
ternate 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 20 th 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.
#### Abstract

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 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 <br> Translation of Spanish documents concerning the American Southwest. Offered on demand.

Prerequisite: consent of instructor.
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,
1-3
FRENCH, OR GERMAN

Individual research conducted under the supervision of a faculty member. Offered on demand.
Prerequisite: approval of Department Chairman and senior standing.

## 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
Classification, identification, silvical characteristics, economic importance, and distribution of the broad-leaved and coniferous trees of the United States. Fall term.

## 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; Instructor Robert W. Blair, Jr.

The Department offers a Bachelor of Science degree with a major in geology. Laboratory and field equipment and geology holdings in the College library facilitate the necessary research and reading. The study of geology at Fort Lewis College is enhanced by the College's remarkable location amidst the unsurpassed geological phenomena in the southern Rocky Mountains and adjacent areas of the Southwest. The Grand Canyon, the Goose Necks of the San Juan River, Monument Valley, and Shiprock are representative of the classical geological localities nearby. The numerous outcrops and mine workings in the vicinity are sources of 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 ausiliary requirements from other sciences ..... 41
Specific Departmental Requiremints
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 496-Seminar or Geol 499—Independent Study ..... 2
At least one course numbered above 400 ..... 3
Auxiliaty Requirements from Other Departments
Chemistry $115-116$ or $147-14 \mathrm{~s}$ ..... 10
Mathematics 121 ..... 4
Physics 201-202 or 217-218 ..... 1024
(ten hours included in the 41 hours of general studies) ..... 14
Elcctives ..... 39128

## Preparation for Graduate School

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

Geol 213-Geomorphology
Geol 233-Paleontology

Geol 362-Sedimentary Petrology
Geol 441—Field Geology

Additional work in the physical sciences and mathematics
IA 150 and Engineering 104, 105 and 205

French or German

## COURSES

Geol 105 ROCKS AND MINERALS
Hand specimen study of the common rock-forming minerals, gem and ore minerals, and igneous, metamorphic, and sedimentary rocks. On demandContinuing Education only.
Prerequisite: permission of instructor.

## Geol 113 PHYSICAL GEOLOGY

(3-2) 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

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
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
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.
Geology Geol 208 OPTICAL MINERALOGY AND PETROGRAPHY
Procedures for identification of minerals in thin section, with emphasis on the optical determination of rock-forming minerals. Winter term. Prerequisite: Geol 207.

## Geol 213 GEOMOR PHOLOGY

The relationship of geologic processes to the development of land forms. Fall term.
Prerequisite: Geol 113.

## Geol 233 INTRODUCTORY PALEONTOLOGY

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. Winter 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.

Geol 352 METAMORPHIC PETROLOGY
(2-3) 3
The origin, occurrence, and classification of metamorphic rocks. Winter term. Prerequisite: Geol 351.

Geol 361 STRATIGRAPHY
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 rochs 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.

## Geol 409 ECONOMIC MINERAL DEPOSITS

Geologic occurrence of metallic and non-metallic mineral deposits. Alternate years.
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

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, Chem 264, or permission of instructor.

Geol 433 MICROPALEONTOLOGY
(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 441 FIELD GEOLOGY 6

The fundamental procedures and practices in geologic field mapping. Summer term.
Prerequisite: 24 hours of geology.

Geol 451 FIELD STUDIES IN IGNFOUS 5 AND METAMORPHIC PETROLOGY
An intensive field study of igneous and metamorphic rocks emphasizing petrologic and structural relationships. Summer term—alternate years.
Prerequisite: Geol 352 or permission of the instructor.

Geol 461 FIELD STUDIES IN STRATIGRAPHY
Field interpretation of sedimentary rocks, their depositional environments, and stratigraphic facies relationships. The interpretation and significance of primary sedimentary structures will be stressed. Summer term—alternate years.

Advanced study and research in selected topics. Offered on demand. Prerequisite: permission of instructor.

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

## GERMAN (see FOREIGN LANGUAGES)

History

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

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

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

Histoly majurs 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
Areas of Concentration
European History
Latin American HistoryAsian HistoryUnited States HistoryHistory major with no concentration Courses, with the consentof the adviser, must be chosen from at least three of the abovementioned areas.
Requirements in History
Lower Division ..... 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)
Upper Division ..... 24Four courses on 300 or 400 level in the area of concentration( 12 hrs .)
Three additional 300 or 400 level courses taken outside the con-centration in at least two areas ( 9 hrs .)
Seminar taken in the area of concentration ( 3 hrs .)
Requirements Outside of History
Two courses in one foreign language ..... 6-9
Electives ..... 42.45
TOTAL REQUIRED FOR GRADUATION ..... 128

## COURSES

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

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 instuctor'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-()) 2 or (3-0) 3
Advanced study and research in selected topies.
Prerequisite. senior standing and permission of instructor.
Hist 494 INDFPENDENT STUDY

## 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, or Foreign Language 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 ..... 20-32
One or two secondary concentrations of 12 hours each ..... 12-24
Two trimesters of college mathematics or
two trimesters of college foreign language ..... 6-9
Seminar or Independent Study in major concentration. ..... 2
40-67 ..... 40-67
Electives ..... 20-47
TOTAL REQUIRED FOR GRADUATION ..... 128
Students expecting to teach are advised to take 32 hours in their primary con-centration and to complete the education courses necessary for certification.
Industrial Arts
Assistant Professor Donald Spangsberg

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

## IA 101 ELEMENTARY WOODWORKING

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
(0-8) 4
See SW 111.

IA 112 INDIAN ARTS AND (RAFTS
(0-8) 4
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 term.

## 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
> Cutting and polishing of gem quality rocks. Fall term.
(2-3) 3

## Mathematics

## Mathematics

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

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

The mathematics major begins his studies with Math 121, College Mathematics, if his high school background contains at leatt three years of mathematics, including two years of algebra and one of geometry. A more advanced student may begin with the calculus if his background is deemed sufficient. Students lacking sufficient background for Math 121 should begin with Math 120, Introduction to College Mathematics. However, credit for Math 120 does not count toward the 34 -hour mathematics major. In fact, no course numbered lower than 121 will count toward the mathematics major, and neither will those courses numbered $160,201,215,216,260$, and 315. Math 92, Trigonometry, does not count toward the 128 -hour graduation requirement, but all others will, with the following exceptions:

1. No student will take both Math 100 and Math 120 for credit.
2. Some courses may not be enrolled in after the student has taken another mathematics course. Example: Math 121 may not be taken for credit after Math 221 has been completed.

Students wanting to enroll in a mathematic, course which has a lower number than a previously completed mathematics course should consult the Chairman of the Mathematics Department.

The mathematics major must complete 15 hours of credit in mathematics courses numbered higher than 300 (with the exceptions noted above). One of the sequences, Math 375, Algebraic Structures, and Math 376, Linear Algebra, or Math 422 and 423, Advanced Calculus, must be taken. Also, 2 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 375, Math 376, 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 375, Algebraic Structures; Math 376, Linear Algebra; 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 and Geometry. 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. Some students will prefer Math 92 , Trigonometry, due to special requirements of their majors. Finally, Math 201, Elementary Statiotics, is offered for students who want an introduction to statistics without a calculus background.

In addition to mathematics course, the Mathematics Department also offers the computer science course, Comp Sci 150, Introduction to Programming Systems. This course does not satisfy mathematics requirements such as that of Group B of the Liberal Arts Distribution Requirements.

## Specific Departmental Requirements

Mathematics courses through Math 223, Calculus 12-17
Math 375 and Math 376 or
Math 422 and Math 4236
Math 301 3
Math 401 3

## Other Departmental Requirements

Additional hours from courses numbered above Math $300 \quad$ 3-8
Math 496, Seminar; or Math 499, Independent Study 24

## Auxiliary Requirement

CS $150 \quad 3$
Electives ................................................................................................................... 50
TOTAL REQUIRED FOR GRADUATION ..................................................... 128

## COURSES

## *Math 92 TRIGONOMETRY

(2-0) 2
A study of plane trigonometry including trigonometric functions, fundamental identities, and applications to triangles. This course is designed for students who need more background in trigonometry before taking Mathematics 121. Credit will not be counted toward the 128 -hour graduation requirement, and grades will be satisfactory or no credit. Fall term.
*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 COLLFGE MATHEMATICS (4-0) 4 <br> Designed for students with weak high shool mathematics backgrounds, this course includes a discumion of such topics as sets and set operations; the real number system and its properties, including signed numbers, fractions, and the simplification of algebraic expremons, evponents, 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 trigo-
nometric 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

Designed as a first course in linear mathematics for business, behavioral, and social science students, 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 <br> (3-0) 3

The types and treatments of data, sampling theory, and inferences. Fall and Winter terms.
*Math 215 SETS, NATURAL NUMBERS, AND INTEGERS
(3-0) 3
This course includes a presentation of setヶ, set operations, elementary logic. base and base free systems, construction of a number system, ordered pairs, and integers. It is intended primarily for elementary teachers. Fall and Winter terms.

## *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. Fall and Winter terms.
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
Techniques of single-variable and multi-variable calculus. Fall and Winter terms.
Prerequisite: Math 221.

Math 223 CALCULUS
(4-0) 4
Limits and contınuity of functions, sequences and series, implicit differentiation, integration by substitution and other special techniques, improper integials, maxima and minima; an introduction to differential equations. Fall and Winter terms.
Prerequisite: Math 222.

This is the second course in the two trimester sequence for students of business and the 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 Winter terms.

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 and Winter terms.
Prerequisite: Math 222 or permision of instructor.
*Math 315 REAL NUMBERS AND GEOMETRY
(3-0) 3
In this course the following topics are considered: lines and points, space, incommensurables, limits, real numbers, cartesian product, and geometry in the cartesian plane. Fall term.
Prerequisite: Math 216 or permission of instructor.
Math 316 TOPICS IN NUMBER THEORY AND GEOMETRY
(3-0) 3
Some of the topics to be presented in this course are modular arithmetic, finite fields, basic prime number theorems, regular polygons and polyhedral figures, areas, constructions, 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 term.
Prerequisite: Math 223 or permission of instructor.
Math 327 DIFFERENTIAL EQUATIONS
The types and solutions of differential equations. Winter term.
Prerequisite: Math 223 or permission of instructor.
Math 342 MODERN COLLEGE GEOMETRY
The advanced theories and topics in geometry. Fall term.
Prerequisite: Math 301 or permission of instructor.
Math 375 ALGEBRAIC STRUCTLRES
(3-0) 3
Groups, rings, fields, quotient structures, isomorphism theorems. Fall term. Prerequisite: Math 301 or permission of instructor.

Math 376 LINEAR ALGEBRA
(3-0) 3
Vector spaces, linear transformations, linear algebras, matrices. determinants, similarity, canonical forms, quadratic forms. W'inter term.
Prerequisite: Math 301 or permission of instructor.
Math 401 PROBABILITY AND STATISTICS
(3-0) 3
Mean and variance of sum of random variables; binomial. Poisson, and normal distribution; Markov chains; stochavtc processes: and application to theory of queues. Winter term.
Picrcyuisile: Math 223 or permmaton of instructor.
Math 422 ADVANCED CAl CULL's
(3-0) 3
Structure of the real number sytem, elementary topology of the real numbers and of the Luclidean spaces, general theory of limits and continuity, differentiation of functions in Euclidean spaces. Fall term.

Math 423 ADVANCED CALCULUS
(3-0) 3
A continuation of Mathematics 422 . Topics include the Stieltjes integral on the line and in Euclidean spaces, infinite series, and an introduction to function spaces. Winter term.
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; homeomorphism and topological invariants; product spaces and quotient $\uparrow p a c e s$. Winter term. 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.


#### Abstract

*Cmp Sc 150 INTRODUCTION TO PROGRAMMING SYSTEMS (2-2) 3 A study of programming systems at the translating-language level. After an overview of the structure of modern computer systems, the student is introduced in detail to a major translatıng-language Applications in areas of itudent interest are studied, and contrasting philosophies of language implement،tion are examined. Individual and team programming capabilities are developed in the Iaboratory. Fall and Winter terms.


*These courses do not count towards the mathematics major.

Music
Associate Professors Sherman Friedland and Patricia E. Weaver; Assistant Professors Ralph A. Downey, Maurice LeGault, and Richard (j. 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 FMPHASIS
General Studies ..... 41
Specific Departmental Requirements
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
Other Departmental RequirementsAt least six credit hours in one of the following:Mu 105, Mu 106, Mu 107, Mu 110. Mu 115, with a maxi-mum of 12 credit hours allowable toward graduation inany combination of these courses6-12
Applied Music (8 to 16 hours) ..... 8-16 ..... 14-28
Electives ..... 39-25
TOTAL REQUIRED FOR GRADUATION ..... 128
BACHELOR OF ARTS DEGREE WITH A M.AJOR IN MUSIC-VOCAL EMPHASIS
For those students who wish to major in vocal music, the courses above are required, except that Music $31+$ muvt be substituted for Music 315 , and the 8 to 16 hours of applied music muxt be directed toward vocal. Two semesters of piano and the proficiency text are required. Chorus participation in 6 to 8 trimesters is required.

## Piano Proficiency

All music majors must par 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,
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)
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, F \& F) (0-1/2) I 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. Fall and Winter terms.

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 umall scale choral works. By audition only. Fall and Winter terms.

Mu 107 SPECIAL CHOIRS
(0-3) 1
Requests for developing special choirs will be considered, upon written request to the Department of Music, as adjuncts to any on-campus organization. Under competent, organized supervision these choirs may function and receive $1 / 2$ hour credit during any one term. Fall and Winter terms.

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.

Mulls 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 alranged 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 trainıng 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 18 th and 19 th 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.
Prerequisitc: Mu 100. Recommended: Mu 103A or 104A.

Mu 222 THEORY II
(3-0) 3
Continuation of Mu 221. Winter term.
Prerequisite: Mu 221.

Mu 231 MUSIC HIsTORY I
(3-0) 3
Study of the history of musc from clanical antiquity to 1750. Fall term.

Mu 232 MUSIC HISTORy II
(3-0) 3
Study of the history of music from 1750 through 1900. Winter term.

Mu 250 CONDUCTING
(3-2) 3
A course in bacic instrumental and choral conducting including stick-technique, score-reading, and various cueing and rhythmic aspects concerned with ensemble control.

Mu 300 VOCAI ENSFMBLE
(0-2) 1
A study through performance of the literature for vocal ensemble and a vehicle for the "pop" group.

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.

## 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 ENSEMBLF
(0-2) I
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
(3-0) 3
TEACHING VOCAL MUSIC
A course designed to provide music majors with contemporary teaching shilh and techniques in teaching vocal music in the public schools in grades $\mathrm{K}-12$. The Kodaly and Orff methods coupled with a pragmatic approach will be used. Winter term.
$\begin{array}{ll}\text { Mu } 315 & \text { METHODS AND PRINCIPLES OF } \\ & \text { TEACHING INSTRUMENTAL MUSIC }\end{array}$
A course designed to provide music majors with contemporary teaching shilh and techniques in the teaching of instrumental music in the public schools. Winter term.

Mu 316 MUSIC IN THE ELEMENTARY SCHOOL
(3-1) 3
A class for elementary classroom teachers. A study of bask 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 18 th and 19 th century literature. Fall term. Prerequisite: Mu 222.

## Mu 322 ADVANCED THEORY

Continuation of Mu 321. Winter term.
Prerequisite: Mu 321.

Mu 496 SEMINAR
Advanced study and research in selected topics. Offered on demand. Prerequisite: senior standing and permission of instructor.

Mu 499 INDEPENDENT STUDY
Individual research is conducted under the supervision of a faculty member. Offered on demand.
Prerequisite: approval of Department Chairman.

## 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 likerally 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 oun 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 MORAI 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.

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 truthfunctional 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 hown 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
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

Physical Science
The physical science major provides good 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 level or reek an advanced degree in physical science, earth science, or possibly one of the particular fields of science. Others may wish to use the program as a means of preparing to teach on the secondary school level or to work as a science technician or to continue training leading toward a career in medicine or dentistry. Any student who plans to teach should consult the School of Education section of this bulletin to obtain the 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
Additional requirements depching on concentration selected(Choose the courses in onc of the sciences listed below; with thecourses listed above as general requirements these courses willcomplete the required 20 hours concentration.)
Chemistry 231, 258 and one other course numbered above 231 or ..... 12-14
Geology 207, 351, 361 and one other course numbered above 207 or ..... 12-13
Physcs- $\mathbf{3}$ courses numbered above 218 ..... 10-14
Choose one additional course in either science not selected as themajor concentration above. I his will serve as the necessary thirdcourse in a second physical scence. 3-5Electiocs31-25
TOTAL REQUIRED HOR GRADUATION ..... 128

Include, 10 hr , of Group B which can be satisfied under "Additional Requirements."

## COURSES


#### Abstract

PhySc 100 LABORATORY (0-3) 1 Work covers experiments in the fields of phycics, chemistry, meterology, geology, and astronomy. Laboratory techniques and instrumentation are stressed. Fall and Winter terms.

PhySc 105 THE PHYSICAL SCIENCES (3-0) 3 History 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. Area studies in electron theory, transistors, particle chemistry. Fall and Winter terms.


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 term.

## Physics

Professor Randall D. Taylor; Associate Professor Daniel E. Gibbons; Instructor Tom D. Norton.

As an important part of the physical science program, Fort Lewis College offers a strong selection of the basic undergraduate course, 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 chemstry, engineering, and mathematics. For information about the ways in which the physics courses can help him, the student should consult his adviser and the Physics Department faculty.

## 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. It is not recommended for engineering students or for most physical science majors. Students who take Phys 217 will not receive credit toward graduation for Phys 201. Fall term.
Prerequisite: high school algebra.
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
The course includes topics in mechanics, wave motion, sound, 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.
Prerequisite: Math 221; Math 222 should be taken concurrently.

## Phys 218 PHYSICS FOR SCIENCE AND ENGINEERING

A continuation of Phys 217. The course includes the principles of electricity and magnetism, light and optics, and topics in modern physics. Phys 218 is required of engineerıng students and strongly recommended to all physical science majors. Winter term.
Prerequisites: Math 222 and Phys 217.

## Phys 320 MODERN PHYSICS

(3-0) 3
A course in modern physics. A study of current theories in atomic and nuclear physics. Fall term-alternate years.
Prerequisites: Phys 201 or 217 and Math 222.

## Phys 340 OPTICS

Laboratory experiments include experiments in both geometrical and physical optics. Emphasis is on precision measurements by optical techniques. Experiments include measurements with interferometer, laser, spectroscope, and diffraction grating. Fall term-alternate years.
Prerequisites: Phys 202 or 218 and Math 222.
Phys 354 THEORETICAL MECHANICS
(4-0) 4
A study of kinematics, statics, and dynamics of particles and rigid bodies. Winter term—alternate years.
Prerequisites: Phys 201 or 217 and Math 223.
Phys 361 PRINCIPLES OF ELECTRICITY AND MAGNETISM (4-3) 5 The mathematical theory of electrical and magnetic phenomena. Offered on demand.
Prerequisites: Phys 202 or 218 and Math 327.

## Phys 370 HEAT AND THERMODYNAMICS

(3-0) 3
The concepts of temperature, heat, and changes of state. Winter term.
Prerequisites: Phys 201 or 217 and Math 327 .

## Phys 408 ELECTRIC CIRCUITS

(4-3) 5
The principles and theories of circuit analysis, energy conversions, and pertinent equipment. Offered on demand.
Prerequisites: Phys 201 or 217 and Math 327.

## Phys 420 QUANTUM MECHANICS

(4-3) 5
An introductory course that includer wave-particle relationships, stationary solutions to Schrodinger equation, barrier penetration problens, single harmonic oscillator, one-electron atom, multi-electron atoms, and an introduction to quantum scattering theory: Offered on demand.
Prerequisites: Phys 202 or 218 and Math 223.
Phys 499 INDEPENDENT STUDY
Individual research is conducted under the supervision of a faculty member. Offered on demand.
Prerequisite: approval of instructor.

## Political Science

Professor Maurice Harari; Associate Professors David J. Bass, James C. Decker, and LeRoy W. Goodwin; 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, eithet 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 Studies41
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 ..... 2-38
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
Electives ..... 39-43
TOTAL REQUIRED FOR GRADUATION ..... 128

## COURSES

## PS 101 POLITICS: THE PROBLEM OF

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
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
(3-0) 3
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 adminstiation 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

(3-0) 3
An introduction to the American legal system from the citizen's point of view, to include the processes of criminal and civil law. Law as a social institution is examined through study of the trial and appellate processes, including the behavior of lawyers, judges, juries, and law enforcement officers. Fall term.

PS 260 POLITICS AND CHANGE IN AFRICA
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.

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 pervisting 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 INTERNATIONAI RELATIONS
(4-0) 4
An examination of international politics, with special emphasis on the relationships of security, sovereignty, nationali,m, 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 cope 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 distunct cultural histories; their upecific 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 writing 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 scientist, 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 in strongly recommended before taking this course. Fall term.

## PS 496 SEMINAR

Advanced study and research in selected topics.
Prerequisite: senior standing and consent of intructor.

PS 499 INDEPENDENT STUDY
Individual research is conducted under the supertision of a faculty member. Offered on demand.
Prerequisite: approval of Department Chairman.

## SPANISH (see FOREIGN LANGUAGES)

## Sociology and Human Services

Associate Professor Norman K. Linton; Assistant Professor Leland E.
Stuart; Instructors Samuel A. Burns, and Mary Kay Cordill.
Fort Lewis College offers courses in both sociology and geography which may be taken as electives by those desiring a broad background in the social sciences and in the study of minority groups.



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Sociology and Human Services

## Sociology and Human Services

## COURSES

Soc 101 INTRODUCIION TO SOCIOLOGY
(3-0) 3
An elementary survey of the field of sociology, including subject matter, methods, and theory. Fall and Winter terms.

Soc 241 MODERN SOCIAL ORGANIZATION
(3-0) 3
Study of complex modern social structures and institutions including bureaucracies, cities, and economic organizations. Fall term.

Soc 251 THE COMMUNITY
(3-0) 3
A review and appraisal of community theories, studies, and processes of change. Winter term.

Soc 263 CONTEMPORARY SOCIAL PROBLEMS
(3-0) 3
A study of culture and its relation to specific social problems. Fall and Winter terms.

Soc 275 THE SOCIOLOGY OF EDUCATION IN
CONTEMPORARY SOCIETIES
An examination of the structure and operation of educational organizations in contemporary American society. Classrooms, schools, school systems, higher education, and governmental educational agencies are examined in terms of the activities they carry out and the social impact of these activities. Alternate years.

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 301 SOCIAL STRATIFICATION
(3-0) 3
The comparative study of social stratification systems, emphasizing the dynamics of modern class society but including study of caste, estate, and other stratification systems. Fall term.
Prerequisite: one course in sociology.

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. Winter term.
Prerequisite: one course in sociology.

Soc 499 INDEPENDENT STUDY
Individual research is conducted under the supervision of a faculty member. Offered on demand.
Prerequisite: approval of Department Chairman.

## Geog 271 WORLD GEOGRAPHY

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

## 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 121 SPEECH COMMUNICATION

(3-0) 3
Through closely supervised activities in various speech forms, the student develops skills in the organization and delivery of speeches. Fall and Winter terms.

## Thea 123 ACTING: INTERPERSONAL COMMUNICATION <br> (1-2) 2

Getting the person in touch with his environment. Method and approach include centering, sensory awakening, meditation, fantasy, non-verbal, and dramatic methods. Fall term.

Thea 131 SCENIC ELEMENTS
(2-2) 3
Theories and principles in theatre scenery and property construction and execution. Fall term.

Thea 141 ACTING: VOICE AND BODY
(I-2) 2
Training the instruments for more effective communication. Exercises include meditation and movement, vocal control and precision of diction, sound and body movement, mime and choral work. 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 181 THEATRE WORKSHOP

This course is designed to give college credit for participation in theatre activities. Such credit may be obtained by participation in acting either in experimental theatre or in major college productions. A section in technical theatre offers credit for behind-the-scenes and other back-up work for the stage. The course may be taken four times for credit. Fall and Winter terms.

Theatre Thea 221 LIGHTING AND SOUND
Introduction to design and execution theories, principles and techniques of theatre lighting and sound. Fall term.

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 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.
Engl 371 Dramatic Literature may also be taken for credit in Theatre.

Thea 499 INDEPENDENT STUDY
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<br>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.

In accordance with the highest standards of education for business, students are expected to acquire a sound bachground 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 studentfaculty 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 Att Degree in Secretarial science.

## SCHOOL OF BUSINESS ADMINISTRATION FACULTY

Professors Arthur K. Brintnall and Edward N. Dubois;
Associate Professors Bernard E. Anderson, Edward S. Freienmuth (Director), Reginald A. Graham, William W. Hollis, Jerry M. Kaufman; Assistant Professors Leonard D. Atencio, William D. Engs, Aubrey A. Holderness, Eugene L. Holehan, Willie R. Leslie, Jr., Vernon D. Lynch, Diane Olson, and John H. Zoller; Instructors Sara Duncan,

Joanne M. Klebba.

## 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."

## The Curriculum

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 Busmess Statintics I 3
BA 252 Busíness 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
BA 496 Seminar or
BA 499 Independent Study 2
III. The following courses in the quantitative and computer science areas:
CS 150 Computer Science 3
Math 160 Linear Mathematics 3
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 r but no more than $60 \%$ of the student's total hours munt be taken outside of the School of Business Administration.
*Not required of Busines Education majors.

## Accounting

The objectives of the program in Accounting are: To provide opportunity for students to develop into thinking, well balanced, wcial beings: to become familiar with the economic, political, and wocial climate in which modern business is conducted; to familiarze the student with the primary analytical tools and methods: and to develop capacity for objective analyss, for leadership, for appreciation of cultural values, and an awareness of the individual's social responsibility.
students succersfully completing the major in Acounting ate prepared to embark immediately upon a caree a a public, prisate or governmental accountant, and are provided with a foundation in accounting and business administration that will enable then to pursue effectively graduate study in these fields.

The accounting major at Fort Lews 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.

## 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 Requincments

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

Other Departmental Requirements
Acc 436 Auditing 3
ог
Acc 437 Internship in Public Accounting 3
Acc Elective 3

Auxiliary Requirements from Other Departments
BE 221 Business Communications 33

## ACCOUNTING MAJOR

## Suggested Course Sequence

First Year

## FALL <br> WINTER

| FS 101 | 4 | FS 102 | 4 |
| :--- | ---: | :--- | ---: |
| Math 160 or CS 150 | 3 | CS 150 or Math 160 | 3 |
| Electives | 2 | Electives | 3 |
| General Studies | 6 | General Studies | 5 |
| P.E. | I | P.E. | 1 |
|  | - |  | - |
|  | 16 |  | 16 |

Second Year
*Acc 225
BA 251
Econ 261
General Studies
Electives

4 Acc 2264
3 BA 252 ..... 3
3

BE 221 ..... 3
Econ 262 ..... 3
3 General Studies ..... 3 ..... -16

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## Third Year

Acc 323
Acc 325
BA 311
BA 340
General Studies

| 4 | Acc 324 |
| :---: | :---: |
| 3 | Acc Elective (Cost 326 or |
| 3 | Managerial 319) |
| 3 | BA 301, 350 or 380 |
| 3 | BA 312 |
| - | General Studies |
| 16 |  |

Fourth Year
Acc 430
Acc 433
BA 300, 350 or 380
Electives
General Studies

Acc 436 or 437
$\begin{array}{ll}3 & \text { Acc } 436 \text { or } 437 \\ 4 & \text { BA } 301,350 \text { or } 380\end{array}$
3 BA 405
3 Seminar 496
3 General Studies
16
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## COURSES

## Acc 225 ELEMENTARY ACCOUNTING I

(3-2) 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 acounting. Offered fall and winter terms.

Acc 226 ELEMENTARY ACCOUNTING II
(3-2) 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 bunness 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 itresed. Topic 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 decivions, 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. Prercquisite: Acc 226.

Acc 323 INTERMEDIATE ACCOUNTING I
(4.0) 4

The fundamental process of accounting is analyzed. The proper treatment of business transactions in the recording and analyzıng 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 <br> (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 cout 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 tiax, income tax accounting, and a study of current federal income tax provisions are presented. Offered fall term.
Prerequisite: Acc 323 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, e九tates 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, profeswonal ethics, applications of accounting and auditing standards, SEC stock exchange regulations, investigations for purchase and financing, and current literature on auditing. Offered winter term.
Prerequisite: Acc 324 and consent of instructor.

## Business Admination

Accounting students in their senior year may be placed with a selected certified public accounting tirm 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
Advanced study and research in selected topics. Offered fall and winter terms. Prerequisite: senior standing and permission of instructor.

## BA 499 INDEPENDENT STUDY

Individual research is conducted under the supervision of a faculty member. Offered fall and winter terms.
Prerequisite: approval of Director, School of 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 390 Operations Research ..... 3
BA 483 Investments ..... 3
BA 486 Insurance ..... 3
BA 489 Real Estate ..... 3
BUSINESS ADMINISTRATION MAJOR
Suggested Course Sequence15
First Year
FALL
WINTER
Math 160 or CS 150 3 Math 160 or CS 150 ..... 3
FS 101
Acc 225, Econ 261 orEcon 262
General StudiesP.E.
3 or 4
5 or 4 General Studies ..... 5 or 4 ..... 1 ..... 16FS 1024
Acc 226, Econ 261 or
Econ 262
Econ 262 ..... 3 or 4 ..... 3 or 4
Second Year
BA 251
Acc 225, Econ 261 or

Econ 262
Electives
General Studies

3 BA 2523
Acc 226, Econ 261 or
4 or 3 Econ 262 ..... 3 or 42
General Studie 6 or 7 General Studies ..... 8 or 7
$\overline{16}$
16 ..... 16
BA 301 3 Acc 319 ..... 3BA 311
BA 340Econ 361 or 365
Third Year
General Studies
3 BA Elective ..... 3
3 Electives ..... 5
3 General Studies ..... 5
4 ..... 16

Business<br>Administration<br>BA 350<br>BA 380<br>BA Electives<br>Electives

| Fourth Year |  |  |
| :---: | :--- | ---: |
| 3 | BA 405 | 3 |
| 3 | BA 496 or BA 499 | 2 |
| 6 | BA Electives | 6 |
| 4 | Electives | 5 |
| 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

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

Basic principles of law as applied to businers transactions. Study of the law of contracts and sales, sales warrantie, law of agency, negotiable instruments and personal property is included. Offered fall and winter terms.

## BA 312 BUSINESS I AW II

(3-0) 3
Continuation of Business Law 311. Study of the law of partnerships, corporations, secured transactions, suretwhip, real property and bankruptcy. Offered winter term.

## BA 340 PRINCIPLES OF MARKETING

(3-0) 3
The first part of the course is devoted to a broad inventigation of the channeIs of distribution with an emphasi, 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 261 or concurrent registration.


#### Abstract

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 functiọns, 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 feedbach requirements. The role of research is emphasized. Offered fall term.
Prerequisite: BA 340.


#### Abstract

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, and operations planning and control. Offered in fall term. Prerequisite: BA 252.


## 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 or concurrent registration.

## 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 through the study of the problems of policy formulation and administration. Offered fall and winter terms.
Prerequisite: senior standing.

Business Education

(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.
Prerequistes: BA 251 and BA 340.

## BA 483 INVESTMENTS

(3-0) 3
Analysis of several theories of investment followed by an investigation and study of security markets. Corporate bonds and stocks are stressed; however, federal and state bonds and private investment opportunities are also considered. Offered on demand.
Prerequisite: Acc 226.

## BA 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
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

There are two programs offered in Businens Education: Business Education and Secretarial Science.

The teacher-education curriculum in dengned specifically for the preparation of teachers of business subjects. Students who are not enrolled in the teachereducation curriculum may elect to enter the vocationally oriented program in sectetarial science and, upon completion. receive an Ahociate 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

In addition to the college's general requirements and the common requirements of the School of Business Administration, a student majoring in business education must complete the following departmental requirements:
Specific Requirements in Business Education:
BE 108 Advanced Typing ..... 2
BE 112 Intermediate Shorthand ..... 3
BE 144 Quantitative Business Techniques ..... 2
BE 213 Advanced Shorthand and Transcription ..... 3
BE 221 Business Communications ..... 3
BE 232 Secretarial Procedures ..... 16
Auxiliary Requirements from Other Departments
Education courses (see secondary education section) ..... 23 ..... 23
BUSINESS EDUCATION MAJOR
Suggested Course Sequence
First Year
FALL WINTER

| FS 101 | 4 | FS 102 | 4 |
| :---: | :---: | :---: | :---: |
| BE 108 | 2 | BE 144 | 2 |
| BE 112 | 3 | BE 213 | 3 |
| Math 160 or CS 150 | 3 | Math 160 or CS 150 | 3 |
| General Studies | 3 | General Studies | 3 |
| P.E. | 1 | P.E. | 1 |
|  | - |  | - |
|  | 16 |  | 16 |
|  | Second | Year |  |
| 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 |

Third Year
Acc 226 ..... 4
BA 311 ..... 3
3 BA 340 ..... 3
BA 251
BA 380 ..... 3
3 Electives ..... 3
General Studies ..... 5
Psych 218
4 General Studies 5

## Business Education

| 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 |

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

Specific Secretarial Science Requirements
BE 112 Intermediate Shorthand 3
BE 144 Business Machine Calculations 2
BE 213 Advanced Shorthand and Transcription 3
BE 221 Busines, Communications 3
BE 232 Secretarial Science 3

## Other Requirements

Four business courses to be selected from Accounting, Economics. Business Administration or Busness Education; no more than two courses may be from Business Education 12

Auxiliary Requirements from Other Departments
Acc 225 Principles of Accounting I 4
Econ 261 Principles of Economics-A1acro 3

## SECRETARIAL SCIENCE MAJOR

## Suggested Course Sequence

## First Year

| FALL |  | WINTER |  |
| :---: | :---: | :---: | :---: |
| 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 |
| Second Year |  |  |  |
| Acc 225 | 4 | BE 232 | 3 |
| BE 213 | 3 | Electives | 10 |
| BE 221 | 3 | General Studies | 3 |
| Elective | 3 |  | - |
| General Studies | 3 |  | 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.


#### Abstract

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 <br> (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
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.

Secretarial Science

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 PROCEDURE

(2-2) 3
Basic secretarial principles and procedures, including filing procedures, mail and telephone techniques, machine transcription, duplicating machines, receiving callers, business etiquette, and personal transportation. Offered fall and winter terms.
Prerequisite: BE 108 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 INDEPFNDENT STUDY

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 iequirements and the common requirements of the School of Businew Administration, a student majoring in economics must complete the following departmental requirements:

## Specific Departmintal Requircments

Econ 356 Intermediate Micro-theory 3
Econ 364 Intermediate Macro-theory 3
Econ 470 Introduction to Econometrics 3Economics
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 369 Public Finance ..... 3
Econ 371 International Economics ..... 3
Econ 475 Regional Economics ..... 315
ECONOMICS MAJOR
Suggested Course Sequence
First Year
FALL WINTER
FS 101 4 FS 102 ..... 4
Math 160 or CS 150 Elive or 150 3 Math 160 or CS 150 ..... 3
ElectivesP.E.
Electives2
6 General Studies ..... 6
1 P.E. ..... 1
16 ..... 16
Second Year
4 Acc 226 ..... 4
3 BA 252 ..... 3
3 Econ 262 ..... 3
6 General Studies ..... 6
16 ..... 16
Third Year
BA 301 3 BA 340 ..... 3
3 Econ 364 ..... 3
3 Econ Elective ..... 3
3 Electives ..... 3
4 General Studies ..... 3
16 ..... 15
Fourth Year

| 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 |

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

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.

## Econ 364 INTERMEDIATE MACRO THEORY

(3-0) 3
The goal is to enable the student to discuss analytically current policy problems. 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.

# 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. <br> 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: consent of instructor.


#### Abstract

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 probiems unique to the southwestern region of the national economy. Offered on demand. Prerequisite: Econ 364 or consent of instructor.


BA 496 SEMINAR(2-1) 2Advanced 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

Professors Bill D. Engman, Donald F. Whalen; Associate Professor Edith W. Brochu; Assistant Professors Myron W. Johns, Gary D. Knight, Charles H. Reid, Jr., Michael S. Nyikos, and Raymond N. Wilson; Instructor Marilyn K. Bowling.

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 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 worh 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 understinding of the American chool systems. The College maintains a placement office which serves teaching candidates.

## ADMISSION TO THE PROGRAM

The student makes application for admission to the program while enrolled in Ed 201, the Teacher Education Admissions Seminar. Requirements 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. In addition to the criteria listed above, the Professional Education Screening Committee considers the following factors: character, personal adjustment, and physical condition.

There are additional requirements prior to student teaching. These are outlined in the Student Teaching Handbook, available through the College Bookstore.

Applications for secondary student teaching will be made in Ed 401 the semester preceding student teaching.

The application deadline for elementary student teaching for the winter term is October 1. The application for fall student twaching is due May 1.

Transfer students will be accepted for the Teacher Education Program depending on prior preparation and scholastic achievement. Transfer students must meet a one-term residency requirement prior to the student teaching semester. In addition, the usual screening procedures and prerequisities to student teaching apply to all transfer students. Written approval of the teaching major by the appropriate academic department of Fort Lewis College is required.

## SECONDARY EDUCATION PROGRAM <br> SECONDARY EDUCATION PROGRAM

General Studies ..... 41
Courses in major academic field ..... 32-42
Specific Departmental Requircments pedic
Ed 201, Teacher Education Admissions Seminar ..... 3

Ed 401, Seminar for Laboratory Experience

Ed 401, Seminar for Laboratory Experience

Ed 401, Seminar for Laboratory Experience

Ed 401, Seminar for Laboratory Experience  in the Secondary School  in the Secondary School  in the Secondary School  in the Secondary School .....  ..... 1 .....  ..... 1 .....  ..... 1 .....  ..... 1

Ed 402, Secondary Education

Ed 402, Secondary Education

Ed 402, Secondary Education

Ed 402, Secondary Education .....  ..... 3 .....  ..... 3 .....  ..... 3 .....  ..... 3
Ed 480, Methods of Teaching (subject matter)
Ed 480, Methods of Teaching (subject matter)
Ed 480, Methods of Teaching (subject matter)
Ed 480, Methods of Teaching (subject matter) ..... 2 ..... 2 ..... 2 ..... 2
Ed 495, Laboratory Experience \& Seminar in Secondary School 8
Ed 495, Laboratory Experience \& Seminar in Secondary School 8
Ed 495, Laboratory Experience \& Seminar in Secondary School 8
Ed 495, Laboratory Experience \& Seminar in Secondary School 8 ..... 8 ..... 8 ..... 8 ..... 8 ..... 17 ..... 3
1
3
2
8 ..... 3
1
3
2
8 ..... 3
1
3
2
8 ..... 3
1
3
2
8
Additional Departmental courses recommended
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
Ed 365 Educational Measurement ..... 3
Ed 420 Instructional Media ..... 3
Auxiliary Requirements from other departments
Psych 157, General Psychology ..... 3
Psych 218, Psychological Foundations of Education ..... 36
Electives ..... 32-22
TOTAL REQUIRED FOR GRADUATION ..... 128

Teacher Education

## 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 315, Social Studies in the Flementary 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 ..... 8
Additional approved course in education ..... 3
Auxiliary requirements from other departments
Psych 157, General Psychology ..... 3
Psych 218, Psychological Foundations of Education ..... 3
Psych 254, Developmental Psychology ..... 3
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 $l$ requires that a minimum of 18 hours ( 6 advanced) 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 ( 9 advanced) in one concentration area, and at least 12 hours in the other area.

## Areas of Concentration

lst Area $18 \quad 24$

2nd Area 18

The number of elective hours will depend on the areas of concentration selected.
TOTAL REQUIRFD FOR GRADUATION ..... 128
Courses Recommended for Freshman and Sophomore Years
ED 201 Teacher Education Admissions Seminar-prerequisite ..... 3
30 hours of college credit
30 hours of college credit
Freshman Seminar 101, 102 ..... 8
English-one literature course ..... 3
Math 215, 216 ..... 6
Music, Art or Theater-one course ..... 3
PE Activity courses 101, 102 ..... 2
Psychology 157, 218, 254 ..... 9
Science-Bio 100, 101; Physical Science 100, 105 ..... 8
Social Science-two courses in American or Latin American History ..... 6

## 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

## COURSES

Ed 201 TEACHER EDUCATION ADMISSIONS SEMINAR
(3-0) 3 A course designed to provide a foundation for advisement on admission to the School of Education and to orient prospective members to the teaching profession. Historical, philosophical, and sociological developments which have resulted in relevant contemporary educational issues are explored. Students normally will apply for admission to the teacher education program during this course. This course is a prerequisite for all other courses in the required professional education sequence and requires at least 30 hours of college credit. Offered every term.

Ed 211 TEACHER AIDE PRACTICUM AND SEMINAR
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. Enrollment is by permission of instructor. Fall and Winter terms.

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 every term.
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 315 SOCIAL STUDIES IN THE ELEMENTARY SCHOOL
(3-0) 3 Content and procedures in the social studies program of the elementary school. Offered every term.
Prerequisite: admission to teacher education program and 6 semester credits of social science or approval of instructor.

Ed 330 HUMAN RELATIONS IN THE CLASSROOM
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. Fall and Summer terms.
Prerequisite: 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.

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

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 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 Tcaching 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.
Prerequisile: 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 modeın 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 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.

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 EDUCATIONEmphasis 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 (SU'BJECT 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.
Prerequisite: admission to student teaching.

Ed 490 ADVANCED TOPICS IN EDUCATION
Designed to accommodate the needs or requests of school sistems, teachers, or regular Fort Lewis College students who seek credit for topics of immediate concern. (ourse topic will be one not normally or regularly available through another course offering. Offered on demand.

Ed 494 LABORATORY EXPERIENCE AND
(0-8) 8
SEMINAR IN THE EI EMENTARY SCHOOL
Directed ohervation and teaching in the public schools at the elementary level. Periodic seminars are held in which relev,ant areas of elementary school organization and management are discussed. Fall and Winter terms.

Ed 495 LABORATORY EXPERIENCE AND
SEMINAR IN THE SECONDARY SCHOOL
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

## Joseph M. Pease, Chairman

Professor Joseph M. Pease; Associate Professors Louis C. Cullen, Marvin L. Giersch, and Adolph M. Kuss; Assistant Professors Carol Hughes, Joan M. Sanders, Carol Seale, and Charles H. Walker; Instructors Daniel Antolik, William E. Hayes, and John McNitt.

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 ..... 41Specific Departmental Requirements
PE 170, Introduction to Health, Physical Education, and Recreation ..... 2
PE 189, Foundation of Physical Fducation 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

## Physical Education

Other Departmental Requirements
Six hours to be selected from the courses listed below.
PE 164, Advanced First Aid ..... 1
PE 224, Prevention \& Care of Athletic Injuries ..... 2
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
Auxiliary Requirements from other Departments
Bio 121, Human Anatomy \& Physiology ..... 33
Electives ..... 52
TOTAL REQUIRED FOR GRADUATION ..... 128

## 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 124 FIRST AID

Designed to provide the standard course of the American Red Cross first aid training. Fall and Winter terms.

PE 164 ADVANCED FIRST AID
(1-0) 1
The advanced course is intended to meet the needs of special-interest groups who have opportunity to give first aid care frequently Fall and Winter terms.

PE 170 INTRODUCIION TO HEALTH.

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 profesional preparation, opportunities for service, allied fields, and professional associations. Fall and Winter terms.

PE 189 FOUNDATION OF PHYSICAL EDUCATION I education, and to develop whlls 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.

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 <br> (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 FOLK AND SOCIAL DANCE

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

## Physical Education

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 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 interscholastic sports. Fall and Winter terms.

PE 480 ORGANIZATION AND ADMINISTRATION OF HEALTH, PHYSICAL EDUCATION, RECREATION
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

Designed to provide opportunities for analyss, direct discussion, and observation of problems, methods, and techniques in physical education. Fall and Winter terms.

## PE 499 INDEPENDENT STUDY

Individual research is conducted under the supervision of a faculty member. All terms.
Prerequisite: approval of Department Chairman.

Professors John F. Hale and Frank D. Tikalsky: Associate Professor Edwin W. Wallace; Assistant Professors Norma J. Groth, Nicholas J. Heidy, and Robert M. Wageman.
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 expone the student to the approaches taken to these basic problems. He is presented with current research findings and theoretical positions legarding motivation, perception, personality, adjustment, learning, and thinhing. He is trained in research procedures, and in the application of pyychological principle, 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 "here 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 158, General Psychology ..... 4
Psych 219, Experimental Psychology ..... 4
Psych 385, Historical Introduction to Modern Psychology ..... 4
Psych 496, Seminar; or Psych 499. Independent Study ..... 217
Other Departmental Requircments
Nine Additional Hours of 300 Courses
Psych 327, Physiological P4chology ..... 4
Psych 365, Psychology of Learning ..... 4
Psych 368, Culture and Personality ..... 3
Psych 387, Abnormal Psychology ..... 3
Psych 472, Psychology of Personality ..... 39
Six additional hours of psychology electives ..... 6 ..... 31
Electives ..... 56
TOTAL REQUIRED FOR GRADUATION ..... 128

## 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 158 GENERAL PSYCHOLOGY (3-2) 4
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 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 158.

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 Summer terms.
Prerequisite: Psych 158, Math 201.

Psych 242 PSYCHOLOGICAL TESTING
(3-0) 3
A course designed to introduce the student to the area of pstchological 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. Winter and Summer terms.
Prerequisite: Psych 241.

Psych 254 DEVELOPMENTAL PSYCHOLOGY
(3-0) 3
Principles of development in childhood and adolescence. Fall and Summer terms.
Prerequisite: Psych 158 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, cave study, descriptive, field, observational and ex-post facto investigations. An emphasis will be made on the design of psychological research. Pyehological and educational models, social system models, and computer simulation will abo 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, neurophynology, and other physiological variables in the prediction and undervanding of behavior. Attention is paid to contemporary and classical research. Winter term-alternate years.
Prercquistte: Psych 219 or consent of instructor.

Psych 365 PSYCHOLOGY OF LIARNING
The conditions of learning in anımals and men as found in the experimental literature. Fall and Summer terms.

# Psych 368 CULTURE AND PERSONALITY (same as Anthropology 368) 

A study of the cultural determinants of perception and behavior. Fall and Summer terms.
Prerequisite: Psych 158 or consent of instructor.

## Psych 385 HISTORICAL INTRODUCTION TO

 MODERN PSYCHOLOGYA 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 158 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 158 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 158 or consent of instructor.

## Psych 496 SEMINAR

Advanced study and research in selected topics. Fall and Winter terms. Prerequisite: senior standing and permission of instructor.

[^3]
# CENTER OF SOUTHWEST STUDIES 

## MAJOR IN SOUTHWEST STUDIES

with concentrations in

ANTHROPOLOGY

## HISTORY

SPANISH

## Southwest Studies

Professors Robert W. Delaney (Chairman) and John C. Ives; Assistant 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 INSOUTHWEST STUDIES-HISTORY EMPHASIS41
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 ..... 3Hist 480, Transmississippi Westor
Hist 480, 20th Century U.S. ..... 3
(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 (entury U.S.)

## Language Requirement

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

## Anthropology Requirements

At least two courses dealing with anthropology of the Southwest as approved by the Committee
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 ..... 36
Science Requirements
At least two courses selected from the biological and physical sciences which have to do with the Southwest ..... 6
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
History RequirementsAt least two courses dealing with Southwestern historyto be approved by the Committee, at least one of whichmust be History 480.6
Language, literature, social science, science and research requirements the same as in history emphasis ..... 30 ..... 56
Electives ..... 29
TOTAL REQUIRED FOR GRADUATION ..... 128

## Southwest Studies

BACHELOR OF ARTS DEGREE WITH A MAJOR IN SOUTHWEST STUDIES-SPANISH EMPHASIS
General Studies ..... 41
Spanish Requirements
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 andHispanic American Civilization (in Spanish and English) beingrecommended6
History Requirements
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 Indiansof the Southwest may be substituted for Hist 370, Historyof Mexico)Anthropology, literature, social science, science, and researchrequirements the same as in the history emphasis.2456
Electives ..... 31
TOTAL REQUIRED FOR GRADUATION ..... 128

## COURSES

SW 100 FUNDAMENTALS OF NAVAJO LANGLAGE (3-0) 3
A course in the basic fundamentals of the Natajo language on the oral-aural approach. A native speaker is the instructor and much use is made of tapes, etc.

SW 111, 112 INDIAN ARTS AND CRAFTS
(0-8) 4
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, SOC1AL AND POLITIC.Al HISTORY OF
121 INDIANS OF THE SOUTHWEST
These courses are the same an Hist 120 and 121. See History.

SW 30I PROBLENS IN SOUTHWFST STUDIFS 1
A senior-level individual research project in any dicipline based on the needs and interents of the indsidual. Offeled on demand.
Prerequisite: approval of Conmittee.

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 <br> (3-0) 3

The literature, culture, thought, art, anthropology, history, geography, and contemporary position of Hispanic-American civilization. Offered on demand.

For other course descriptions, see listing under the appropriate disciplines.

## The Register

## 1973-74

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JAMES J. JONES, Supervisor
Auxiliary Services and Placement
ROBERT W. JONES,
Assistant Supervisor
Physical Plant
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Operations Manager Computer Center

CLAY KYLE
Assistant Business Manager
HAROLD LEWIS, Supervisor
Financial Aids

ALLEN J. MURDOCK, Supervisor
Physical Plant and College Engineer
JOSEPH M. PEASE
Director of Athletics
O. D. PERRY, Manager

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CHARLES H. REID, JR.,
Director of Admissions and Records
BETTY K. SHOULDERS, Supervisor
College Union and
Student Activities
DONOVAN E. SNYDER
Supervisor of Records
DAVID J. STEARNS
Supervisor of Admissions

## JACK SYLVESTER

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

RICHARD L. GOBBLE, Head Librarian

JOHN CROWDER, Librarian
ESTHER T. C. LIU, Librarian
JUDY ANN SACKETT, Librarian
HARROLD S. SHIPPS, JR., Librarian
SANDRA SMAGALA, Librarian

Health Services
LEO W. LLOYD, M.D., Physician
TULLIUS W. HALLEY, M.D., Physician
T. A. DAVIS, M.D.

Physician
ROBERT C. PIVONKA, M.D., Physician
LOUISA T. HELMS, R.N., College Nurse

## Emeriti

HERSHBERGER, INEZ, Instructor of Languages Emeritus
A.B., Kalamazoo College

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

## Academic Faculty

1973-74
(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

ADMIRE, ALICE K., Asst. Professor of English (1965)
B.S., Colorado State University, 1939
M.A., Western State College, 1962
ANDERSON, BERNARD E., Assoc. Professor of BusinessAdministration (1971)
B.S., Arizona State College, ..... 1960
M.A., University of Arizona, ..... 1961
Ph.D., The Ohio State University, ..... 1964
ANDERSON, DALE W., Supervisor, Cooperative Education (1971)
B.A., Antioch College, 1965
ANTOLIK, DANIEL, Laboratory Instructor in Physical Education(1972)
B.A., Fort Lewis College, 1969
M.A. in progress, Adams State College
APPLEGARTH, SUSAN M., Instructor of Anthropology (1971)
B.A., Eastern New Mexico University, ..... 1964
M.A., University of Wisconsin, 1970Ph.D. candidate, University of Wisconsin
ARVISO, KATHRYN P., Instructor-Counselor, American Indian
Program (1970)
B.S., University of New Mexico, ..... 1965
Further graduate study, University of New Mexico
ASH, JAMES K., Instructor of History (1970)
B.A., University of California (Berkeley), 1967
Graduate Study, Waseda University, (Tokyo) 1968-69
M.A., Harvard University, 1970
Ph.D. Candidate, University of Washington
ATENCIO, LEONARD D., Asst. 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
BAKER, JAMES R., Asst. 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. candidate, Purdue University
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, 1972151

Faculty BERG, DAVID, Assoc. Professor of Speech and Theatre (1953)
B.A., Colorado College, 1951
M.S., University of Utah, 1952

Further graduate study, University of Oregon
BERNDT, REXER, President (1969)
B.S., University of Denver, 1949
M.B.A., University of Denver, 1950

Ph.D., University of Colorado, 1956
BIRD, G. LEONARD, 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., Instructor of Geology (1973)
B.S., University of New Mexico, 1966

Ph.D. candidate, Colorado School of Mines
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

Further graduate study, Univ. of California (Berkeley), 1968-1970
BOWLING, MARILYN K., Instructor of Education (1972)
B.S., Southwestern State College, 1965
M.A., Arizona State University, 1973

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
BOWMAN, WILLARD O., Professor of Psychology (1958)
B.A., Berea College, 1931
B.Eng., I.T.I., University of Chicago, 1933
M.A., University of Colorado, 1958

Ed.D., University of Colorado, 1965
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, 1963Ph.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
CANTILLANO, ODILIE A., Asst. Professor of Spanish (1971)
Certificates and Diplomas, Cambridge and Nottingham
Universities (1947)
M.A., West Virginia University, 1958
Ph.D., University of Arizona, 1972
CAPP, CLIFFORD B., Instructor of Mathematics, American Indian Program (1970)
B.S., Coloradu 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
CHAVEZ, Conrad L., Supervisor-Counselor, Special Services
Program (1971)
B.A., Colorado State University, ..... 1968
COBURN, MARK D., Asst. Professor of English (1971)
A.B., University of Chicago, 1963
M.A., Stanford University, 1966
Ph.D., Stanford University, 1969
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., Instructor of History ( ..... (1972)
A.B., Boston College, ..... 1960
M.A., Boston College, 1963
Ph.D. Candidate, University of California (Santa Barbara)
CORDILL, MARY KAY, Instructor of Sociology (1970)
B.A., University of Kansas, ..... 1965
M.A., University of Kansas, 1969
Ph.D. Candidate, University of Kansas153

Faculty CROWDER, JOHN, Librarian and Instructor (1973)
B.A., University of Colorado, 1969
M.A., University of Denver, 1973

Further graduate work, University of Colorado
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., Asst. 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, Assoc. 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., Instructor of Art (1972)
B.S., Ball State University, 1967
M.F.A., Indiana University, 1972

DIN, GILBERT C., Assoc. 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., Asst. Professor of Music (1969)
B.S., Lebanon Valley College, 1949
M.M., University of Montana, 1965

Further Graduate Study, University of Montana
DUBOIS, EDWARD N., Professor of Business Administration (1968)
B.A., University of Wyoming, 1946
M.B.A., University of Pennsylvania, 1948

Further graduate study, University of Pennsylvania
DUNCAN, SARA, Instructor of Business Administration (1973)
B.A., Denison University, 1967
J.D., University of Denver, 1971
ECKENRODE, THOMAS R., Assoc. Professor of History (1969)A.B., St. Vincent College, 1958
M.A., University of Colorado, 1964Ph.D., St. Louis University, 1970
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
ENGS, WILLIAM D., Asst. Professor of Business Administration(1972)
A.B., Harvard University, ..... 1954
M.B.A., University of California (Berkeley), ..... 1959Ph.D., University of Oregon, 1972
ERICKSON, JAMES G., Assoc. Professor of Biology (1964)
B.A., Doane College, 1950
M.S., Iowa State University, ..... 1951
Ph.D., University of Wyoming, 1964
EULER, ROBERT C., Professor of Anthropology (1973)
B.A., Arizona State College, 1947
M.A., Arizona State College, ..... 1948
Ph.D., University of New Mexico, ..... 1958
FITZGERALD, JAMES G., Instructor of Spanish (1970)
B.A., University of Notre Dame, 1961
M.A., University of Wyoming, 1966
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
FULLER, MARTIN E., Assoc. Professor of Chemistry (1971) (on leave, 1973-74)
B.S., University of California (L.A.), 1952

Ph.D., Massachusetts Institute of Technology, 1956
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., Asst. 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

Further graduate study, University of Denver and
University of Northern Colorado
GOODWIN, DON E., Supervisor of Continuing Education (1973)
B.A., Lamar State College of Technology (1961)
M.Ed., Colorado State University, 1970

Ed.D. in progress, University of Colorado
GOODWIN, LeROY W., Assoc. Professor of Political Science (1957)
B.A., University of Colorado, 1947
M.A., University of Colorado, 1955

Ph.D., Columbia University, 1970
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., Asst. Professor of Mathematics (1971)
B.S., Montana State College, 1960
M.S., Montana State College, 1962

Ph.D., Montana State University, 1971
B.S., University of Minnesota, 1951
M.A., Calif. State University (Northridge), 1968

Ed.D., University of Southern California, 1973
HADOW, HARLO H., Laboratory 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., Asst. Professor of Chemistry (1969)
B.S., Marietta College, 1960

Ph.D.. Indiana University, 1964
Further graduate study, University of Heidelberg, 1964-65
HARARI, MAURICE, Professor of Political Science (1972)
B.A., Columbia College, 1949
M.A., Columbia University, 1951

Ph.D., Columbia University, 1958
HARRISON, MERLE, Assoc. Professor of Chemistry (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., Asst. 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
HOLDERNESS, AUBREY E., Asst. 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

HUGHES, CAROL A., Asst. Professor of Physical Education (1973) B.S., Mississippi State College for Women, 1968 M.Ed., University of Arizona, 1969 Ph.D., University of Utah, 1973

## HULBERT, KATHARINE W., Asst. Professor of Anthropology

 (1969)B.A., University of Colorado, 1949
M.A., University of Colorado, 1966

Ph.D., University of Colorado, 1970
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
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., 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., Asst. 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., Assoc. Professor of Business (1963)
B.S., Southwestern State College of Oklahoma, 1959
M.S., Oklahoma State University, 1961
C.P.A., 1962

Ph.D. Candidate, Oklahoma State University
KELLY, REECE, C., Asst. Professor of History (1971)
B.A., Eastern Washington State College, 1964
M.A., University of Washington, 1967

Graduate study, Universitaet of Bonn and Universitaet of Munich Ph.D., University of Washington, 1973

KLEBBA, JOANNE, Instructor of Business Administration (1973) B.A., Marygrove College, 1962
M.S., University of Colorado, 1973
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
KORNS, RICHARD F., Asst. Professor of English and Journalism (1966)
A.B., University of Pennsylvania, 1930

Bach. of Journalism, University of Missouri, 1931
M.A., University of Minnesota, 1955

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

Further graduate study, University of Colorado, Colorado College, and Adams State College.

LANG, LILLIAN B., Instructor of English (1973)
B.A., Portland State University, 1961
M.A., University of Calif. (Santa Barbara), 1967

Ph.D. candidate, University of Calif. (Santa Barbara)
LeGAULT, MAURICE E., Asst. Professor of Music (1972)
B.S., University of Minnesota, 1957
M.A., University of Minnesota, 1961

Ph.D., University of Minnesota, 1969
LESLIE, WILLIE R., Asst. Professor of Accounting (1973)
B.S.B.A., University of Florida, 1964
M.B.A., University of Denver, 1970
C.P.A., Florida, 1965
C.P.A., Colorado, 1970

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

Further graduate study, UCLA and University of Northern Colorado
LYNCH, MARCIA, Instructor of Spanish (1973)
B.A., University of Arizona, 1965
M.Ed., University of Arizona, 1972

Faculty LYNCH, VERNON E., JR., Asst. Professor of Economics (1972) B.A., University of Texas, 1965
M.A., University of Texas, 1967

Ph.D. candidate, University of Arizona
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

MARQUISS, ROBERT W., Asst. Professor of Agriculture (1971) B.S., University of Wyoming, 1956
M.S., University of Wyoming, 1957 Ph.D., University of Arizona, 1967

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

MILLS, JAMES W., Visiting 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., Laboratory Instructor in 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,
B.A., Grand Canyon College, ..... 1958
M.A., Arizona State University, ..... 1967Further graduate study, Universita Italiana per Stranieri
OLSON, DIANE D., Asst. Professor of Business Education (1973)
B.S., Mankato State College, ..... 1967
M.S., Mankato State College, 1970
Ed.D. candidate, Arizona State University
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
PEASE, JOSEPH M., Director of Athletics; Professor of Physical Education (1970)
B.A., Central Washington College of Education, ..... 1947
M.A., Teachers College, Columbia University, 1950
Ed.D., Teachers College, Columbia University, 1951
PERIMAN, KENNETH I., A.ssoc. Professor of English (1962)
B.A., University of Colorado, 1951
M.A., University of Colorado, 1953
Further graduate study, University of Colorado and
Colorado State University
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
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, 1958161

Faculty 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
REBER, MICK, Asst. Professor of Art (1968)
B.F.A., Brigham Young University, 1966
M.F.A., Brigham Young University, 1968

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

Further graduate study, University of Northern Colorado
RITCHEY, JOHN M., Asst. Professor of Chemistry (1972)
B.A., Wichita State University, 1962

Ph.D., University of Colorado, 1968
ROSENBERG, HARRY C., Asst. Professor of Mathematics (1964)
B.A., University of Northern Colorado, 1956
M.A., University of Northern Colorado, 1957
M.A., University of Illinois, 1964

Further graduate work, New Mexico State University
SACKETT, JUDY ANNE, Librarian; Instructor (1970)
B.A., University of California (L.A.), 1967
M.A., University of Denver, 1969

SANDERS, JOAN M., Asst. 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

[^4]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., Instructor in Biology-Agriculture (1973)
B.S., California State University (Chico), 1967

Ph.D., Oregon State University, 1974
SMAGALA, SANDRA D., Librarian; Asst. Professor (1969)
B.A., Western State College, 1964
M.A., University of Denver, 1967

SMITH, DUANE A., Professor of History (1964)
B.A., University of Colorado, 1959
M.A., University of Colorado, 1961

Ph.D., University of Colorado, 1964
SOMERS, LEE PRESTON, Asst. 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
STOCKER, HAROLD E., Asst. Professor of Mathematics (1967) (on leave 1973-74)
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
M.M., Indiana University, 1961

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., Asst. 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
TAYLOR, RANDALL D., Professor of Physical Science (1953)
B.S., University of Nebraska, 1935
M.Ed., Adams State College, 1959

TIKALSKY, FRANK D., Professor of Psychology (1966)
A.B., Missouri Valley College, 1954
M.A., University of Missouri (Kansas City), 1959

Ed.D., University of Northern Colorado, 1966
WAGEMAN, ROBERT M., Asst. 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 4 rt (1970)
B.A., University of Mississippi, 1959
M.F.A., University of Mississippi, 1964

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
WILLIAMS, CARLA C., Instructor of Mathematics (1973)
B.S.S.E., John Brown University, ..... 1969
M.A., University of New Mexico, ..... 1973
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)(on leave 1973-74)
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

1974-75

## Fall 1974

| Sept. 4 | Wednesday | Faculty Workshop |
| :--- | :--- | :--- |
| Sept. 5 | Thursday | Student. arrive on campus; orientation |
| Sept. 6-7 | Fri.-Sat. | Registration |
| Sept. 9 | Monday | Classes begin |
| Nov. 1 | Friday | Mid-term grades due |
| Nov. 27- | Wed.-Sun. | Thanksgiving break |
| Dec. 1 |  |  |
| Dec. 2 | Monday | Classes resume |
| Dec. 20 | Friday | Term ends |

Winter 1975

| Jan. 7 | Tuesday | Registration |
| :--- | :--- | :--- |
| Jan. 8 | Wednesday | Classes begin |
| Feb. 28 | Friday | Mid-term grades due |
| March 3-9 | Mon.-Sun. | Spring vacation |
| March 10 | Monday | Classes resume |
| April 19 | Saturday | Craduation |
| April 24 | Thursday | Term ends |

Summer 197.5

First Scssion
Second Session
Third Session

April 29-May 30
June 3-July 3
July 8 -August 8

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.


[^0]:
    #### Abstract

     


[^1]:    

[^2]:    *Accounting majors with strong high school backgrounds may desire to start the accounting sequence in the freshman year.

[^3]:    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.

[^4]:    SEALE, CAROL MEYER, Asst. Professor of Women's Physical Education (1969)
    B.A., Carroll College, 1962
    M.A., University of Northern Colorado, 1968

