



CATALOG 1974-75

Durango. Colorado





# FORT LEWIS

# COLLEGE

DURANGO, COLORADO 81301

CATALOG FOR THE

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 1972 the enrollment reached 2400. The long-range plan of the College has established a pattern of controlled growth until a maximum of 4000 students is reached in the fall of 1980.

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 picnic 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.

#### 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 Spanish-Americans.

#### CALENDAR

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

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

Students who choose to attend all three trimesters can graduate in two and two-thirds calendar years. Those who attend only during the winter and fall trimesters graduate in the traditional four years and often find the long summer a valuable time for gainful employment as well as a pleasant vacation period. The summer sessions at Fort Lewis College offer a rich variety of courses from the regular curriculum for the student who wishes to graduate in less than four years. 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 trimester 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. SUMMER SESSIONS



# 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 Part One of the application and mail it with a \$10 application fee to the office of Admissions and Records. Have his high school principal or counselor fill out Part Two. (This report is to be forwarded directly to the College.)

Take the American College Test and have the results sent to Fort Lewis College. 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. FRESHMEN

#### TRANSFER STUDENTS

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

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

Complete the application and send it to the Office of Admissions and Records 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 Director of Admissions and Records from each college or 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 Director of Admissions and Records.

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

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 66 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 students.

FORMER STUDENTS

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

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

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 sizeable Indian student population on the campus of Fort Lewis College is desirable; that the state will continue and improve the outstanding Indian education program now in existence at Fort Lewis College; that although this article is intended to establish the obligation of the state of Colorado in this regard, the state intends to pursue all other possible sources of funding for program development and student aid for the Indian education program .

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

(2) Special programs may also be offered to assist Indian pupils to prepare for, begin, or continue their college education at Fort Lewis College. Indian pupils whose domicile lies within the geographic boundaries of the state of Colorado, who qualify for in-state tuition under article 18 of this chapter, and who are not otherwise able to pay tuition, shall not be charged tuition for such programs. The size of any special programs offered

#### SPECIAL STUDENTS

#### INDIAN STUDENTS

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.)

While the Colorado statutes quoted above offer tuitionfree education to those Indians who qualify for in-state classification, many other Indian students attend Fort Lewis College. Other kinds of financial aid are available to help needy out-of-state Indians. Such students should apply for admission as any other student and write the Office of Financial Aid for information on help available to them.

The Colorado Revised Statutes quoted above have been declared invalid by the United States District Court. District Court ruling is pending review before the Court of Appeals, 10th Circuit.

In the meantime, 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 tuition free. IF AN INDIAN STUDENT QUALIFIES, SUCH STUDENT WILL BE AD-MITTED TUITION FREE.

## EARLY ADMISSION

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

For further information the Office of Admissions and Records should be contacted.

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. Such students must meet early admission requirements and have the approval of the high school administration.

Students wishing to participate in this program should obtain further information from the Office of Admissions and Records 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 Assessment Battery also serve as a basis for credit/or advanced placement. The decision of the College is final in awarding credit by examination. For further information contact the Office of Admissions & 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 50th percentile in natural sciences, humanities, social sciences, history, and mathematics will receive six semester credits for each examination provided the following stipulations are met:

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

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

#### ADVANCED PLACEMENT

#### ACT TESTS

#### COLLEGE LEVEL EXAMINATIONS



# Costs and Financial Aids

# Academic Year 1972-73

ITEMIZED COSTS*	Fall Trimester	Winter Trimester	Academic Year	
Registration Fee	\$ 10.00	\$ 10.00	\$ 20.00	COSTS
Resident Tuition	144.00	144.00	288.00	
Non-Resident Tuition	576.50	576.50	1,153.00	
COLLEGE FEES	55.00	55.00	110.00	
BOARD (7 days per week)* *Does not include sales tax-4%	285.00	285.00	570.00	
ROOM Students living in the resider halls shall take their meals the College cafeterias.		165.00	330.00	
BOOKS (Approximate cost)	65.00	65.00	130.00	
ESTIMATED COST PER TRIMESTER—Resident For Room, Board, Tuition, and Books	724.00	724.00	1,448.00	
ESTIMATED COST PER TRIMESTER—Non-Resident For Room, Board, Tuition, and Books	1,156.50	1,156.50	2,313.00	

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 College offers a complete financial aids program of scholarships, grants, loans, and part-time employment 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. FINANCIAL AIDS

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.

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

#### HOW TO APPLY



# 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 RE-QUIREMENT 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. EXCEP-TIONS TO THIS ARE RARE AND THE RESPON-SIBILITY 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

#### HOUSING

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 All living is a learning experience; the individual. 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

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 STUDENT GOVERNMENT: GENERAL DESCRIPTION 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

Fort Lewis College believes that learning and day-today living cannot be separated. They go hand in hand. Therefore, student behavior which seriously threatens the individual or the community will not be tolerated. For these reasons and for their own human and social value, high standards of personal conduct are expected of students both on and off campus. Any student who is unwilling or unable to meet these standards may be asked to leave the College. There are no voluminous rules and regulations published concerning student conduct. The College relies instead on good taste and maturity of college students and on their assumption of full adult responsibility for the consequence of their behavior.

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

Any student of Fort Lewis College, who by his or her conduct in the residence halls, cafeteria, classroom, or elsewhere on or off campus demonstrates a lack of regard for the established standards by which respected citizens of the community live, will be referred to appropriate officials for such corrective action as is deemed necessary.

The Fort Lewis College Student Handbook which is published annually includes specific College policies, rules, and regulations. It also includes the policies and procedures of the Committees on Student Life and Student Discipline which inform students of their rights and responsibilities to insure due process. The Student Handbook is provided to each student and may be secured in advance of arrival on campus from the Office of the Dean of Students.

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. STUDENT CODE

#### PEACEFUL ASSEMBLY

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

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

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

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.

#### 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

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.

#### HEALTH SERVICES

#### COUNSELING

#### ATHLETICS AND RECREATION

RELIGION

#### PLACEMENT SERVICE

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.

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.

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 in 1972-73. 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, toiletries, and various other sundries. The bookstore is designed to serve the students' needs, especially those who live on campus. The hours are 8 a.m. to 5 p.m., Monday through Friday.

Identification and activity 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

#### ALUMNI ASSOCIATION

#### STUDENT UNION

BOOKSTORE

#### **IDENTIFICATION CARDS**

MAIL SERVICE

#### MOTOR VEHICLES

All students are permitted to have their cars on campus, although freshmen often find that the ready availability of a car has been a contributing factor to a poor academic record. The student faculty advisor, the Academic Standards Committee, or the Dean of Students may restrict the use of an automobile if excessive use appears to be resulting in poor grades or other misuse.

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

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



# The Academic Programs

### THE DEGREES

BACHELOR 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 Teacher 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, SCIENCES 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, 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.

The Library at Fort Lewis College is truly a special instructional program. Its broadly experienced professional staff, all of whom hold graduate degrees, and

ARTS AND

BUSINESS ADMINISTRATION

#### **EDUCATION**

LIBRARY

its well-trained complement of technical and clerical specialists provide ready, competent service to students, faculty, and staff.

Library holdings, in addition to nearly 100,000 volumes of books, 6,600 reels of microfilm, 700 magazine subscriptions, and approximately 30,000 volumes of microfiche, include a wide selection of audiovisual materials. The approximately 1,700 recordings, individually cataloged as a convenience to library patrons, include popular and classical music, poetry, and dramatic readings and speeches. Films, filmstrips, and some 10,000 overhead projector transparencies are likewise important components of the audiovisual collection.

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

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

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 CENTER OF SOUTHWEST STUDIES are developing a new and even richer culture. Fort Lewis College, through its federally funded Intercultural Program, is a significant part of this process.

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

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

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 programs overseas are also assets to be capitalized on and constitute important Fort Lewis College objectives.

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

#### INTERCULTURAL PROGRAM

#### CONCORDIA, VIRGINIA UNION CONSORTIUM

#### INTERNATIONAL CONTENT AND EXPERIENCE



the broader community. The student is placed in a job related to his or her academic work which has been arranged by the College Office of Cooperative Education in cooperation with employers throughout the Southwest. A Cooperative Education term is of significant help to the student who is seeking a better definition of career goals.

Students planning a Cooperative Education term must participate in the Cooperative Education Seminar in the semester prior to leaving campus. All proposals must have the full approval and support of the student's academic advisers and sponsoring faculty. Students cannot participate in Cooperative Education until they have completed at least one year of study at Fort Lewis College, and they must be in good academic standing the term prior to leaving the campus. All students will be expected to complete a major project based on one aspect of their Cooperative Education experience. This project will be initiated by the student and his sponsoring faculty. All academic credit earned through Cooperative Education will be granted by the student's academic advisers and sponsoring faculty. Students pay regular tuition and fees during the Cooperative Education trimester. An adjustment for student activity fees is made when students are working outside of the immediate area of the College. Participation in this program is limited to two academic trimesters during the course of the student's college studies. The student may select Cooperative Education during the Fall, Winter, or entire Summer trimester.

During the Cooperative Education trimester participants are registered as full-time students. Academic credit is awarded on the basis of the Cooperative Education experience and the documentation that the student provides. Elective credit in the amount of one to ten hours can be received during each trimester. In addition, the student is registered for Cooperative Education Practicum, non-degree credit, in the amount of five hours for each trimester. After the student has completed all the requirements for elective credit through the Cooperative Education experience, he or she may apply for specific course waivers based on this experience through the use of the normal course waiver or substitution process. A brief outline of the Cooperative Education experience appears on the student's permanent record. The Office of Cooperative Education should be contacted for more information regarding the Cooperative Education option.

Cooperative Education is one of the several new directions Fort Lewis College is exploring in the continuing development of opportunities for students to devise programs of study which combine experience and the classroom to make education more relevant, varied, stimulating, and useful.

The Fort Lewis College Computer Center is equipped with an IBM 360, Model 30 computer. The Center provides computational support for computer-oriented courses, student and faculty independent studies, and digital computer indoctrination seminars for faculty and students without charge for normal academic use; when possible, programming assistance is provided.

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 courseby-course evaluation.

The Department of Biology also has arranged a cooperative program in medical technology with two Colorado teaching hospitals.

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 Dean of Academic Affairs.

#### COMPUTER CENTER

#### COOPERATION WITH OTHER INSTITUTIONS

#### CONTINUING EDUCATION

## REQUIREMENTS FOR GRADUATION

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

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

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.

In addition, each candidate for graduation must complete a minimum of 28 credit hours in upper-division courses on campus. 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 and 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 hours 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. GENERAL STUDIES

#### GENERAL REQUIREMENTS

#### I. FRESHMAN SEMINAR

Every beginning freshman will take a freshman seminar in each of his first two semesters at Fort Lewis. (Freshmen in the Intercultural Program may postpone their first seminar for one or two semesters if this is recommended by their advisers.) The two seminars are to be chosen from different fields. They are offered in a wide variety of fields and are intended to develop at the beginning of a student's college career both research and communication skills.

#### 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.

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.

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 Physics Mathematics

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

BA 251, 252, Business Statistics Phil 271, Logic Phy Sc 105, The Physical Sciences
Group C.

Two courses required. History Philosophy (except Phil 271) Anthropology

Group D.

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 and submitted to the Curriculum Committee for approval not later than the end of the sophomore year.

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

# ELECTIVES

## REPEATABLE COURSES

Certain courses are repeatable but have limits on the number of credits that can be counted toward graduation. The limit on Physical Activity courses is three semester hours. The limit on Concert Choir, Chamber Singers, and Band is four semester hours each. For purposes of maximum choir credit, Concert Choir and Special Choir are considered to be the same with a combined maximum of four hours permitted.

# 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:

Α	Excellent	D	Passing
В	Very Good	F	Failure
С	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 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 (Satisfactory) means that the student in Math 92 has successfully passed the course but that the credit earned does not satisfy any graduation requirement nor is the grade figured in the grade point average.

The grade of NC (No Credit) means that the student in Math 92 has not passed the course. No credit is given nor is the grade figured in the grade point average.

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:

Α	4	points	D	1	point
В	3	points	F	0	points

С 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. Grades of P and W 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. 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 semester will be listed for that semester.

## PASS-FAIL ELECTIVES

## ACADEMIC PROGRESS

# DEAN'S LIST

## GRADUATION WITH HONORS

## CREDIT BY SPECIAL EXAMINATION

CREDIT FOR MILITARY SERVICE

AUDITING

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 that 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	28-58 semester hours
Junior	60-91 semester hours
Senior	92 or more semester hours

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

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

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 Office of Admissions and Records. Such changes are the responsibility of the individual student; he must make arrangements with the Office of Admissions and Records, with his faculty adviser, and with the instructors concerned. There is a fee charged for making changes.

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

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

PROGRAM CHANGES

## COURSE LOAD

**CLASSIFICATION** 

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 semester.

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.

## ATTENDANCE

TRANSCRIPTS

## EFFECTIVE CATALOG



# The Curriculum

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

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

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

## FS 101, 102 FRESHMAN SEMINAR

COURSES COMMON TO ALL PROGRAMS

INTERPRETING

THE CATALOG

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

## **GENERAL STUDIES 200**

(3-0) 3

(4-0) 4

Seminar in interdisciplinary studies. Offered on sufficient demand. May be repeated to a maximum of nine hours. *Prerequisite:* Consent of instructor(s).

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

# **190 SPECIAL TOPICS**

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

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

## 299 INDIVIDUALIZED STUDY

1-3

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

## 499 INDEPENDENT STUDY

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.

No more than two independent studies outside of the student's major field may be taken for credit.



# SCHOOL OF ARTS AND SCIENCES

ANTHROPOLOGY

ART AND INDUSTRIAL ARTS

BIOLOGY, AGRICULTURE, AND FORESTRY

CHEMISTRY

ENGLISH, THEATRE, AND PHILOSOPHY

FOREIGN LANGUAGES

GEOLOGY

HISTORY AND POLITICAL SCIENCE

MATHEMATICS

MUSIC

PHYSICS AND ENGINEERING

SOCIOLOGY AND HUMAN SERVICES

MAURICE HARARI, Director

# THE SCHOOL OF ARTS AND SCIENCES Director-MAURICE HARARI

The Departments:

Anthropology—John C. Ives, Chairman Art and Industrial Arts—Stanton Englehart, Chairman Biology, Agriculture, and Forestry—Herbert E. Owen, Chairman Chemistry—E. Merle Harrison, Chairman English, Theatre, and Philosophy—Maynard Fox, Chairman Foreign Languages—Maria Delaney, Chairman Geology—Frank O. Bowman, Jr., Chairman History and Political Science—Duane A. Smith, Chairman Mathematics—Larry S. Johnson, Chairman Music—Patricia Weaver, Chairman Physics and Engineering—Daniel E. Gibbons, Chairman Sociology and Human Services—Roger J. Lauen, Chairman

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

# Agriculture

# Agriculture

## Assistant Professor Robert Marquiss

The agricultural program is 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.

# COURSES

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

Ag 102 FORAGE AND CROP PRODUCTION (3-3) 4 Principles of forage and field crop production, with special attention to the crops of Colorado. Winter term. Prerequisite: 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.

Ag 203 IRRIGATION AND FERTILIZER PRACTICES (3-0) 3 Techniques of irrigation and fertilizer recommendations. Prerequisite: Ag 102.

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. Winter term. *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. Winter term.

Ag 240 FEEDS AND FEEDING (3-3) 4 Principles of feeding livestock, with emphasis on the use of feeds available in the western states. Fall term. *Prerequisite:* permission of instructor.

Ag 250 FARM MANAGEMENT (3-0) 3 Basic economic principles applied to farm and ranch operations. Offered on demand.

Ag 473MAMMALIAN PHYSIOLOGY(3-3) 4See Biology 473.Winter term.

# Anthropology

# Professor John C. Ives; Assistant Professor Katharine W. Hulbert; Instructors Susan M. Riches and Robert A. Alex.

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.

# Anthropology

47

(0-4) 2 Agriculture

Anthropology	BACHELOR OF ARTS DEGREE WITH A MAJOR IN	ANTHROPOLOGY
	General Studies	
	Specific Departmental Requirements	
	Anth 151, Introduction to Anthropology	3
	Anth 201, Physical Anthropology	3
	Anth 496, Seminar or	
	Anth 499, Independent Study	2
		8
	Other Departmental Requirements	
	One course in cultural anthropology	
	One course in archaeology or prehistory	
	Plus anthropology electives to total	
	Electives	55
	TOTAL REQUIREMENTS FOR GRADUATION	

### COURSES

Anth 151INTRODUCTION TO ANTHROPOLOGY(3-0) 3A comprehensive study of general anthropology.Fall and Winter terms.

Anth 201 PHYSICAL ANTHROPOLOGY, PART I: (3-2) 4 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 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 (3-0) 3 A study of religious behavior in non-literate societies. Alternate years.

Anth 231 ARCHAEOLOGY OF THE SOUTHWEST, (3-2) 4 PART I: THE SAN JUAN PUEBLOS The development of the Pueblo dwelling peoples of the Four Corners area. Fall term.

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 301 PHYSICAL ANTHROPOLOGY, PART II: (3-2) 4 PRINCIPLES OF ON-GOING EVOLUTION

Man's adaptation to the physical environment as modified by man's culture and the range of human genetic variability. Winter term. Prerequisite: consent of instructor.

#### 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 331 ARCHAEOLOGY OF THE SOUTHWEST, (3-2) 4 PART II: THE HOHOKAM & MOGOLLON CULTURES

The development of the Hohokam and Mogollon cultures in the southern Southwest. A study of archaeological interpretations and method as applied to the Southwestern United States. Winter term, Prerequisite: Anth 231 or consent of instructor.

#### Anth 341 PREHISTORY

The development of Old World culture from the Old Stone Age through the Iron Age. Alternate years.

Anth 361 THE NORTH AMERICAN INDIAN (3-0) 3 Archaeology, ethnology, and linguistic relationships of the Indians of North America. Alternate years.

Anth 368 CULTURE AND PERSONALITY (3-0) 3 See Psych 368.

Anth 401 ADVANCED TOPICS IN ANTHROPOLOGY 2-6Various 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 ANTHROPOLOGY (3-0) 3 Contemporary theories of the social aspects of man's culture are emphasized. Problems of data gathering and analysis are considered. Alternate years. Prerequisite: any course dealing with social or cultural anthropology, or consent of instructor.

Anth 496 SEMINAR (2-0) 2 Students prepare and present library research papers. On demand. Prerequisite: senior standing and permission of instructor.

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

(3-0) 3 Anthropology

(3-0) 3

Art

## Associate Professor Stanton Englehart; Assistant Professors

## C. Gerald Wells and Mick Reber; Instructor 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

General Studies		41
Specific Departmental Requirements		
Art 210, Art History	3	
Art 211, Art History	3	
Art 401, Theory and Aesthetics	3	
Art 496, Seminar		
or		
Art 499, Independent Study	2	
	11	
Other Departmental Requirements		
21 hours from the remainder of art		
offerings with the exception of		
Art 203, Art for Elementary Teachers	21	
	32	32
Electives		55
TOTAL REQUIRED FOR GRADUATION		128
MINOR FOR SECONDARY TEACHERS		

Students desiring to teach will take the required education courses. If art is selected as a minor area, the student will select 20 hours from the art offerings.

## COURSES

(0-6) 3

#### Art 101 DRAWING

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

## Art 102 PAINTING

(0-6) 3 Art

Instruction in various painting media. Students will concentrate on compositional and color problems while working from still life, landscape, and figures. (Course work in this area offered at the beginning and advanced levels.) Fall and Winter terms.

## Art 104 BASIC DESIGN

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

Individual projects and forming of pottery of varied styles. Emphasis will be placed on expressive forms. Practice in ceramic procedures and use of materials: throwing, slab, molding, glazing, and firing. Fall and Winter terms.

Art 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 A continuation of Art 102. Fall and Winter terms. Prerequisite: Art 102.

Art 203 ART FOR ELEMENTARY TEACHERS (3-0) 3 Contemporary and historical concepts, practices, and methods used in the elementary school art program. Fall and Winter terms.

Art 204 TWO AND THREE DIMENSIONAL SCULPTURE (0-6) 3 A course in two-dimensional design in bas-relief. It consists of modeling in plastic materials as well as carving and shaping more rigid and resistant materials such as wood, metal, and stone. Fall term.

Art 206 CERAMICS A continuation of Art 105. Fall and Winter terms. Prerequisite: Art 105.

Art 210 ART HISTORY TO THE RENAISSANCE (3-0) 3 History and appreciation of painting, sculpture, and architecture. These forms will be studied through their relationships to each other and to the societies which produced them. Fall term.

Art 211 ART HISTORY FROM THE RENAISSANCE (3-0) 3 A continuation of Art 210. Winter term.

Art 301 DRAWING (0-6) 3 A continuation of Art 201. Fall and Winter terms. Prerequisites: Art 101, 201.

(0-6) 3

(0-6) 3

(0-6) 3

(0-6) 3

Art	Art 302 PAINTING (0-6) A continuation of Art 202. Fall and Winter terms. Prerequisites: Art 102, 202.	3
	Art 303ADVANCED STUDIO(0-6)Special Topics.Fall and Winter terms.Prerequisite:consent of instructor.	3
	Art 307 ART: FORMS AND IDEAS (3-0) Philosophical inquiry, by topic, into the formal nature of the visual arts and their meanings. Historical art forms will be compared with contemporar patterns of form and thought. Fall and Winter terms.	d
	Art 401 THEORY AND AESTHETICS (3-0) Appreciation and understanding of various art forms through the study o aesthetics. Winter term.	
	Art 403 ADVANCED STUDIO(0-6)Special Topics. Fall and Winter terms.Prerequisite: consent of instructor.	3
	Art 404ADVANCED STUDIO(0-6)Special Topics.Fall and Winter terms.Prerequisite:consent of instructor.	3
	Art 496 SEMINAR (2-0) Students prepare and present library research papers. On demand. <i>Prerequisite:</i> consent of instructor.	2
	Art 499 INDEPENDENT STUDY 1- Individual research is conducted under the supervision of a faculty member Offered on demand. <i>Prerequisite:</i> approval of Department Chairman.	-

# Biology

# Biology

Professor Herbert E. Owen; Associate Professors John E. Dever, Jr.James G. Erickson, and Albert W Spencer; Assistant ProfessorsRichard G. Keator and Lee P. Somers III; Instructor Harlow H. Hadow.

The biology curriculum is designed to fit the needs of many types of students. Although all of the tracks within the course structure lead to a Bachelor of Science degree in biology, there are two major avenues, each with variations, leading to the degree: general biology and natural history. Students expecting to teach biology at the secondary school level; those entering pre-professional training for such areas as medicine, dentistry, and veterinary medicine; and students enrolled in the cooperative program in medical technology are expected to take the general biology track. The natural history track is particularly valuable for those students who plan to work for the National Parks Service or some other such governmental agency. It may also be used by prospective secondary teachers, although usually the general biology is better for this purpose.

There is a considerable demand from both government and industry for people trained in the biological sciences and for which a bachelor's degree is sufficient. Careers may be found in government service with the Food and Drug Administration and with a variety of conservation and recreation agencies. Laboratory and development work is available with the aerospace industry and with several government agencies. A few sales positions, especially for pharmaceutical houses, require a biology background. Many biologist positions require a graduate degree for which a liberal arts biology major is an excellent background.

# **General Biology Curriculum**

A student selecting general biology must complete the following	courses:
General Studies	41
Specific Departmental Requirements	
Bio 101, Laboratory Experiences in Biology 1	
Bio 101, General Biology 3	
Bio 102, General Botany 4	
Bio 103, General Zoology 4	
Bio 371, Genetics 4	
Other biology courses 19	
Bio 496, Seminar; or Bio 499, Independent Study 2	
37	37
(At least two biology courses in the 300 series [excluding Co- operative Education] and one in the 400 series, other than 496 and 499, must be taken.)	
Auxiliary Requirements from Other Departments	
Four courses in chemistry 18-20	18-20
Electives	30-32
TOTAL REQUIRED FOR GRADUATION	

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.

# Biology

# Natural History Curriculum

A student who selects natural history must complete the		
General Studies	••••••	41
Specific Departmental Requirements		
Bio 100, Laboratory Experiences in Biology	1	
Bio 101, General Biology	3	
Bio 102, General Botany	4	
Bio 103, General Zoology	4	
Bio 201, Systematic Botany	4	
Bio 203, Field Zoology	5	
Bio 471, Ecology	5	
Bio 496, Seminar; or Bio 499, Independent Study	2	
Other biology courses	8	
	36	36
(At least two biology courses in the 300 series [excl operative Education] and one in the 400 series, other tha 499, must be taken.)		
Auxiliary Requirements from Other Departments		

Three courses in one of the following fields: anthropology, chemistry, geology, mathematics, physics	9-12
Electives	
TOTAL REQUIRED FOR GRADUATION	

# Secondary Education

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

# Minor for Secondary Teachers

Bio 100, Laboratory Experiences in Biology	I
Bio 101, General Biology	3
Bio 102, General Botany	4
Bio 103, General Zoology	4
Approved biology electives	11

# Medical Technology

Fort Lewis College offers a medical technology program in affiliation with the Colorado State Hospital School of Medical Technology of Pueblo and St. Mary's Hospital of Grand Junction and awards a certificate in medical technology. Students spend six terms at Fort Lewis College, completing 90 hours. They are then eligible to apply for a 12-month training program at Colorado State Hospital. Dr. James G. Erickson, Associate Professor of Biology, is the adviser for the program. In addition to fulfilling the normal requirements of the general biology curriculum, students who pursue this program must complete the following courses:

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

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

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

## COURSES

Bio 100 LABORATORY EXPERIENCES IN BIOLOGY (0-3) 1 This course is designed to accompany Bio 101, General Biology. It is optional for students who do not plan to take further biology courses but it is mandatory for students who continue in biology. Fall and Winter terms. **Biology** Bio 101 GENERAL BIOLOGY (3-0) 3 An introduction to the life sciences. The course is designed to familiarize the student with some biological principles which are significant in everyday life and also to prepare him for the more specialized courses in biology. Fall and Winter terms.

> Bio 102 GENERAL BOTANY (3-3) 4 Study of the development of the plant kingdom. Fall and Winter terms. *Prerequisite:* Bio 101.

> Bio 103 GENERAL ZOOLOGY (3-3) 4 Study of the development of the animal kingdom from the protozoans through the vertebrates. Winter term. *Prerequisite:* Bio 101.

> Bio 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 COMPARATIVE ANATOMY (2-6) 4 A morphological study of the evolutionary development of vertebrate animals. Comparative dissections of representative animals will be done. Offered on demand. *Prerequisite:* Bio 103.

Bio 232 VERTEBRATE EMBRYOLOGY (2-6) 4 A detailed study of reproduction and development in representative vertebrates. Winter term. Prerequisite: Bio 103.

Bio 301 PLANT MORPHOLOGY (3-3) 4 Study of structure, reproduction, modifications, and evolutionary development of vascular plants. Winter term. *Prerequisite:* Bio 102.

#### Bio 303 HISTOLOGY

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

Bio 343 PLANT PHYSIOLOGY (3-3) 4 Study of growth and metabolism in plants: mineral nutrition, water relations, photosynthesis and other biosynthetic pathways, respiration, development, and responses to the environment. Fall term. *Prerequisites:* Chem. 231; concurrent enrollment in Chem 232; Bio 102; Bio 221.

#### **Bio 371 GENETICS**

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 (3-3) 4 Studies of bacteria and related groups with emphasis on their functions, culture, and identification, including diseases of economically important plants. Winter term.

Prerequisites: Chem 231; concurrent enrollment in Chem 232; Bio 221.

Bio 455 CELL STRUCTURE & PHYSIOLOGY (3-3) 4 Examination of the ultrastructure of the cell. Metabolic mechanisms are studied at the molecular, organelle, and cellular levels. Winter term. *Prerequisites:* Chem 232, Bio 343, 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. Winter term. *Prerequisite:* Bio 221.

Bio 475 BIOGEOGRAPHY (3-0) 3 A study of the past and present distributions of plants and animals. Emphasis is on seed plants and vertebrate animals. Offered on demand. *Prerequisite:* consent of instructor.

Bio 496 SEMINAR (2-0) 2 Students prepare and present library research papers. Modern trends and literature are emphasized. Offered on demand. *Prerequisite:* senior standing and permission of instructor.

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

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Biology

(3-3) 4

(2-3) 3

# Chemistry

# Chemistry

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

## Professors Rodney D. Hamilton and John M. Ritchey;

## Instructor Jack W. Scott.

The Chemistry Department offers a major in chemistry to prepare students for graduate school, professional schools, teaching in secondary schools, or careers in industry. In keeping with the liberal arts philosophy of the College, the student majoring in chemistry may take a number of elective courses in chemistry, in related fields, and in areas outside the physical sciences. Accordingly, the student can suit his degree to his own needs and interests. Most chemistry majors will elect to take chemistry courses beyond the required minimum, but the particular courses taken will depend upon the goals of the student.

The objective of the department is to offer a sound undergraduate program through which students gain a thorough knowledge of the fundamental fields of modern chemistry.

BACHELOR OF SCIENCE DEGREE WITH A MAJOR	IN CHEM	ISTRY
General Studies		41
Specific Departmental Requirements:		
Chem 147 and 148 (or Chem 115 and 116)	10	
Chem 231 and 232, Organic Chemistry	10	
Chem 358, Physical Chemistry	4	
One of the following three courses:	4	
Chem 359, Physical Chemistry		
Chem 364, Inorganic Chemistry		
Chem 365, Analytical Chemistry		
At least one course numbered above 400	4	
Chem 496, Seminar; or Chem 499, Independent Study	2	
Minimum total hours in chemistry	34	34
Auxiliary Requirements from Other Departments		
Mathematics through Math 222	13	
Phys 217 and 218 (or Phys 117 and 118)	10	
Two trimesters of either German, French, or computer	science 6-8	
	29-31	29-31
Electives		22-24
TOTAL REQUIRED FOR GRADUATION		
MINOR FOR SECONDARY TEACHERS		
Chem 115-116 or 147-148		
At least three courses numbered above 148, preferably Chem 231, 358, and 364.		

# COURSES

Chem 115 GENERAL CHEMISTRY (4-3) 5 An introduction to chemistry, including atomic and molecular theory, the periodic table, bonding, stoichiometry, gases, solutions, and chemical equilibria. 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

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

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 chemistry majors. Winter term.

Prerequisite: Chem 147, or Chem 115 and permission of instructor.

# Chem 231 ORGANIC CHEMISTRY

Nomenclature, structure, spectroscopy and stereochemistry of aliphatic and aromatic compounds. The laboratory is designed to acquaint the student with fundamental isolation and identification techniques. Fall term. Prerequisite: Chem 116 or Chem 148.

Chem 232 ORGANIC CHEMISTRY (3-6) 5 Studies of free radical and ionic substitution and addition reactions of aliphatic and aromatic compounds. The laboratory consists of studies in synthesis and kinetics. Winter term. Prerequisite: Chem 231.

Chem 310 BIOCHEMISTRY

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.

# Chemistry

(4-3) 5

(3-6) 5

(4-3) 5

(4-3) 5

(3-0) 3

Includes thermodynamics, chemical potential, kinetics, phase rule discussions. and relationships of properties of substances to their molecular structures. Fall term. Prerequisites: Chem 116 or Chem 148, 1 year of college physics, and concurrent enrollment in Mathematics 222. (3-3) 4 Chem 359 PHYSICAL CHEMISTRY A continuation of Chem 358. Winter term. Prereauisite: Chem 358. (3-3) 4 Chem 364 INORGANIC CHEMISTRY Modern concepts of inorganic chemistry, modern methods of synthesis and instrumentation involving major group elements, coordination chemistry, and organometallic chemistry. Alternate years. Prerequisite: Chem 358 is recommended. Chem 365 ANALYTICAL CHEMISTRY (2-3) 3 Modern analytical theory and methods, including electrical, optical and chromatographic techniques. Alternate years. Prerequisite: Chem 358 is recommended. Chem 370 HEAT AND THERMODYNAMICS (3-0) 3 See Physics 370. Winter term. (4-3) 5 Chem 420 QUANTUM MECHANICS See Physics 420. Offered on demand. 1-4 Chem 454 ADVANCED TOPICS IN CHEMISTRY Advanced material in various areas of chemistry. During the course, material from one specific area will be treated. Class schedules will indicate the area. The time spent in the classroom and in the laboratory will vary with the topic. Offered on demand. Prerequisite: the 200 or 300 series course(s) in the specific subject area. (0-9) 3 Chem 464 ORGANIC QUALITATIVE ANALYSIS Identification of a series of unknown organic compounds by instrumental means as well as by the preparation of derivatives. Designed to acquaint the student with the laboratory techniques involved in identifying organic compounds. Offered on demand. Prerequisite: Chem 232. (2-0) 2 Chem 496 SEMINAR Students prepare and present library research papers. On demand, Prerequisite: senior standing and permission of instructor. 2 Chem 499 INDEPENDENT STUDY Students prepare and orally present library research papers and/or papers based on original laboratory research. On demand. Prerequisites: senior standing and permission of instructor.

Chem 358 PHYSICAL CHEMISTRY

The quantitative aspects of laws governing chemical and physical phenomena.

Chemistry

60

(3-3) 4

# Engineering

# Assistant Professor Otto Rohde; Instructor Gloria Mackey.

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 University at Fort Collins, Colorado. Two options are available to the student. One option is the 3-2 program in which a student attends Fort Lewis College for six terms (equivalent to three academic years); then he spends two years at Colorado State University in the College of Engineering. During his enrollment at Fort Lewis College, the student completes the requirements for the first two years of the engineering curriculum and most of the requirements 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
<sup>†</sup> Engr 205, Elementary Surveying	(3)
*Engr 206, Advanced Surveying	(3)
Engr 217, Statics	3
Engr 221, Dynamics	3
Engr 276, Fluid Mechanics	3 21

<sup>†</sup>Requirements for agricultural engineering, taken in lieu of an elective. <sup>\*</sup>Requirements for civil engineering, taken in lieu of electives. Auxiliary requirements from other departments

Engineering

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	10
PE 101, 102, Physical Activity	2
General Studies-College requirements from	
Groups A, C, and D.	21
Math 496, Seminar; or Math 499, Independent Study	2
	80

# 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
<sup>†</sup> 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	2
	44

44 65

21

<sup>†</sup>Requirements for agricultural engineering, taken in lieu of an elective. <sup>\*</sup>Requirement for civil engineering, taken in lieu of electives.

## COURSES

# Engineering

Engr 104 ENGINEERING PRINCIPLES I (2-4) 3 Introduction to the engineering profession, engineering graphics, and descriptive geometry. Fall term. Prerequisites: High school mechanical drawing or IA 150. Engr 105 ENGINEERING PRINCIPLES II (2-4) 3 Slide rule operations and use; graphical solution of engineering and science problems involving the use of graphical mathematics; introduction to computer techniques and to Fortran IV. Winter term. Prerequisite: Math 121 at least concurrently. Engr 201 ELECTRIC NETWORKS I (2-3) 3 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 Transient analysis, phasors, resonance, R.M.S., and average values. Winter 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. Prerequisite: Math 92 or high school trigonometry. Engr 206 ADVANCED SURVEYING (2-4) 3 General surveying, astronomical observations, route surveying, and their field applications. Winter term. Prerequisite: Engr 205. (3-0) 3 Engr 217 STATICS Composition and resolution of forces, equilibrium of force systems. Fall term. Prerequisite: Math 222 must be taken at least concurrently. (3-0) 3 Engr 221 DYNAMICS 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. Summer term only. Prerequisite: Engr 217.

Engr 276 FLUID MECHANICS Statics, kinematics and dynamics of fluids. Summer term only. Prerequisite: Engr 221. (3-0) 3

# English

# Professors Maynard Fox and Carroll V. Peterson; Associate Professors G. Leonard Bird, Kenneth I. Periman, and W. Wendell Phillips; Assistant Professors Alice K. Admire, Mark D. Coburn, Roland C. Jones, and Richard F. Korns; Instructor Roger H. Malstead.

The work offered in English at Fort Lewis College deals with several aspects of liberal education: the literary, linguistic, and artistic 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.

BACHELOR OF ARTS DEGREE WITH A MAJOR IN ENGLISH General Studies	41
<ul> <li>Specific Departmental Requirements</li> <li>A minimum of 34 hours from English courses designated in the course offerings as "applicable to the major." These must be distributed minimally among the following areas:</li> <li>One course in World Literature (161, 162, 221, or 222)</li> <li>One course in American Literature (241, 243, or 342)</li> <li>One course in Composition (263 or 364)</li> <li>One course in English Language (461 or 462)</li> <li>Two courses in English Literature (any two from 331-335, 431, and 432)</li> <li>Engl 496, Seminar; or Engl 499, Independent Study</li> </ul>	
Other courses bringing the total to 34 hours	34
<ul> <li>Auxiliary courses especially recommended</li> <li>a. For students preparing for graduate study in English: Two or more courses in a college foreign language</li></ul>	
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 require cation courses. See "Secondary Education Program" listed under the partment of Teacher Education. Recommended electives for English the include Thea 151 and other speech and theatre courses, work student newspaper, as well as Ed 461, indicated above.) TOTAL REQUIRED FOR GRADUATION	the De- teachers on the

## MINOR IN ENGLISH FOR SECONDARY TEACHERS:

At least 24 hours distributed among the same areas listed above for the English major and restricted to the same courses as those listed for the minimal 34 hours in the English major.

# Preparatory English

COURSES

Engl 019 INTENSIVE ENGLISH An intensive course in English as a second language, designed for students without sufficient grasp of basic English structure and vocabulary to communicate ideas orally and/or in writing. Course work is tailored to individual needs. Primarily for bilingual students. Fall and Winter terms.

Engl 100 DEVELOPMENTAL READING (0-3) 1 A course designed to increase reading rate and comprehension level. Primarily for bilingual students. Fall and Winter terms.

Engl 101 A LINGUISTIC APPROACH TO THE (5-0) 2 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 (3-0) 3 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 and Winter terms.

Engl 189 NEWS WRITING (2-3) 3 A practical course in news writing, with emphasis on news gathering, interviewing, and the writing of news stories for the weekly student newspaper. Offered on demand.

# English

(3-0) 3

(5-0) 0

English 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. Offered on demand.

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

# Literature Courses Applicable to the Major

Engl 161 WORLD LITERATURE TO 1914(3-0) 3A study of selected masterpieces of world literature to 1914.Winter term.Eng 162 WORLD LITERATURE SINCE 1914(3-0) 3A study of selected masterpieces of world literature, primarily the novel, since1914.Fall term.Engl 221 CLASSICAL LITERATURE(3-0) 3A study of ancient Greek and Roman literature.Fall term.Engl 222 BIBLE AS LITERATURE(3-0) 3A study of the Bible as literature, and its influence on art, music, and literatureof 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 SOUTHWEST (3-0) 3 The American Southwest seen through fiction, poetry, biography, and other works by Anglos, Indians, and Spanish Americans. Fall term.

Engl 331ENGLISH LITERATURE THROUGH<br/>THE RENAISSANCE(3-0) 3A study of the literature of England from Malory to Milton.Fall term.

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. Emphasis on poetry and non-fictional prose. Winter term.	English
Engl 334ENGLISH LITERATURE, 1850-1914(3-0) 3A 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. Offered on demand.	
Engl 342 LITERATURE OF THE AMERICAN RENAISSANCE (3-0) 3 A study of such writers as Hawthorne, Emerson, Thoreau, Melville, Whitman, and Emily Dickinson. Fall term.	
Engl 371 DRAMATIC LITERATURE (4-0) 4 A study and analysis of plays exclusive of Shakespeare. Alternate years.	
Engl 411CONTEMPORARY ENGLISH AND AMERICAN POETRY(3-0) 3A study of contemporary poetry from 1914 to the present.Winter term.	
Engl 412 CONTEMPORARY ENGLISH AND (3-0) 3 AMERICAN FICTION	
A study of selected modern English and American writers, concentrating on the novel. Fall term.	
Engl 431 CHAUCER (3-0) 3 A study of the writings of Geoffrey Chaucer. Winter term.	
Engl 432SHAKESPEARE(3-0) 3A study of Shakespearean drama.Fall term.	

# English Language and Composition Courses

# Applicable to the Major

Engl 263 ADVANCED COMPOSITION (3-0) 3 An advanced writing course with emphasis on the common forms of writing used by educated adults. Fall and Winter terms. *Prerequisite:* Freshman Seminar 102.

Engl 364 CREATIVE WRITING (3-0) 3 An advanced writing course with concentration in such writing areas as poetry, short stories, and magazine articles. Fall and Winter terms. *Prerequisite:* approval of instructor. **English** Engl 461 HISTORY OF THE ENGLISH LANGUAGE (3-0) 3 A study of the development of English from Indo-European sources to the present. Winter term.

> 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) 3 Students prepare and present library research papers. 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.

Foreign Languages

# Foreign Languages

Associate Professor Maria Delaney; Assistant Professors Odilie A. Cantillano, Manuel A. Rodriguez, and John R. Tapia; Instructors James G. Fitzgerald and Deborah A. O'Sullivan.

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

A minor for secondary teachers is offered in French, German, and Spanish. At present completion of approximately 24 credit hours is required for teaching foreign languages in secondary schools. Students who intend to take a minor for teaching purposes must take the necessary 24 hours and the education courses required for certification. Students can acquire additional credit hours in French and German by independent studies in order to enable them to teach the languages in secondary schools.

## COURSES

## French

FL 147ELEMENTARY FRENCH 1(4-0) 4A course in grammar, prose composition, reading, and conversation.Fall term.FL 148ELEMENTARY FRENCH 11(4-0) 4Further study of French with emphasis on reading, composition, and conversation.Winter term.

FL 247 INTERMEDIATE FRENCH 1 (3-0) 3 A course in second-year French with emphasis on reading and conversation. Fall 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

Latin
FL 325 MASTERPIECES OF GERMAN LITERATURE (3-0) 3 Topics will vary; may be repeated for a different topic. Offered on demand.
FL 324 THIRD-YEAR GERMAN II (3-0) 3 Emphasis on literature, advanced reading, conversation, and composition. Winter term.
FL 323 THIRD-YEAR GERMAN I (3-0) 3 Emphasis on literature, advanced reading, conversation, and composition. Fall term.
FL 224 INTERMEDIATE GERMAN II(3-0) 3Continuation of FL 223. Winter term.
FL 223 INTERMEDIATE GERMAN I (3-0) 3 Second-year German with emphasis on reading, composition, and conversation. Fall term.
FL 124ELEMENTARY GERMAN II(4-0) 4A continuation of FL 123.Winter term.
FL 123 ELEMENTARY GERMAN I(4-0) 4A course in grammar, pronunciation, reading, and conversation.Fall term.

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

FL 110 INTRODUCTORY LATIN II(4-0) 4A continuation of FL 109. Winter term.Prerequisite: FL 109 or equivalent.

(3-0) 3 Foreign Languages

## **Foreign Languages**

## Spanish

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

## BACHELOR OF ARTS DEGREE WITH A MAJOR IN SPANISH General Studies 41 Specific Departmental Requirements FL 311 and FL 312, Survey of Spanish Literature I & II or FL 321 and FL 322, Survey of Hispanic American Literature I & II 6 2 FL 496, Seminar; or FL 499, Independent Study 8 8 Other Departmental Requirements 12 hours from the remainder of the Spanish 12 offerings numbered above 300 For those who need it: FL 115 and FL 116, Elementary Spanish 8 FL 215 and FL 216, Intermediate Spanish 6 26 26 Auxiliary Requirements from other departments SW 365, Hispanic Civilization 3 3 SW 375, Hispanic American Civilization 6 6

## COURSES

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

FL 116ELEMENTARY SPANISH II(4-0) 4A 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

A continuation of FL 215. Fall and Winter terms.

FL 311 SURVEY OF SPANISH LITERATURE I (3-0) 3 A survey of the literature of Spain from the 10th to the 18th centuries. Fall term. FL 312 SURVEY OF SPANISH LITERATURE II (3-0) 3 A survey of the literature of Spain from 1824 to the present. Winter term.

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

FL 320 SPANISH LINGUISTICS AND (3-0) 3 ADVANCED COMPOSITION

Intensive study of the linguistic structure of Spanish and extensive application through written and spoken exercises. Winter term. Prerequisite: FL 216 or equivalent.

FL 321 SURVEY OF HISPANIC AMERICAN LITERATURE I (3-0) 3 A course in the literature of Colonial Spanish America from 1492-1824, with an emphasis on pre-Columbian literature, chronicles of discovery, travel and conquest, the 17th century poetry, roots of national literature and folklore, and literature of the Wars of Independence. Fall term. Prerequisite: FL 216 or equivalent.

FL 322 SURVEY OF HISPANIC AMERICAN LITERATURE II (3-0) 3 A course dealing with the Romanticists, Realists, Modernists, and Naturalists of the 19th century Spanish American republics. Also the literature of the 20th century emphasizing the Mexican Revolution and contemporary Spanish American writers will be included. Winter term. Prerequisite: FL 216 or equivalent.

FL 425 LITERATURE OF THE GOLDEN AGE IN SPAIN (3-0) 3 Reading the masterworks of Spain's Golden Century, with emphasis on Miguel de Cervantes, writings of the Spanish mystics, and the picaresque novel. Alternate years.

FL 426 TWENTIETH CENTURY SPANISH LITERATURE (3-0) 3 A course on the novels, plays, essays, and poetry of 20th century Spanish authors. Emphasis on Unamuno, Baroja, Garcia Lorca, Gironella, literature of the Spanish Civil War, and contemporary authors of Spain. Alternate years.

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 216 or equivalent.

#### FL 429 MEXICAN LITERATURE (3-0) 3 A survey of Mexican literature with emphasis on the works of the Revolution of 1910 and contemporary Mexican authors. Alternate years.

**Foreign Languages** 

(3-0) 3

Foreign Languages FL 495 TRANSLATION OF HISTORICAL DOCUMENTS (3-0) 3 Translation of Spanish documents concerning the American Southwest. Offered on demand. *Prerequisite:* consent of instructor.

FL 496SEMINAR IN SPANISH(2-0) 2Students prepare and present library research papers. 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.

#### Forestry

## Forestry

Professor Herbert E. Owen; Assistant Professor Richard G. Keator.

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

#### COURSES

For 211 DENDROLOGY (3-3) 4 Classification, identification, silvical characteristics, economic importance, and distribution of the broad-leaved and coniferous trees of the United States. Fall term.

Prerequisite: Biology 102.

FRENCH (see FOREIGN LANGUAGES)

GEOGRAPHY (see SOCIOLOGY AND GEOGRAPHY)

GERMAN (see FOREIGN LANGUAGES)

Geology

## Geology

Professors Frank O. Bowman, Jr., and Donald Lee Baars; Assistant

Professor Jack A. Ellingson.

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	·····	41
Specific Departmental Requirements		
Geology 113, Physical Geology	4	
Geology 114, Historical Geology	4	
Geology 207, Mineralogy	3	
Geology 334, Structural Geology	4	
Geology 351, Igneous and Metamorphic Petrology I	3	
Geology 352, Igneous and Metamorphic Petrology II	3	
Geology 361, Stratigraphy and Sedimentary Petrology I	3	
Geology 362, Stratigraphy and Sedimentary Petrology II	3	
Geology 496, Seminar; or Geology 499, Independent Study	2	
Other courses in geology	5	
	34	34
Auxiliary Requirements from Other Departments		
Chemistry (two courses, preferably Chem 147-148)	10	
Mathematics through Math 92, preferably higher	5-9	
Physics (two courses, preferably Phys 217-218)	10	
	25-29	25-29
Electives	28-24	28-24
TOTAL REQUIRED FOR GRADUATION		128

#### **Preparation for Graduate School**

Students majoring in geology who plan to earn advanced degrees will be required to complete the program as outlined above. In addition, the following courses are recommended:

Geology 208, Optical Mineralogy and Petrography Geology 233, Introductory Paleontology Geology 441, Field Geology One year of botany or zoology Additional work in chemistry—e.g., physical chemistry Engineering Principles 104-105 Elementary Surveying 205 Foreign language, preferably German Mathematics through calculus Additional work in physics

#### Geology

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#### Geology

## COURSES

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

(3-2) 4 Geol 113 PHYSICAL GEOLOGY The processes and agents at work on the Earth and the land forms they produce. Fall and Winter terms.

Geol 114 HISTORICAL GEOLOGY (3-2) 4 The geologic history and development of life on the Earth as recorded by rocks and fossils. Winter term. Prerequisite: Geol 113.

Geol 150 GEOLOGY OF THE SOUTHWEST (3-0) 3 A survey of the historical and structural geology and geomorphology of the Southern Rockies, Colorado Plateau, and Cordilleran provinces. Emphasis is on classic geologic areas and the significant geologic concepts that have been derived from them. This course will not count toward Physical Science major. Offered on demand-Continuing Education only.

Geol 207 MINERALOGY (2-3) 3 The elements of crystallography and the classification and identification of minerals. Fall term,

Prerequisites: Geol 113 and completion of, or concurrent enrollment in, Chem 115 or 147.

Geol 208 OPTICAL MINERALOGY AND PETROGRAPHY (2-6) 4 Procedures for identification of minerals in thin section, with emphasis on the optical determination of rock-forming minerals. Winter term. Prerequisite: Geol 207.

Geol 213 GEOMORPHOLOGY (3-3) 4 The relationship of geologic processes to the development of land forms. Winter term-alternate years. Prerequisite: Geol 113.

Geol 233 INTRODUCTORY PALEONTOLOGY (3-3) 4 The systematic study of fossils, primarily those used often in the identification and correlation of geologic formations. Fall term. Prerequisite: Geol 114.

Geol 334 STRUCTURAL GEOLOGY (3-3) 4 The analysis of geologic structures in the Earth's crust. Winter term. Prerequisite: Geol 113.

Geol 351 IGNEOUS AND METAMORPHIC PETROLOGY I (2-3) 3 The origin, occurrence, and classification of igneous and metamorphic rocks. Fall term. Prerequisites: Geol 113 and 207; Geol 208 is recommended.

Geol 352 IGNEOUS AND METAMORPHIC PETROLOGY II (2-3) 3 Geology The origin, occurrence, and classification of igneous and metamorphic rocks. Winter term. Prereauisite: Geol 351.

Geol 361 STRATIGRAPHY AND SEDIMENTARY PETROLOGY I (2-3) 3 The origin, classification, and significance of sedimentary rocks with regard to depositional environment and paleotectonic relationships. The dating, correlation, mapping, and economic significance of stratified rocks. Fall term. *Prerequisites:* Geol 114 and 207.

Geol 362 STRATIGRAPHY AND SEDIMENTARY PETROLOGY II (2-3) 3 The origin, classification, and significance of sedimentary rocks with regard to depositional environment and paleotectonic relationships. The dating, correlation, mapping, and economic significance of stratified rocks. Winter term. *Prerequisite:* Geol 361.

Geol 401 NATURAL RESOURCES AND THE ENVIRONMENT (3-0) 3 A critical study of the need for development of fossil fuel and industrial mineral deposits and the need to preserve regions in their natural state. Alternate years.

Prerequisite: Geol 113 or permission of the instructor.

Geol 409 ECONOMIC MINERAL DEPOSITS (2-2) 3 Geologic occurrence of metallic and non-metallic mineral deposits. Alternate years.

Prerequisites: Geol 352 and Geol 334 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 consent of instructor.

Geol 441 FIELD GEOLOGY

6

The fundamental procedures and practices in geologic field mapping. Summer term.

Prerequisite: Math 92 or equivalent, and 24 hours of geology.

#### Geol 451 FIELD STUDIES IN IGNEOUS (0-15) 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 (0-15) 5 AND SEDIMENTARY PETROLOGY (0-15) 5

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. *Prerequisite:* Geol 362 or permission of the instructor.

#### Geology Geol 496 SEMINAR

Students prepare and present research papers. Offered on demand. *Prerequisite:* approval of instructor.

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

(2-0) 2

GERMAN (see FOREIGN LANGUAGES)

#### History

## History

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

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 assued at the time of registration. A large offering of courses is available in each area. A student may take several courses under the same number, provided the particular subject matter differs each time. The Department of History employs this system in order that a greater variety of courses can be made available as needs and interests develop.

History majors are required to take a minimum of 35 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

#### History

Areas of Concentration

European History Latin American History Asian History United States History History major with no concentration. Courses, with the consent of the adviser, must be chosen from at least three of the above mentioned areas.

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	23
Four 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	6-0

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#### COURSES

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

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

Hist 160 SURVEY OF WESTERN CIVILIZATION I AND II (3-0) 3 A history of Western civilization from man's earliest experience to the present through a study of great movements or periods in history. Balanced attention is given to the social, political, economic and cultural developments of the past that help to explain current civilization and problems. Fall and Winter terms.

#### **History** Hist 170 SURVEY OF EASTERN CIVILIZATION I AND II (3-0) 3 A survey history focusing on the great East Asian civilizations of China, Korea, and Japan. Attention is also given to their relations with the surrounding areas of Southeast Asia, Inner Asia, Central Asia, and South Asia. Either part may be taken first. Fall and Winter terms.

Hist 270 SURVEY OF LATIN AMERICAN HISTORY I AND II (3-0) 3 A two-trimester general history survey of Latin America. Either part may be taken first. Fall and Winter terms.

Hist 280 SURVEY OF AMERICAN HISTORY I AND II (3-0) 3 A two-trimester general introductory survey of United States history. Either part may be taken first. Fall and Winter terms.

#### Hist 340 STUDIES IN NEAR EASTERN AND (3-0) 3 AFRICAN HISTORY

A study of the history of the Near East and Africa. The specific topic will vary. This course may be taken only with instructor's permission. Students may take this course one or more times for credit, provided the subject is different on each occasion. Offered on demand.

Hist 350 STUDIES IN ASIAN HISTORY (3-0) 3 A study of the history of Asia. The specific topic will vary. This course may be taken only with instructor's permission. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and Winter terms.

Hist 370 STUDIES IN LATIN AMERICAN HISTORY (3-0) 3 A study of the history of Latin America. The specific topic will vary. This course may be taken only with instructor's permission. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and Winter terms.

Hist 460 STUDIES IN EUROPEAN HISTORY (3-0) 3 A study of the history of Europe. The specific topic will vary. May be taken only with the instructor's permission. Students may take this course one or more times for credit, provided the subject is different on each occasion. Fall and Winter terms.

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

Hist 496 SEMINAR (2-0) 2 or (3-0) 3 Students prepare and present library research papers. Offered on demand. *Prerequisite:* senior standing and permission of instructor.

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

#### **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 Two trimesters of college mathematics or	12-24	
two trimesters of collège 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 concentration 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. Students seeking a teaching minor at the secondary level should consult the Chairman of the Department of Teacher Education for specific requirements.

#### 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.

#### Humanities

#### **Industrial Arts**

79

(2-3) 3

Industrial Arts 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 CRAFTS (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 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. Winter term.

Prerequisite: IA 201.

IA 220 CRAFTS I: METAL ART WORK (2-3) 3 Emphasis on individual design in the ornamentation of aluminum, copper, brass, the etching of aluminum. Winter term.

IA 221 CRAFTS II: LAPIDARY AND JEWELRY (2-3) 3 Stresses individual design of jewelry and the cutting and polishing of gem quality rocks. Fall term.

#### **Mathematics**

## **Mathematics**

Professor Donald D. Bushnell; Associate Professor Larry S. Johnson; Assistant Professors Richard D. Anderson, Paul W. Fitzer, Richard A. Gibbs, Gary W. Grefsrud, Harry C. Rosenberg, and Harold E. Stocker; Instructor Clifford B. Capp.

The Mathematics Department functions primarily in two ways: (1) it provides students who major in mathematics with preparation for graduate school, teaching cateers, or employment in industry, 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 least 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, 315, and 316. 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.
- 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 mathematics 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 Statistics, is offered for students who want an introduction to statistics without a calculus background.

In addition to mathematics courses, 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.

#### Mathematics

<b>Mathematics</b>	BACHELOR OF ARTS DEGREE WITH A MAJOR IN M.	ATHEMATI	CS
	General Studies		41
	Specific Departmental Requirements		
	Mathematics courses through Math 223, Calculus	12-17	
	Math 375 and Math 376 or Math 422 and Math 423	6	
	Other Departmental Requirements		
	Additional hours from courses numbered above Math 300	9-14	
	Math 496, Seminar; or Math 499, Independent Study	2	
		34	34
	Electives		53
	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 COLLEGE MATHEMATICS (4-0) 4 Designed for students with weak high school mathematics backgrounds, this course includes a discussion of such topics as sets and set operations; the real number system and its properties, including signed numbers, fractions, and the simplification of algebraic expressions; exponents, and solution of equations and inequalities and their graphs. Credit will not be given for both Math 120 and Math 100. Fall and Winter terms.

#### Math 121 COLLEGE MATHEMATICS

This course will include a discussion of such topics as elementary functions, their graphs and applications; systems of equalities and inequalities; the trigonometric functions, identities, and applications to triangle trigonometry; complex numbers; analytic geometry and applications. Fall and Winter terms.

Prerequisites: Three years of high school mathematics or Math 120 or equivalent.

#### \*Math 160 LINEAR MATHEMATICS

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

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 sets, 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

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.

(4-0) 4 Math 222 CALCULUS Techniques of single-variable and multi-variable calculus and an introduction to differential equations. Fall and Winter terms. Prerequisite: Math 221.

Math 223 CALCULUS Limits and continuity of functions, sequences and series, implicit differentiation, integration by substitution and other special techniques, improper integrals, maxima and minima, and differential equations. Fall and Winter terms. Prerequisite: Math 222.

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

#### **Mathematics**

(3-0) 3

(4-0) 4

(3-0) 3

(3-0) 3

(4-0) 4

Mathematics 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 permission 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 327DIFFERENTIAL EQUATIONS(4-0) 4The types and solutions of differential equations.Winter term.Prerequisite:Math 223 or permission of instructor.

Math 342MODERN COLLEGE GEOMETRY(3-0) 3The advanced theories and topics in geometry.Fall term.Prerequisite:Math 301 or permission of instructor.

Math 375 ALGEBRAIC STRUCTURES (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. Winter 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; stochastic processes; and application to theory of queues. Winter term. *Prerequisite:* Math 223 or permission of instructor.

Math 422 ADVANCED CALCULUS (3-0) 3 Structure of the real number system, elementary topology of the real numbers and of the Euclidean spaces, general theory of limits and continuity, differentiation of functions in Euclidean spaces. Fall term. *Prerequisite:* Math 301 or permission of instructor.

#### Math 423 ADVANCED CALCULUS

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

Topology of metric spaces with emphasis on the structure of the real numbers; topological spaces; separation axioms; continuous functions; homeomorphisms and topological invariants; product spaces and quotient spaces. Winter term. *Prerequisite:* Math 301 or permission of instructor.

#### Math 496 SEMINAR

Students prepare and present library research papers. 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.

\*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 translating-language. Applications in areas of student interest are studied, and contrasting philosophies of language implementation are examined. Individual and team programming capabilities are developed in the laboratory. Fall and Winter terms.

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

## Music

Music

# Assistant Professors Ralph A. Downey, Sherman Friedland, Maurice E. LeGault, and Patricia E. Weaver; Instructor Charles N. Ashley.

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 for those who may wish to study music avocationally. Non-music majors will find many courses in the curriculum which may be of personal interest to them.

## **Mathematics**

(3-0) 3

(3-0) 3

(2-0) 2

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

#### 

Mu 122, Sight Singing and Ear Training	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	2	
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	
	31	31

Other Departmental Requirements

Mu 110, Band (at least six trimesters of participation	a in band	
for which a maximum of 3 hours is given.)	3	
Mu 200, Applied Music (8 to 16 hours)	8-16	
	11-19	11-19
Electives		37-45
TOTAL REQUIRED FOR GRADUATION		128

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

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

#### **Piano Proficiency**

All music majors must pass a piano proficiency examination based on the fundamental knowledge of the instrument which a non-piano major should have. This examination, held before the department faculty, consists of sight-reading, 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 music should take the above required courses, except that Mu 314 should be substituted for Mn 315

#### Music Minor for Secondary Teachers

The student who wishes to minor in music is required to take Mu 100, Mu 122, Mu 316, or Mu 314 or Mu 315. In addition, the student must complete Mu 231 or Mu 232, Mu 250, and a minimum of seven credit hours in applied music. An additional requirement is a reasonable proficiency test in piano.

#### 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 AND VOCAL CLASS (0-2) 1 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, E & F)  $(0-\frac{1}{2})$  1 A one-half hour private lesson per week. The course is open to all students. The number of the course varies with the level of the student proficiency. Fall and Winter terms.

## Mu 105 CONCERT CHOIR

Thorough study and performance each trimester of some major work for choir. Open to all students. Fall and Winter terms.

#### Mu 106 CHAMBER SINGERS (0-3) $\frac{1}{2}$ An ensemble specializing in the performance of small scale works such as madrigals. By audition only. Fall and Winter terms.

#### Mu 107 SPECIAL CHOIRS

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.

87

(0-2)  $\frac{1}{2}$ 

(0-3) 1/2

Mu 110 BAND (0-3) 1/2 Music Designed to provide every student who plays a musical instrument the opportunity to pursue his musical interests. A variety of musical literature will be provided as well as the opportunity to perform in concert on campus and on tour Fall and Winter terms.

> Mu 122 SIGHT-SINGING AND EAR-TRAINING (3-0) 3 A study of, and practice in, rhythmic, melodic, and harmonic ear-training, and sight-singing. Fall term. Prerequisite: Mu 100.

> Mu 221 THEORY I (3-0) 3 The study of harmony in the 18th and 19th centuries using four-part writing as a basis. Diatonic modulations and seventh chords, melodic and rhythmic dictation, keyboard harmony studies, analysis of chorales and selected excerpts from traditional literature. Fall term.

> > (3-0) 3

Mu 222 THEORY II Continuation of Mu 221. Winter term. Prerequisite: Mu 221.

Mu 231 MUSIC HISTORY I (3-0) 3 Study of the history of music from classical antiquity to 1750. Fall term.

Mu 232 MUSIC HISTORY II (3-0) 3 Study of the history of music from 1750 to the present. Winter term.

Mu 250 CONDUCTING (2-0) 2 A course in the techniques of instrumental and choral conducting. Winter term.

Mu 301 WOODWIND ENSEMBLE (0-2) 1 A survey through performance of the literature composed for woodwind instruments from the Renaissance through Avant Garde schools of composition and including the use of ancient instruments where applicable. May be repeated once. Fall and Winter terms. Prerequisite: consent of instructor.

(0-2) 1 Mu 302 BRASS ENSEMBLE 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 314 METHODS AND PRINCIPLES OF (3-0) 3 TEACHING VOCAL MUSIC

A course designed to provide music majors with contemporary teaching skills and techniques in teaching vocal music in the public schools in grades K-12. The Kodaly and Orff methods coupled with a pragmatic approach will be used. Winter term.

#### Mu 315 METHODS AND PRINCIPLES OF TEACHING INSTRUMENTAL MUSIC

A course designed to provide music majors with contemporary teaching skills and techniques in the teaching of instrumental music in the public schools. Winter term.

Mu 316 MUSIC IN THE ELEMENTARY SCHOOL (3-0) 3 A class for elementary classroom teachers. A study of basic music and basic music teaching. Fall term.

Mu 321 ADVANCED THEORY (3-0) 3 Continuation of Mu 222. Ninth chords, chromatic harmony, elements of dissonance found in late 19th century music. Two and three-part melodic dictation; analysis of selections from 18th and 19th century literature. Fall term. *Prerequisite:* Mu 222.

Mu 322 ADVANCED THEORY Continuation of Mu 321. Winter term. Prerequisite: Mu 321.

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

Mu 496 SEMINAR (2-0) 2 Students prepare and present library research papers. Offered on demand. *Prerequisite:* senior standing and permission of instructor.

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

## Philosophy

## Professor Paul W. Pixler; Associate Professor William J. Coe.

The study of philosophy at Fort Lewis College has as its purpose not only the study of traditional and contemporary philosophical issues and positions for their intrinsic interest, but also the demonstration that man's age-old but continuing attempts to understand himself and his relation to the world are important to all of us. It is the mark of the liberally educated person to understand the conclusions of the various specialized sciences in terms of their basic assumptions, to have thought seriously about the nature of such assumptions, and to be aware of the way in which our views of reality are influenced by the very structures of our language. Perhaps the most important function of philosophy as a part of liberal education is the destruction—or at least the recognition—of the provincialism and complacency of much of our thinking. Philosophy is a necessary part of self-knowledge. Music

(3-0) 3

(3-0) 3

Philosophy

#### Philosophy

#### COURSES

(3-0) 3

Phil 141 PROBLEMS OF PHILOSOPHY A broad selection of philosophical problems is presented with representative readings from the history of philosophy. Problems included are: free will vs. determinism, the validity of induction, the nature and relationship of mind and body, the possibility of proving that God exists, and the nature of knowledge and its relation to sensory experience. Fall and Winter terms.

Phil 171 CONTEMPORARY MORAL ISSUES (3-0) 3 An examination of the relation between different ethical points of view and the handling of the personal, social, political, ecological, and global problems of today. Alternate years.

Phil 251 ETHICS (3-0) 3 This course reviews broadly the history of man's systematic attempts from Plato to modern psychotherapeutic theory to identify morality and to establish standards for making and assessing moral judgments. Offered on demand.

Phil 261 PHILOSOPHY OF RELIGION (3-0) 3 A detailed survey of philosophical approaches to problems raised by religion. Readings are selected from sources representing widely differing points of view. Fall term.

Phil 271 LOGIC (3-0) 3 A broad treatment of different methods of assessing the validity of deductive and inductive arguments. The course covers syllogistic logic, elementary truthfunctional logic, quantification, and a brief history of inductive logic. Winter term.

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-alternate vears.

Phil 275 MODERN AND RECENT PHILOSOPHY (3-0) 3 An examination of the history of philosophy from the Renaissance through the 20th century. Schools of thought like Continental Rationalism and British Empiricism are studied not only on their own terms but in terms of their relationship to the Kantian synthesis. The Kantian philosophy in turn, together with much 19th century thought, is shown to be a necessary background for the understanding of the major philosophical issues of the 20th century. Winter term-alternate years.

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. Alternate years.

Prerequisite: three hours of philosophy other than Phil 271, or consent of instructor.

## **Physical Science Major**

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 seek 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	
	41	41

#### Additional requirements depending on concentration selected

(Choose the courses in <i>one</i> of the sciences listed below; with the courses listed above as general requirements these courses will complete 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	
Physics—3 courses numbered above 218 10-14 Choose one additional course in either science not selected as the major concentration above. This will serve as the necessary third course in a second physical science. 3-5	
37-46	37-46
Electives	9-0
TOTAL REQUIRED FOR GRADUATION	128

#### COURSES

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

#### **Physical Science**

# Physical SciencePhysc 105 THE PHYSICAL SCIENCES(3-0) 3History and philosophy of science.Study is made of the development of some<br/>of the most important concepts of science; modern developments, problems in<br/>science, and problems from science. Area studies in electron theory, transistors,<br/>particle chemistry. Fall and Winter terms.

Physics

## **Physics**

#### Professor Randall D. Taylor; Assistant Professor Daniel E. Gibbons.

As an important part of the physical science program, Fort Lewis College offers a strong selection of the basic undergraduate courses in Physics. These courses are used extensively by students as part of their General Studies program and to augment their work in such fields as chemistry, 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

(4-3) 5

(4-3) 5

#### Phys 201 PHYSICS

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

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 (4-3) 5 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 engineering students and strongly recommended to all physical science majors. Winter term.

Prerequisites: Math 222 and Phys 217.

Phys 320MODERN PHYSICS(3-0) 3A course in modern physics.A study of current theories in atomic and nuclearphysics.Fall term—alternate years.Prerequisites:Phys 201 or 217 and Math 222.

Phys 340 OPTICS (3-3) 4 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 370HEAT AND THERMODYNAMICS(3-0) 3The 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 includes wave-particle relationships, stationary solutions to Schrodinger equation, barrier penetration problems, 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 1-3 Individual research is conducted under the supervision of a faculty member. Offered on demand. *Prerequisite:* approval of instructor. **Physics** 

#### **Political Science**

## **Political Science**

## Professor Maurice Harari; Associate Professor LeRoy W. Goodwin; Assistant Professors David J. Bass and James C. Decker.

The political science major provides excellent training for the person who (1) plans a career in law, journalism, or government; (2) hopes to work abroad; (3) plans to enter graduate school and later teach or serve as an administrator at the college level; or (4) expects to enter politics, either as a candidate or as an administrative aide to a public official.

Political science course offerings are available also to the student who is majoring in another area but who wants to learn something about politics and government.

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

General Studies ...... 41

#### Specific Departmental Requirements

PS 110, U.S. National Government: Power		
and Freedom in the Twentieth Century	3	
PS 388, Contemporary Political Analysis	3	
PS 496, Seminar; or PS 499, Independent Study	2	
	8	
Other Departmental Requirements		
24 additional hours in Political Science	24	32
Auxiliary requirements from other departments		
Hist 280 I and II, Survey of American History	6	
Two courses in any of the following areas: Anthropology, Economics, Foreign Language, Mathematics,		
Philosophy, Psychology, or Sociology.	6-10	12-16
Electives		39-43
TOTAL REQUIRED FOR GRADUATION		128

#### COURSES

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

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 (3-0) 3 FREEDOM IN THE TWENTIETH CENTURY (3-0)

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

A study of the history, nature, organization, and operation of state and local government in the United States. Winter term.

PS 220 U.S. PARTY AND INTEREST GROUP POLITICS (3-0) 3 An inquiry into the dynamics of the American representative system, stressing the roles of the two major parties in the nomination and election process and in the control and management of governmental power. Relationships among the government, parties, and interest groups are stressed. Fall term.

PS 230 PUBLIC ADMINISTRATION (3-0) 3 An examination of the role of administration in government, with special attention given to the relationship of the bureaucracy to the policy-formulating branches of the government. Winter term.

PS 241 INTRODUCTION TO THE LEGAL SYSTEM (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 251 INTRODUCTION TO COMPARATIVE POLITICS (3-0) 3 An introduction to the study of foreign national political systems. A variety of illustrations from different countries or times focuses on the essential features of government and politics and points out their universality as well as distinctions caused by ethnocentrism. Fall term.

#### PS 320 INTERNATIONAL RELATIONS (4-0) 4 An examination of international politics, with special emphasis on the relationships of security, sovereignty, nationalism, economic objectives, power, and international law to peace and war. Winter term.

#### PS 331 CONSTITUTIONAL LAW

A study of the nature and scope of American constitutional principles as developed through studies of Supreme Court decisions. The emphasis is on cases dealing with civil rights, federalism, powers of the national government, and interstate obligations. Fall term.

PS 337 U.S. FOREIGN POLICY (3-0) 3 A study of United States foreign policy from the American Revolution to the present day, with emphasis on current policy and how it is made. Winter term.

PS 352 STUDIES IN COMPARATIVE POLITICS (3-0) 3 Continuation of PS 251. Students are encouraged to do further study in countries or areas of their own choosing utilizing methods and concepts developed in PS 251. Winter term.

Prerequisite: PS 251 or permission of instructor.

PS 388 CONTEMPORARY POLITICAL ANALYSIS (3-0) 3 A study focusing on historic and newer methods of research in political science, on voter-behavior and other studies, and on the contributions of the other sciences to political science. Fall term.

#### **Political Science**

(4-0) 4

(3-0) 3

Political Science PS 486 POLITICAL THOUGHT (5-0) 5 Primarily a study of the ideas of both early-day and present-day political philosophers. Students read the original writings of the philosophers. Fall term. Prerequisite: consent of instructor.

> PS 496 SEMINAR (3-0) 3 Students prepare and present library research papers. Offered on demand. *Prerequisites:* senior standing and consent of instructor.

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

SPANISH (see FOREIGN LANGUAGES)

Sociology and Human Services

## Sociology and Human Services

Assistant Professor Leland E. Stuart; Instructors Patricia C. Beardsley, Samuel A. Burns, Mary Kay Cordill, and Roger J. Lauen.

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.

#### COURSES

Soc 101 INTRODUCTION 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 (3-0) 3 CONTEMPORARY SOCIETIES

An examination of the structure and operation of educational organizations in contemporary American society. Classooms, 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,

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.

## Soc 279 HISPANO IN THE SOUTHWEST

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.

Geog 271 WORLD GEOGRAPHY (3-0) 3 An introduction to world geography, including physical and cultural regions and development of natural resources. Offered on demand.

## Theatre

## Associate Professors David Berg and Kenneth E. Bordner; Instructor 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.

## Minor in Speech and Theatre for Secondary Teachers

Thea 120, Acting: Interpersonal Communication	2	
Thea 124, Scenic Elements	3	
Thea 126, Acting: Voice and Body	2	
Thea 151, Oral Interpretation of Literature	3	
Thea 181, Theatre Workshop	2	
Thea 221, Lighting and Sound	3	
Thea 247, History of the Theatre	5	
Engl 371, Dramatic Literature	4	24

## COURSES

Sociology and Human Services

Theatre

97

(3-0) 3

98

Theatre

#### 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 123 ACTING: INTERPERSONAL COMMUNICATION

Thea 141 ACTING: VOICE AND BODY 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 (2-2) 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 (0-2) 1-2 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.

#### Thea 215 FUNDAMENTALS OF PLAYWRIGHTING (3-0) 3 A course in the principles and practice of writing for the stage and dramatic material for television. The student is encouraged to take a two-hour lab in theatre workshop while enrolled in this course. The student should have a prior background in dramatic literature. Alternate years,

Thea 221 LIGHTING AND SOUND (3-0) 3 Introduction to design and execution theories, principles and techniques of theatre lighting and sound. Fall term.

Thea 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 Emphasis A study of the theatre from the ancient Greeks to the moderns 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.

(1-2) 2

(1-2) 2

# SCHOOL OF BUSINESS ADMINISTRATION

ACCOUNTING

BUSINESS ADMINISTRATION

BUSINESS EDUCATION

ECONOMICS

ARTHUR K. BRINTNALL, Director

## SCHOOL OF BUSINESS ADMINISTRATION

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 background in the liberal arts as a basis for mature understanding of the problems of business leadership and management. Some basic business courses are offered in the student's first two years. The program is, however, largely at an upper-division level and students are advised to concentrate their professional courses in the junior and senior years.

The School is characterized by its professional attitude and its close 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 Arts Degree in Secretarial Science

### SCHOOL OF BUSINESS ADMINISTRATION FACULTY

Professor Arthur K. Brintnall (Director) Edward N. Dubois; Associate

Professors, Bernard E. Anderson, Reginald A. Graham, Jerry M.

Kaufman; Assistant Professors, Leonard D. Atencio, Robert E.

Campbell, William D. Engs, Edward S. Freienmuth, Aubrey A.

Holderness, Eugene L. Holehan, Vernon D. Lynch, Alice J. Tochi,

John H. Zoller.

## The Curriculum

### The Curriculum

A student who majors in one of the Bachelor of Arts Degree programs in the School of Business Administration must complete:

I. The General Studies Program as described in this catalog. In satisfying this requirement one term of the freshman seminar must have been in "Business in Modern Society."

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The Curriculum	II. The Common Requirements:		
	Acc 225 Elementary Accounting I	4	
	Acc 226 Elementary Accounting II	4	
	Econ 261 Principles of Econ I	3	
	Econ 262 Principles of Econ II	3	
	BA 251 Business Statistics I	3	
	BA 252 Business Statistics II*	3	
	BA 311 Business Law I	3	
	BA 340 Marketing	3	
	BA 350 Operations Management	3	
	BA 301 Organization Theory	3	
	BA 380 Financial Management	3	
	BA 405 Business Policies	3	38
	III. The following courses in the quantitative and computer science areas:		
	CS 150 Computer Science	3	
	Math 160 Linear Mathematics	3	6

- IV. Departmental requirements that are listed on the following pages under each department.
  - V. Sufficient elective hours to bring the student's total hours to 128 (the number required for graduation). At least 40% but no more than 60% of the student's total hours must be taken outside of the School of Business Administration.
- \*Not required of Business Education majors

#### Accounting

## Accounting

The objectives of the program in Accounting are: To provide opportunity for students to develop into thinking, well balanced, social beings; to become familiar with the economic, political, and social climate in which modern business is conducted; to familiarize the student with the primary analytical tools and methods; and to develop capacity for objective analysis, for leadership, for appreciation of cultural values, and an awareness of the individual's social responsibility.

Students successfully completing the major in Accounting are prepared to embark immediately upon a career as a public, private or governmental accountant, and are provided with a foundation in accounting and business administration that will enable them to pursue effectively graduate study in these fields.

The accounting major at Fort Lewis College has been approved by the State Board of Accountancy of Colorado as preparation for the Certified Public Accountant Examination and for those receiving C.P.A. certificates.

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:

Δ	cco	nn	tin	0
А	ccu	un	UΠ	1 <b>2</b>

Specific Dep	partmental Requirements		
Acc 323	Intermediate Accounting I	4	
Acc 324	Intermediate Accounting II	4	
Acc 325	Cost Accounting I	3	
Acc 430	Income Tax Accounting	3	
Acc 433	Advanced Accounting	4	18
Other Departmental Requirements			
Acc 436	Auditing	3	
ог			
Acc 437	Internship in Public Accounting	3	
Acc	Elective	3	6
Auxiliary Requirements from Other Departments			
BA-Econ	496 Seminar		
ог			
BA-Econ 4	499 Independent Study	2	5
BE 221	Business Communications	3	

#### 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 accounting. Offered fall and winter terms.

ELEMENTARY ACCOUNTING II Acc 226 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.

Acc 232 PREPARATION OF YOUR INCOME TAX RETURN (3-0) 3 A nontechnical approach to the fundamental concepts and mechanics of preparation of federal income tax returns. All classes of individual returns and commonly encountered business forms are covered. Offered summer term.

Acc 319 MANAGERIAL ACCOUNTING (3-0) 3 The application of accounting information for principal purposes of making managerial decisions is stressed. Topics include: the analysis and interpretation of financial statements, budgeting for planning and control, cost behavior (cost-volume-profit relationships), relevant cost analysis for making long- and short-range capital expenditure decisions, and the impact of income taxes on management planning. This course is not available to students who have over 14 semester credit hours of accounting. Offered winter term. Prerequisite: Acc 226.

(3-2) 4

#### Acc 323 INTERMEDIATE ACCOUNTING I (4-0) 4 Accounting The fundamental process of accounting is analyzed. The proper treatment of business transactions in the recording and analyzing phases is reviewed. Financial accounting theory and problems are studied along with financial statement presentation. Offered fall term only. Prerequisite: Acc 226.

Acc. 324 INTERMEDIATE ACCOUNTING II (4-0) 4 Continuation of financial accounting theory and problems. In addition, partnership accounting and an introduction to business combinations are covered. Offered winter term only. Prerequisite: Acc 323.

Acc 325 COST ACCOUNTING I (3-0) 3 This course develops cost accounting procedures applicable to job order and process cost systems. Emphasis throughout the course is on the processing and reporting of a firm's historical and projected cost data to assist management in planning, controlling, and analyzing operations and costs. Offered fall term.

Prerequisite: Acc 226.

Acc 326 COST ACCOUNTING II (3-0) 3 A continuation of the study of cost accounting with emphasis on standard costs, analysis of cost for profit decision-making purposes, and other special cost and analysis problems. Offered on demand. Prerequisite: Acc 325.

Acc 430 INCOME TAX ACCOUNTING (3-0) 3 A brief history of the income tax, income tax accounting, and a study of current federal income tax provisions are presented. Offered fall term. Prerequisite: Acc 321 or consent of instructor.

Acc 433 ADVANCED ACCOUNTING (4-0) 4 This course develops basic accounting principles relating to consolidated statements, fund and governmental accounting, bankruptcies, receiverships, estates and trusts, actuarial accounting. Offered fall term. Prerequisite: Acc 324.

(4-0) 4 Acc 435 SURVEY OF ACCOUNTING THEORY TRENDS 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.

(3-0) 3 Acc 436 AUDITING—THEORY AND PRACTICE Functions of the independent public accountant are stressed. The course includes audit reports and opinions, account analysis, audit programs, working paper content and form, professional ethics, applications of accounting and auditing standards, SEC stock exchange regulations, investigations for purchase and financing, and current literature on auditing. Offered winter term. Prerequisite: Acc 322 and consent of instructor.

#### Acc 437 INTERNSHIP IN PUBLIC ACCOUNTING

Accounting students in their senior year may be placed with a selected certified accounting firm where they will serve as a member of the accounting staff. The experience gained in this program will provide a basis for a term paper to be submitted at the end of the trimester. The student's performance will be periodically evaluated by his supervisors in the firm. Offered on demand. *Prerequisite:* consent of the instructor.

#### BA 496 SEMINAR

Students prepare and present library research papers. Offered fall and winter terms.

Prerequisite: senior standing and permission of instructor.

#### BA 499 INDEPENDENT STUDY

1-3

12

(2-0) 2

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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 Administration**

#### Business Administration

The Business Administration program prepares the student for leadership positions in today's society or for entrance into graduate school.

Students may elect courses that emphasize a particular area of management. All are, however, expected to develop a basic understanding of the social and economic environment of business, the principles of leadership and organization theory, the quantitative tools of decision making, and the functional areas of the firm.

Emphasis is placed on developing leaders and on a professional, well balanced understanding of management.

In addition to the College's general requirements and the common requirements of the School of Business Administration, a student majoring in Business Administration must complete the following departmental requirements:

#### Specific Departmental Requirements

One 300 level Accounting course (Acc 319 suggested)	3
One 300 level Economics course (Econ 361 or 365 suggested)	3
BA 302 Industrial Relations	3
BA 343 Sales Management	3

#### Accounting

Business Administration	Other Requ	uirements			
	Minimum of 9 hours from the following:				
	BA 312	Business Law II	3		
	BA 342	Retailing	3		
	BA 344	Advertising	3		
	BA 445	Marketing Cases and Problems	3		
	BA 446	Marketing Research	3		
	BA 483	Investments	3		
	BA 486	Insurance	3		
	BA 489	Real Estate	3	9	
	BA 496	Seminar	2	2	
	or				
	BA 499	Independent Study			

#### 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

Personnel selection, placement, training, promotion, wage incentives, absenteeism, and counseling. Job analysis and evaluation, safety and health, employee services and human relations. Offered fall term.

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

Principles of labor bargaining and a critical examination of wages, unemployment, collective bargaining, wage regulations, and social insurance. Offered winter term.

Prerequisite: BA 301.

#### BA 311 BUSINESS LAW I

(3-0) 3

(3-0) 3

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

#### BA 312 BUSINESS LAW II

Continuation of Business Law 311. Study of the law of partnerships, corpora-Offered tions, secured transactions, suretyship, real property and bankruptcy. winter term.

Prereauisite: BA 311.

#### BA 340 PRINCIPLES OF MARKETING

The first part of the course is devoted to a broad investigation of the channels of distribution with an emphasis on marketing functions, policies and costs. The courses are concluded with an investigation of the marketing institutions, with special emphasis on retailing. Offered fall and winter terms. Prerequisite: Econ 261 or concurrent registration.

#### **BA 34? RETAILING**

An introduction to retailing from the management point of view; study of retail policies and organization, the operation of the buying and selling functions, merchandise control, store systems, personnel management, retail accounting, and expense control. Offered winter term. Prerequisite: BA 340.

#### BA 343 SALES MANAGEMENT

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

Basic principles of a marketing communication system are developed, with emphasis on media selection and feedback requirements. The role of research is emphasized. Offered fall term.

Prerequisite: BA 340.

#### BA 350 OPERATIONS MANAGEMENT

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

The first part of the course concerns the firm, its place in society, its responsibilities and duties. A study of the history and present impact of governmental regulations and activities as it affects the businessman. The course concludes with an analysis of the problems encountered by management in its daily operations. The case method is stressed. Offered fall and winter terms.

#### **Business** Administration

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# Business<br/>AdministrationBA 445MARKETING CASES AND PROBLEMS(3-0) 3Detailed case analysis of corporate marketing problems.Cases include all of<br/>the marketing inputs and allied internal and external forces and resources.<br/>Offered winter term only.<br/>Prerequisite: BA 343.

#### BA 446 MARKETING RESEARCH

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. *Prerequiistes:* BA 251 and BA 340.

#### BA 483 INVESTMENTS

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.

#### **BA 486 INSURANCE**

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

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 Students prepare and present library research papers. Offered fall and winter terms.

Prerequisite: Senior standing and permission of instructor.

BA 499 INDEPENDENT STUDY 1-3 Individual research is conducted under the supervision of a faculty member. Offered fall and winter terms.

Prerequisite: Approval of Director, School of Business Administration.

#### **Business Education**

#### **Business Education**

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

The teacher-education curriculum is designed specifically for the preparation of teachers of business subjects. Students who are not enrolled in the teachereducation curriculum may elect to enter the vocationally oriented program in secretarial science and, upon completion, receive an Associate of Arts Degree.

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(3-0) 3

(3-0) 3

(3-0) 3

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.

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	
	Intermediate Shorthand	2	
BE 144		3	
		2	
BE 213	Advanced Shorthand and Transcription	3	
BE 221	Business Communications	3	
BE 232	Secretarial Procedures	3	16
Other Requ	uirements		
BA 496	Seminar		
or			
BA 499	Independent Study	2	2
Auxiliary H	Requirements from Other Departments		
	n courses (see secondary education section)	23	23

#### Secretarial Science

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

General	Studies

FS 101 Freshman Seminar <sup>®</sup>	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	12
Specific Secretarial Science Requirements		

BE 112	Intermediate Shorthand	3	
BE 213	Advanced Shorthand and Transcription	3	
BE 221	Business Communications	3	
BE 232	Secretarial Science	3	
BE 144	Quantitative Business Techniques	2	14
Four bus	iness courses to be selected from Accounting, Ec	onomics,	
Business	Administration or Business Education	12	12

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

#### **Business Education**

#### Secretarial Science

109

#### Secretarial Science

#### COURSES

#### **BE 107 INTERMEDIATE TYPING** (2-0) 2 The development of speed and accuracy in producing business forms. Offered fall and winter terms. Prerequisite: One year of high school typing or ability to pass the typing qualification examination. **BE 108 ADVANCED TYPING** (2-3) 2 The development of skill in office production. Business letters, business forms. tabulations, and manuscripts are presented. Use of electric machines. Offered fall and winter terms. BE 111 ELEMENTARY GREGG SHORTHAND (2-3) 3 The basic principles of reading and writing shorthand, and dictation of practice material. Offered fall term. **BE 112 INTERMEDIATE SHORTHAND** (2-3) 3 The practice of dictation and transcription including shorthand vocabulary building. Offered fall and winter terms. Prerequisite: BE 111 or permission of instructor. **BE 144 QUANTITATIVE BUSINESS TECHNIQUES** (1-3) 2 The latest arithmetical techniques used in business and accounting. Stress is placed on applications including a thorough instruction in the use of rotary and listing calculators, electronic calculator, and ten-key adding machines. Offered fall and winter terms. BE 213 ADVANCED SHORTHAND AND TRANSCRIPTION (2-3) 3 The practice of advanced dictation and speed building, and development of skill in shorthand. Offered fall and winter terms,

Prerequisite: BE 112 or permission of instructor.

#### BE 221 BUSINESS COMMUNICATIONS (3-0) 3

A course built around the basic concept that both the functions and objectives of business are achieved through effective communication. Includes the processes of business communication and the conventions of business writing. Offered fall and winter terms.

#### BE 232 SECRETARIAL PROCEDURE (7-2) 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.

Econ 261 PRINCIPLES OF ECONOMICS I (3-0) 3 A course in economic life, institutions, and problems, stressing the national Introduction to demand, supply, and prices is included. income approach. Offered fall and winter terms.

Students prepare and present library research papers. Offered fall and winter terms. Prerequisite: Senior standing and permission of instructor.

**BA 499 INDEPENDENT STUDY** 1-3 Individual research is conducted under 'he supervision of a faculty member. Offered fall and winter terms. Prerequisite: Approval of Director, School of Business Administration.

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, and teaching in high schools.

In addition to the College's general requirements and the common requirements of the School of Business Administration, a student majoring in economics must complete the following departmental requirements:

Specific Departmental Requirements

Econ 468 History of Economic Thought

Econ 475 Regional Economics

**BA 496 SEMINAR** 

Econ 356 Intermediate Micro-theor	y 3
Econ 364 Intermediate Macro-theor	ry 3
Econ 470 Quantitative Economics	3
BA 496 Seminar	
or	
BA 499 Independent Study	2 11
Other Departmental Requirements	
Any 5 of the following courses:	
Econ 361 Managerial Economics	3
Econ 367 Comparative Economics	Systems 3
Econ 369 Public Finance	3
Econ 371 International Economics	3

## COURSES

3 3

15

(2-0) 2

Secretarial Science

Economics

#### Economics Econ 262 PRINCIPLES OF ECONOMICS II (3-0) 3 Price determination and income distribution in a capitalistic economy. Investigation of current economic issues with particular emphasis on labor-management relations, agriculture, international trade, and government regulation of business is included. Offered fall and winter terms.

Econ 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.

Econ 367 COMPARATIVE ECONOMIC SYSTEMS (3-0) 3 An analysis and comparison of capitalism, socialism and communism and a survey of the historical background in which these systems developed. Offered on demand.

Prerequisite: consent of instructor.

Econ 369 PUBLIC FINANCE (3-0) 3 An analysis of the financing of federal, state, and local units of government. Emphasis given to problems of taxation, expenditures and debt management. Offered on demand. *Prerequisite:* Econ 261.

Econ 371 INTERNATIONAL ECONOMICS (3-0) 3 Classical, neo-classical, and modern trade theory. Comparative analysis of marketing functions, institutions and structures in different national environments. Exchange rates, import-export monopolies, quotas, tariffs, and other foreign fiscal policies. Offered on demand. *Prerequisite;* Econ 261 and 262.

An analysis of economic thought. The writings of Plato, Aristotle, and Xenophon through Merchantilist ideas; the classical tradition including Marx, the Marginalists and opponents including Jevons, Menger, Marshall, Pareto, Weber, Veblen; and the contemporary economists including Keynes, Chamberlain, Clark and Schumpeter. Offered on demand.

Prerequisite: consent of instructor.

Econ 470 OUANTITATIVE ECONOMICS (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.

Econ 475 REGIONAL ECONOMICS

A study in the economic structure, stability and growth of regional and urban economics. Included is an analytical approach to the location of economic activity, and methods of measuring and analyzing regional and urban economic performance. Attention to be focused on problems unique to the southwestern region of the national economy. Offered on demand.

Prerequisite: Econ 364 or consent of instructor.

**BA 496 SEMINAR** 

(2-0) 2

1-3

(3-0) 3

Students prepare and present library research papers. 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.

Econ 468 HISTORY OF ECONOMIC THOUGHT

(3-0) 3 Economics

## SCHOOL OF EDUCATION

ELEMENTARY EDUCATION

SECONDARY EDUCATION

PHYSICAL EDUCATION

PSYCHOLOGY

DONALD F. WHALEN, Director

#### Department of Teacher Education

Bill D. Engman, Chairman

Professors Willard O. Bowman, Donald F. Whalen; Associate Professors Edith W. Brochu and Bill D. Engman; Assistant Professors Michael S. Nyikos, Charles H. Reid, Jr. Hugo H. Rivera, George H. Smith, and Raymond N. Wilson; Instructors Marilyn K. Bowling and Gary D. Knight.

The teacher education program is designed to prepare students to enter the teaching profession at the secondary and elementary levels. The program presents the skills, understandings, techniques, attitudes, knowledge, and appreciations necessary for students to become successful teachers. Students from other areas of study may take education courses as electives if they desire a broad understanding of American schools.

The Colorado State Department of Education has approved Fort Lewis College for teacher education at the secondary level in the following areas: Art, Biology, Business Education, English, History, Mathematics, Music, Physical Education, Physical Science, and Spanish.

Procedures have been established for a college student to complete the teacher education program and to be recommended by the College to the State Department of Education for a teaching certificate. A teacher placement service is maintained.

The objectives of the Department of Education are:

- 1. To recruit persons to the teacher education program who possess potential as competent teachers.
- To provide professional preparation for teachers entering the profession, as well as enrichment for those persons wishing to enhance their teaching competence.
- 3. To provide understanding and insight concerning the social, intellectual, and psychological nature of man.
- 4. To contribute to foundation courses in other academic areas.
- 5. To serve as consultant to area public schools in the effort to improve and update curricular programs and competence of teaching personnel.

#### ADMISSION TO THE PROGRAM:

The student makes application for admission to the program while enrolled in Ed 201, Teachers Admissions Seminar. Requirements include demonstrated competencies in communicative skills and an overall grade point average of 2.3. A grade point average of 2.5 in the student's major and in professional education courses is also required. The Professional Education Screening Committee in considering an application for admission to the Teacher Education Program, takes into consideration these factors: character, personal adjustment, physical fitness, completion of necessary course work and scholarship.

There are additional academic and course completion requirements prior to actual student teaching. These are outlined in the Student Teaching Handbook available through the Department of Teacher Education. Application for secondary level student teaching is made as part of Education 401 which the student in secondary education is required to take the term preceding the student teaching term.

Students who transfer to Fort Lewis College from other collegiate institutions will be accepted for the Teacher Education Program depending upon their prior preparations. Transfer students must meet a *one-term* residency requirement prior to student teaching, as well as the usual prerequisites to student teaching.

#### SECONDARY EDUCATION PROGRAM

General Studies		41
Courses in major academic field		32-42
Specific Departmental Requirements		
Ed 201, Teacher Education Admissions Seminar Ed 401, Seminar for Laboratory Experience	3	
in the Secondary School	1	
Ed 402, Secondary Education	3	
Ed 480, Methods of Teaching (subject matter)	2	
Ed 495, Laboratory Experience & Seminar in Secondary School	8	17
Additional Departmental courses recommended		
Ed 365, Educational Measurement	3	
Ed 420, Instructional Media	3	
Ed 425, Guidance in the Public Schools	3	
Auxiliary Requirements from other departments		
Psych 157, General Psychology	3	
Psych 218, Psychological Foundations of Education	3	6
Electives		32-22
TOTAL REQUIRED FOR GRADUATION		128

#### ELEMENTARY EDUCATION PROGRAM

BACHELOR OF ARTS WITH A MAJOR IN ELEMENTAR	Y EDUCA	TION
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 Elementary School	3	
Ed 411, Science in the Elementary School	3	
Ed 433, Language Arts in the Elementary School	3	
Ed 494, Laboratory Experience & Seminar		
in the Elementary School	8	
Additional approved course in education	3	
	29	29

#### **Teacher Education**

Teacher EducationAuxiliary requirements from other departmentsPsych 157, General Psychology3Psych 218, Psychological Foundations of Education3Psych 254, Developmental Psychology9

#### 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 1* requires that a minimum of 18 hours (6 advanced) of approved course work be completed in each of the two concentration areas. *Plan 11* 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.

	Plan I	Plan II	
1st area of concentration	18	24	
2nd area of concentration	18	12	
3rd academic area	6	6	
4th academic area	6	6	
	48	48	48

9

13

The elementary education major must also complete the following departmental requirements.

#### ENGLISH

Engl 263 or Engl 462 and one of the following: Engl 130, 140, 241, 243, 332, 333, 334

#### MATHEMATICS

Math 215 and 216

SOCIAL SCIENCE 6 hours of American or Latin American history

#### SCIENCE

Biol 100 and 101 Phys Science 100, and 105 or Geol 113

Additional Requirements (in case not included in areas of tration)	f concen-
Engl 327, Children's Literature	3
Art 203, Art in the Elementary School	3
Mu 316, Music in the Elementary School	3
PE 370, Physical Education in the Elementary School	3
	13

#### 

NOTE: This large total can in most cases be reduced to 128 or below because many of the concentration requirement courses can be counted for General Studies courses as well. Courses Recommended for Freshman and Sophomore Years

Ed 201 Teacher Admissions Seminar-prerequisite 30 hours of college credit	3 hours
Freshman Seminar 101, 102	8 hours
English—one literature course	3 hours
Math 215, 216	6 hours
Music, Art or Theater-one course	3 hours
PE Activity courses 101, 102	2 hours
Psychology 157, 218, 254	9 hours
Science-Bio 100, 101; Physical Science 100, 105	8 hours
Social Science-two courses in American or Latin American History	6 hours

#### EARLY CHILDHOOD EDUCATION

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

Specific Department Requirements:

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

#### COURSES

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

Ed 211 TEACHER AIDE PRACTICUM AND SEMINAR 1-3 A course that gives students practical experience in a school setting. It features placement in local or nearby schools and the experience of a regular assignment in one teaching situation for the duration of the term—not to exceed 12 hours per week. Assignments are highly individualized and are monitored by the public school principal. Credit is based on the ratio of one hour per 25 contact hours. There are also weekly seminar meetings. Enrollment is by permission of instructor. Fall and Winter terms.

#### **Teacher Education**

#### **Teacher Education** 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 THF 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 hours of social science or approval of instructor.

Ed 330 HUMAN RELATIONS IN THE CLASSROOM (3-0) 3 Designed to increase teacher effectiveness in the realm of inter-personal relations and group dynamics; analysis of individual and group behavior in a classroom setting; theoretical concepts and skill training in classroom management. 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. *Prerequisite:* admission to the teacher education program.

#### Ed 355 METHODS AND TECHNIQUES FOR (3-0) 3 TEACHING PRE-SCHOOL CHILDREN

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.

#### Ed 362 DEVELOPMENTAL READING IN THE (3-0) 3 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. Fall and Summer terms.

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. Winter and Summer terms. *Prerequisite:* admission to teacher education program and Psych 218, or approval of instructor.

#### Ed 401 SEMINAR FOR LABORATORY EXPERIENCE 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.

#### Ed 402 SECONDARY EDUCATION

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. Prereauisite: Ed 401.

Ed 411 SCIENCE IN THE ELEMENTARY SCHOOL (3-0) 3 Emphasis on helping prospective teachers to (1) analyze the science needs of elementary school children in the modern world; (2) select subject matter which will help pupils meet these needs; and (3) develop methods of teaching which will encourage scientific inquiry on the part of the learner. Offered everv term.

Prerequisite: admission to teacher education program and 8 semester hours of laboratory science or approval of instructor.

#### Ed 420 INSTRUCTIONAL MEDIA

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 425 GUIDANCE IN THE PUBLIC SCHOOLS (3-0) 3 An introduction to the principles of guidance with emphasis on the role of the teacher and on guidance as an intrinsic part of teaching. Fall and Summer terms. Prerequisite: admission to teacher education program or approval of instructor.

Ed 433 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (3-0) 3 The adaptation of the various language arts content subjects to the needs and maturity levels of elementary school children. Emphasis is given to instruction in grammar, composition, spelling, listening, writing and speaking. Offered every term.

Prerequisite: Ed 201 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 EDUCATION

Emphasis is given to recent developments which have influenced early childhood education programs, such as Head Start, Day Care, Follow Through, and federal legislation. A consideration of appropriate curriculum materials is also included. Offered on demand.

Prerequisite: junior standing and admission to teacher education program.

**Teacher** Education

(3-0) 3

(0-2) 1

(3-0) 3

(3-0) 3

#### Ed 461 DIAGNOSTIC AND REMEDIAL READING **Teacher** Education (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 and Summer terms.

Prerequisite: admission to teacher education program and Ed 260, Reading in the Elementary School, or approval of instructor,

Ed 480 METHODS OF TEACHING (SUBJECT MATTER AREAS) (2-0) 2 A course designed to show the prospective teacher how to teach specific subjects in high school. Attention is given to the historical development and new trends within the subject matter area and their influence upon curriculum, learning, and teaching. Fall and Winter terms.

Prerequisite: admission to student teaching.

Ed 490 ADVANCED TOPICS IN EDUCATION (3-0) 1-3 Designed to accommodate the needs or requests of school systems, teachers, or regular Fort Lewis College students who seek credit for topics of immediate concern. Course topic will be one not normally or regularly available through another course offering. Offered on demand.

#### Ed 494 LABORATORY EXPERIENCE AND (0-8) 8 SEMINAR IN THE ELEMENTARY SCHOOL

Directed observation and teaching in the public schools at the elementary level. Periodic seminars are held in which relevant areas of elementary school organization and management are discussed. Fall and Winter terms.

(0-8) 8

Prerequisite: admission to student teaching and senior standing.

#### 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** 

#### **Physical Education**

Joseph M. Pease, Chairman

Professor Joseph M. Pease; Associate Professors Louis C. Cullen, Marvin L. Giersch, and Adolph M. Kuss; Assistant Professors Joan M. Sanders, Carole Seale, and Charles H. Walker; Instructors Daniel Antolik, William E. Hayes, Janice R. Hetzler, 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;

**Physical Education** 

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

#### Specific Departmental Requirements

PE 170, Introduction to Physical Education	2
PE 190, Foundations of Physical Education I	3
PE 191, Foundations of Physical Education II	3
PE 200, Foundations 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,	
Problems in Physical Education	2
	26

#### 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, Test & Measurements in Physical Education	3	
PE 375, Psychology of Coaching & the Conduct		
of Competitive Sports	3	
PE 480, Organization & Administration	3	
PE 499, Independent Study	1-3	
	6	32
Auxiliary Requirements from other Departments		
Biol 121, Human Anatomy & Physiology	3	3
Electives	· · · · ·	52
TOTAL REQUIRED FOR GRADUATION		

#### **Physical Education**

#### 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 (1-0) 1 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.

(2-0) 2

#### PE 170 INTRODUCTION TO HEALTH, PHYSICAL EDUCATION & RECREATION

Orientation to the field of physical education as a professional career. Students become familiar with the nature and scope of physical education, as well as its history, aims, objectives, and values. Also included are qualifications and professional preparation, opportunities for service, allied fields, and professional associations. Fall and Winter terms.

PE 190 FOUNDATION OF PHYSICAL EDUCATION I (0-6) 3 Designed to acquaint the student with the philosophical background of physical education, and to develop skills and understandings in social and square dance, tumbling, gymnastics, golf, tennis, archery, and other activities commonly found in a public school program. Students are required to meet minimum levels of proficiency in the activities covered before enrolling in advanced professional courses. Fall term.

PE 191 FOUNDATION OF PHYSICAL EDUCATION II (0-6) 3 Continuation of Physical Education 190. Winter term.

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

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

PE 243 HEALTH & SAFFTY 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

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: Biol 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: Biol 121, Human Anatomy & Physiology.

PE 300 THEORY AND TEACHING OF (3-0) 3 FOLK AND SOCIAL DANCE

Course deals with fundamental rhythms, basic structure, and the teaching of folk and social dances. Material presented is for both elementary and secondary school use. Winter term.

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

PE 350 TESTS AND MEASUREMENTS IN (3-0) 3 PHYSICAL EDUCATION

Techniques to determine abilities, needs, placement, and evaluation in the physical education program. Winter term.

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

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

PE 375 PSYCHOLOGY OF COACHING AND THE (3-0) 3 CONDUCT OF COMPETITIVE SPORTS

Examination of the basic sociological and psychological concepts manifested in coaching as well as the administrative problems confronted by the coach. Attention is given to the techniques, strategy, and principles of selected interscholastic sports. Fall and Winter terms.

#### PE 480 ORGANIZATION AND ADMINISTRATION OF (3-0) 3 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. (2-0) 2 **TRENDS & PROBLEMS** 

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

#### **Physical Education**

(2-0) 2

**Physical Education** 

#### PE 499 INDEPENDENT STUDY

Individual research is conducted under the supervision of a faculty member. All terms.

Prerequisite: approval of Department Chairman.

#### Psychology

#### Psychology

#### John F. Hale, Chairman

#### Professor Willard O. Bowman: Associate Professors Miguel A. Escotet, John F. Hale, Frank D. Tikalsky, and Edwin W. Wallace; Assistant Professors 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 expose the student to the approaches taken to these basic problems. He is presented with current research findings and theoretical positions regarding motivation, perception, personality, adjustment, learning, and thinking. He is trained in research procedures, and in the application of psychological principles to the solution of problems of personal and social relevance.

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

#### 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	2	
	17	
Other Departmental Requirements		
Nine Additional Hours of 300 Courses		
Psych 327, Physiological Psychology	4	
Psych 365, Psychology of Learning	4	
Psych 368, Culture and Personality	3	
Psych 387, Abnormal Psychology	3	
Psych 472, Psychology of Personality	3	
	9	
Six additional hours of psychology electives	6	31
Electives		56
TOTAL REQUIRED FOR GRADUATION	••••	128

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#### 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: Psychology 157.

Psych 218 PSYCHOLOGICAL FOUNDATIONS OF EDUCATION (3-0) 3 An introduction to the psychological principles relevant to education. Offered every term.

Prerequisite: Psychology 157.

Psvch 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: Psychology 158.

Psych 225 PRINCIPLES OF OPERANT BEHAVIOR (3-2) 4 An introduction to the experimental analysis of human and animal behavior. The student learns basic operant conditioning methodology and applies operant principles to problems of everyday life. It is an applied psychology course suitable for education and other non-psychology majors as well as psychology majors. Winter term. Prerequisite: Psych 157.

Psych 228 INDUSTRIAL PSYCHOLOGY (3-0) 3 An introduction to the application of psychology to the industrial environment, including personnel recruitment and selection, job analysis, supervisory practices, training, systems design, decision-making, and organizational theory. Winter term-alternate years.

Psych 241 RESEARCH METHODS IN PSYCHOLOGY (3-0) 3 Introduction to concepts and techniques employed to gather data of a psychological nature from field, survey, testing instrument, and laboratory sources. Establishes familiarity with and application of techniques used to order, analyze, and interpret behavior data. Fall, 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 psychological tests and measurements, providing training in the concepts and application of intelligence tests, personality inventories, and projective techniques, as well as aptitude and interest scales. Winter and Summer terms. Prereauisite: Psvch 241.

#### Psychology

Principles of development in childhood and adolescence. Fall and Summer terms. Prerequisite: Psychology 158 or Psychology 218 or consent of instructor. Psych 327 PHYSIOLOGICAL PSYCHOLOGY (3-2) 4 Study of basic neuroanatomy, neurophysiology, and other physiological variables in the prediction and understanding of behavior. Attention is paid to contemporary and classical research. Winter term-alternate years. Prerequisite: Psychology 219 or consent of instructor. Psych 365 PSYCHOLOGY OF LEARNING (3-2) 4 The conditions of learning in animals and men as found in the experimental literature. Fall and Summer terms. Prerequisite: Psychology 158 or Psychology 218 or consent of instructor. Psych 368 CULTURE AND PERSONALITY (3-0) 3 (same as Anthropology 385) A study of the cultural determinants of perception and behavior. Fall and Summer terms.

Psych 254 DEVELOPMENTAL PSYCHOLOGY

Psychology

Prerequisite: Psychology 158 or consent of instructor.

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

(3-0) 3

A study of the philosophical and scientific antecedents of modern psychology, together with a review of the classical psychological systems and theories from ancient times to the present. 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:* Psychology 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: Psychology 158 or consent of instructor.

Psych 496 SEMINAR (2-0) 2 Students prepare and present library research papers Fall and Winter terms. *Prerequisite:* senior standing and permission of instructor.

Psych 499 INDEPENDENT STUDY 1-3 Individual research is conducted under the supervision of a faculty member. Fall and Winter terms. Prerequisite: approval of Department Chairman.

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## CENTER OF SOUTHWEST STUDIES

## MAJOR IN SOUTHWEST STUDIES

with concentrations in

ANTHROPOLOGY

HISTORY

SPANISH

ROBERT W. DELANEY, Director

#### Southwest Studies

#### Professors Robert W. Delaney (Chairman) and John C. Ives; Assistant Professor Manuel Rodriguez.

The major in Southwest studies is an area major made up of courses in history, anthropology, and Spanish, as the central core of the major, plus certain auxiliary courses. All three of these are included in the major to some extent, but there are three separate patterns listed, and the student is to choose one of these for special emphasis. In considerable measure, programs will be tailored to each individual major. A committee of three faculty members, one each from history, anthropology, and Spanish, will supervise and advise each major to suit his program to his needs. This major would provide that a student be able to enter a graduate school in the field of his major emphasis, and it is expected that careers in state and local governments would be open to majors in Southwest studies.

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

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

General Studies	. 41
History Requirements	
Hist 280, Survey of American History I 3	
Hist 280, Survey of American History II 3	
Hist 270, Survey of Latin American History (Colonial) 3	
Hist 370, History of Mexico 3	
Hist 480, History of the Southwest 3	
Hist 480, Transmississippi West or	
Hist 480, 20th Century U.S. 3	
18	
(Hist 120, 121, History of Indians of the Southwest, may be substituted for one or two of the following courses: Hist 370, History of Mexico; Hist 480, Transmississippi West; Hist 480, 20th Century U.S.)	
Language Requirement	
Competence in Spanish equal to 12 hrs. above	
Elementary Spanish I & II 9	
FL 495, Translation of Historical Documents 3	

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#### Anthropology Requirements

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

Two of the following required: Engl 280, Literature of the Southwest Engl 276, Folklore of the Southwest Soc 279, The Hispano in the Southwest	3 3	
Engl 276, Folklore of the Southwest	-	
	3	
Soc 279, The Hispano in the Southwest		
	3	
	6	
Science Requirements		
At least two courses selected from the biological and physical sciences which have to do with the Southwest	6	
Research Requirements		
SW 301, Problems in Southwest Studies	3	
SW 302, Problems in Southwest Studies	3	
	6	54
lectives		33
OTAL REQUIRED FOR GRADUATION		128
	At least two courses selected from the biological and physical sciences which have to do with the Southwest Research Requirements SW 301, Problems in Southwest Studies SW 302, Problems in Southwest Studies	Science RequirementsAt least two courses selected from the biological and physical sciences which have to do with the Southwest6Research RequirementsSW 301, Problems in Southwest Studies3SW 302, Problems in Southwest Studies3

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

General Studies		. 41
Anthropology Requirements		
Anth 151, Introduction to Anthropology Anth 231, Archaeology of the Southwest,	3	
Part I: The San Juan Pueblos	4	
Anth 331, Archaeology of the Southwest Part II: Hohokam and Mogollon Cultures	4	
Anth 259, Field Training in Archaeology	8	
Anth 321, Topics in Ethnography:		
Indians of the Southwest	3	
	22	
History Requirements		
At least two courses dealing with Southwestern history to be approved by the Committee, at least one of which must be History 480.	6	
Language, literature, social science, science and research requirements the same as in history emphasis	30	58
Electives		29
TOTAL REQUIRED FOR GRADUATION		128

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 11	14	
FI 495, Translation of Historical Documents	3	
Two courses in advanced Spanish with Mexican Literature	and	
Hispanic American Civilization (in Spanish and English) bei		
recommended	6	
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, History of Indians of the Southwest may		
be substituted for Hist 370, History of Mexico)		
Anthropology, literature, social science, science, and research		
requirements the same as in the history emphasis.	24	56
Electives		31
TOTAL REQUIRED FOR GRADUATION		128

#### COURSES

SW 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, SOCIAL AND POLITICAL HISTORY OF(3-0) 3121INDIANS OF THE SOUTHWESTThese courses are the same as Hist 120 and 121. See History.
SW 301 PROBLEMS IN SOUTHWEST STUDIES I(3-0) 3A senior-level individual research project in any discipline based on the needsand interests of the individual. Offered on demand.Prerequisite: approval of Committee.
SW 302 PROBLEMS IN SOUTHWEST STUDIES II (3-0) 3 Same as above.
SW 365 HISPANIC CIVILIZATION (3-0) 3 Contributions of Spain and Portugal to the building of Western civilization. Topics include: Great Age of Exploration: Golden Age of Spanish-Portuguese Civilization; masterworks of literature; and History of Ideas. Offered on demand.
SW 375 HISPANIC-AMERICAN CIVILIZATION (3-0) 3

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

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

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## 1972-73

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TULLIUS W. HALLEY, M.D., Physician
ROBERT C. PIVONKA, M.D., Acting Director
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

#### Faculty

#### Academic Faculty

#### 1972-73

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

ABE, PAUL B., Instructor 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

ALEX, ROBERT A., Instructor of Anthropology (1972) (Fall Term only)
B.S., University of Iowa, 1964
M.A., University of Iowa, 1968
Ph.D. Candidate, University of Wisconsin

ANDERSON, BERNARD E., Assoc. Professor of Business Administration (1971)
B.S., Arizona State College, 1960
M.A., University of Arizona, 1961
Ph.D., The Ohio State University, 1964

ANDERSON, DALE W., Director, Cooperative Education (1971) B.A., Antioch College, 1965 ANDERSON, RICHARD DEE, Asst. Professor of Mathematics (1965)
 B.S., Baker University, 1958
 M.N.S., Arizona State University, 1963
 Further graduate study, University of Illinois

ANTOLIK, DANIEL, Laboratory Instructor in Physical Education (1972)
B.A., Fort Lewis College, 1969
M.A. in progress, Adams State College

ARVISO, KATHRYN P., Instructor-Counselor, Intercultural Program (1971)
B.S., University of New Mexico, 1965
Further graduate study, University of New Mexico

ASH, JAMES K., Instructor of History (1970) (On leave 1972-73) B.A., University of California (Berkeley), 1967 M.A., Harvard University, 1970 Ph.D. Candidate, University of Washington

ASHLEY, CHARLES N., Instructor of Music (1972) B.S., Ball State Teachers College, 1961 M.A., Ball State Teachers College, 1962

ATENCIO, LEONARD D., Asst. Professor of Economics and Business Adm. (1968) (On leave 1972-73)
B.A., Fort Lewis College, 1964
Ph.D., Kansas State University, 1969

BAARS, DONALD L., *Professor of Geology* (1968) B.S., University of Utah, 1952 Ph.D., University of Colorado, 1965

BASS, DAVID J., Asst. Professor of Political Science (1970)
B.Sc., Ohio State University, 1943
M.A., University of Chicago, 1947
Ph.D., University of Chicago, 1972

BELARDE, LINDA SUE, Instructor-Counselor, Intercultural Program (1971)
B.A., University of Washington, 1969
M.Ed., University of Washington, 1971

BERG, DAVID, Assoc. Professor of Speech (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, 1955

FacultyBIRD, G. LEONARD, Assoc. Professor of English (1969)B.A., San Diego State College, 1961M.A., University of Utah, 1963Ph.D., University of Utah, 1969

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, 1972

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., Director, School of Business Administration; Professor of Business Administration (1970)
A.B., Denison University, 1935
Graduate Study, The Johns Hopkins University, 1935-37
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, 1962 Ph.D. Candidate, University of Colorado

BUSHNELL, DONALD D., Professor of Mathematics (1960)
B.S., Kearney State College, 1951
M.A., University of Northern Colorado, 1957
Ed.D., University of Northern Colorado, 1969

CAMPBELL, ROBERT E., Asst. Professor of Accounting (1972)
B.B.A., McMurry College, 1960
M.S.A., Texas Tech University, 1970
C.P.A., State of Texas, 1963
C.P.A., State of Colorado, 1972

CANTILLANO, ODILIE A., Asst. Professor of Spanish (1971) M.A., West Virginia University, 1958 Ph.D., University of Arizona, 1972

Faculty

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

CHAVEZ, CONRAD L., Director-Counselor, PIEDAD Program (1971)
B.A., Colorado State University, 1968

CLEVELAND, PATRICIA C., Instructor of Sociology (1972) B.S., Colorado State University, 1967 M.A., Kansas University, 1972

COBURN, MARK D., Coordinator of Off-Campus Programs; 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) (On leave, 1972-73)
B.A., University of Kansas, 1965
M.A., University of Kansas, 1969
Ph.D. Candidate, University of Kansas

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 Faculty 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 Historia de America, Facultad de Filosofia y Letras, Universidad de Madrid, 1960

DOWNEY, RALPH A., Asst. Professor of Music (1969)
B.S., Lebanon Valley College, 1949
M.M., University of Montana, 1965
Ed.D. Candidate, University of Montana

DUBOIS, EDWARD N., Professor of Business and Economics (1968) B.A., University of Wyoming, 1946 M.B.A., University of Pennsylvania, 1948 Further graduate study, University of Pennsylvania

ECKENRODE, THOMAS R., Asst. Professor of History (1969) A.B., St. Vincent College, 1958 M.A., University of Colorado, 1964 Ph.D., St. Louis University, 1970

ELLINGSON, JACK A., Asst. Professor of Geology (1970) B.S., University of Washington, 1958 M.S., University of Washington, 1959 Ph.D., Washington State University, 1968

ENGLEHART, STANTON, Assoc. Professor of Art (1961) B.F.A., University of Colorado, 1960 M.F.A., University of Colorado, 1968

ENGMAN, BILL D., Assoc. 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), 1959
  Ph.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
- ESCOTET, MIGUEL A., Assoc. Professor of Psychology (1972) Licenciado in Psychology, Javeriana University, Bogota, 1964 M.A., University of Texas (Austin) 1969 Ph.D., University of Nebraska, 1972
- FITZER, PAUL W., Asst. Professor of Computer Science (1972) B.S., Southeastern State College, 1962 M.A., Southeastern State College, 1968
- 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., Asst. Professor of Economics and Business (1969)
  J.D., University of Colorado, 1949
  C.P.A., Colorado, 1964
- FRIEDLAND, SHERMAN, Asst. Professor of Music (1969)
  B.M., New England Conservatory of Music, 1960
  Diploma Cum Laudes, Conservatoire American, 1960
  M.M., University of Massachusetts, 1967
- FULLER, MARTIN E., Assoc. Professor of Chemistry (1971)
   B.S., University of California (L.A.), 1952
   Ph.D., Massachusetts Institute of Technology, 1956
- GIBBONS, DANIEL E., Asst. 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

Faculty

 Faculty 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., Director of Library; 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, 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

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., Assoc. 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 Post Doctoral study, University of Heidelberg (1964-65)

HARARI, MAURICE, Director, School of Arts and Sciences; Professor of Political Science (1972)
B.A., Columbia College, 1949
M.A., Columbia University, 1951
Ph.D., Columbia University, 1958 HARRISON, EDWARD 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 (1962-1969; 1970)
A.B., Adams State College, 1962
M.A., Adams State College, 1964
Ed.D., University of Northern Colorado, 1971

HETZLER, JANICE WILSON, Asst. Professor of Women's Physical Education (1968)
B.S., Slippery Rock State College, 1966
M.A., Kent State University, 1968

HOLDERNESS, AUBREY E., Asst. Professor of Business Education (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

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

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

Faculty

Faculty JONES, ARCHIE, Dean of Academic Affairs; Professor of History (1970)
 B.A., Carroll College, 1947
 M.A., The University of Chicago, 1949
 Ph.D., The University of Chicago, 1954

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

JURACAN, ABRAHAM M., Instructor-Counselor, PIEDAD Program (1972)
B.A., Brigham Young University, 1970
M.E., Brigham Young University, 1972

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

KEATOR, RICHARD G., Asst. Professor of Biology (1967) A.B., University of California (Santa Barbara), 1961 Ph.D., University of California (Berkeley), 1968

KELLY, REECE, C., Asst. Professor of History (1971)
B.A., Eastern Washington State College, 1964
M.A., University of Washington, 1967
Graduate study, Universitate of Bonn and Universitate of Munich Ph.D., University of Washington, 1973

KNIGHT, GARY D., Asst. Professor of Education (1972)
B.S., East Central State College, 1962
M.T., East Central State College, 1964
Ed.S., Eastern New Mexico University, 1970
Ed.D., University of New Mexico, 1972

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 (1964)
Ski Coach
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.

LAUEN, ROGER J., Instructor of Sociology (1971) B.A., University of Minnesota, 1965 Certificate, University of Madrid, 1962 Ph.D. Candidate, University of Colorado

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

LIU, ESTHER T. C., Librarian; 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, VERNON E., Instructor of Economics (1972) B.A., University of Texas, 1965 M.A., University of Texas, 1967 Ph.D. Candidate, University of Arizona

MALSTEAD, ROGER H., Instructor of English, Intercultural Program (1970)
B.A., Haigazian College, Beirut, 1968
M.A., University of California (L.A.), 1970

MARQUISS, ROBERT W., Asst. Professor of Biology (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 (1970) Football Coach
B.S., University of New Mexico, 1962
M.A., University of New Mexico, 1968

MICHAEL, LOREN H., Instructor in History (1972) B.S., Western Illinois University, 1967 M.A., University of Wisconsin, 1969 M.A., University of Wisconsin, 1971 Ph.D. Candidate, University of Wisconsin

MILLS, LEON R., Instructor of Biology; Coordinator of Institutional Planning and Research (1972)
B.S., Colorado State University, 1954
M.S., Colorado State University, 1956  Faculty NYIKOS, MICHAEL S., Dean of Students; Asst. Professor of Education (1964-66; 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, Intercultural Program (1971) B.A., Grand Canyon College, 1958 M.A., Arizona State University, 1967 Further graduate study, Universita Italiana per Stranieri

> O'SULLIVAN, DEBORAH ANN, Instructor in 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

PAWULA, HELLYN M., Instructor-Counselor, Intercultural Program (1972)
B.F.A., University of New Mexico, 1965
M.F.A., University of Washington, 1967

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., Assoc. Professor of Literature (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., Director, Computer Center; Instructor (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

PHILLIPS, W. WENDELL, Assoc. Professor of English (1961)
B.A., Iowa State Teacher's College, 1939
M.A., Western State College of Colorado, 1958
Ed.D., University of New Mexico, 1968

PIXLER, PAUL W., Professor of Philosophy (1967)
A.B., Kletzing College, 1944
B.D., Asbury Theological Seminary, 1947
S.T.M., Harvard University, 1949
Ph.D., Boston University, 1958

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; Assistant Professor of Education (1950)
A.B., Montclair State College, 1948
M.Ed., University of Colorado, 1949
Further graduate study, University of Northern Colorado

RICHES, SUSAN M., Instructor of Anthropology (1971) B.A., Eastern New Mexico University, 1964 M.A., University of Wisconsin, 1970 Ph.D. Candidate, University of Wisconsin

RITCHEY, JOHN M., Asst. Professor of Chemistry (1972) B.A., Wichita State University, 1962 Ph.D., University of Colorado, 1968

RIVERA, HUGO H., Asst. Professor of Education (1972) A.B., McMurry College, 1952 M.A., University of Texas (El Paso), 1965 Ph.D., Arizona State University, 1971

RODRIGUEZ, MANUEL A., Asst. Professor of Spanish (1965) (On leave, 1972-73)
B.A., Union College, Schenectady, N.Y., 1947
M.A., University of Texas (El Paso), 1964
Doctor en Filologia Romanica, Facultad de Filosofia y Letras, Universidad de Madrid, 1970

ROHDE, OTTO J., Asst. Professor of Engineering (1964)
B.S., U.S. Military Academy, 1935
M.S. in C.E., Massachusetts Institute of Technology, 1937

#### Faculty

Faculty 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 study, New Mexico State University

SACKETT, JUDY ANNE, Instructor; Librarian (1970)
B.A., University of California (L.A.), 1967
M.L.S., 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

SCHON, FRED E., Research Analyst, Intercultural Program (1972)
B.S., Rockford College, 1960
M.S., Northern Illinois University, 1970

SCOTT, JACK W., Laboratory Instructor in Chemistry (1972) B.S., Fort Lewis College, 1971

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

SHIPPS, HARROLD S., JR., Assoc. Professor; Librarian (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

SMAGALA, SANDRA D., Instructor: Librarian (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

SMITH, GEORGE H., Asst. Professor of Education (1972)
B.A., Arizona State University, 1952
M.Ed., Brigham Young University, 1956
Ed.D., Arizona State University, 1967

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)
B.A., Fort Lewis College, 1965
M.A., University of Wyoming, 1967
Further graduate study, University of Northern
Colorado and Colorado State University

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

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., Assoc. 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

TOCHI, ALICE J., Asst. Professor of Business Education (1968)
B.A., University of Northern Colorado, 1960
M.A., University of Northern Colorado, 1961
Further graduate study, University of Colorado

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 Physical Education (1972)
Basketball Coach
B.S., University of Nevada, 1960
M.Ed., University of Nevada, 1964
Ph.D., University of Utah, 1972 Faculty

Faculty 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, Director, Intercultural Program (1967) B.A., Western State College, 1943 M.A., Western State College, 1950

> WEAVER, PATRICIA E., Asst. Professor of Music (1969) M.B., Baylor University, 1955 M.M., University of Illinois, 1958

WELLS, C. GERALD, Asst. Professor of Art (1970) B.A., University of Mississippi, 1959 M.F.A., University of Mississippi, 1964

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

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

YODER, GLORIA, Laboratory Instructor in Physics and Engineering (1972)
B.S., Sam Houston State University, 1970
M.S. in progress, Sam Houston State University

ZOLLER, JOHN H., Asst. Professor of Business Administration (1971)
B.B.A., University of Minnesota, 1948
M.B.A., University of New Mexico, 1968
Further graduate study, University of Arizona

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