

COLUMBIA

COLLEGE

1981-1982



**COLUMBIA
COLLEGE
LIBRARY**

Columbia, CA 95310

PHILOSOPHY

This Community College is dedicated to the worth and dignity of each student. Its primary responsibility is to the goals of the student, his needs, desires, and aspirations.

We believe an effective education teaches that one has a life to live as well as a living to earn. Columbia College will, therefore, involve each student in opportunities for developing his capabilities to become a useful and contributing member of society. This objective will be accomplished through a living, dynamic, and continuing experience in which each individual can confront opportunities to participate actively in the learning process. In effect, education will not happen to him, but with him and by him.

COLUMBIA COLLEGE

P.O. Box 1849
Columbia, California
95310
(209) 532-3141

1981-1982



YOSEMITE COMMUNITY COLLEGE DISTRICT

PRICE \$2.00

FALL QUARTER 1981

SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

- July 20 Application for admission and transcripts for day students should be on file.
- August 31 Registration commences for students taking evening classes only.
- September 2 Beginning advisement for Fall Quarter for new and former students.
- September 18 Day registration for Fall Quarter (by permit only).
- September 21 Instruction begins.
- October 2 Last day to enter a class.
- October 9 Deadline for filing intent to graduate for Fall Quarter.
- October 28 Last day to elect for CR/NC or letter grade.
- November 11 Veterans Day Holiday
- November 25 Last day to withdraw from course without penalty.
- November 26-27 Thanksgiving Holiday.
- December 18 Fall Quarter ends.
- December 21 -
- January 3 Winter Recess.

WINTER QUARTER 1982

JANUARY	FEBRUARY	MARCH
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

- October 20 Application for admission and transcripts for day students should be on file.
- November 23 Beginning advisement for continuing students for Winter Quarter.
- November 30 Beginning advisement for Winter Quarter for new and former students.
- November 30 Registration commences for students taking evening classes only.
- January 4 Instruction begins.
- January 15 Last day to enter a class.
- January 22 Deadline for filing intent to graduate for Winter Quarter.
- January 29 Last day to elect for CR/NC or letter grade.
- February 12 Lincoln Day Holiday
- February 15 Washington Day Holiday.
- March 5 Last day to withdraw from course without penalty.
- March 25 Winter Quarter ends.
- March 26 Spring Recess.

SPRING QUARTER 1982

APRIL	MAY	JUNE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

- February 16 Application for admission and transcripts for day students should be on file.
- March 1 Beginning advisement for continuing students for Spring Quarter.
- March 5 Beginning advisement for Spring Quarter for new and former students.
- March 8 Registration commences for students taking evening classes only.
- March 29 Instruction begins.
- April 9 Last day to enter a class.
- April 16 Deadline for filing intent to graduate for Spring Quarter.
- April 20 Last day to elect for CR/NC or letter grade.
- May 26 Beginning advisement for continuing students for Fall Quarter.
- May 27 Last day to withdraw from course without penalty.
- May 28 Board Declared Holiday.
- May 31 Memorial Day Holiday.
- June 17 Spring Quarter ends.
- June 18 Graduation.

SUMMER SESSION 1982

JULY	AUGUST
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

- June 28 Instruction begins.
- July 5 Independence Day Holiday.
- August 3 Five week Summer Session ends.
- June 28 -
- September 2 Various special short courses offered during this period.

**BOARD OF TRUSTEES
YOSEMITE COMMUNITY COLLEGE DISTRICT**



*Allster A. Allen
Area 2, Patterson



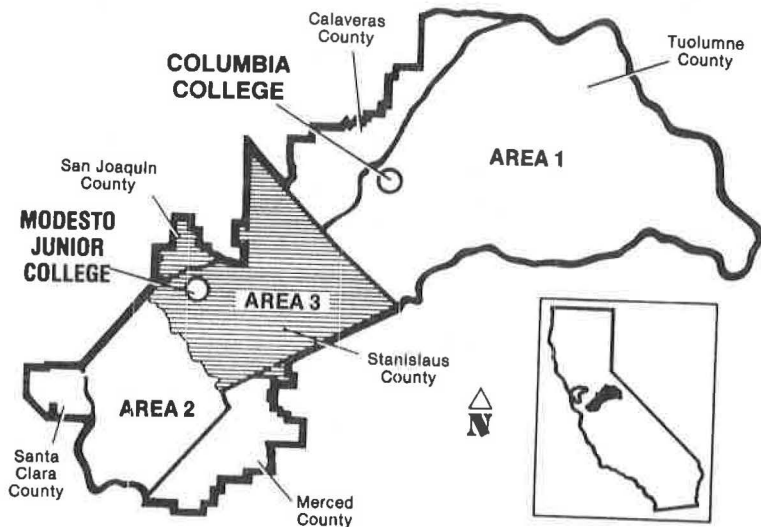
*Glenda Alpers
Area 3, Riverbank



*†Grant E. Bare, M.D.
Area 3, Modesto



Robert Cardoza
Area 3, Modesto



*†Ian Hardie
Area 3, Modesto



*Carmen Jackson
Area 3, Turlock



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Area 1, Sonora

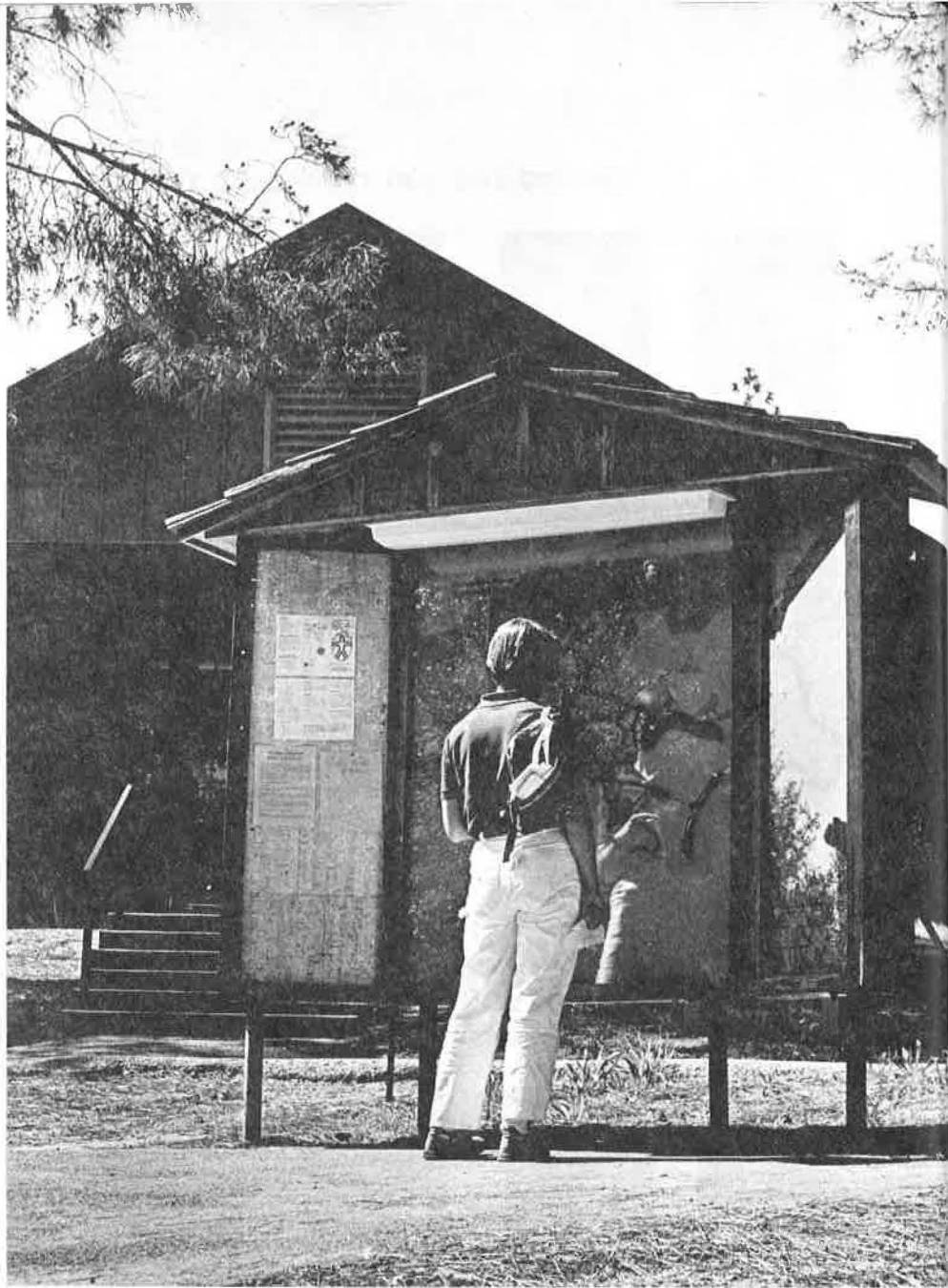


Dr. Tom Van Groningen
Superintendent,
Secretary to
Board of Trustees

*Past President
†Charter Board Member

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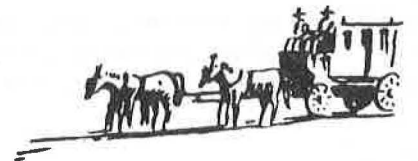
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A Guiding Principle ...

Each student is a separate and unique individual who shall be accepted as such. It shall be the responsibility of each student and staff member to accept and perpetuate the philosophy of this College.

INCOMING STUDENTS



QUESTIONS OF INTEREST

Who May Attend Community Colleges?

By state law, community colleges are open to high school graduates and other persons 18 years of age or older who can profit from instruction.

(Page 17)

Am I Eligible To Attend Columbia College?

Any legal resident of the Yosemite Community College District is eligible to attend Columbia College. All persons 18 years of age and older have the legal right to establish their own residence for purposes of admission.

Students living in an area not affiliated with a community college district are eligible to attend Columbia.

Residents of other community college districts may attend Columbia when they have obtained an attendance permit from their community college district of residence. (Page 18)

May International Students Attend Columbia?

Yes, Columbia welcomes international students provided they have proper visas, show financial responsibility including health and accident insurance, and meet other educational requirements. (Page 19)

Why Should I Read the College Catalog?

The catalog is the official document of the College. It sets forth policies, rules, and regulations of the institution. It is a guide for the services available to the student, provides information about the College, suggestions for course planning in order to determine graduation requirements, and descriptions of all courses. Catalogs may be purchased from the Manzanita Bookstore.

Which Catalog May I Follow?

Generally, you will follow the catalog in effect at the time of admission. However, you may choose to follow requirements of any subsequent catalog in effect during your enrollment at Columbia College.

Are There Tuition Costs At Columbia?

There is no tuition fee for California residents.

Nonresidents of California, including international students, are required to pay an out-of-state tuition fee of \$53.00 per unit. Tuition refunds are based on the following schedule: before or during week in which instruction begins, 100 percent; second week

of instruction, 50 percent. No refund permitted after the second week of instruction.

What Is Available at the Bookstore?

In addition to textbook and school supplies, the Manzanita Bookstore also carries paperbacks, greeting cards, gym wear, backpacks, sundries and snacks.

How Much Will Books and Supplies Cost at Columbia?

Cost of books and educational supplies varies with the type of program the student is pursuing. Textbook and supply costs normally range from \$75 to \$100 per quarter. Some programs may be more expensive, others less. Certain qualified students may be eligible for loans to assist in purchasing textbooks. Please contact your counselor or the Financial Aid Office for further information.

How Can I Regain Some of My Textbook Investment?

The College-operated Manzanita Bookstore will buy back certain textbooks which will be reused in courses the following quarter. The trade-in price will depend on the condition, original cost, and resale value.

Are There Any Other Education Expenses?

Again, this depends upon the type of program undertaken. Certain classes may assess special fees for consumable items such as materials used in welding, science, or art courses. Other classes may require special clothing such as some of the physical education classes. Special activity or field trip classes may require additional expenses. A health fee is assessed each quarter. The health fee is required of all students except those exempted by California Administrative Code Title V and senior citizens who have or are eligible for a gold card. All fees are due at the time of registration. These fees are indicated in the class schedule for each quarter.

What Kind of Living Accommodations Are Available?

There are no facilities for on-campus housing at Columbia College. Information regarding off-campus housing is available at the Career Center and is posted on College bulletin boards. The College does not supervise, recommend or assume responsibility for any off-campus housing facility.

How Much Should I Pay for Living Expenses?

The following cost breakdown for 9 months is used as a guide for single students:

	Dependent	"Declared" Independent
Fees	\$ 50	\$ 50
Books and Supplies	250	250
Meals and Housing	1,100	2,255
Personal Expenses and Transportation	1,200	1,145
	<hr/>	<hr/>
	\$2,600	\$3,700

Are College Classes Available in Locations Other Than on the Campus?

The College, in an endeavor to meet student needs, offers a variety of classes in various off-campus locations throughout the community. These classes may meet in non-conforming facilities.

Are Scholarships or Student Loans Available?

Many scholarships, grants and student loans have been established. Further information is available from the counselor in the Student Services area or the Financial Aid Office.

Where Can I Find Out About Job Placement?

The Placement Office, located in the Career Center maintains a list of job vacancies from local employers as well as general employment information. Students interested in obtaining employment must register with the Placement Office and update their availability each quarter. Some on-campus jobs are available through the Financial Aid Office. Positions may include library, bookstore, groundsman, laboratory assistants and part-time clerical helpers for College offices and faculty.

How Can A Counselor Assist Me?

Counselors are available to assist students with schedules, personal and social problems, housing, financial assistance, scholarships, vocational and/or general academic progress.

Is Evening Counseling Available?

Counseling and academic advisement are also available on selected evenings. Evening students needing counseling should inquire at the Admissions and Records Office.

Who Is My College Advisor?

Your college advisor is either a faculty member or a counselor

who can help you design your program of study, assist in quarterly course planning and is available to discuss your academic progress throughout your tenure at Columbia. Certain students may choose to independently develop their own program of study. Information may be obtained in the Student Services area.

How Will My Advisor Be Assigned?

Your college advisor will be assigned on the basis of your intended program of study. Major advisors are selected on the strength of their experience in a particular specialty. They may have pursued a similar major, or they may have other experience in the field of study.

What is a College Major?

The college major is a suggested course of study for the attainment of special knowledge for an occupational or transfer study program. The major is designed to provide the necessary skills and information for the achievement of your individual educational goals.

Must I Select a Major?

You need not select a major prior to starting at Columbia College. However, because many professional and occupational programs require specialized courses of study, it is desirable to select the major as soon as possible.

Who Will Help Me Select a Major?

If you have an idea about the occupation you would like to follow, the counselors or advisors can help you decide upon the most suitable major course of study. In the event you have not made any decisions, it is suggested you discuss your program with the counselors.

What If I Decide to Change My Major?

The choice of a college program of study or major is a decision to be made by the individual student. No one will insist you pursue a given major course of study. If you decide to change your major, talk with your advisor or counselor. Students changing their major may require additional units of study.

What Courses Are Required For a Major?

The courses required for different majors may be obtained from your advisor or from the Admissions and Records Office.

What Are Transfer Courses?

Courses numbered 100 and above are designated baccalaureate level courses. Courses numbered 50 to 99 are not intended for transfer, but may be accepted for transfer credit by agreement with specific four-year colleges and universities. Courses numbered 180 cover special topics and are intended for transfer. See page 68 for more information on these courses. If you know to which college you intend to transfer, it is wise to obtain a current catalog from that college. Your course of study at Columbia should be designed to coincide with that transfer institution. Your advisor can help if you have questions. (Pages 62-65)

What Is a Prerequisite?

Why Do Some Classes Have Prerequisites?

A prerequisite is a requirement prior to entering certain courses. Prerequisites are intended to ensure that you have sufficient preparation before entering a course to allow for a reasonable chance of success. (Page 31)

May Students Take Both Day and Evening Classes?

Classes are scheduled during day and evening as a part of the total College program. Any student may select courses from the Schedule of Classes regardless of time of day the course is offered.

What Is The Learning Skills Center?

The Learning Skills Center offers individualized learning programs designed to enhance the background of any student. It doesn't matter if you are an honor student wanting to brush up on vocabulary and reading skills or someone who needs help in mastering the skills of reading, writing, spelling, and math. Flexible scheduling will allow you to come in any time your schedule permits and will also allow you to enter any course of instruction at any time and develop your abilities.

What Is Work Experience?

Cooperative Work Experience is offered under a state approved District plan. Its purpose is to provide a bond between the student's educational and employment experience to develop quality performance. Employment need not be paid. Students are required to enroll in and complete a minimum of eight units per quarter **including** those earned for Work Experience during the regular academic year, and six units during Summer Intersession. Other cooperative education plans involving periods of full-time employment are available. Consult the Work Experience office for additional information.

Is Career Information Available?

The College maintains a career information center to assist students to explore a variety of resources available to those seeking information pertaining to educational and occupational programs. Assistance is provided in the use of EUREKA — a computerized career information system. Students may be referred to counselors for assistance.

Is There a Student Association?

All students are members of the Associated Students of Columbia College and they in turn develop a student government. Student Government is a representative group of students which is responsible for the conduct of student affairs, coordinates the social activities of campus organizations, and serves as spokesman for the student body. The government is developed to fit the needs of the students at that particular time.

Are There Student Activities?

The College philosophy states that the type and extent of student activities should be developed by the student body rather than by the College. Clubs, discussion groups, or committees may be created by individual student initiative through mutual involvement of the Student Government and College staff consistent with district policy and College procedures. Columbia is your community college and will be responsive to your interests.

Why Should I Become Active in Student Affairs?

There are a number of reasons for becoming active in student affairs. College life should be a time of becoming aware of your society and developing an involvement with your society. Columbia is your school, and the more you become active in your school affairs the more Columbia becomes the kind of institution you want to attend. The faculty looks to the student body for the type of student activities desired.

How Can I Go About Starting a Student Activity?

First of all, you should discuss your ideas with your fellow students and formulate a plan that you would like to see in operation at Columbia. The Student Activities Office will help in the recommendation of a faculty member as advisor who will help you inaugurate a sound program. You are urged to pursue the development of important co-curricular activities and become personally involved.

Does the College Have Inter-Collegiate Athletics?

The College is a member of the Central Valley Conference in basketball, volleyball and tennis. To be eligible to participate in intercollegiate athletics, a student must be enrolled in at least 12 units of credit.

Does the College Offer a Summer Intersession?

Yes. Summer Intersession offerings are generally scheduled for five weeks, but many courses are offered in shorter blocks of time throughout the summer. Every attempt is made to offer a balanced curriculum including courses which are needed for transfer and vocational credit as well as those kinds of courses which capitalize on the unique environment surrounding the College.

Where Can I Obtain Information Regarding Other Colleges?

College catalogs and transfer information are available in the Career Center located downstairs in the Learning Resources Center and from counselors and advisors.

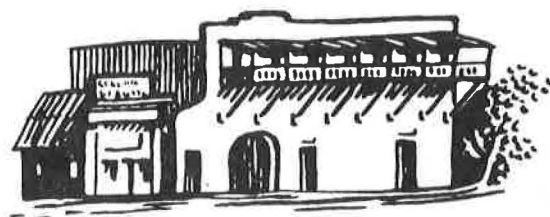
What Are The Student's Rights And Procedures for Grievance?

Information pertaining to students' rights, conduct and grievance procedure are available in the Student Handbook. Student Handbooks are issued to each student at the time of registration.

***A Guiding Principle ...***

This College shall provide a focus on learning as an individual process that can best be accomplished through active involvement in a setting of reality. It shall be recognized that learning is a logical outgrowth of experiences that are meaningful to each student and not the rote acquisition of a specific body of knowledge.

ADMISSIONS



ADMISSIONS

Eligibility

Graduates of accredited high schools, persons holding a high school Certificate of Proficiency, or those persons 18 years of age or older who are able to profit from instruction and who meet the residence requirement are eligible for admission to Columbia College. Admission with previously earned credits will be granted upon evidence of official transcripts showing satisfactory scholarship and an unqualified honorable dismissal from an accredited college. The students must request the previous colleges of attendance to mail transcripts directly to Columbia College.

Residence Requirements

Persons 18 years of age and older have the legal right to establish their own residence for purposes of admission.

A statement verifying legal residence is required to be filed with the College prior to initial registration. A student is qualified to attend Columbia College if he/she meets one of the following residence requirements:

- (1) Is a legal resident of the Yosemite Community College District with a local address.
- (2) Is a legal resident of a California high school district not affiliated with a community college district.
- (3) Is a legal resident of another community college district and presents a proper permit from that district (if required by interdistrict agreement). If the district of residence does not issue a permit, the student may elect to pay the cost of instruction. (See next page.)
- (4) Is a student whose legal residence is in another state and pays the out-of-state fee.
- (5) Is an international student who complies with special admission requirements and pays the non-resident fee.

Admission of Non-resident Students

Columbia College accepts students who are residents of other states if they meet all admission requirements. An adult is a non-resident if he/she has not resided in California for one year prior to the opening date of the quarter. A minor's residence is the same as that of his/her parents or legal guardian.

Residency determination dates for 1981-82 are September 21, 1981, for Fall Quarter; January 4, 1982, for Winter Quarter; March

29, 1982, for Spring Quarter; and June 28, 1982, for Summer Intersession. See page 8 pertaining to expenses for out-of-state tuition. Questions regarding determination of residency should be referred to the Admissions and Records Office.

Interdistrict Attendance Permits

Yosemite Community College District maintains a free exchange of students with all community college districts in the State of California with the exception of San Joaquin Delta Community College District. San Joaquin Delta District residents (except those in Calaveras County) may contact San Joaquin Delta College to request a permit. Calaveras County residents and residents of any other California community college district may attend Columbia College without a permit. For further information, contact the Admissions and Records Office.

Admission Procedures

Students who desire admission to Columbia College are to complete and return application forms to the College Admissions and Records Office. Application forms are available from Columbia College, high school counselors in the Yosemite Community College District or may be obtained by writing to the College.

Before admittance, official transcripts for all previous college work must be received by the College. If no transcript is available due to withdrawal, an official letter stating this fact is required.

It is the student's responsibility to furnish the College with official documentation for previous college work or training to be evaluated for credit. These documents become the property of Columbia College.

Applications should be submitted as early as possible in order to allow for processing. A local address must be submitted before completion of registration.

Readmission

A student who plans to return to Columbia College after an absence of one calendar year or more must file an application for readmission. Transcripts are required if the student has attended another college since last attending Columbia College.

Notice of Acceptance

New and former day students will be notified officially of their advisement appointment after all application forms and documents have been received. This notice is mailed approximately four

weeks prior to the first day of the quarter. Early advisement is desirable to allow the student a maximum choice of classes.

Schedule of Classes

A Schedule of Classes is the official listing of courses. It is published each quarter of the academic year.

The Schedule of Classes contains information regarding registration dates and special instructions for registering in classes.

The College reserves the right to make additions or deletions to the Schedule of Classes. Any class in which the enrollment is too small to justify continuance may be cancelled.

Late Registration

Students may enroll in a class in the admissions office through the fifth day of instruction each quarter. Entrance into a class in days six through ten **requires** the instructor's **written approval**. With the exception of open entry/open exit classes, short term classes and some performance oriented classes, no students will be admitted to a class after the tenth day of the quarter.

Admission of International Students

In the belief that students from abroad make significant contributions to the college community while preparing for leadership roles in their home countries, Columbia College accepts a limited number of international students each year.

The College may restrict the number of international students from a foreign country so that many nations of the world may be represented on the Columbia campus.

Students must complete the following requirements before a Notice of Acceptance will be authorized:

- (1) Submit official transcripts, translated into English, of all high school and college work attempted.
- (2) Take LADO or TOEFL test if from a non-English speaking country. Results of the test are to be forwarded to Columbia College.
- (3) Have a physician complete a Report of Medical History and Health Evaluation including a tuberculin clearance examination. The report shall be in English and returned to the College.
- (4) Furnish evidence of satisfactory financial support. This may be accomplished by a written guarantee from the bank of a parent, relative or a sponsor in the United States.
- (5) Furnish evidence of a health and accident insurance policy.

(6) Pay tuition at the current rate of \$53 per unit. International students must be full-time students.

(7) Students are responsible for making arrangements for their own housing and notifying the College of their local address. The College does not have resident housing.

These requirements must be completed by August 1.

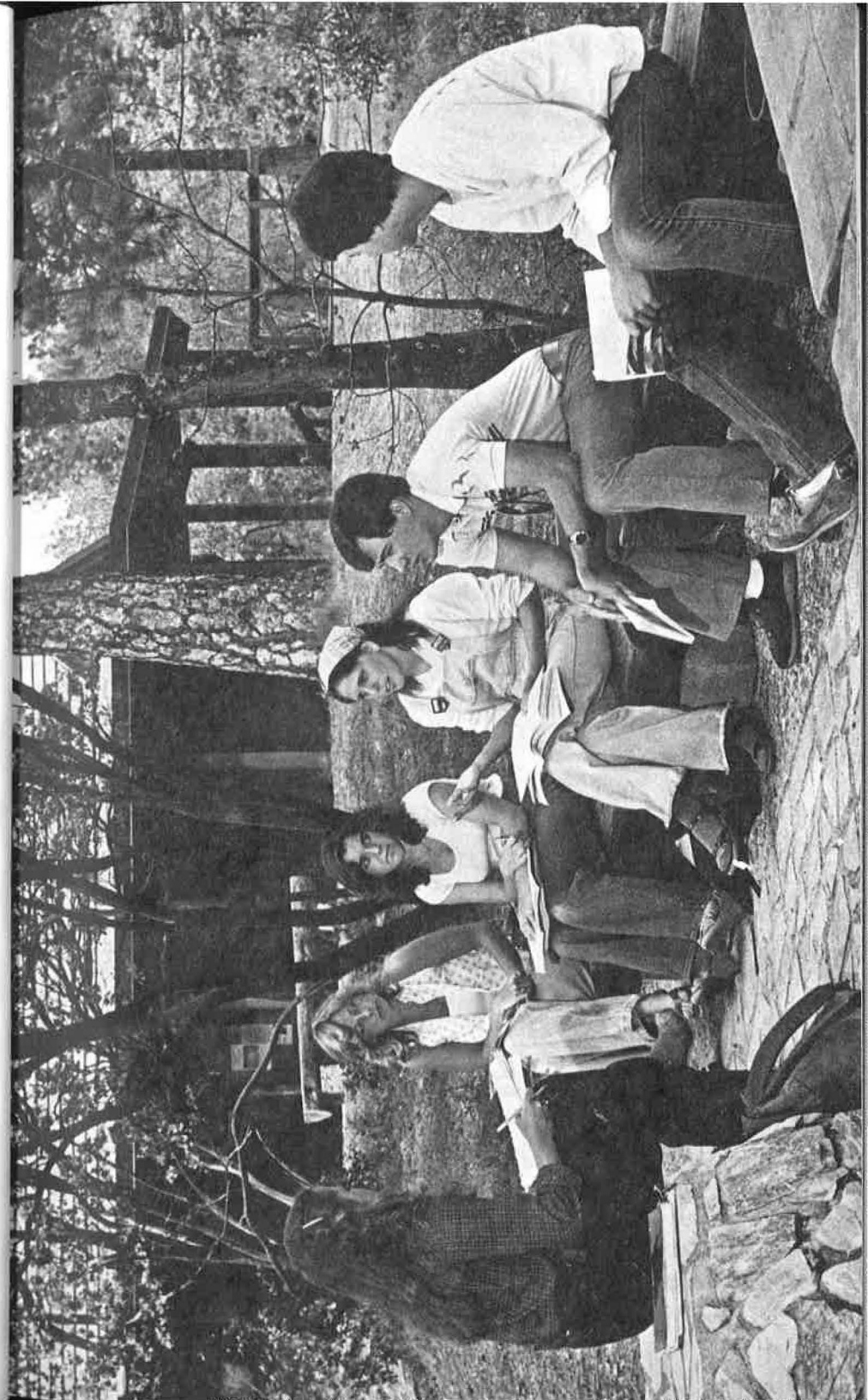
A College Counselor serves as advisor to international students.

Admission of High School Students

High school students in their junior or senior year, upon written authorization of their principal and approval of the College, or those holding a Certificate of Proficiency, may take community college courses during the academic year. High school students desiring to take summer school courses must have completed their junior year and have the required approval.

This opportunity is designed to introduce high school students to a college environment when, in the judgment of their principal and the College, the student can profit from the experience.

Units earned will apply toward the requirements of a college degree if not used for high school graduation.

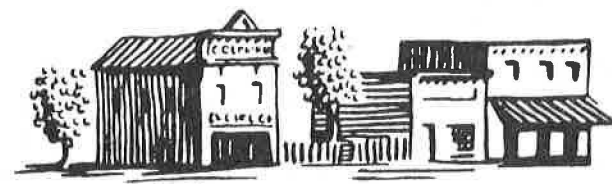


STUDENT SERVICES



A Guiding Principle . . .

The College shall be characterized by its flexibility in meeting student needs. Every facet of the institution shall expect and promote this quality.



STUDENT SERVICES

Student Orientation

An introduction to the College is provided for new incoming students at the time of their initial advisement appointment. Since this is a group orientation, students are encouraged to use this service to gain information concerning the College's responsibility to the student, the student's responsibility to the College, as well as to learn what student services are available. Academic procedures are discussed and the arrangement of the student's first program of classes with the assignment of an advisor takes place at this orientation.

Counseling Services

Counselors are available to all students during the day and on selected evenings by appointment or drop-in basis. Counseling is provided by specialized and trained personnel to assist students with academic planning, determining vocational goals and resolving personal and social problems. Counselors may also function in the advisement process. Testing services to evaluate occupational interests, general ability or evaluations of personal and social skills are provided by counselors. When appropriate, counselors may refer students to other services provided by the College or other agencies.

Faculty Advisement Program

Advisement is an on-going service whereby students meet with a faculty person to discuss educational objectives, plan an academic program, gain assistance in registration procedures, evaluate academic progress or gain referral to counselors and other sources concerning personal or academic problems related to the college experience. Scheduled student-advisor conferences are held prior to the beginning of each quarter to allow continuing students an opportunity to plan an academic program for the next quarter.

Testing Services

The College offers testing services to students requiring evaluation of their academic potential, occupational interests, or general ability. Students may be referred for individual or group testing by instructors, advisors, or counselors. Testing services also are available through the counselors upon individual student request. Columbia College serves as a General Educational Development (GED) Testing Center to provide tests of high school equivalency.

Services for Disabled Student

The Disabled Student Services Program is designed to open the door to educational opportunities for students with disabilities. The College has made changes in design so as to offer the disabled student access to instructional components of the College.

Students who have a physical, communication, or learning disability and need special services and/or equipment are asked to contact the Disabled Student Services office in the lower level of the Learning Resource Center. Academic advising and personal counseling are available along with the following special services: on-campus transportation, mobility assistance, academic tutoring, interpreters, assistance in locating readers, notetakers, testing and other services based on student needs.

In addition to Columbia College's regularly scheduled classes, programs and services, there are selected classes that are specially adapted to the needs of the disabled students, such as the Adaptive Physical Education Class.

Student Insurance

Student accident insurance is provided by the student health fee. Students who desire additional accident or health insurance information may contact the College Business Office.

Privacy Rights of Student

All student records of Columbia College are kept in accordance with the provisions of the "Buckley Amendment" also known as the Family Educational Rights and Privacy Act of 1974.

All students, including former students, have the right to review their records and the right to challenge the content of their records if, in their opinion, the records contain material that is incorrect, inaccurate or otherwise inappropriate. The Dean of Student Services is the official to be contacted by any student desiring to exercise his/her rights to access and challenge.

Written student consent is needed for release or review of student records to all parties or officials except for those specifically authorized access under the Act.

Copies of the Family Educational Rights and Privacy Act of 1974, as amended, are available for inspection in the Admissions and Records Office.

Student Records Regulations

Student information designated as public directory information may be released at the discretion of the College at any time

unless the College has received prior written objection from the student specifying information which should not be released. Directory information includes the student's name, address, telephone listing, date and place of birth, major field of study, class schedule, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

A student's records are open to the student, employees of the College acting in the course of their duties and State and Federal officials as defined in Section 54618 of the California Administrative Code.

The College may grant access to individual student records for educational or emergency purposes and for court orders as permitted in Sections 54620 and 54622 of the California Administrative Code.

Transcripts

Upon written request to the Admissions and Records Office, two transcripts will be issued without charge for each student in good standing. Additional transcripts are \$1 each. No transcripts will be issued for students who have outstanding financial obligations to the College. To comply with the Buckley Amendment, Family Educational Rights and Privacy Act of 1974, transcripts cannot be sent in response to a telephone request. Transcripts from other colleges may not be released to students, other colleges, or agencies.

Student Identification Cards

Student Identification Cards will be issued at the time of registration. Student Identification Cards are required for checking out library books and audio visual equipment and materials. Students who do not receive Student Identification Cards at registration may obtain them in the College Library.

Student Employment

Employers are encouraged to report job openings, part or full-time, to the Career Center which maintains a list of student employment opportunities. Students seeking employment should register with the Career Center and update their availability each quarter.

Financial Aid

Students who need financial assistance to defray college expenses may be eligible for funds under the College Work Program, Educational Opportunity Grants, Basic Educational Opportunity Grants, National Direct Student Loans, or Extended Opportunity Programs and Services (EOPS). These funds are administered by the College Financial Aid Office and EOPS Office. Applications for the above funds are required to determine financial need. These are available in the Financial Aid Office.

Applications for applying for Federally Insured Student Loans and California Guaranteed Student Loans may also be obtained in the Financial Aid Office. Receipt of financial aid is contingent on student's eligibility and availability of funds. To comply with federal regulations, a detailed publication regarding financial aid is available in the College Financial Aid Office, Admissions and Records Office and College Library.

Scholarships and Awards Program

Columbia College has an extensive scholarship program provided by various organizations and individuals from the community. Scholarships and awards are generally awarded on the basis of grade point average, financial need, units completed, and/or participation in extra curricular activities including employment and/or homemaking. Special awards are available for students majoring in Fire Science, Conservation, Forestry Technology, Natural Resources, Hospitality Management, Vocational Nursing, other technical/vocational areas such as Business, Music, and Special Education.

Scholarships and awards are available to Columbia College students who are new, continuing, returning and/or transferring to a four-year college or university.

Once a student applies for a specific scholarship or award, the application is considered for all other scholarships and awards for which the student qualifies. Most awards are granted during the Spring Quarter for the following academic year; others are awarded throughout the school year. A brochure containing detailed information about the Scholarship Program is available in the Student Services Office and the Admissions and Records Office.

Health Services

A variety of health services are available to students registered at the College. As part of the enrollment application, students are asked to complete an emergency health card. Students having chronic health problems, however, are advised to inform the

College Nurse so that the best possible help may be rendered in case of an emergency. Illness or accidents should be reported immediately to the College Nurse or any administrator. A fee, payable at the time of registration, is charged for health services.

Veterans Affairs

Students who are eligible to apply for Federal and State educational benefits for veterans should contact the Financial Aid Office at the time of registration each quarter for regular certification.

Those veterans who are eligible and wish to apply for advance payment should contact the above office at least 6-8 weeks prior to the beginning of the term. Veteran students are required to notify the Veteran Affairs Office of any changes in their program during the quarter.

Student Activities

College life fosters an attitude and a pattern for social and college-community involvement. Student activities are offered to widen horizons of students and develop an awareness of social and public responsibility. The framework of social events, publications, clubs, intramural activities, community projects, musical programs, dramas, campus involvement, and cultural events is developed through student-faculty interaction.

A program must meet the needs of students to be meaningful. Students interested in planning and developing an activity are encouraged to discuss their ideas with any faculty member or person involved in student activities. Faculty members may serve as advisors to foster and help the student. It is closed weekends and school holidays.

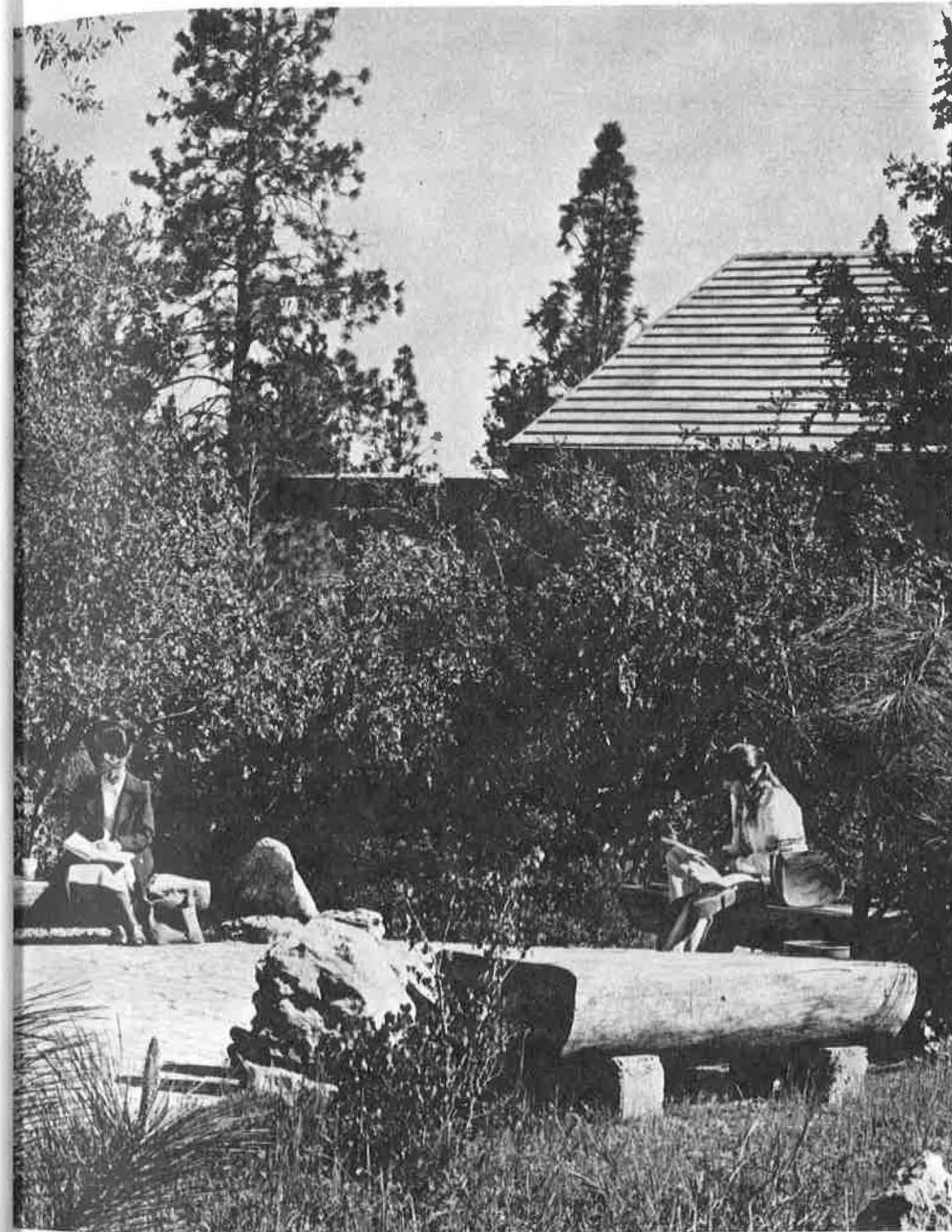
Library

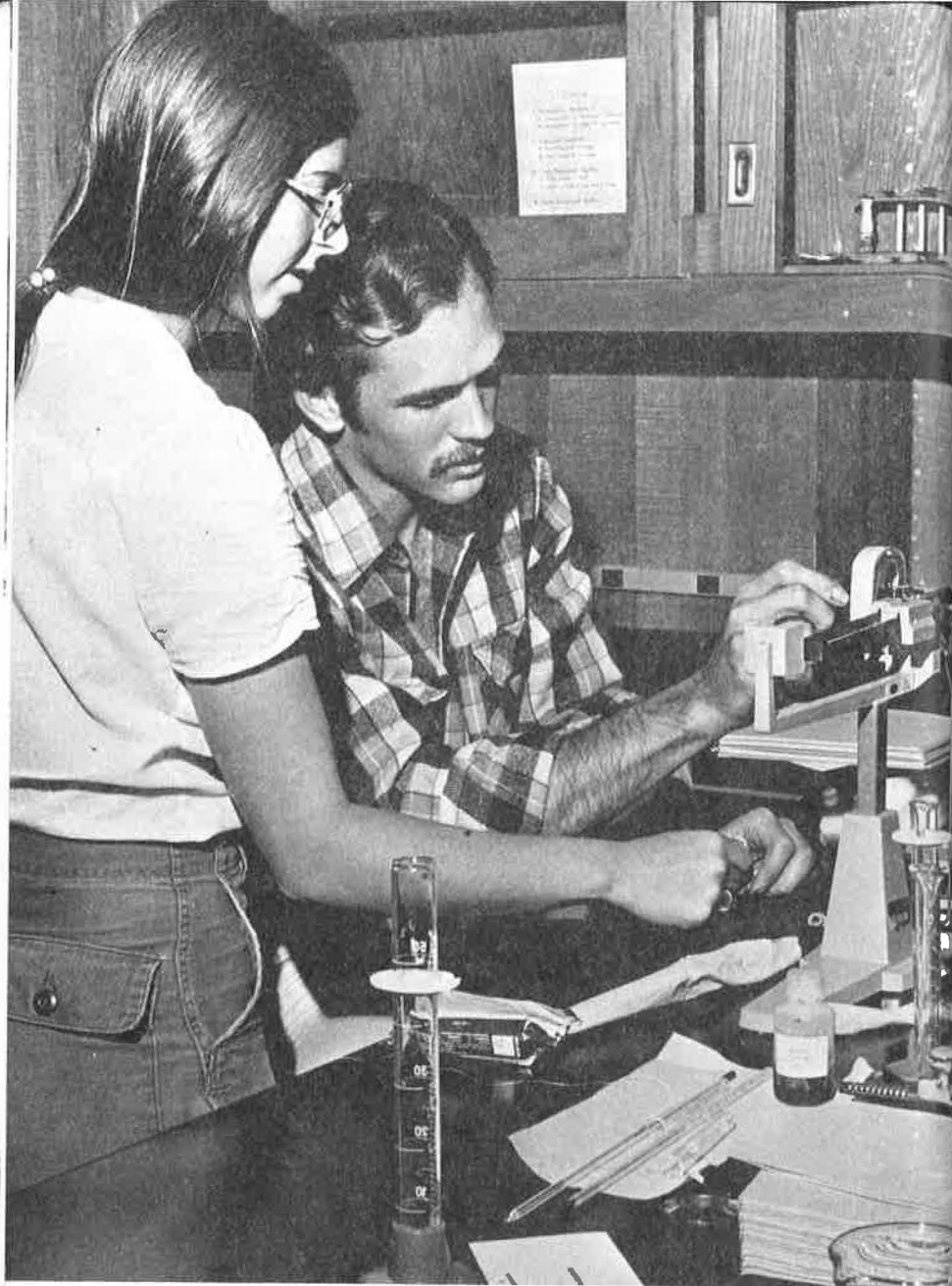
The Columbia College Library is a center for study, class research, and leisure reading, and welcomes use by students, staff and community members. The Library's collections include nearly 30,000 books, current subscriptions to 250 magazines and six newspapers, pamphlets, maps and art prints. Available in the Audio-Visual Department are more than 5,000 cassette tapes of popular, folk, and classical music, local oral history, shorthand, and a wide variety of other topics, as well as cassette players and slide-tape kits. A typing room with electric and manual typewriters is open for use during Library hours. Photocopying can be done on a coin-operated machine near the Library.

The Library can locate and borrow on Interlibrary Loan materials not in the College Library. As a member of the Central Association of Libraries, the Library has quick access to the collections

of more than 50 libraries. This service is available to students, community residents, and college staff.

The Library is open when school is in session Monday through Thursday, 8:00 a.m. to 9:00 p.m., and Friday, 8:00 a.m. to 4:30 p.m. It is closed weekends and school holidays.





A Guiding Principle ...

There shall be change with a purpose. Toward this end the College shall seek innovation, support creativity and imagination, while conformity for its own sake will be ignored. It shall consider technological and methodological advances which appear to have promise.

ACADEMIC PROCEDURES



ACADEMIC PROCEDURES

Unit Of Credit

A "unit of credit" is earned on the basis of one hour of lecture-recitation per week or three hours of laboratory per week during a quarter. In some physical education, art, drama, and music courses, a unit of credit is earned for each two hours of class time. It is common to find courses composed of learning activities resulting in combinations of lecture-recitation, independent and tutorial study, or directed and individual laboratory tutorial study, or directed and individual laboratory experiences. In all cases these are to be equated with the unit of credit.

The following terms are synonymous in expressing a unit of credit: quarter unit, quarter hour, class hour, credit and credit hour.

Conversion of Units

To convert quarter and semester units of credit, the following methods of computation are used:

- (1) Quarter units of credit are converted to semester units of credit by multiplying the number of quarter units by two-thirds.
- (2) Semester units of credit are converted to quarter units of credit by multiplying the number of semester units by one and one-half.

Prerequisites

Course prerequisites are intended to ensure that the student will have sufficient preparation before entering a course and to assure a reasonable chance for his/her success. **Knowledge of course prerequisites is the student's responsibility.**

Where no prerequisite is stated as part of the course description, none is required.

Prerequisites may be waived with the Dean of Instruction's permission when in the instructor's judgment the student has adequate preparation to satisfy the course objectives. An instructor has the prerogative to refuse admission to class or officially drop a student from class who has not satisfied the course prerequisites as published in the College catalog.

Grading System

Evaluation of student achievement is made in relation to the attainment of specific course objectives. At the beginning of a course the instructor will explain the course objectives and the

basis upon which grades will be determined by one of the following symbols:

A	—	Excellent
B	—	Good
C	—	Satisfactory
D	—	Passing, Less Than Satisfactory
F	—	Failure
W	—	Withdrawal From Course
I	—	Incomplete
CR	—	Credit (At Least Satisfactory)
NC	—	No Credit (Less Than Satisfactory)
IP	—	In Progress (Did not meet course objectives; recommend re-enrollment in class.)
RD	—	Report Delayed
O	—	Ungraded Class

Grading Scale

Columbia College uses the following system of grade points appraising the student's level of achievement:

A	—	4 grade points per unit
B	—	3 grade points per unit
C	—	2 grade points per unit
D	—	1 grade point per unit
F	—	0 grade points per unit

W	}	Not included in computing grade point average.
I		
CR		
NC		
IP		
O		
RD		

Grade Point Average

The Grade Point Average — GPA — is determined by the following formula:

$$\text{GPA} = \frac{\text{Total grade points earned}}{\text{Total quarter units attempted}}$$

For example, a student who earns 5 units of "A", 4 units of "B", 3 units of "C", 2 units of "D", and 2 units of "F" would compute his GPA as follows:

$$\begin{array}{r} 5 \text{ units A} \times 4 = 20 \text{ grade points} \\ 4 \text{ units B} \times 3 = 12 \text{ grade points} \\ 3 \text{ units C} \times 2 = 6 \text{ grade points} \\ 2 \text{ units D} \times 1 = 2 \text{ grade points} \\ 2 \text{ units F} \times 0 = 0 \text{ grade points} \\ \hline 16 \text{ units} \qquad 40 \text{ grade points} \end{array}$$

$$\text{GPA} = \frac{40 \text{ grade points}}{16 \text{ units attempted}}$$

The result in this example is a GPA of 2.50.

Units for which a grade of "W," "IP," "CR," "I," or "NC" has been assigned are not counted in computing the Grade Point Average.

Adding A Course

Adding a course or adding units to a course in which a student is already enrolled is permitted during the first five days of instruction each quarter. Entrance into a class in days six through ten requires the instructor's written approval.

Dropping A Course

A student may drop a course or reduce the number of units in a course during the first three weeks of instruction. The course or units will be removed from the student's program of attendance without a grade being recorded. From the fourth week to the last day to drop without penalty, a student may drop a course and a grade of W will be recorded on Permanent Record Card.

The last day to withdraw without penalty for all full-term graded courses shall be the last day of 75 percent of the quarter as noted in the college calendar of schedule of classes. For courses less than full term, an equivalent withdrawal period as defined by the instructor will apply. When dropping a course, it is important for the student to inform the instructor of the class.

Auditing A Course

Enrollment on an auditing basis is not permitted.

Repetition of Courses

Courses may be repeated only to improve a grade of D, F, IP, CR, or NC except as otherwise noted in the College catalog.

When repeating a course in which a "D" or "CR" grade was earned, the new grade and grade points will be recorded, but no additional units for the course will be allowed. When repeating a course in which "F", "IP", or "NC" grades were earned, the new grade, grade points, and units for the course will be recorded. Courses completed with a grade of "C" or better may not be repeated.

Incomplete Grades

An incomplete grade ("I") may be given for an approved reason if a student does not complete all requirements. Responsibility for removal of incomplete grades within the time granted by the instructor rests with the student. Incomplete grades not made up within one quarter will automatically revert to the alternate grade assigned by the instructor on the Incomplete Grade Removal Contract.

Forgiveness of "F" Grades

For graduation purposes, "F" grades recorded on the transcript for the first 45 quarter units of college work attempted will not be included in computing the Grade Point Average. An "F" grade earned after the quarter in which 45 quarter units of college work are completed will be computed in the Grade Point Average for graduation.

99./199. Independent Study Courses

Independent Study courses are intended to give students an opportunity to independently research specialized areas not available as regular course offerings of the College.

Independent Study courses do not appear in the catalog as such since these courses are designed to meet specific student interests. Independent study courses may be made available in any subject matter area. Consult your advisor for specific procedures.

CONDITIONS

To be admitted to Independent Study, a student shall:

- (1) have completed one quarter (12 units) in residence and have a Grade Point Average of 2.5 either cumulative or for the previous quarter as a full-time student.
- (2) have written approval of the instructor directing the student's Independent Study, and written verification by the Admissions and Records Office that the maximum credit limitation for Independent Study will not be exceeded. Maximum unit value for any Independent Study course for any one quarter will be 3 units of credit.

LIMITATIONS

The following limitations apply to Independent Study courses:

- (1) Registration is restricted to one Independent Study course per quarter and registration must be completed prior to the fourth week of the quarter.
- (2) An overall maximum of 7 units of credit completed will be allowed for Independent Study.

Students who intend to transfer are advised that Independent Study credit may not fulfill either major or General Education Breadth Requirements. Independent Study credit earned by students not transferring may be evaluated in partial fulfillment of major requirements.

Credit/No Credit

Each student may elect no later than the end of the first 30 percent of the course whether the basis for evaluation is to be Credit/No Credit or letter grade. The instructor has the privilege of allowing the Credit/No Credit option at any time during the quarter due to extenuating circumstances. With the exception of Work Experience courses, a maximum of 21 "CR" units may be counted toward the 90 units required for graduation. Credit for a course in which "CR" was earned may be converted to a letter grade by repeating the course or challenging the course by examination. CR/NC units are not computed in determining the student's GPA nor can they be applied toward the major.

Credit by Examination

A student may challenge a course by examination and obtain credit. Grades and grade points are entered on the student's transcript of record in the same manner as for regular courses of instruction. The intent of this provision is to:

- (1) enable students to pursue courses of study at an accelerated rate and to encourage independent study, and
- (2) recognize training or experience for which credit or advanced standing was not previously granted.

CONDITIONS

Only Columbia College courses may be challenged by examination. A maximum of 30 units may be earned by Credit by Examination. Credit granted by examination at accredited colleges will be accepted; such credit will be included in the maximum allowed by examination.

In order to challenge a course for credit, a student must:

- (1) be registered in Columbia College and enrolled in the course which is being challenged.
- (2) have completed at least 15 quarter units of work in residence.
- (3) have a cumulative Grade Point Average of 2.0 ("C" average).

A student who fails to meet condition (2) or (3) above but feels it should be waived in his/her case may request a waiver from the instructor of the course and the Dean of Student Services.

PROCEDURE

The student must make arrangements for credit by examination with the individual instructor, who, on approval, will outline the challenge requirements and schedule the examination. If the student passes his/her examination, the grade will be recorded on his/her record at the end of the quarter. If he/she does not pass, he/she may continue in the regular class.

PREVIOUSLY EARNED CREDITS

College Credit

Previously earned lower division college or university units will be accepted if the institution was accredited by a recognized accrediting association when the student was in attendance. A maximum of 15 quarter units will be allowed for courses taken by correspondence from accredited institutions.

Credit for Military Service

Armed forces personnel or veterans with a minimum of one year of satisfactory service may receive:

- (1) Three quarter units and waive P.E. requirement for graduation.
- (2) Credit for military service schools in accordance with credit recommendations published by the American Council on Education.
- (3) Credit for certain USAFI lower division college-level courses. Provisions for granting credit to armed forces personnel and veterans are subject to the following conditions:

At least 15 quarter units of work must be completed at Columbia College before a student may receive credit.

Credit will not be granted for military service or military service schools where comparable units have been earned in courses previously taken.

The maximum credit allowable is 30 ungraded quarter units. Credit granted to armed forces personnel and veterans by another institution is subject to re-evaluation by Columbia College.

Student Load

A student who desires to carry more than 18 units must secure approval from his/her advisor, counselor, or the Dean of Students. Students on academic probation will be limited to a unit load recommended by their advisor.

Classification of Students

While the minimum full-time program that will qualify a student for graduation in two years is 15 units per quarter, the following classifications have been established:

- Full-time — registered for 12 or more units.
- Freshman — fewer than 45 units completed.
- Sophomore — 45 or more units completed.

Attendance

Students are responsible for making arrangements with their instructors to complete all course work missed.

An instructor has the prerogative to lower a student's grade or drop a student from class because of excessive absence.

Absence from the first class meeting may cancel registration in the course.

Final Examinations

Students are responsible for taking final examinations at the time scheduled unless prior arrangements are made with the instructor.

Final grades are considered permanent and may be changed by the instructor only in case of error.

Scholastic Honors

Graduating students who have earned a cumulative Grade Point Average of 3.5 or better in all college work are awarded the Associate in Arts Degree With Distinction.

Students whose cumulative Grade Point Average is between 3.3 and 3.49 are awarded the Associate in Arts Degree With Honors.

Each quarter a list of student names is published to recognize scholarship in at least 12 attempted units of work. **Classes taken for CR/NC are not included in attempted units.** Students whose Grade Point Average is between 3.0 and 3.74 are acknowledged on the Dean's list.

Students whose Grade Point Average is between 3.75 and 4.0 are recognized as Scholars of Distinction by the President.

Scholarship Reports

Grade reports are made after the end of each quarter. If the student wishes to obtain a current progress report, he/she should initiate such a request in the Admissions and Records Office.

Satisfactory Scholarship

A student whose cumulative Grade Point Average is 2.0 ("C" average) is scholastically in "good standing."

All units and grade points are counted on a cumulative basis. The method of computing the Grade Point Average is illustrated on page 32.

A student with a Grade Point Average less than 2.0 is doing unsatisfactory work, will be placed on academic probation, and is subject to disqualification.

Academic Probation

The purpose of academic probation at Columbia College is to ensure that students who are deficient in scholastic achievement will receive special advisement. A student who has attempted at least 18 quarter units as shown by the official academic record shall be placed on probation if either of the following occur:

- (1) The student has earned a Grade Point Average below 2.0 in all units which were graded on the basis of the grading scale described in the section entitled "Grading System."
- (2) When the percentage of cumulative units in which a student has enrolled and for which entries of "W," "I," and "NC" are recorded reaches or exceeds 50 percent.

Status While on Probation

Probationary students will be limited to a unit load recommended by their advisor.

Students on probation are subject to disqualification at any time their academic work shows neglect of studies.

Removal From Probationary Status

Clear status will be granted to a student on academic probation when:

- (1) In the case of probation based on Grade Point Average, the student's cumulative Grade Point Average is 2.0 or better.
- (2) In the case of probation based on percentage of "W," "I," or "NC" grades, the percentage of units in this category drops below 50 percent.

If a student has been placed on academic probation and feels he/she has extenuating circumstances worthy of consideration,

he/she may request the Dean of Student Services to waive such a status.

Disqualification

A student on academic probation may be disqualified under any of the following conditions:

- (1) Completion of a second quarter on probation with a cumulative Grade Point Average below 1.75.
- (2) Completion of a third quarter on probation with a cumulative Grade Point Average below 2.0.
- (3) Where a student who has been placed on probation for two consecutive quarters enrolled and who would remain on probation for a third consecutive quarter enrolled because of an accumulation of "W," "I," or "NC" grades.

A student who earns a Grade Point Average of less than 1.0 in any quarter may be disqualified without a period of probation.

A disqualified student may not be reinstated under the admissions provisions until one year from the date of disqualification. If the Grade Point Average of a student readmitted after disqualification falls below 2.0 for a quarter's work, the student may be permanently disqualified.

In the event a student is disqualified, he/she may petition for readmission on the basis of the following circumstances that might warrant an exception:

- (a) Evidence of consistent improvement in the student's record.
- (b) A change from one major to a field of study more appropriate to the student.
- (c) Circumstances in the personal life of the student which the advisor of the student believes may have been of sufficient gravity to affect adversely the performance of the student.
- (d) The recommendation of the student's physician that the continuance in college would be of sufficient therapeutic benefit to the student to warrant the granting of an additional opportunity.

If a student has been disqualified and feels he/she has extenuating circumstances worthy of consideration, he/she may request the Dean of Student Services to waive the one year period of disqualification.

Conduct

A Code of Student Conduct was adopted by the Yosemite Community College District Board of Trustees January 6, 1970, based

on the following philosophical concept:

The students and faculty at Columbia form a closely knit educational community which is engaged in the process of learning through involvement. Regulations are needed but the broader concept of personal honor is based on integrity, common sense, and respect for civil and moral law.

The College expects its students to conduct themselves as responsible citizens both on and off campus. Recognizing the students' responsibilities as individuals, it is the policy of the College not to discipline students for acts occurring away from the campus and not connected with College-sponsored activities. The complete Code of Student Conduct can be found in the Student Handbook.

Withdrawal From College

It is the student's responsibility to officially withdraw from the college and notify the Admissions and Records Office so that a grade of "W" may be recorded on the permanent record.

Materials and Breakage Costs

In some classes materials and breakage costs must of necessity be borne by the students. Generally, these costs are assessed in those kinds of classes where the materials used become the property of students at the termination of the class. Refer to the schedule of classes.

Refund Schedule

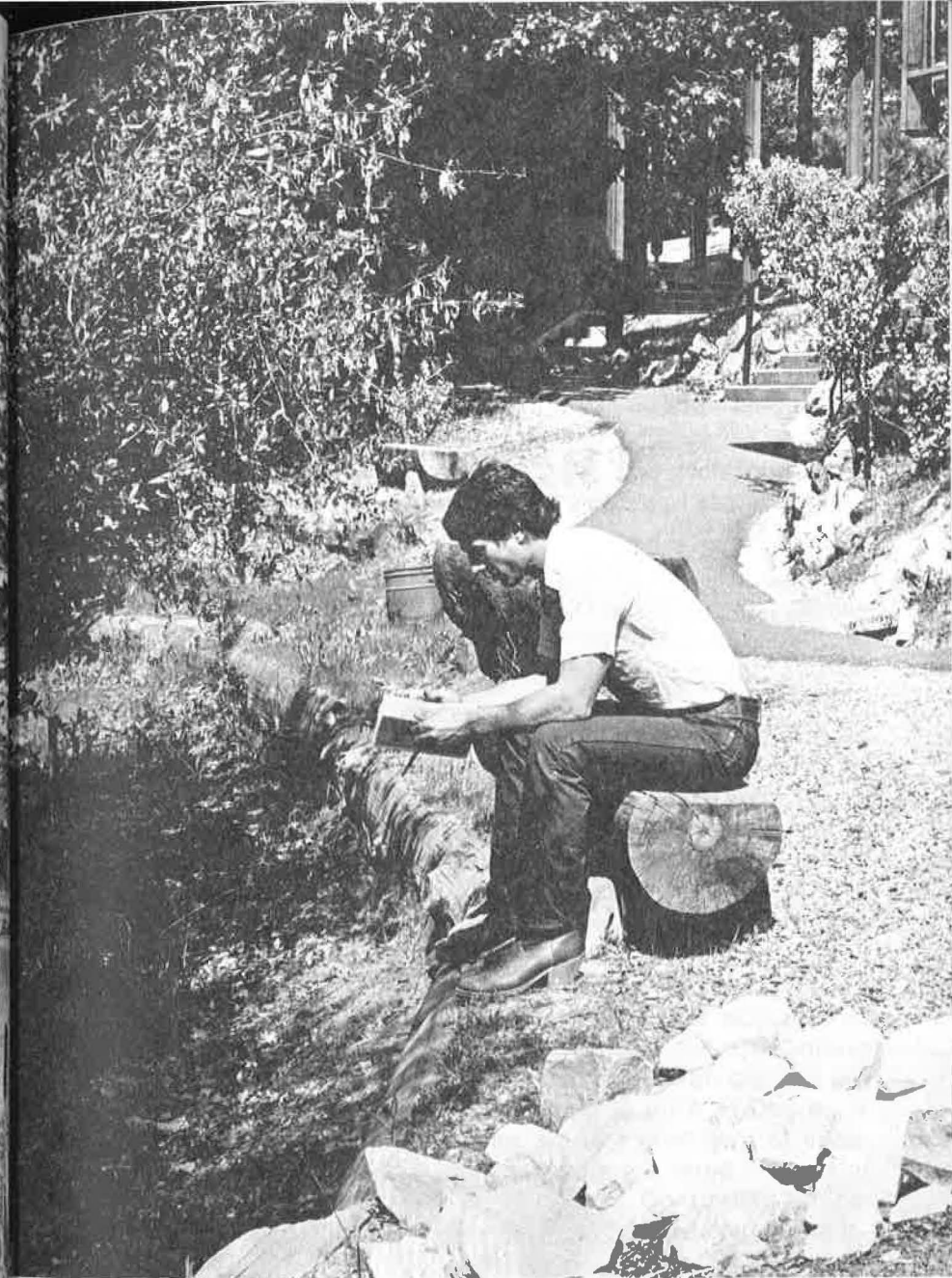
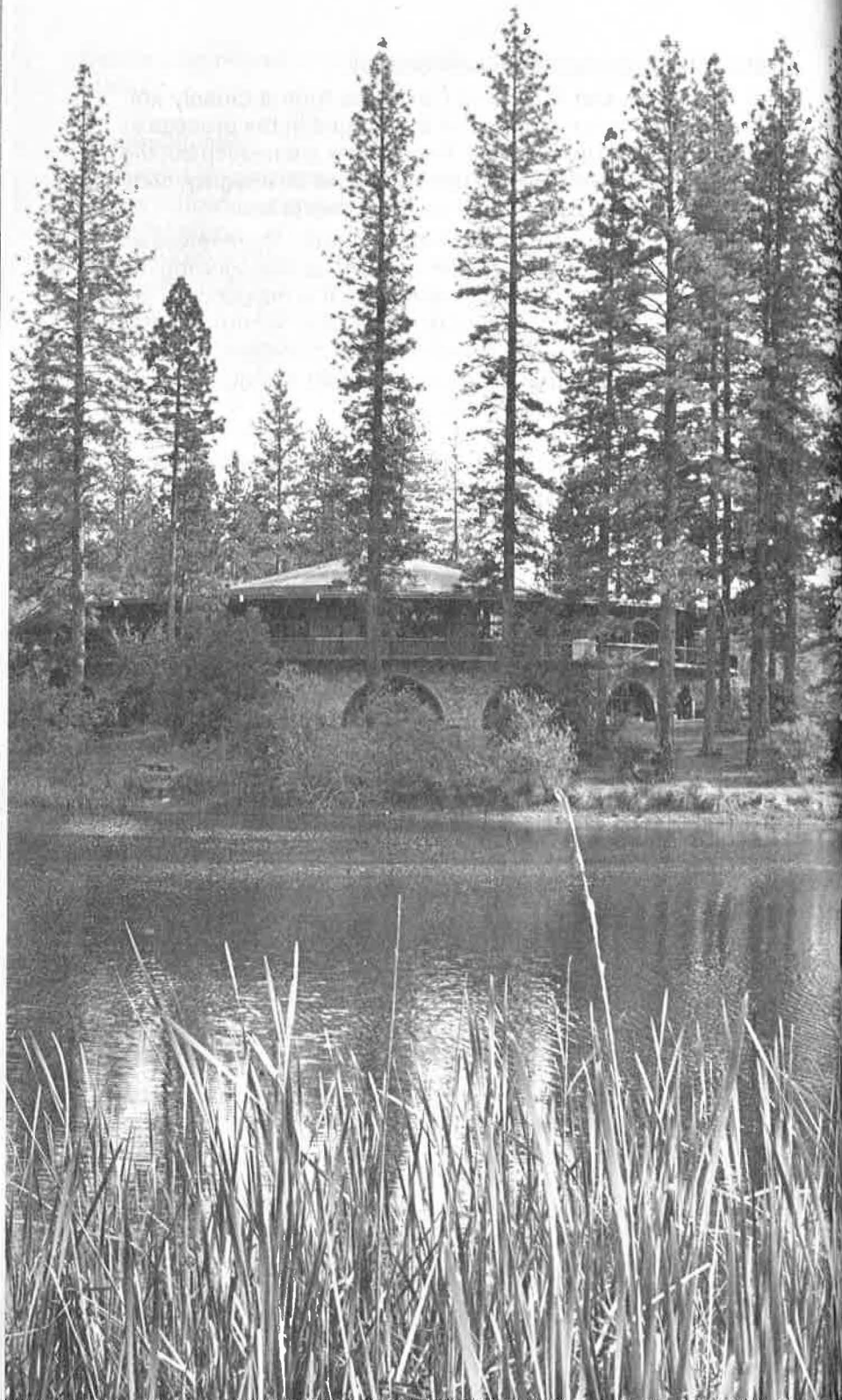
Materials fees are refundable as follows:

100 percent if class is cancelled by the College or the student withdraws from the class prior to the second class meeting.

50 percent of the fee will be refunded prior to the third class meeting.

No refunds will be given after the third class meeting.

Students eligible for refunds must obtain a drop card signed and dated by the instructor and submit the card to the Admissions and Records Office for refund.



A Guiding Principle ...

This College shall focus on student success. This will be accomplished by preserving an environment where each individual will have maximum freedom of choice. It will afford each student an opportunity to profit from education to the fullest extent of his capabilities.

CERTIFICATES, DEGREES AND TRANSFER



A COMPREHENSIVE COMMUNITY COLLEGE

Consistent with its philosophy of serving the educational needs of all people who reside in the area served by the College, a wide range of programs as well as individual courses have been developed.

Credit and non-credit courses are offered day and evening as well as on Saturdays on the campus as well as at many locations throughout the tri-county service area.

Graded or "credit" courses fulfill requirements leading to degrees, diplomas, and certificates.

Non-credit courses are designed for those who wish to become more competent and better informed members of the community.

CERTIFICATES, DEGREES, TRANSFER

Associate in Arts Degree: Classes leading to the Associate in Arts degree are offered during the day, in the evening and on Saturday.

Certificate of Achievement: Certificates are awarded to students in many occupational areas such as automotive technology, business administration, fire science, forestry technology, heavy equipment, hospitality management, human services, natural resources, office occupations, real estate, search and rescue, vocational nursing, welding technology. See pages 45-57 for more complete information.

ADULT AND CONTINUING EDUCATION

Columbia College is committed to meeting the educational needs of adults in our community. Through the Continuing Education program a variety of credit and non-credit classes are offered which fulfill requirements leading to an A.A. Degree, a high school or elementary diploma, or an assortment of vocational certificates. Most of these courses are offered during the evening at locations both on and off campus. Continuing Education courses are designed to provide opportunities to resume interrupted education, to investigate new fields of interest, and for general education for self-improvement and enriched living.

HIGH SCHOOL CREDIT COURSES

A high school student may be admitted to the college if he/she:

- (1) Is 18 years of age or older.
- (2) Is married and less than 18 years of age.

- (3) Is less than 18 years of age, but he/she is required to obtain a signed release from the superintendent of his/her high school district of residence, stating the classes he/she is allowed to attend.

The College will certify completion of courses which fulfill high school graduation requirements as determined by the high school of residence. The high school of residence will officially award the diploma.

Units earned in the College High School Program are not applicable toward the Associate in Arts degree.

High School Equivalency Diploma (G.E.D.)

Columbia College serves as an official General Educational Development Testing Center and provides the opportunity to obtain the High School Equivalency (G.E.D.) Diploma.

PROGRAMS

The College offers courses designed to meet the diverse interests, educational needs, and vocational needs of its students. Vocational programs are designed to prepare students for entry employment in such fields as business administration, secretarial work, diesel technology and auto mechanics, nursing, fire science, forestry and natural resources, hospitality management and many other fields.

In response to the specific needs and personal interests of the older adults in the community, the Columbia College Involvement for Seniors (C.C.I.F.S.) Program offers courses especially designed to meet their needs. Classes are offered at various locations throughout the community during the day for the convenience of the older adults and retired members of the community.

Cultural enrichment is offered through courses in art, literature, humanities, foreign languages, instrumental and vocal music, drama and speech. Performances by dance, drama, and musical groups are part of the cultural events offered to the community. Those who wish to broaden their horizons, to become more aware of themselves and the world about them, or to improve their home environment will be drawn to offerings in health education, consumer education, psychology, child development, sociology, speech, conservation, useful and edible plants, science today, art appreciation, the metric system and physical activities.

All students are encouraged to become active participants in the college community activities such as student government, athletics, art shows, music, drama, journalism and tutoring.

Certain courses are designed to assist the individual in personal development. These include, among others, effective study skills, improvement in reading, writing, mathematics and listening skills, career awareness, job employment skills, personal awareness, inquiry into self and values.

COMMUNITY SERVICES

The Columbia College Community Services program is a response of the College to meet challenges of our society. Community Services provides that phase of the educational, recreational, and cultural program which lies beyond formalized classroom instruction.

Meeting challenges such as the complexities of leisure time, cultural needs, economic and technological change, and minority group problems require unique programs. Ways constantly are sought to discover and respond to community needs. Community Service sponsors many programs including public lectures, forums, concerts, art exhibits, and film series; a speakers' bureau which offers speakers without charge; campus tours; short courses; community recreation; and a public information program. A citizen's committee advises the College of needs and evaluates proposals and programs.

The College is a center for community functions of various kinds. College facilities are available for use by recognized community groups when such use does not interfere with the regular educational program.

CERTIFICATES OF ACHIEVEMENT

The College offers many programs of study leading to certificates. Certificate programs are designed to prepare the vocational students for employment. Requirements of each such certificate have been determined by the department offering the program with the help of its advisory committee.

In order to qualify for a certificate, a student must complete required and elective courses with at least a Grade Point Average of 2.0 ("C"). No more than 30 percent of parallel courses completed at other accredited institutions may be applied toward the certificate.

Units earned in obtaining a certificate may be applied toward the 90 units required for an Associate in Arts degree and, except for real estate, may also satisfy major requirements.

Certificates of achievement are offered in the following disciplines:

Automotive Technology	Natural Resources
Business Administration Management	Interpretation
Retailing	Natural Resources Technology
Fire Science	Office Occupations
Forestry Technology	Clerk Typist
Heavy Equipment	General Clerk
Heavy Equipment Repair	Legal Secretarial
Truck Repair	Medical Transcription
Hospitality Management	Secretarial
Food Service	Real Estate
Human Services	Search and Rescue
Criminal Justice	Vocational Nursing
Disabled	Welding Technology
Gerontology	General Welding
Social Welfare	Pipe Welding

Following are the specific requirements for the certificate programs listed above. **Completion of certain certificate programs may necessitate attending classes during evening only or a combination of both day and evening classes.**

AUTOMOTIVE TECHNOLOGY

REQUIRED COURSES:	UNITS	
Auto. Tech. 101	Intro. to Auto Technology	2
Auto. Tech. 103	Preventive Maintenance	2
Auto. Tech. 112	Pulling and Installing Engines	2
Auto. Tech. 114	Machine Shop Procedures	2
Auto. Tech. 116	Engine Rebuilding	5
Auto. Tech. 117a	Carburetion and Fuel Systems	2
Auto. Tech. 117b	Emission Control	2
Auto. Tech. 119	Gasoline Engine Tune-up	2
Auto. Tech. 130	Manual Transmission Rebuilding	2
Auto. Tech. 134	Axles and Drive Lines	2
Auto. Tech. 136	Automatic Transmission - GM	2
Auto. Tech. 138	Automatic Transmission - Ford	2
Auto. Tech. 140a	Brakes - Drum	2
Auto. Tech. 140b	Brakes - Disc	1
Auto. Tech. 144a	Front End and Suspension	2
Auto. Tech. 144b	Front End and Suspension	2
Auto. Tech. 150a	Electrical Theory	2
Auto. Tech. 150b	Charging System	2
Auto. Tech. 150c	Starting and Ignition System	2
Auto. Tech. 150d	Lighting and Chassis Electrics	2
Auto. Tech. 170a	Practical Laboratory	2
Auto. Tech. 170b	Practical Laboratory	2

TOTAL REQUIRED UNITS 46

BUSINESS ADMINISTRATION MANAGEMENT

REQUIRED COURSES:	UNITS	
Bus. Ad. 101	Principles of Business	3
Bus. Ad. 115a	Commercial Law	3
Bus. Ad. 115b	Commercial Law	3
Bus. Ad. 120	Principles of Marketing	5
Bus. Ad. 130a	Principles of Accounting	4
Bus. Ad. 130b	Principles of Accounting	4
Bus. Ad. 130c	Principles of Accounting	4
	or	
Bus. Ad. 61	Small Business Accounting	5
Bus. Ad. 140	Principles of Management	5
Bus. Ad. 150	Small Business Management	3
Econ. 101a	Principles of Economics	5
Econ. 101b	Principles of Economics	5
Off. Oc. 68	Business Correspondence	3

TOTAL REQUIRED UNITS 40-47

PROVEN COMPETENCY REQUIREMENT:

Business Mathematics Examination or	
Bus. Ad. 63/Math 63 Business Math	4

*RECOMMENDED OPTIONAL COURSES:

Bus. Ad. 145	Retail Business Management	4
Work Exp. 98	Vocational Work Experience	Min. 4

BUSINESS ADMINISTRATION RETAILING

REQUIRED COURSES	UNITS	
Bus. Ad. 60a	Bookkeeping	5
Bus. Ad. 60b	Bookkeeping	5
	or	
Bus. Ad. 61	Small Business Accounting	5
Bus. Ad. 101	Principles of Business	3
Bus. Ad. 115a	Commercial Law	3
Bus. Ad. 120	Principles of Marketing	5
Bus. Ad. 123	Sales	3
Bus. Ad. 125	Advertising & Display Promotion	3
Bus. Ad. 145	Retail Business Management	4
Econ. 101a	Principles of Economics	5
Econ. 101b	Principles of Economics	5
Off. Oc. 68	Business Correspondence	3

TOTAL REQUIRED UNITS 39-44

PROVEN COMPETENCY REQUIREMENT:

Business Mathematics Examination or	
Bus. Ad. 63/Math 63 Business Math	4

*RECOMMENDED OPTIONAL COURSES:

Bus. Ad. 140	Principles of Management	5
Work Exp. 98	Vocational Work Experience	Min. 4

FIRE SCIENCE

REQUIRED COURSES:	UNITS
Fire Sci. 101	Intro. to Fire Suppression3
Fire Sci. 105a	Fund. of Fire Prevention3
Fire Sci. 105b	Fund. of Fire Prevention3
Fire Sci. 108	Fire Fight. Strat. & Tactics3
Fire Sci. 111	Hazardous Materials3
Fire Sci. 114	Fire Apparatus & Equipment3
Fire Sci. 117	Wildland Fire Control3
Fire Sci. 123	Fire Hydraulics3
Fire Sci. 127	Fire Investigation3
Fire Sci. 130	Fire Protection Equip. & Sys.3

TOTAL REQUIRED UNITS 30

FORESTRY TECHNOLOGY

REQUIRED COURSES:	UNITS
Biology 60	Natural History & Ecology3
Fire Sci. 117	Wildland Fire Control3
For. Tech. 50	Intro. to Technical Forestry4
For. Tech. 53	Forest Surveying Technlques3
For. Tech. 56	Tree & Plant Identification3
For. Tech. 59	Forest Inventory5
For. Tech. 62	Applied Forest Management5
For. Tech. 70/	Logging Equipment3
Nat. Res. Tech. 52	Applied Wildlands Management3
Nat. Res. Tech. 55	Interp. Guided Tours3
Nat. Res. Tech. 60	Aerial Photog. & Map Interpretation3
Nat. Res. Tech. 81	California Wildlife3 or
Nat. Res. Tech. 83	California Wildlife3
Nat. Res. 109	Parks & Forests Law Enforcement4

TOTAL REQUIRED UNITS 45

PROVEN COMPETENCY REQUIREMENTS:

Mathematics Examination or Math 50 Basic Math (or higher)	2
Reading Examination or Skills 50 Basic Reading (or English 51 or 101a)	2
Typing Examination or Off. Oc. 50 Personal Typing (or Off. Oc. 101)	3
Writing Examination or Skills 70 Writing Skills (or English 51 or 101a)	1

ADDITIONAL REQUIREMENT:

Appropriate Summer Employment

RECOMMENDED OPTIONAL COURSES:

Nat. Res. 122 Fire Ecology	3
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HEAVY EQUIPMENT AND TRUCK REPAIR

HEAVY EQUIPMENT REPAIR

REQUIRED COURSES:	UNITS
Hvy. Equip. 101	Introduction to Hvy. Equip.3
Hvy. Equip. 102	Preventive Maintenance (Tractor)2
Hvy. Equip. 114	Machine Shop Procedures2

Any two of the following for six (6) units.

Hvy. Equip. 115a	Diesel Engine Rebuilding - Caterpillar3
Hvy. Equip. 115b	Diesel Engine Rebuilding - Detroit3
Hvy. Equip. 115c	Diesel Engine Rebuilding - Cummins3
Hvy. Equip. 116a	Diesel Engine Tune-up - Caterpillar1
Hvy. Equip. 116b	Diesel Engine Tune-up - Detroit1
Hvy. Equip. 116c	Diesel Engine Tune-up - Cummins1
Hvy. Equip. 136	Tractor Power Trains3
Hvy. Equip. 140	Heavy Duty Brake Systems2
Hvy. Equip. 142	Tractor Undercarriage3
Hvy. Equip. 150a	Electrical Theory2
Hvy. Equip. 150b	Charging Systems2
Hvy. Equip. 150c	Starting and Ignition Systems2
Hvy. Equip. 150d	Lighting and Chassis Electrics2
Hvy. Equip. 165	Hydraulic Systems3
Hvy. Equip. 170a	Practical Maintenance Lab2
Hvy. Equip. 170b	Practical Maintenance Lab2
Weld. Tech. 101	Introduction to Welding3
Weld. Tech. 132	Attachment Repair2

TOTAL REQUIRED UNITS 44

HEAVY EQUIPMENT AND TRUCK REPAIR

TRUCK REPAIR

REQUIRED COURSES:	UNITS
Hvy. Equip. 101	Introduction to Heavy Equipment3
Hvy. Equip. 104	Preventive Maintenance (Trucks)2
Hvy. Equip. 114	Machine Shop Procedures2

Any two of the following for six (6) units.

Hvy. Equip. 115a	Diesel Engine Rebuilding - Caterpillar3
Hvy. Equip. 115b	Diesel Engine Rebuilding - Detroit3
Hvy. Equip. 115c	Diesel Engine Rebuilding - Cummins3
Hvy. Equip. 116a	Diesel Engine Tune-up - Caterpillar1
Hvy. Equip. 116b	Diesel Engine Tune-up - Detroit1
Hvy. Equip. 116c	Diesel Engine Tune-up - Cummins1
Hvy. Equip. 130	Transmissions3
Hvy. Equip. 134	Rear Axles and Drive Lines3
Hvy. Equip. 140	Heavy Duty Brake Systems2
Hvy. Equip. 144	Steering and Suspensions3
Hvy. Equip. 150a	Electrical Theory2
Hvy. Equip. 150b	Charging Systems2
Hvy. Equip. 150c	Starting and Ignitions Systems2
Hvy. Equip. 150d	Lighting and Chassis Electrics2
Hvy. Equip. 170a	Practical Maintenance Lab2
Hvy. Equip. 170b	Practical Maintenance Lab2
Weld. Tech. 101	Introduction to Welding3
Weld. Tech. 132	Attachment Repair2

TOTAL REQUIRED UNITS 44

HOSPITALITY MANAGEMENT FOOD SERVICE TECHNOLOGY

REQUIRED COURSES:	UNITS
Hosp. Mgmt. 101 Introduction to Hospitality Industry	4
Hosp. Mgmt. 103 Marketing of Hospitality Services	4
Hosp. Mgmt. 130 Food Service Management	3
Hosp. Mgmt. 131 Dining Room Service	3
Hosp. Mgmt. 132 Nutrition	4
Hosp. Mgmt. 134 Fast Foods	3
Hosp. Mgmt. 135 Commercial Baking	3
Hosp. Mgmt. 137 Buffet Catering	3
Hosp. Mgmt. 138 Family Restaurant Service	3
Hosp. Mgmt. 140a Classical Cuisine: Beginning	3
Hosp. Mgmt. 140b Classical Cuisine: Intermediate	3
Hosp. Mgmt. 140c Classical Cuisine: Advanced	3
Hosp. Mgmt. 144 Meat Analysis	3

TOTAL REQUIRED UNITS 42

HUMAN SERVICES CRIMINAL JUSTICE

REQUIRED COURSES:	UNITS
Law Enforce. 100 Intro. to Admn. of Justice	4
Law Enforce. 102 Prin. & Proc. of the Justice System	4
Law Enforce. 132 Juvenile Procedures	4
Psychology 101a General Psychology	5
Psychology 103 Social Psychology	5
Psychology 120 Interpersonal Growth	2
Psychology 130 Personal and Social Adjustment	5
Sociology 101 People In Groups	5
Sociology 110 Deviance and Conflict	5
Sociology 140 Human Services	4
Sociology 141 Human Services Laboratory	2

TOTAL REQUIRED UNITS 45

HUMAN SERVICES DISABLED

REQUIRED COURSES:	UNITS
Physical Ed. 105 Personal Fitness Concepts & Evaluation	3
Physical Ed. 106 Theory & Practice of Adaptive P.E.	3
Physical Ed. 107 Corrective & Rehab. P.E. - Assisting	1-3
Physical Ed. 173a Adult Fitness Program	2-3
Psychology 101a General Psychology	5
Psychology 103 Social Psychology	5
Psychology 120 Interpersonal Growth	2
Psychology 125 Biofeedback and Self-Control	3
Psychology 130 Personal and Social Adjustment	5
Sociology 101 People In Groups	5
Sociology 110 Deviance and Conflict	5
Sociology 140 Human Services	4
Sociology 141 Human Services Laboratory	2

TOTAL REQUIRED UNITS 45-48

HUMAN SERVICES GERONTOLOGY

REQUIRED COURSES:	UNITS
Health Ed. 35 Cardiac Pulmonary Resuscitation	0
Health Ed. 105 Consumer Health	3
Physical Ed. 171 Introduction to Adult Fitness	3
Physical Ed. 172 Multi-Phasic Fitness Testing Program	1
Physical Ed. 173a Adult Fitness Program	2-3
Psychology 101a General Psychology	5
Psychology 120 Interpersonal Growth	2
Psych./Soc. 127 Aging	4
Psych./Soc. 128 Death and Dying	4
Psychology 130 Personal and Social Adjustment	5
Sociology 101 People in Groups	5
Sociology 112 Family, Marriage, and the Individual	4
Sociology 140 Human Services	4
Sociology 141 Human Services Laboratory	2

TOTAL REQUIRED UNITS 44-45

HUMAN SERVICES SOCIAL WELFARE

REQUIRED COURSES:	UNITS
Psychology 101a General Psychology	5
Psychology 120 Interpersonal Growth	2
Psychology 122 Assertive Behavior	2
Psych./Soc. 128 Death and Dying	4
Psychology 130 Personal and Social Adjustment	5
Psychology 135 Effective Interpersonal Communication	2
Psychology 145ab Developmental Psychology	4-4
Sociology 101 People In Groups	5
Sociology 110 Deviance and Conflict	5
Sociology 112 Family, Marriage and the Individual	4
Sociology 140 Human Services	4
Sociology 141 Human Services Laboratory	2

TOTAL REQUIRED UNITS 48

NATURAL RESOURCES INTERPRETATION

REQUIRED COURSES:	UNITS
Art 145 Field Photography	2
Biology 58 Birds of the Mother Lode	2
Biology 59 Wildflowers of the Mother Lode	3
Biology 60 Natural History and Ecology	3
Earth Sci. 59 Geology of the Mother Lode	3
Earth Sci. 63 Mother Lode Skies	1/2
Earth Sci. 111 Rocks and Minerals	2
Earth Sci. 112 Erosion — Water, Wind and Ice	1
Earth Sci. 113 Mountains and Earthquakes	1

Natural Resources Interpretation (continued)

Earth Sci. 125	Geology of the National Parks	4
Earth Sci. 142	Descriptive Astronomy	3
Fire Sci. 117	Wildland Fire Control	3
For. Tech. 56	Tree and Plant Identification	3
Health Ed. 113	Adv. First Aid and Emergency Care	5
History 149	The Mother Lode or	3
History 155	The American Frontier	4
Nat. Res. 100	Conservation of Natural Resources	4
Nat. Res. 109	Parks and Forests Law Enforcement	4
Nat. Res. 130	Wild Edible Plants	3
Nat. Res. Tech. 52	Applied Wildlands Management	3
Nat. Res. Tech. 55	Interpretive Guided Tours	3
Nat. Res. Tech. 81	Calif. Wildlife—Mammals/Furbearers or	3
Nat. Res. Tech. 83	Calif. Wildlife—Upland Game and Fish	3

TOTAL REQUIRED UNITS 58-59

NATURAL RESOURCES TECHNOLOGY

REQUIRED COURSES:	UNITS	
Biology 60	Natural History & Ecology	3
Earth Sci. 125	Geology of National Parks	4
Fire Sci. 117	Wildland Fire Control	3
For. Tech. 50	Intro. to Technical Forestry	4
For. Tech. 53	Forest Surveying Techniques	3
For. Tech. 56	Tree & Plant Identification	3
For. Tech. 70	Logging Equipment	3
Nat. Res. Tech. 52	Applied Wildlands Management	3
Nat. Res. Tech. 55	Interpretive Guided Tours	3
Nat. Res. Tech. 60	Aerial Photog. & Map Interpretation	3
Nat. Res. Tech. 81	California Wildlife	3
Nat. Res. Tech. 83	California Wildlife	3
Nat. Res. 109	Parks & Forests Law Enforcement	4

TOTAL REQUIRED UNITS 42

PROVEN COMPETENCY REQUIREMENTS:

Mathematics Examination or	
Math 50 Basic Math (or higher)	2
Reading Examination or	
Skills 50 Basic Reading (or English 51 or 101a)	2
Typing Examination or	
Off. Oc. 50 Personal Typing (or Off. Oc. 101)	3
Writing Examination or	
Skills 70 Writing Skills (or English 51 or 101a)	1

RECOMMENDED OPTIONAL COURSES:

Nat. Res. 122 Fire Ecology	3
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OFFICE OCCUPATIONS CLERK TYPIST

REQUIRED COURSES:	UNITS	
Bus. Ad. 63	Business Mathematics	4
Bus. Ad. 60a	Bookkeeping	5
Bus. Ad. 60b	Bookkeeping	5
	or	
Bus. Ad. 61	Small Business Accounting	5
	or	
Bus. Ad. 130a	Accounting	4
Bus. Ad. 130b	Accounting	4
Bus. Ad. 138	Computers and Society	4
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	4
Office Oc. 107	Word Processing: Memory Typewriter	1
	or	
Office Oc. 108	Word Processing: Electronic Typewriter	1
Office Oc. 109	Word Processing: Display System	2
Office Oc. 130	Filing	3
Office Oc. 132	Machine Transcription	3
Office Oc. 134	Office Machines	3
Office Oc. 138	Office Procedures	4

TOTAL REQUIRED UNITS 39-44

OFFICE OCCUPATIONS GENERAL CLERK

REQUIRED COURSES:	UNITS	
Bus. Ad. 63	Business Mathematics	4
Bus. Ad. 60a	Bookkeeping	5
Bus. Ad. 60b	Bookkeeping	5
	or	
Bus. Ad. 61	Small Business Accounting	5
	or	
Bus. Ad. 130a	Accounting	4
Bus. Ad. 130b	Accounting	4
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 101	Beginning Typing	4
Office Oc. 53	Review Typing	3
	or	
Office Oc. 103	Intermediate Typing	4
Office Oc. 130	Filing	3
Office Oc. 134	Office Machines	3

TOTAL REQUIRED UNITS 28-34

**OFFICE OCCUPATIONS
LEGAL SECRETARIAL**

REQUIRED COURSES:		UNITS
Bus. Ad. 58	Pegboard Payroll	1
Bus. Ad. 115a	Commercial Law	3
Bus. Ad. 115b	Commercial Law	3
Bus. Ad. 138	Computers and Society	4
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	4
	or	
Office Oc. 53	Review Typing	3
Office Oc. 107	Word Processing: Memory Typewriter	1
	or	
Office Oc. 108	Word Processing: Electronic Typewriter	1
Office Oc. 109	Word Processing: Display System	2
Office Oc. 111a	Machine Shorthand	4
Office Oc. 111b	Machine Shorthand	4
Office Oc. 111c	Machine Shorthand	4
	or	
Office Oc. 112a	Intermediate Shorthand	4
Office Oc. 112b	Intermediate Shorthand	4
Office Oc. 130	Filing	3
* Office Oc. 132	Machine Transcription	3
* Office Oc. 154	Legal Transcription and Terminology	3
Office Oc. 157	Legal Office Procedures	3
Law Enforce 100	Introduction to Admin. of Justice	4

TOTAL REQUIRED UNITS 47-52

*Must earn at least a letter grade of "B" in Office Oc. 132 before enrolling in Office Oc. 154.

**OFFICE OCCUPATIONS
MEDICAL TRANSCRIPTION**

REQUIRED COURSES:		UNITS
Bus. Ad. 138	Computers and Society	4
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	4
	or	
Office Oc. 53	Review Typing	3
* Office Oc. 132	Machine Transcription	3
Office Oc. 140a	Medical Terminology	3
Office Oc. 140b	Medical Terminology	3
* Office Oc. 142a	Medical Transcription	3
* Office Oc. 142b	Medical Transcription	3

TOTAL REQUIRED UNITS 28-29

*Must earn at least a letter grade of "B" in Office Oc. 132 before enrolling in Office Oc. 142ab.

**OFFICE OCCUPATIONS
SECRETARIAL**

REQUIRED COURSES:		UNITS
Bus. Ad. 63	Business Mathematics	4
Bus. Ad. 60a	Bookkeeping	5
Bus. Ad. 60b	Bookkeeping	5
	or	
Bus. Ad. 61	Small Business Accounting	5
	or	
Bus. Ad. 130a	Accounting	4
Bus. Ad. 130b	Accounting	4
Bus. Ad. 138	Computers and Society	4
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	4
	or	
Office Oc. 53	Review Typing	3
Office Oc. 107	Word Processing: Memory Typewriter	1
	or	
Office Oc. 108	Word Processing: Electronic Typewriter	1
Office Oc. 109	Word Processing: Display System	2
Office Oc. 112a	Intermediate Shorthand	4
Office Oc. 112b	Intermediate Shorthand	4
	or	
Office Oc. 111a	Machine Shorthand I	4
Office Oc. 111b	Machine Shorthand II	4
Office Oc. 111c	Machine Shorthand III	4
Office Oc. 130	Filing	3
Office Oc. 132	Machine Transcription	3
Office Oc. 134	Office Machines	3
Office Oc. 138	Office Procedures	4

TOTAL REQUIRED UNITS 46-56

REAL ESTATE

REQUIRED COURSES:		UNITS
Bus. Ad. 63/ Math 63	Business Math	4
Bus. Ad. 101	Principles of Business	3
Real Est. 101	Principles of Real Estate	3
Real Est. 105	Real Estate Practice	4
Real Est. 110	Legal Aspects of Real Estate	4
Real Est. 115	Real Estate Finance	4
Real Est. 120	Real Estate Appraisal	4
Real Est. 125	Real Estate Economics	4

TOTAL REQUIRED UNITS 30

SEARCH AND RESCUE

REQUIRED COURSES	UNITS
Health Oc. 103 Emergency Med. Tech. Training	8
or	
Health Ed. 113 Adv. First Aid & Emergency Care	5
S.A.R. 103 Environmental Injuries	2
S.A.R. 110 Introduction to Search Theory	2
S.A.R. 112 Managing the Search Function	3
S.A.R. 114 Intro. to Man Tracking & Sign Cutting	1
S.A.R. 116 Use of Dogs In Search and Rescue	1
S.A.R. 130 Introduction to Rescue Techniques	4
S.A.R. 132 Descending and Ascending Technlques	4
S.A.R. 134 Helicopter Operations	1

TOTAL REQUIRED UNITS 23-26

PLUS 4-7 UNITS From any of the other courses in the Search and Rescue curriculum. A total of 30 units is required for a certificate in this program.

VOCATIONAL NURSING

REQUIRED COURSES:	UNITS
Health Oc. 110 Intro. to Vocational Nursing	5
Health Oc. 113a Anatomy & Physiology for Voc. Nurses	5
Health Oc. 113b Anatomy & Physiology for Voc. Nurses	5
Health Oc. 115 Maternity Nursing	3
Health Oc. 118 Pharmacology for Voc. Nurses	2
Health Oc. 120a Effects of Medication	2
Health Oc. 120b Effects of Medication	2
Health Oc. 123 Pedlatics	3
Health Oc. 125a Medical-Surgical Nursing	5
Health Oc. 125b Medical-Surgical Nursing	5
Health Oc. 128 Community Health	3
Health Oc. 140a Clinic	8
Health Oc. 140b Clinic	8
Health Oc. 140c Clinic	8
Health Oc. 140d Clinic	8

TOTAL REQUIRED UNITS 72

WELDING TECHNOLOGY GENERAL WELDING

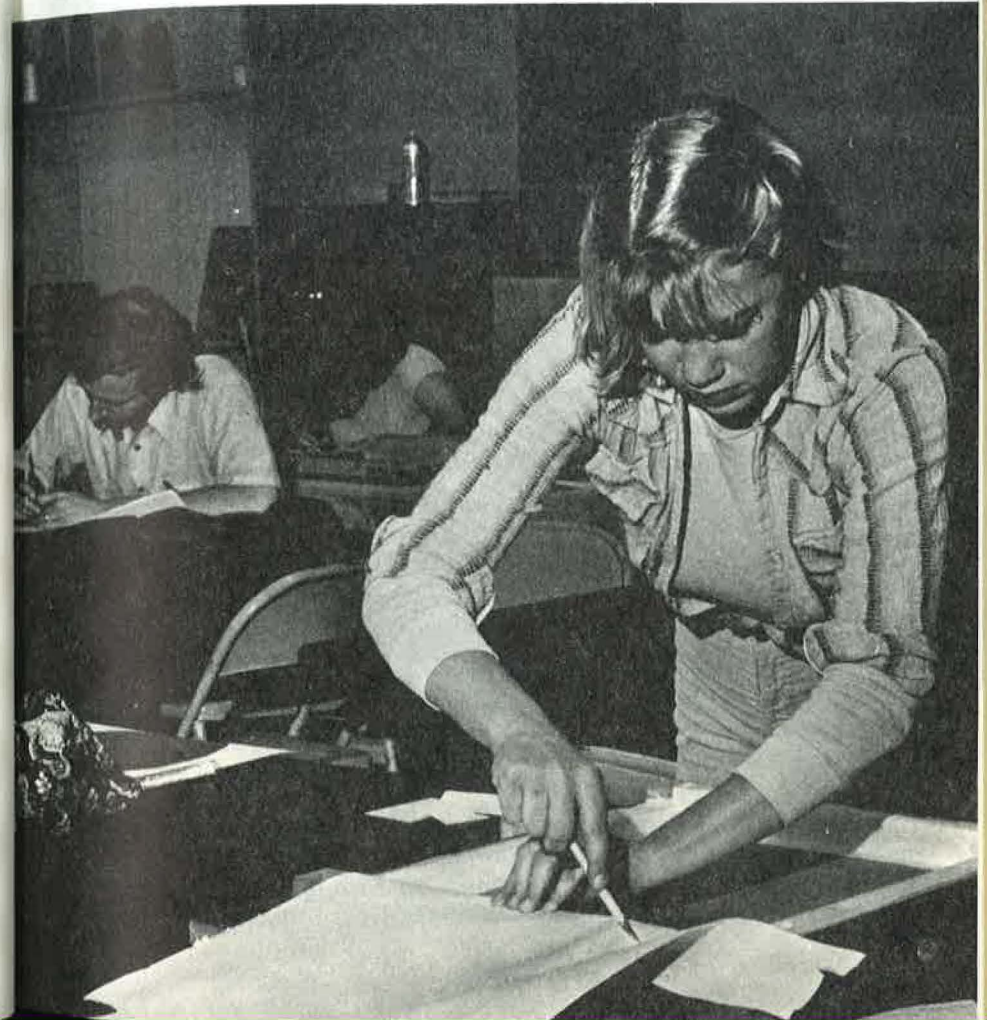
REQUIRED COURSES:	UNITS
Mathematics 50 Basic Mathematics	2
or	
Skills Dev. 60 Mathematics Skills	2
Weld. Tech. 101 Introduction to Welding	3
Weld. Tech. 103 Adv. Arc Welding Techniques	2
Weld. Tech. 110 Blueprint Reading for Welders	1
Weld. Tech. 130 Maintenance Welding	2
Weld. Tech. 132 Attachment Repair	2
Weld. Tech. 140 Welding Non-Ferrous Metals	2
Weld. Tech. 145 Metal Fabrication	3
Weld. Tech. 160 Practical Laboratory	2

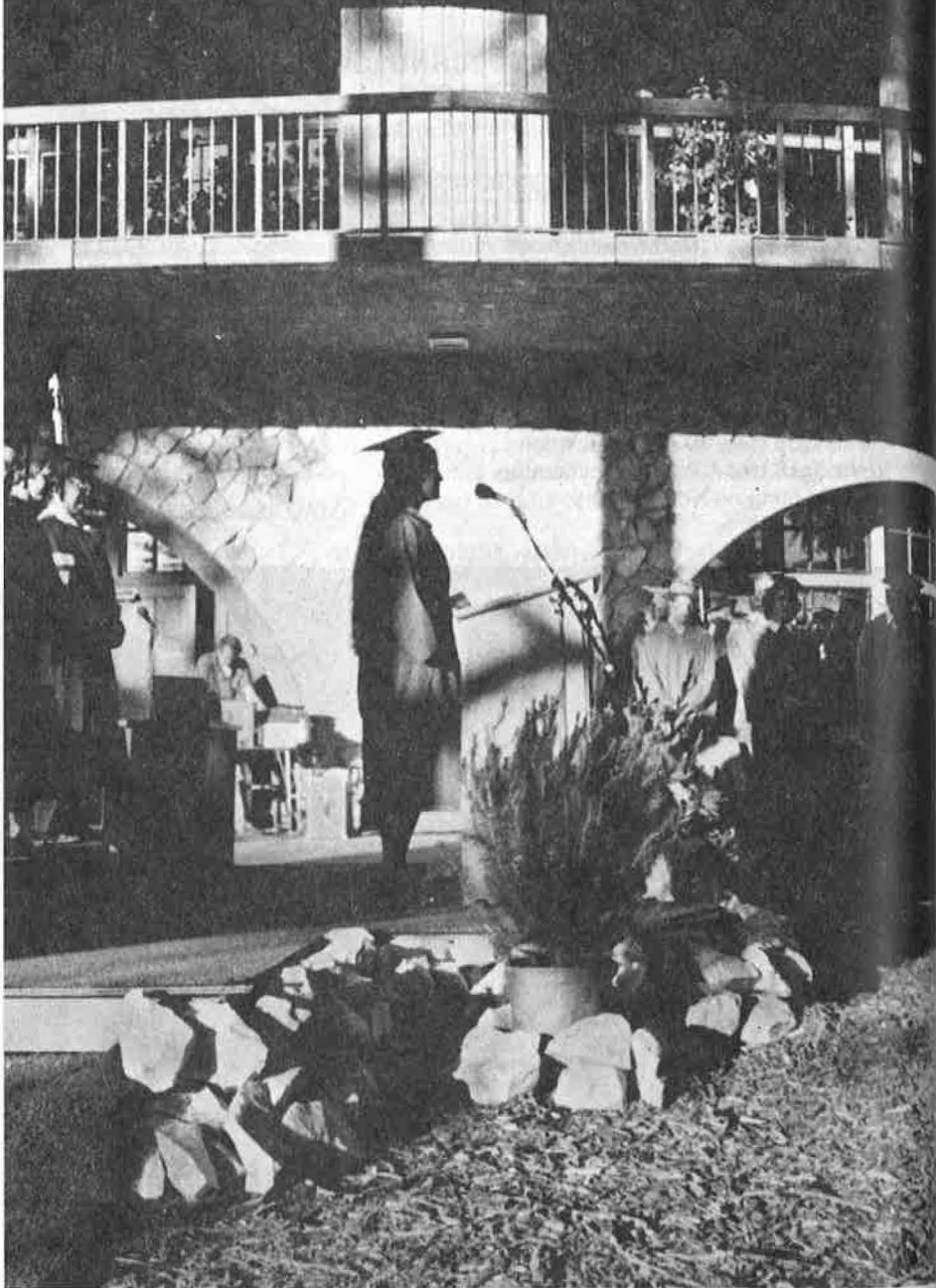
TOTAL REQUIRED UNITS 19

WELDING TECHNOLOGY PIPE WELDING

REQUIRED COURSES:	UNITS
Mathematics 50 Basic Mathematics	2
or	
Skills Dev. 60 Mathematics Skills	2
Weld. Tech. 101 Introduction to Welding	3
Weld. Tech. 103 Adv. Arc Welding Techniques	2
Weld. Tech. 110 Blueprint Reading for Welders	1
Weld. Tech. 120 Pipe Welding	3
Weld. Tech. 122 Advanced Pipe Welding	3
Weld. Tech. 140 Welding Non-Ferrous Metals	2
Weld. Tech. 145 Metal Fabrication	3
Weld. Tech. 160 Practical Laboratory	2

TOTAL REQUIRED UNITS 21





A Guiding Principle . . .

This College shall perceive achievement as a function of individual growth and not of time alone. Progress will not terminate at an artificial barrier, but continue on through the student's goal.

GRADUATION



GRADUATION REQUIREMENTS

Columbia College will confer the Associate in Arts Degree upon completion of the following requirements:

TOTAL UNIT: Satisfactory completion of 90 quarter units of which the last 15 of the required units must be completed in residence at Columbia College.

SCHOLARSHIP: A cumulative Grade Point Average of 2.0 ("C" average).

MAJOR: Satisfactory completion of a minimum of 30 quarter units of study taken in a discipline or in related disciplines. (Major lists are available in the Admissions and Records Office.)

More than one Associate in Arts Degree may be granted to a student who has completed the applicable requirements as well as an additional 15 quarter units in residence.

GENERAL EDUCATION: Satisfactory completion of General Education Requirements selected from the courses listed below. With the exception of General Education Majors, any course listed below which is taken to meet the Major Requirement may also be used to meet the General Education Requirement within the appropriate category. General Education Majors may not use the same course for both the Major and the General Education Requirement.

NATURAL SCIENCES

A course must be completed from both Category A, Biological Sciences, and Category B, Physical Sciences.

A. BIOLOGICAL SCIENCES

- Biology 60. Natural History and Ecology (3).
- Biology 100. Biology, Man and Contemporary Society (4).
- Biology 110. Fundamentals of Biology (4).
- Biology 111. Principles of Biology (5).
- Biology 120. Fundamentals of Plant Biology (3).
- Biology 130. Fundamentals of Animal Biology (3).
- Health Occ. 113A. Anatomy and Physiology for Vocational Nurses (5).

B. PHYSICAL SCIENCES

- Chemistry 100. Fundamentals of Chemistry (4).
- Chemistry 101a. General Chemistry (5).
- Earth Science 101. Survey of Geology (2).
- Physical Geology — Earth Science 111, Earth Science 112, and Earth Science 113 (4).
- Earth Science 141. Survey of Astronomy (2).
- Earth Science 142. Descriptive Astronomy (3).

- B. Physical Science (continued)
 - Earth Science 144. General Astronomy (4).
 - Earth Science 161. Survey of Meteorology (2).
 - Earth Science 171. Survey of Oceanography (2).
 - Physics 100. Modern Physics (3).

SOCIAL SCIENCES

One course must be completed from each category — A, American History and Institutions; B, Social Sciences; and C, Other Social Science Courses.

A. AMERICAN HISTORY AND INSTITUTIONS

- History 117a. United States (5).
- History 117b. United States (5).
- Political Science 101. Constitutional Government (5)

B. SOCIAL SCIENCES

- Anthropology 101a or 101b. Introduction to Anthropology (5)(5).
- Economics 101a. Principles of Economics (5).
- Psychology 101a. General Psychology (5).
- Sociology 101. Introduction to Sociology (5).

C. OTHER SOCIAL SCIENCES COURSES

- Anthropology 115. Indians of North America (5).
- Economics 101b. Principles of Economics (5).
- Geography 102. Introduction to Cultural Geography (5).
- History 155. The American Frontier (4).
- Psychology 130. Personal and Social Adjustment (5).
- Psychology 145a or 145b. Developmental Psychology (5)(5)
- Sociology 110. Deviance and Conflict (5).
- Sociology 112. Family, Marriage, and the Individual (4).

HUMANITIES

One course must be completed from both Category A, Literature, History, and Philosophy, and Category B, Fine Arts.

A. LITERATURE, HISTORY AND PHILOSOPHY

- English 101b. Reading and Composition (5).
- English 117a or 117b or 117c. Literature of the United States (4) (4) (4).
- English 146a or 146b or 146c. Survey of English Literature (4) (4) (4).
- History 104a or 104b or 104c. World Civilization (4) (4) (4).
- Humanities 101. Old World Culture (4).
- Humanities 102. Modern Culture (4).
- Philosophy 101. Knowledge and Reality (4).

- A. Literature, History, Philosophy (continued)
 Philosophy 110a. Logic (5).
 Philosophy 125. Twentieth Century Philosophy (4).

B. FINE ARTS

- Art 111a or 111b or 111c. History of Art (3) (3) (3).
 Drama/Speech 102. Oral Expression and Interpretation (5).
 Music 102. Introduction to Music (4).

LEARNING SKILLS (Basic Subjects)

One course must be completed from A, Communications; two courses must be completed from B, Computation Skills; and one course must be completed from C, Health Education/Physical Education.

A. COMMUNICATIONS

- English 51. College Composition (4).
 English/Office Oc. 65, Business English (3) and Office Oc. 68,
 Business Correspondence (3).
 English 101a. Reading and Composition (5).

B. COMPUTATION SKILLS

- Mathematics 101. Intermediate Algebra (5) (or higher).
 Mathematics 55. Beginning Algebra (5).
 Math/Business Adm. 63. Business Mathematics (4).
 Mathematics 138, Computers and Society (4).

C. HEALTH EDUCATION/PHYSICAL EDUCATION

- Health Education 101. Health and Fitness Education (4).
 P.E. activity classes (2 courses minimum)
 (P.E. 112, 116, 117, 119, 120, 130, 140, 150, 160 or 173a) (1-4).

NOTICE OF INTENT TO GRADUATE: A Notice of Intent to Graduate must be filed in the Admissions and Records Office no later than the second week of the quarter in which the student plans to complete his requirements for graduation.

Graduation requirements may be completed during any quarter. Degrees are conferred at graduation exercises at the close of the Spring Quarter.

**LOWER DIVISION REQUIREMENTS
 CALIFORNIA FOUR-YEAR COLLEGES
 AND UNIVERSITIES**

Students should consult the latest catalog of the institution to which they intend to transfer to ensure that all required lower division courses are included in their Columbia program of study.

Advisors will help students select courses that fulfill both major and General Education Breadth Requirements. The responsibility for fulfilling requirements rests with the student.

**ASSOCIATE IN ARTS DEGREE FOR STATE
 UNIVERSITY AND COLLEGE TRANSFER**

The California State University and College system has established the following campuses:

- | | |
|---|---|
| <i>California State College,
Bakersfield</i> | <i>California State Polytechnic
University, Pomona</i> |
| <i>California State University, Chico</i> | <i>California State University,
Sacramento</i> |
| <i>California State University,
Dominguez Hills</i> | <i>California State College,
San Bernardino</i> |
| <i>California State University, Fresno</i> | <i>San Diego State University</i> |
| <i>California State University,
Fullerton</i> | <i>San Francisco State University</i> |
| <i>California State University,
Hayward</i> | <i>San Jose State University</i> |
| <i>Humboldt State University</i> | <i>California State Polytechnic
University, San Luis Obispo</i> |
| <i>California State University,
Long Beach</i> | <i>Sonoma State University</i> |
| <i>California State University,
Los Angeles</i> | <i>California State College,
Stanislaus</i> |
| <i>California State University,
Northridge</i> | |

Students may complete their lower division preparation for transfer to one of the state universities or colleges without loss of credit or grades.

Students should make their choice of transfer institution early and consult the catalog of the transfer college. Each state university and college has its own academic emphasis and program requirements.

A student who is ineligible for direct admission to a state university or college from high school may transfer after he/she has completed 90 quarter units with a cumulative Grade Point Average of 2.0 ("C" average) or better.

Students should consider the following if they plan to transfer to a state university or college:

- (1) General Education Breadth Requirements: State universities and colleges require a minimum of 60 quarter units of general education for a Bachelor's degree.
- (2) Department Requirements: Students should refer to the transfer university or college catalog to identify any special lower division major requirements.

(3) Minor Requirements: In many programs a minor is required. Students should consult the transfer university or college catalog to include lower division courses which may be required for upper division work in a minor.

To earn the Associate in Arts degree and enter a state university or college with junior standing, a student should complete at least 90 quarter units with a cumulative Grade Point Average of 2.0 ("C" average) or better. A maximum of 105 quarter units of junior college credit will be accepted by a state university or college. Units in excess of 105 may be applied toward fulfillment of requirements in the General Education Breadth Requirements, the major, or the minor.

THE COLUMBIA COLLEGE PATTERN OF GENERAL EDUCATION FOR STATE UNIVERSITY AND COLLEGES TRANSFER

The California State University and College system is in the process of adopting new general education-breadth requirements. Students entering college for the first time in the summer of 1981 or thereafter will be required to meet the new general education-breadth requirements.

The new Columbia College General Education Breadth Requirements for CSUC transfer were not completed when this catalog went to press. The new requirements will be available in late spring and can be obtained in the Admissions and Records Office or in the office of individual counselors and advisors. Students who entered college prior to summer of 1981 may continue to use the 1980-81 Columbia College pattern provided that they have been in continuous enrollment and remain in continuous enrollment. Students who have concerns or questions should seek advice from a counselor or an advisor.

ASSOCIATE IN ARTS DEGREES FOR UNIVERSITY OF CALIFORNIA TRANSFER

The University of California has established campuses at Berkeley, Davis, Irvine, Los Angeles, Riverside, San Diego, San Francisco, Santa Barbara, and Santa Cruz.

To earn the Associate in Arts degree and enter the University of California with junior standing, a student should complete at least 90 quarter units with a cumulative Grade Point Average of 2.0 ("C") or better.

The University will not grant credit toward graduation for work completed in excess of 105 lower division quarter units.

A student not eligible for direct admission to the University from high school may become eligible and transfer upon completion

of all deficiencies. If the deficiency occurred because of a failure to complete required high school subjects, the student may be admitted when he/she has:

- (1) established a cumulative Grade Point Average of 2.0 ("C") or better.
- (2) satisfied subject requirements with a grade of "C" or better. There is an exception to this requirement. Up to two units of credit in the required high school subjects will be excused if the student has earned a Grade Point Average of 2.4 or better in 84 quarter units (56 semester units) of college credit in courses accepted by the University for transfer. Any deficiency over two units in the required high school subjects must be made up by completing appropriate college courses with a grade of "C" or better.

The University of California has stated breadth requirements in terms of courses completed, not units. Because there may be individual variations between the several University campuses, students planning to transfer to a campus of the University of California should obtain a catalog from that campus and, in consultation with his/her advisor, determine the proper courses needed to fulfill requirements. The Career Center maintains a collection of University catalogs for student reference.

ASSOCIATE IN ARTS DEGREE FOR TRANSFER TO PRIVATE COLLEGES AND UNIVERSITIES

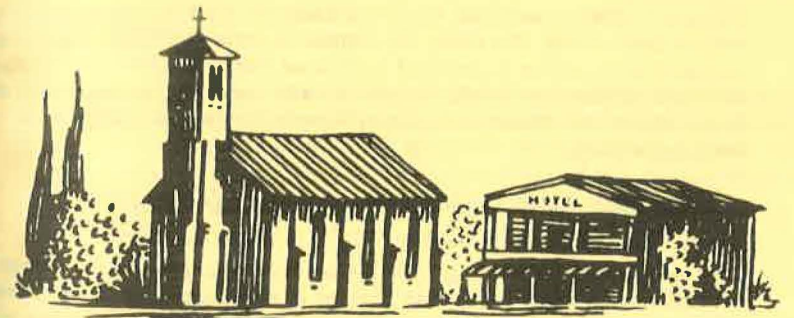
Students planning to transfer to private colleges and universities should consult the catalog of the college to which they plan to transfer for specific lower division required courses which may be completed at Columbia College. The student should consult with his/her advisor for guidance.



A Guiding Principle . . .

This College shall combine the strengths of the various disciplines, so that each will contribute to and support the bases used by students to reach their goals. No single instructional area or individual will be self-sustaining, but only as a component of the student's recommended educational progress.

COURSE DESCRIPTIONS



Numbering of Courses

Courses numbered 1 to 49 are non-credit courses; courses numbered 50 to 99 are not intended for transfer, but may be accepted for transfer credit by agreement with specific four-year colleges and universities.

Courses numbered 100 and above are designated baccalaureate level courses.

Students must understand that some courses designated as baccalaureate level may not meet requirements at the transferring institution; however, they may be used for elective credit.

Course Description

A course description is given for each graded course offered by the College. Students are urged to refer to the course description for information concerning course prerequisites and allocation of class hours for lecture, laboratory, field trips, or other required learning activities.

Courses Not Listed in The Catalog

1. *Credit Free Courses*

In an effort to meet some of the special interest needs of the populations served by the College, Credit Free Courses are usually offered each quarter. These courses are traditionally offered either through Continuing Education or Community Services sponsorship. Credit Free Courses cannot be applied toward fulfilling graduation, transfer, or vocational education programs, but such courses do provide information and/or training on a variety of topical subjects.

2. *80/180 Courses: Special Topics*

Lecture and/or laboratory hours and units of credit may vary.
Classes in which a particular topic in a discipline (such as history) is treated with in-depth study. The topic, the number of units and hours, and prerequisites (if any), will be determined in advance and published in the quarterly Schedule of Classes. 80/180 Courses may be repeated for credit with different topics only. These courses may transfer for elective credit but will not fill requirements.

3. *85/185 Courses: Interdisciplinary Studies — Special Topics*

Lecture and/or laboratory hours and units of credit may vary.
Classes in which a particular topic which crosses interdisciplinary lines is studied in-depth. The topic, the number of units and hours, and prerequisites (if any), will be determined in advance and published in the quarterly Schedule of Classes. 85/185 Courses may be repeated for credit with different topics only. These courses may transfer for elective credit but will not fill requirements.

4. *99/199 Courses: Independent Study*

Independent study courses are intended to give students an opportunity to independently research specialized areas not available as regular course offerings of the college. They are designed to meet specific student interests and may be made available in any subject matter area. Consult your advisor for specific procedures. (See page 34 for conditions, limitation.)

Prerequisites

Prerequisites are intended to ensure that the student will have sufficient preparation before entering a course.

Where no prerequisite is stated for a course, none is required.

A prerequisite may be waived with the Dean of Instruction's permission when, in the instructor's judgment, the student has adequate preparation to satisfy the course objectives.

Credit Value

The number in parenthesis after the course indicates the unit credit value of the course. Courses listed in this catalog are described in quarter units. One and one-half quarter units equal one semester unit.

Field Trips

Field trips may be required in a number of courses where such a statement is not currently a part of the course description.

ANTHROPOLOGY

101abc. Introduction to Anthropology (5) (5) (5)

(a) *Physical*

Lecture 5 hours

Man and his evolutionary history with emphasis on recent developments; primatology; the fossil sequence beginning with pre-man through the Paleolithic era to his domestication of plants and animals and the dawn of civilization. Race. Man's cultural adaptations resulting from his biological and genetic background.

(b) *Cultural*

Lecture 5 hours

Primitive man and the concept of culture basic to anthropology. Emphasis on methods of fieldwork, cultural ecology, language, social structure, the psychological perspective, religion, medicine, and cultural change.

101 abc. (continued)

- (c) *Current Problems*
Prerequisite: Anthropology 101a or 101b
Lecture 5 hours

Intra-specific aggression, territoriality, population control, primate social organization, intra- and inter-species communication, and the present and future trends in social organization, war, religion, and cultural change.

May be repeated one time for credit.

110. **Introduction to Archaeology** (3)

Lecture 3 hours

Development of archaeology as an anthropological study; a review of archaeological projects in North and South America. Archaeological methods, techniques, and site survey methods reviewed.

115. **Indians of North America** (5)

Lecture 5 hours

A survey of the origins, cultures, and customs of peoples indigenous to the North American continent with a primary emphasis upon folkways dominant prior to interference by foreign cultures, and a secondary emphasis upon the status of the Indians in the USA today.

APPRENTICE CARPENTRY

The Apprentice Carpentry Program is conducted in accordance with State Apprenticeship laws. The apprentice serves for a four-year period, the first three months of which are probationary. Apprentice training consists of full-time employment supplemented by related classroom instruction. The apprentice will be required to meet 4 hours by arrangement each month in addition to classroom schedules. Students whose work or attendance is not satisfactory may be dropped from the program by recommendation of the Joint Apprentice Committee. The College grants credit for the successful completion of the program.

The Associate in Arts degree may be earned, in addition to the completion of the apprentice training program, by fulfilling the Graduation Requirements listed on pages 60-62.

101abc. **Apprentice Carpentry** (3) (3) (3)

- (a) *Lecture 3 hours*
- (b) *Prerequisite: Apprentice Carpentry 101a or consent of instructor*
Lecture 3 hours

101 abc. (continued)

- (c) *Prerequisite: Apprentice Carpentry 101b or consent of instructor*
Lecture 3 hours

Blueprint reading, estimating, mathematics, form construction, light frame construction, hand and portable power tools, safety and Uniform Building Code.

102abc. **Apprentice Carpentry** (3) (3) (3)

- (a) *Prerequisite: Apprentice Carpentry 101c.*
Lecture 3 hours
- (b) *Prerequisite: Apprentice Carpentry 102a.*
Lecture 3 hours
- (c) *Prerequisite: Apprentice Carpentry 102b.*
Lecture 3 hours

Simplified framing, framing tables, sheathing, and insulation.

103abc. **Apprentice Carpentry** (3) (3) (3)

- (a) *Prerequisite: Apprentice Carpentry 102c.*
Lecture 3 hours
- (b) *Prerequisite: Apprentice Carpentry 103a.*
Lecture 3 hours
- (c) *Prerequisite: Apprentice Carpentry 103b.*
Lecture 3 hours

Interior and exterior trim, stair layout, blueprint reading, and advanced framing techniques.

104abc. **Apprentice Carpentry** (3) (3) (3)

- (a) *Prerequisite: Apprentice Carpentry 103c.*
Lecture 3 hours
- (b) *Prerequisite: Apprentice Carpentry 104a.*
Lecture 3 hours
- (c) *Prerequisite: Apprentice Carpentry 104b.*
Lecture 3 hours

Heavy timber construction, reinforced concrete form work, blueprint reading, and estimating.

ART

All studio art classes earn one unit of credit for two hours of class time.

101. **Freehand Drawing** (1.5-3)

Studio 3-6 hours

Introduction to basic drawing techniques, rendering techniques, composition and various drawing media. Special attention will be paid to principles of visual design and organization.

- 103. Perspective Drawing (1.5-3)**
Studio 3-6 hours
 Thorough investigation of the principles of linear perspective and how these principles can be applied to creative visual art.
- 104. Architectural Sketching (1)**
Studio 2 hours
 Special techniques for drawing structures and buildings of the Mother Lode region from field observation.
- 108. Portrait Drawing (1)**
Studio 2 hours
 Introduction to portrait drawing emphasizing interesting Mother Lode personalities.
- 109abc. Life Drawing (1.5-3) (1.5-3) (1.5-3)**
- (a) *Introductory*
Studio 3-6 hours
 Problems in figure drawing, working from the undraped model.
May be repeated one time for credit.
- (b) *Advanced*
Studio 3-6 hours
 An extension of Art 109a emphasizing various media and compositional problems.
May be repeated one time for credit.
- (c) *Special Problems*
Studio 3-6 hours
 An extension of Art 109b emphasizing individual growth on the part of the student as an artist.
May be repeated one time for credit.
- 111abc. History of Art (3) (3) (3)**
- (a) *Ancient and Medieval*
Lecture 3 hours
 Survey of art history from the Paleolithic Age through the Late Gothic Era.
Field trips may be required.
- (b) *Renaissance and Baroque*
Lecture 3 hours
 Survey of art history from the 15th through the 18th centuries.
Field trips may be required.
- (c) *19th and 20th Century*
Lecture 3 hours
 The background, causes, and evolution of contemporary art.
Field trips may be required.

- 113. Art and Philosophy Since 1945 (4)**
(See also Philosophy 113)
Lecture 4 hours
 A study of the relationship between the arts and philosophy since 1945, emphasizing current value systems dominant in both disciplines.
(Credit for this course will be awarded in either Art 113 or Philosophy 113, but not both. May not be repeated.)
- 116. Local Artists' Seminar (2)**
Studio 4 hours
 Seminar conducted by professional Mother Lode artists for other artists and art students. Survey of local artists, their studios, work, and artistic philosophies; analysis of styles, media, and techniques of producing artists with consideration of commercial production and marketing.
Field trips may be required.
- 121abc. Acrylic Painting (1.5-3) (1.5-3) (1.5-3)**
- (a) *Introductory*
Studio 3-6 hours
 Introduction to the painting process using acrylic as a medium. Special attention will be paid to design elements and color theory.
May be repeated one time for credit.
- (b) *Advanced*
Studio 3-6 hours
 An extension of Art 121a emphasizing technique.
May be repeated one time for credit.
- (c) *Special Problems*
Studio 3-6 hours
 An extension of Art 121b emphasizing individual growth on the part of the student as an artist.
May be repeated one time for credit.
- 122abc. Oil Painting (1.5-3) (1.5-3) (1.5-3)**
- (a) *Introductory*
Studio 3-6 hours
 Basic principles, techniques, and problems of oil painting.
- (b) *Advanced*
Studio 3-6 hours
 Continuation of Art 122a emphasizing advanced oil painting techniques and problems.
- (c) *Special Problems*
Studio 3-6 hours
 Study and application of 19th and 20th Century painting techniques to contemporary studio practice.
May be repeated one time for credit.

ART

- 123abc. Watercolor** (1.5-3) (1.5-3) (1.5-3)
- (a) *Introductory*
Studio 3-6 hours
 Introduction to the basic techniques and problems of transparent watercolors.
- (b) *Advanced*
Studio 3-6 hours
 Continuation of Art 123a introducing opaque watercolors and various experimental techniques.
- (c) *Special Problems*
Studio 3-6 hours
 Continuation of Art 123b with emphasis on further experimentation and development of personal expression.
May be repeated one time for credit.
- 125. Mixed Media Painting** (1)
Studio 2 hours
 Introduction to special techniques involving creative mixtures of traditional media; pen and ink over watercolor wash, oils and acrylics in combination.
- 128. Mural Painting** (3)
Studio 6 hours
 Group participation in planning, designing, and executing large scale wall paintings.
- 131abc. Ceramics** (1.5-3) (1.5-3) (1.5-3)
- (a) *Introductory*
Studio 3-6 hours
 Introduction to basic ceramic methods including hand building and wheel thrown forms.
- (b) *Advanced*
Studio 3-6 hours
 Continuation of Art 131a with emphasis on glaze formulation.
- (c) *Special Problems*
Studio 3-6 hours
 An extension of Art 131b with emphasis on personal expression and experimentation.
May be repeated one time for credit.
- 133. Primitive and Environmental Ceramics** (3)
Laboratory 6 hours
 Discovery and refinement of local clay deposits; construction and use of primitive kilns and ceramics tools; survey of the styles, techniques, and materials common to primitive potters; study of primitive firing and glazing.
Field trips are required.
May be repeated one time for credit.

ART

- 141ab. Photography** (3) (3)
- (a) *Beginning*
Lecture 2 hours
Laboratory 3 hours
 Introduction to history, development, and capabilities of the art/science of photography and elementary procedures with camera and in darkroom.
- (b) *Intermediate*
Prerequisite: Art 141a or consent of instructor.
Lecture 2 hours
Laboratory 3 hours
 Expansion of previous knowledge stressing creative expression through a variety of photographic techniques.
- 142. Color Photography** (3)
Prerequisite: Art 141a or consent of instructor.
Lecture 2 hours
Laboratory 3 hours
 Development and printing of color slides with the amateur home enthusiast in mind. Includes the history and theory of color photography, an analysis of color films, color balance, exposure latitude, film speed, pushed processing, positive to positive printing, print display and critique.
May be repeated one time for credit.
- 144. Advanced Photography Laboratory** (1)
Prerequisite: Art 141b or equivalent.
Laboratory 3 hours
 Continued exercise of darkroom skills in the production of black and white negatives and prints.
May be repeated 3 times for credit.
- 145. Field Photography** (2)
Lecture 1 hour
Laboratory 3 hours
 The art of producing professional quality nature photographs. Field instruction in locations of natural beauty will be emphasized and followed up with lectures, demonstrations, and critique sessions.
- 150ab. Commercial Freehand Lettering** (2) (2)
- (a) *Beginning*
Lecture 1 hour
Studio 2 hours
 Introduction to freehand lettering and calligraphy; practice in the three major calligraphic styles of sign writing and commercial lettering; Roman, Gothic, and script technique emphasis.

150ab. (continued)

- (b) *Intermediate*
Prerequisite: Art 150a
Lecture 1 hour
Studio 2 hours

Continuation of Art 150a with emphasis on various sign writing media such as banner writing, real estate signs, truck lettering, show cards, billboards, illustrations, wood routed signs, and concrete signs.

151. **Relief Printmaking** (1.5-3)

Studio 3-6 hours

Introduction to basic relief printmaking procedures emphasizing linoleum and woodcut.

May be repeated.

152. **Intaglio Printmaking** (1.5-3)

Studio 3-6 hours

Introduction to basic intaglio printmaking procedures including etching, engraving and collograph.

May be repeated.

153. **Silkscreen Printing** (1.5-3)

Studio 3-6 hours

Introduction to basic silkscreen printing procedures.

155. **Survey of Technical Theatre (See also Drama 155)** (3)

Lecture 3 hours

An overview of the basic techniques, materials and concepts of design and construction related to physical theatre production. Survey of costume, make-up, stagecraft, properties, lighting and sound.

(Credit for this course will be awarded for either Art 155 or Drama 155, but not both. May not be repeated.)

156. **Technical Theatre Laboratory** (1-3)
(See also Drama 156)

Prerequisite: Art 155 or Drama 155 or consent of instructor.

Laboratory 3-9 hours

Applied laboratory experience in all phases of technical theater related to mounting a production; practical projects in design and construction involving costumes, stage settings, stage properties, lighting, sound, and make-up for a specific theatre production.

(Credit for this course will be awarded for either Art 156 or Drama 156 but not both. May be repeated.)

163ab. (4) (4)

163ab.

- (a) *Lecture 3 hours*
Laboratory 3 hours

The design and construction of puppets and puppet theatres; techniques in manipulation and puppet play production; the survey and adaptation of appropriate literature for the puppet stage; rehearsal and performance experience in creative puppetry.

- (b) *Prerequisite: Art 163a or consent of instructor.*

Lecture 3 hours
Laboratory 3 hours

Rehearsal and performance of puppet theatre productions; advanced techniques in design, construction, manipulations, direction and performance of puppet theatre; survey and adaptation of literature appropriate to the puppet stage.

(Credit for this course will be granted in either Art 163ab or Drama 163ab, but not both. May not be repeated.)

165. **Applied Leatherwork** (1.5-3)

Studio 3-6 hours

Design and creation of art work in leather and mixed media including leather; survey of related styles, techniques and processes. Emphasis will be placed on design in western tooling and other leather working processes.

May be repeated.

167abc. **Textile Design** (2) (2) (2)

- (a) *Introductory*
Studio 4 hours

Introduction to basic textile design. Problems and techniques of the fiber arts.

May be repeated one time for credit.

- (b) *Advanced*
Prerequisite: Art 167a or consent of instructor.

Studio 4 hours

Continuation of Art 167a with emphasis on original concepts in textile design.

May be repeated one time for credit.

- (c) *Special Problems*
Prerequisite: Art 167b or consent of instructor.

Studio 4 hours

Continuation of Art 167b with special emphasis on advanced individual projects and non-traditional approaches.

May be repeated one time for credit.

169abcd. **Silversmithing** (1.5) (1.5) (1.5) (1.5)

- (a) *Introductory*
Studio 3 hours

Manufacture of jewelry and related items made of silver. Selecting and polishing stones to be mounted.

ART/AUTOMOTIVE TECHNOLOGY

169 abcd. (continued)

- (b) *Advanced*
Prerequisite: Art 169a or consent of instructor.
Studio 3 hours
 A continuation of Art 169a, emphasizing advanced problems and techniques of silversmithing.
- (c) *Design*
Prerequisite: Art 169b or consent of instructor.
Studio 3 hours
 Study of the basic principles of design as they may relate to the art of silversmithing.
- (d) *Special Problems*
Prerequisite: Art 169c or consent of instructor.
Studio 3 hours
 Continuation of Art 169c, with emphasis on experimentation and development of personal expression.

171abc. **Sculpture** (1.5-3) (1.5-3) (1.5-3)

- (a) *Introductory*
Studio 3-6 hours
 Basic principles, techniques, and problems of sculpture.
- (b) *Advanced*
Studio 3-6 hours
 Continuation of Art 171a emphasizing advanced problems and techniques in sculpture.
- (c) *Special Problems*
Studio 3-6 hours
 Continuation of Art 171b with emphasis on experimentation and development of personal expression.

172. **Metal Sculpture** (1.5-3)

- Studio 3-6 hours*
 Introduction to various metalworking techniques with an emphasis on aesthetic design.
May be repeated.

AUTOMOTIVE TECHNOLOGY

See Page 46 for Certificate Requirements

101. **Introduction to Automotive Technology** (2)

- Lecture 2 hours*
 Theory of operation of automobile systems. Fundamentals of math, micrometers, fasteners. Shop safety and tools will be covered.

AUTOMOTIVE TECHNOLOGY

- ### 103. **Preventive Maintenance** (2)
- Lecture 1 hour*
Laboratory 3 hours
 Preventive maintenance procedures, emphasis on lubrication and safety inspection as well as record keeping.

- ### 112. **Pulling and Installing Engines** (2)
- Lecture 1 hour*
Laboratory 3 hours
 Practical experience in pulling and installing engines.

- ### 114. **Machine Shop Procedures** (2) **(See also Hvy. Equip. 114)**
- Lecture 1 hour*
Laboratory 3 hours
 Practical experience in head service, block service, and common machine shop procedures used in auto repair shops.
(Credit for this course will be awarded for either Automotive Technology 114 or Heavy Equipment 114, but not both. May not be repeated.)

- ### 116. **Engine Rebuilding** (5)
- Prerequisite: Auto. Tech. 101 and Auto. Tech. 114.*
Lecture 2.5 hours
Laboratory 7.5 hours
 Techniques involved in engine rebuilding.

- ### 117ab. **Carburetion and Fuel Systems** (2) (2)
- (a) *Lecture 1 hour*
Laboratory 3 hours
 Techniques and procedures for overhaul and service of carburetor and accessories. Fuel injection service is also covered.
- (b) *Prerequisite: Auto. Tech. 117a.*

- Lecture 1 hour*
Laboratory 3 hours
 Installation, operation and repair of automotive pollution control devices. State and federal regulations are also covered.

119. **Gasoline Engine Tune-up** (2)

- Prerequisite: Auto. Tech. 117b.*
Lecture 1 hour
Laboratory 3 hours
 Operation principles of various types of ignition systems. Emphasis on use of handheld test equipment as well as the oscilloscope and infrared analyzer.



130. Manual Transmission Rebuilding (2)

*Lecture 1 hour
Laboratory 3 hours*

Principles and operation of automotive power trains including diagnosis and overhaul of clutches, manual transmission, overdrives, and transfer cases.

AUTOMOTIVE TECHNOLOGY

134. Axles and Drive Lines (2)

*Prerequisite: Auto. Tech. 130.
Lecture 1 hour
Laboratory 3 hours*

Service, diagnosis and repair of drive lines, rear axles and third members, front wheel drive hubs, and 4 x 4 front axles and hubs.

136. Automatic Transmission (G.M.) (2)

*Lecture 1 hour
Laboratory 3 hours*

Theory of automatic transmissions and their advantages and disadvantages.

138. Automatic Transmission (Ford) (2)

*Lecture 1 hour
Laboratory 3 hours*

Practical experience in disassembly and assembly, failure and analysis, trouble shooting, pressure testing, and automatic transmission rebuilding.

140ab. Brakes (2) (1)

(a) *Drum*

*Lecture 1 hour
Laboratory 3 hours*

Principles of operation of automotive drum brakes, including diagnosis and overhaul techniques.

(b) *Disc*

*Prerequisite: Auto. Tech. 140a.
Lecture .5 hour
Laboratory 1.5 hours*

Service procedures, including overhaul techniques of disc brakes.

144ab. Front-End and Suspension (2) (2)

(a) *Lecture 1 hour*

Laboratory 3 hours

Fundamentals and theory of automotive suspension and steering systems. Adjustment, diagnosis, inspection and repair of alignment problems, including wheel balancing and tire problems.

(b) *Prerequisite: Auto. Tech. 144a.*

*Lecture 1 hour
Laboratory 3 hours*

Front-end and suspension rebuilding and maintenance. Rear axle alignment is included.

AUTOMOTIVE TECHNOLOGY

- 150abcd. Vehicle Electricity** (2) (2) (2) (2)
(See also Hvy. Equip. 150abcd.)
- (a) *Electrical Theory*
 Lecture 1 hour
 Laboratory 3 hours
 Fundamentals of electricity that apply to all electrical systems.
- (b) *Charging System*
 Prerequisite: Auto. Tech. 150a.
 Lecture 1 hour
 Laboratory 3 hours
 Diagnosis and repair of the battery and charging systems.
- (c) *Starting and Ignition Systems*
 Prerequisite: Auto. Tech. 150a.
 Lecture 1 hour
 Laboratory 3 hours
 Diagnosis and repair of starting systems, magnetos and battery ignition systems.
- (d) *Lighting and Chassis Electrics*
 Prerequisite: Auto. Tech. 150a.
 Lecture 1 hour
 Laboratory 3 hours
 Diagnosis and repair of headlamp, stoplight, turn signals, as well as fuse box, trailer wiring, gauges.
(Credit for this course will be awarded for either Automotive Technology 150abcd or Heavy Equipment 150abcd, but not both. May not be repeated.)
- 162. Air Conditioning** (2)
 Lecture 1 hour
 Laboratory 3 hours
 Understanding the principles and operation of air conditioning, as well as the techniques of recharging diagnosis and service.
- 170abcd. Practical Laboratory** (2) (2) (2) (2)
- (a) Prerequisite: 8 units of shop classes with not more than 2 of the 8 units taken concurrently with Auto. Technology 170a or consent of instructor.
 Laboratory 6 hours
- (b) Prerequisite: Auto. Technology 170a.
 Laboratory 6 hours
- (c) Prerequisite: Auto. Technology 170b.
 Laboratory 6 hours
- (d) Prerequisite: Auto. Technology 170c.
 Laboratory 6 hours
 Special repair projects are assigned to advanced students with emphasis on speed, accuracy, and work habits.

AVIATION/BIOLOGY

AVIATION

- 105. Private Pilot Ground School** (3)
 Lecture 3 hours
 Preparation for Federal Aviation Administration written examination for private pilot certificate. Instruction includes: aircraft operations, air traffic, pilot privileges and limitations, flight planning, map reading, radio communications, weather and safety.
- 110ab. Commercial Pilot Ground School** (3) (3)
- (a) Prerequisite: Aviation 105.
 Lecture 3 hours
 Flight information, civil air regulations, radio and navigational aids.
- (b) Prerequisite: Aviation 110a.
 Lecture 3 hours
 Preparation for Federal Aviation Administration written examination for Commercial Pilot certificate.
- 115ab. Instrument Rating Ground School** (3) (3)
- (a) Prerequisite: Aviation 105.
 Lecture 3 hours
- (b) Prerequisite: Aviation 115a.
 Lecture 3 hours
 Preparation for Federal Aviation Administration written examination for Instrument Rating certificate.
- 130abc. Airports and Operation** (3) (3) (3)
 Lecture 3 hours
 An overview of the major functions of an airport from a management point of view.
- 150. Light Aircraft Engines** (3)
 Lecture 3 hours
 The operation and the principles of maintenance of light aircraft engines common to privately owned aircraft.

BIOLOGY

- 50. Horticulture for the Home Gardener** (2)
 Lecture 2 hours
 An Introduction to the science of growing fruits, vegetables and turf. Demonstrations of plant propagation and tree planting.
Field trips may be required.
- 53. Organic Living** (1)
 Lecture 1 hour
 A course in living a simple, self-sufficient life style. Producing and preserving foods, dietary requirements and food additives, and small animal husbandry are among the topics discussed and demonstrated.

BIOLOGY

55. **Organic Gardening** (2)
Lecture 1 hour
Laboratory 3 hours
 Lecture and laboratory instruction in the techniques of organic gardening. The campus garden and greenhouse will provide the setting for instruction.
58. **Birds of the Mother Lode** (2)
Lecture 1 hour
Laboratory 3 hours
 A survey of the birds of the Mother Lode area of California through field observations. Stresses recognition by plumage, song, and behavior patterns. Discusses ecological relationships, nesting habits, and economic importance.
Field trips will be required.
May be repeated one time.
59. **Wildflowers of the Mother Lode** (1-3)
Lecture 1-3 hours
 Wildflowers of the Mother Lode with emphasis on their botanical beauty. A non-technical approach to botanical traits will be used to learn common and scientific names of wild flowers.
60. **Natural History and Ecology** (3)
Lecture 2 hours
Laboratory 3 hours
 Natural history of California flora and fauna with emphasis on ecological principles and relationships.
Field trips may be required.
65. **Desert Wildflowers** (1)
Lecture .5 hours
Laboratory 1.5 hours
 An introduction to desert wildflowers and their common names.
Field trips may be required.
68. **Birds of the Sierra Nevada** (2)
Lecture 1 hour
Laboratory 3 hours
 Study of bird species inhabiting alpine meadows and forests of the Sierra Nevada through field observations and lectures. Normally offered during summer only.
Field trips required.
May be repeated one time.
100. **Biology, Man and Contemporary Society** (4)
Lecture 4 hours
 A study of the biological concepts of ecology, genetics, and behavior as they relate to modern society.

BIOLOGY

110. **Fundamentals of Biology** (4)
Lecture 3 hours
Laboratory 3 hours
 Modern concepts, inquiry methods, and historical background of biological unity and processes.
111. **Principles of Biology** (5)
Prerequisite: One year of high school chemistry with a B average or Chemistry 100.
Lecture 3 hours
Laboratory 6 hours
 A general biology course with the emphasis on ecology, genetics, evolution, cell biology, and molecular biology.
Field trips may be required.
115. **Heredity and Evolution** (4)
Lecture 4 hours
 Introductory genetic principles; Inheritance, population variation and evolution in plants and animals. Social implications of genetics and evolution.
120. **Fundamentals of Plant Biology** (3)
Lecture 2 hours
Laboratory 3 hours
 A survey course in botany with emphasis on plant appreciation. The topics discussed are anatomy, physiology, ecology, horticulture, and relationships of plants to human history.
Field trips may be required.
121. **Principles of Plant Biology** (5)
Prerequisite: Biology 111.
Lecture 3 hours
Laboratory 6 hours
 A general botany course with emphasis on plant anatomy, plant physiology, and plant morphology.
Field trips may be required.
125. **Plant Taxonomy of the Sierra Nevada** (4)
Lecture 3 hours
Laboratory 3 hours
 A study of the flora of the Sierra Nevada with emphasis on the classification of angiosperms.
Field trips may be required.
130. **Fundamentals of Animal Biology** (3)
Lecture 2 hours
Laboratory 3 hours
 Structure, functions, and diversity of the animal organism.
Field trips may be required.

BIOLOGY

- 131. Principles of Animal Biology (5)**
Prerequisite: Biology 111.
Lecture 3 hours
Laboratory 6 hours
A general zoology course with emphasis on animal diversity, taxonomy, anatomy, and physiology.
Field trips may be required.
- 140. Introductory Human Anatomy (4)**
Prerequisite: Biology 110 or consent of instructor.
Lecture 2 hours
Laboratory 6 hours
A study of the gross anatomy of the human body with emphasis on skeletal, muscular, and nervous systems. Individual systems studied for their form, function, and interrelationships with other systems. The cat is used for laboratory dissection.
- 151. The Terrestrial Environment (3)**
Prerequisite: Any one of the following: Biology 110, Biology 111, Biology 121, Biology 125 or consent of instructor.
Lecture 2 hours
Laboratory 3 hours
- (1) Regular Quarters: Field studies of terrestrial ecosystems with emphasis on techniques for gathering and analysis of physical biological data.
Field trips are required.
- (2) Summer Session Only: Summer field course which studies terrestrial ecosystems from the Red Fir belt to Alpine zone in Tuolumne County. Flora, fauna, and physical parameters in each ecosystem studied. A photographic, written, or oral presentation of materials studied and a backpack trip of six days are required. (Students must provide own camping gear and food.) May be repeated upon consent of instructor but transfer credit may be earned in either but not both courses.
- 155. The Aquatic Environment (3)**
Prerequisite: Biology 110, Biology 111, or Earth Science 110 or consent of instructor.
Lecture 1 hour
Laboratory 6 hours
Field studies of aquatic ecosystems with emphasis on techniques for gathering and analysis of physical and biological data.
Field trips are required.
- 160ab. Introduction to Human Physiology (3) (3)**
(a) *Prerequisite: Biology 110 or Biology 111 and a high school or college chemistry course, or consent of instructor.*
Lecture 2 hours
Laboratory 3 hours
Introduction to physiology of cells, body fluids, the circulatory, muscular, excretory, and respiratory systems.

BIOLOGY/BANKING AND FINANCE

160ab. (continued)

- (b) *Prerequisite: Biology 160a.*
Lecture 2 hours
Laboratory 3 hours
A continuation of Biology 160a including the physiology of the digestive, nervous, endocrine, and reproductive systems.
- 165ab. Microbiology (3) (3)**
(a) *Prerequisite: High School Chemistry or Chemistry 100.*
Lecture 2 hours
Laboratory 3 hours
(b) *Prerequisite: Biology 165a.*
Lecture 2 hours
Laboratory 3 hours
General characteristics of microbic life, conditions influencing bacterial growth, bacteria in disease and aseptic procedures.
Field trips may be required.

BUSINESS Banking and Finance

- 110. Principles of Bank Operation (4)**
Lecture 4 hours
The importance of banking to American economic functions, banking operations, legal relationships between bank and depositors, the Federal Reserve System, banking and public service.
- 113. Financing Business Enterprise (4)**
Lecture 4 hours
A survey of financial institutions; problems and solutions of providing capital for American business.
- 120. Installment Credit (4)**
Lecture 4 hours
Principles and practice of installment lending, establishing credit, obtaining and checking information, loan servicing and collections, inventory financing, special loan programs, business development and advertising and public relations.
- 125. Money and Banking (See also Economics 125) (4)**
Lecture 4 hours
An introduction to and evaluation of banks and banking systems, price movements, international payments, and monetary theory and policies.
(Credit for this course will be awarded for either Banking and Finance 125 or Economics 125, but not both. May not be repeated.)

- 130. Analyzing Financial Statements (4)**
Prerequisite: Bus. Ad. 60ab or Bus. Ad 61 or Bus. Ad. 130a or equivalent work experience with consent of instructor.
Lecture 4 hours
 Tools and techniques for the evaluation of financial condition and operating performance of a modern business enterprise. Topics include financial statement analysis and accounting, financial statements and business funds flow and analysis of operations, long-term financial strength, and asset utilization.

Business Administration

See Page 47 for Certificate Requirements

- 58. Pegboard Payroll System (1)**
Lecture 1 hour
 A business simulation designed to give realistic experience in keeping payroll records using a pegboard system.
- 60ab. Bookkeeping (5) (5)**
 (a) *Lecture 5 hours*
 Double entry bookkeeping; general journal and general ledger, business forms, financial statements, and completion of the bookkeeping cycle for service and trade businesses; notes in credit transactions.
 (b) *Prerequisite: Business Administration 60a.*
Lecture 5 hours
 Special journals and controlling accounts with subsidiary ledgers; discounts on purchases and sales; promissory notes and interest; bank services and petty cash; payroll records; adjustments for prepaid, unearned, and accrued items, bad debts, and depreciation.
- 61. Small Business Accounting (5)**
Lecture 5 hours
 Accounting procedures and analysis for most small businesses. Includes study of the accounting cycle, accounts receivable and bad debts, notes receivable and payable, merchandise inventory, depreciation, accruals and deferrals, the voucher system, payroll, financial statements, costs for decision-making, partnerships and corporations.
- 63. Business Mathematics (See also Math. 63) (4)**
Lecture 4 hours
 Mathematical problems of buying, selling, discounts, interest, credit, insurance, commissions, payrolls, depreciation, taxes, and bank reconciliations.
(Credit for this course will be awarded for either Business Administration 63 or Mathematics 63 but not both. May not be repeated.)

- 65. The Metric System (See also Math 65) (1)**
Lecture 1 hour
 The new language of the modernized metric system in areas of common, everyday application: volume, weight, linear, and cubic measures, temperature, and electricity.
(Credit for this course will be awarded for either Business Administration 65 or Mathematics 65 but not both. May not be repeated.)
- 101. Principles of Business (3)**
Lecture 3 hours
 Business and its functions. Business organization; governmental institutions and controls; economics in business.
- 104. Human Relations in Business (3)**
Lecture 3 hours
 Influence of industrial development on employer and employee unions, management practices, methods of supervision, employer-employee relationships, mass production and the employee.
- 107. Consumer Economics (See also Economics 107) (3)**
Lecture 3 hours
 Values and attitudes which result in "conspicuous consumption" habits. Emphasis will be placed on family financial planning, buying, borrowing, investing, and investment protection.
(Credit for this course will be awarded for either Business Administration 107 or Economics 107 but not both. May not be repeated.)
- 112. Industrial Relations (3)**
Lecture 3 hours
 Introductory course in labor relations, covering collective bargaining agreements, grievance procedures, arbitration, unfair labor practices.
- 115ab. Commercial Law (3) (3)**
 (a) *Lecture 3 hours*
 Historical development of common law; statutes of California. Federal and State court decisions; legal aspects of business; law of contracts, agency and employment.
 (b) *Lecture 3 hours*
 Law of sales, negotiable instruments, personal property, real property, partnerships, corporations, insurance, suretyship.
- 120. Principles of Marketing (5)**
Lecture 5 hours
 Marketing principles, policies, and functions, price policies and controls, trade channels, merchandising, market research, advertising, and competitive practices.

BUSINESS ADMINISTRATION

- 123. Sales (3)**
Lecture 3 hours
 Description of the fundamental principles and practices of sales. Critical look at the selling process.
- 125. Advertising and Display Promotion (3)**
Lecture 3 hours
 Fundamental principles and practices of merchandising through advertising and display.
- 130abc. Accounting (4) (4) (4)**
 (a) *Lecture 4 hours*
 Accounting principles and procedures, closing books, revenue and expense adjustments, merchandising operations, statement and ledger organization, receivables and payables, deferrals and accruals.
- (b) *Prerequisite: Business Ad. 130a.*
Lecture 4 hours
 Plant and intangible assets; systems and controls; payroll; concepts and principles; partnerships; corporate organization, operation, stockholders equity, earnings, and dividends; long term liabilities and investments.
- (c) *Prerequisite: Business Ad. 130b.*
Lecture 4 hours
 Departments and branches, process and job order cost accounting for manufacturing, budgets and standard costs, income tax, cost and revenue relationships, managerial reports and analysis, statement of changes in financial position, financial statement analysis.
- 136. Computer Logic (4)**
(See also Math 136 and Philosophy 136)
Lecture 4 hours
 A detailed survey of the use of truth functional logic in digital computers. The emphasis of the course will be on the logical functions of the connectives, "and," "or," "if . . . then," "if and only if," and their combinations in determining "truth" and "falsehood" in statements and their effect on computer logic, control and data manipulation. The course also includes an introduction to the mechanics of a computer.
(Credit for this course will be awarded for either Bus. Ad. 136 or Math 136 or Philosophy 136, but not all three. May not be repeated.)
- 138. Computers and Society (See also Math. 138) (4)**
Lecture 4 hours
 Computers and their relation to modern society. Includes history of computing, use of computers in various occupational fields, effects of computers upon the society in which we live.
(Credit for this course will be given for either Bus. Ad. 138 or Mathematics 138, but not both. May not be repeated.)

BUSINESS ADMINISTRATION

- 140. Principles of Management (5)**
Lecture 5 hours
 The functions of management, techniques of decision making and problem solving, and methods used by managers to achieve organizational goals, various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls.
- 145. Retail Business Management (4)**
Lecture 4 hours
 The retailing world and its functions including organization, buying, merchandising, store management and operations, customer operations, financial control, and systematic problem solving techniques.
- 150. Small Business Management (3)**
Lecture 3 hours
 Small business operation with proper balance between business functions of purchasing, production, sales and finance, and the management functions of planning, organizing, actuating, and controlling.
- 160. Introduction to Public Administration (3)**
Lecture 3 hours
 Fundamental principles and practices underlying the field of public administration in federal, state, and local government, career opportunities, and responsibilities.
- 163. Public Personnel Administration (3)**
Lecture 3 hours
 Development and administration of various public personnel systems including recruitment, selection and training programs, labor relations and public unions, testing and evaluation processes.
- 165. Public Finance Administration (3)**
Lecture 3 hours
 Fundamental principles and practices underlying public fiscal policy including budget process, taxing and revenue systems, federal government financial assistance, fiscal legislation and regulations.
- 170abc. Computer Programming (3) (3) (3)**
(See also Media Tech. 140abc and Math 140abc)
 (a) *Introductory*
Prerequisite: Two years high school algebra or consent of instructor.
Lecture 2 hours
Laboratory 3 hours
 Introduction to computer programming using the BASIC language. Includes systems commands, input/output statements, unconditional and conditional branching, loops, variables and operators, and singly subscripted arrays.

BUSINESS ADMINISTRATION

170abc. (continued)

(b) *Intermediate*

Prerequisite: Bus. Ad. 170a.

Lecture 2 hours

Laboratory 3 hours

Continuation of Bus. Ad. 170a. Includes doubly subscripted variables, logical operators, subroutines, computed branching and structured programming.

(c) *Advanced*

Prerequisite: Bus. Ad. 170b.

Lecture 2 hours

Laboratory 3 hours

Advanced techniques of programming in BASIC language, including disk operation and file management, optimization of core usage, algorithm efficiency, and advanced I.O. commands.

(Credit for this course will be given for either Business Administration 170abc or Media Technology 140abc or Mathematics 140abc but not all three. May not be repeated.)

172. **Computer Programming: Applications** (3) **(See also Math 145)**

Prerequisite: Two years high school algebra or equivalent or consent of instructor.

Lecture 2 hours

Laboratory 3 hours

Various topics in computer programming including string variables and functions, array manipulation, files and record I/O, lists (sequential, linked, circular), computer graphics. Course individualized to meet specific individual needs.

(Credit for this course will be awarded for either Bus. Ad. 172 or Math 145, but not both. May not be repeated.)

175. **Computers and Control** (5) **(See also Physics 155 or Math 155)**

Prerequisite: Bus. Ad. 170a or consent of instructor.

Lecture 3 hours

Laboratory 6 hours

Introduction to the use of computers to control and monitor scientific equipment and the outside environment. Includes techniques for the use of temperature sensing, optical sensing, sound sensing, and motion sensing probes, analog/digital and digital/analog data acquisition and control techniques, the proper use of electronic test equipment and bit programming of computer I/O ports and hand-shake conventions.

(Credit for this course will be awarded for either Bus. Ad. 175 or Physic 155 or Math 155 but not all three. May not be repeated.)

OFFICE OCCUPATIONS

Office Occupations

See Pages 53-55 for Certificate Requirements.

50. **Personal Typing** (3)
Lecture 2 hours
Laboratory 3 hours
Instruction for personal use, including learning keyboard by the touch system, composing at the machine, practical application of typing skills to simple letter writing, manuscripts, and tabulation.
53. **Review Typing** (3)
Lecture 2 hours
Laboratory 3 hours
Development of speed and accuracy; review of simple correspondence, tabulation, manuscripts, and composition at the typewriter.
56. **Typing Speed and Accuracy Building** (1-2)
Prerequisite: Beginning typing skill.
Laboratory 3 to 6 hours
Speed building and accuracy on straight copy, rough draft, script, and statistical writing. Intensified drills, timed writings and remedial work.
May be repeated for a maximum of 4 units.
58. **Proportional Space Typing** (1)
Prerequisite: Office Occupations 103 or equivalent course.
Laboratory 3 hours
Introduction and practice on the proportional space typewriter, special keys, centering, statistical typing, line justification, manuscript and business letter typing.
60. **Review Shorthand** (4)
Prerequisite: Typing rate 30 words per minute.
Lecture 3 hours
Laboratory 3 hours
Review of Gregg dictation theory; transcription skills.
65. **Business English (See also English 65)** (3)
Lecture 3 hours
The mechanics of English as applied to the field of business, including skills of written communication, sentence structure, punctuation, spelling, and use of the dictionary.
(Credit for this course will be awarded for either Office Occupations 65 or English 65 but not both. May not be repeated.)

OFFICE OCCUPATIONS

68. Business Correspondence (3)

Lecture 3 hours

Effective business practices in the construction of sentences, paragraphs, and letters; the writing of effective business letters such as sales, applications, orders, requests, adjustments, refusals, credit and collection.

70. Report Writing (See also English 70) (3)

Lecture 3 hours

Study and practice of the skills necessary to write intelligent reports. (Credit for this course will be awarded for either Office Occupations 70 or English 70, but not both. May not be repeated.)



OFFICE OCCUPATIONS

101. Beginning Typing (4)

Lecture 3 hours

Laboratory 3 hours

Development of speed and accuracy, typing skills for vocational or personal use.

103. Intermediate Typing (4)

Prerequisite: Office Occupations 101 or typing rate of 40 words per minute.

Lecture 3 hours

Laboratory 3 hours

Development of speed and accuracy for advanced correspondence, tabulation, manuscripts, outlines, and business forms.

104. Advanced Typing (4)

Prerequisite: Office Occupations 103 or typing rate of 45 words per minute.

Lecture 3 hours

Laboratory 3 hours

Further development of speed and accuracy; study of business forms, complicated tabulated material, legal forms, typing for reproduction, and special problems in letter placement.

107. Word Processing: The Memory Typewriter (1)

Prerequisite: Office Occupations 103, Office Occupations 132.

Laboratory 3 hours

Development of skills in performing secretarial operations on the automated or memory typewriter.

108. Word Processing: Electronic Typewriter (1)

Prerequisite: Office Occupations 103, Office Occupations 132.

Laboratory 3 hours

Instruction on the electronic typewriter including document and phrase storage, revisions, storage procedures, tabulation, and repetitive documents.

109. Word Processing: Display System (3)

Prerequisite: Office Oc. 103, Office Oc. 132 or current employment where typing is primarily used.

Lecture 1 hour

Laboratory 6 hours

Use of the display word processing system which includes document production and storage, editing, retrieval, formatting, local and global search, entry and execution of variable data. Word processing concepts relating to information processing are introduced.

OFFICE OCCUPATIONS

- 110ab. Beginning Shorthand** (4) (4)
Prerequisite: Typing rate of 30 words per minute.
 Lecture 3 hours
 Laboratory 3 hours
 Complete theory of Gregg shorthand; foundation for dictation and transcription.
- 111abc. Machine Shorthand** (4) (4) (4)
 (a) *Machine Shorthand I*
Prerequisite: Office Occupations 101 or typing rate of 30 words per minute.
 Lecture 3 hours
 Laboratory 3 hours
 Introduction to the machine system of shorthand including instruction in theory, keyboard, reading notes, and the ability to take dictation at 60 words per minute.
- (b) *Machine Shorthand II*
Prerequisite: Office Occupations 111a and typing rate of 45 words per minute.
 Lecture 3 hours
 Laboratory 3 hours
 Continuation of the machine system of shorthand including theory mastery, keyboard development, and the ability to take dictation at 60 to 90 words per minute.
- (c) *Machine Shorthand III*
Prerequisite: Office Occupations 111b and Office Occupations 103 (or equivalent typing skill).
 Lecture 3 hours
 Laboratory 3 hours
 Development of machine shorthand speed and dictation skill. Speed building and accuracy on straight copy taking dictation at speeds up to 120 words per minute.
- 112ab. Intermediate Shorthand** (4) (4)
Prerequisite: Dictation rate 60 words per minute for 3 minutes and typing rate of 45 words per minute.
 Lecture 3 hours
 Laboratory 3 hours
 Sustained dictation speed on new material; accuracy on transcription; spelling, punctuation, and office-style dictation.
- 113ab. Advanced Shorthand** (4) (4)
Prerequisite: Dictation rate of 80 words per minute for 3 minutes and typing rate of 45 words per minute.
 Lecture 3 hours
 Laboratory 3 hours
 Development of speed and accuracy; correlation of grammar, spelling, punctuation, and typing.

OFFICE OCCUPATIONS

- 130. Filing Systems and Records Management** (3)
 Lecture 3 hours
 Study of alphabetic, numeric, geographic, and subject filing systems; survey of records management procedures.
- 132. Machine Transcription** (3)
Prerequisite: Office Occupations 103 or equivalent experience.
 Lecture 2 hours
 Laboratory 3 hours
 Study and use of various transcribing machines.
- 134. Office Machines** (3)
 Lecture 2 hours
 Laboratory 3 hours
 Operation of the 10-key adding machine, full keyboard adding machine, and electronic calculator.
- 138. Office Procedures** (4)
Prerequisite: Bus. Ad. 60a, Off. Oc. 103, or consent of instructor.
 Lecture 3 hours
 Laboratory 3 hours
 General office duties and procedures as well as office etiquette and dress. Use of duplicator, mimeograph, and copy machines.
- 140ab. Medical Terminology** (3) (3)
 (a) Lecture 1 hour
 Laboratory 6 hours
 An introduction to basic medical word structure, including word roots, prefixes and suffixes used in medical vocabulary by allied health field members.
- (b) *Prerequisite: Office Oc. 140a.*
 Lecture 1 hour
 Laboratory 6 hours
 A continuation of the study of medical terminology including the specialized vocabulary for the various anatomical systems used by allied health field members.
- 142ab. Medical Transcription** (3) (3)
 (a) *Prerequisite: Office Oc. 103 or equivalent; Office Oc. 132, Office Oc. 140a or consent of instructor.*
 Lecture 1 hour
 Laboratory 6 hours
- (b) *Prerequisite: Office Oc. 142a or Office Oc. 150.*
 Lecture 1 hour
 Laboratory 6 hours
 Development of advanced skill for medical transcription in physician's offices, clinics, hospitals and related allied health field positions. Students will type discharge summaries and surgical reports, using medical terminology and transcription skills.

- 154. Legal Transcription/Terminology** (3)
Prerequisite: Off. Oc. 103, Off. Oc. 132
 Lecture 1 hour
 Laboratory 6 hours
 Comprehensive transcription of legal documents and correspondence from cassette tapes with emphasis on legal terminology, accuracy, and acceptable transcription production rates.
- 157. Legal Office Procedures** (3)
Prerequisite: Off. Oc. 103, Off. Oc. 132, Off. Oc. 154.
 Lecture 2 hours
 Laboratory 3 hours
 A course designed to train the student for employment as a secretary in a law office. Specialized training is given in knowledge and skills required of legal secretaries including preparation of legal papers and court documents, assistance in legal research, book-keeping and filing in a law office.
- 160. Office Occupations** (1-5)
Prerequisite: Consent of instructor.
 Laboratory 3-15 hours
 Supervised office work experience.
 May be repeated for a maximum of 12 units of credit.

Real Estate

See Page 55 for Certificate Requirements

- 101. Principles of Real Estate** (3)
 Lecture 3 hours
 Real and personal acquisition, ownership, estates, joint tenancies, partnerships, sales, contracts, deeds, taxes, and financing real estate.
- 105. Real Estate Practice** (4)
Prerequisite: Real Estate 101 or Real Estate License.
 Lecture 4 hours
 General real estate operations and the industry.
- 110. Legal Aspects of Real Estate** (4)
Prerequisite: Real Estate 101.
 Lecture 4 hours
 California real estate law; titles, encumbrances, recording, real property, acquisition and transfer; Penal Code.
- 115. Real Estate Finance** (4)
Prerequisite: Real Estate 101.
 Lecture 4 hours
 Residential and commercial financing; lending institutions, money markets and interest rates.

- 120. Real Estate Appraisal** (4)
Prerequisite: Real Estate 105 and 110.
 Lecture 4 hours
 Appraisal of residential and commercial properties; methods and techniques for determining market value; the appraisal report.
- 125. Real Estate Economics** (4)
Prerequisite: Real Estate 101.
 Lecture 4 hours
 Economic factors influencing real estate; real estate market and business cycles; commercial, industrial, and residential properties; urban development and renewal; regulation of land uses.

Supervisory Training

- 110. Elements of Supervision** (3)
 Lecture 3 hours
 Supervisor's role in business and industry; organizational policies, management directives, personnel problems and practices; leadership techniques.
- 115. Middle Management** (3)
Prerequisite: Supervisory Training 110.
 Lecture 3 hours
 The basis for management; planning, organization, staffing and controlling management functions.

CHEMISTRY

- 60. Consumer Chemistry: Food** (1)
 Lecture 1 hour
 A study of the chemicals found in our food; where they come from, what they are, and what happens to them when they are consumed.
 May be repeated with consent of instructor.
- 71. Chemical Calculations (See also Math. 71)** (1)
Prerequisite: Mathematics 55 or equivalent.
 Lecture 1 hour
 A basic math course designed to prepare the student for solving problems in Chemistry 100 and Chemistry 101abc.
 (Credit for this course will be awarded for either Chemistry 71 or Mathematics 71 but not both. May not be repeated.)
- 100. Fundamentals of Chemistry** (4)
Prerequisite: Mathematics 55 or one year of high school algebra.
 Lecture 3 hours
 Laboratory 3 hours
 Fundamental theories and principles of inorganic chemistry; atomic and molecular structure, chemical and physical changes, solutions, colloids, gases, nonmetals, metals, and nuclear chemistry.

CHEMISTRY/CONSTRUCTION

- 101abc. General Chemistry (5) (5) (5)**
- (a) *Prerequisite: One year of high school chemistry with a "B" average and Math. 103 or equivalent; or Chemistry 100 and Math. 103; or consent of instructor.*
Lecture 3 hours
Laboratory 6 hours
Survey of atoms, nuclear chemistry, molecules, ions, chemical bonding, gases, liquids and solids.
- (b) *Prerequisite: Chemistry 101a or equivalent or consent of instructor.*
Lecture 3 hours
Laboratory 6 hours
Survey of solutions, colloids, acids, bases, salts, kinetics, equilibria, thermodynamics, electrochemistry, and nonmetals.
- (c) *Prerequisite: Chemistry 101b or equivalent.*
Lecture 3 hours
Laboratory 6 hours
Survey of the atmosphere, nonmetals, metals, organic compounds, coordination compounds and qualitative analysis.
- 108ab. Chemistry of Carbon Compounds (4) (4)**
- (a) *Prerequisite: Chemistry 101a with a grade of "C" or better or consent of instructor.*
Lecture 3 hours
Laboratory 3 hours
A study of the nomenclature, structure, synthesis and characteristic reactions of organic compounds with emphasis on chemicals of interest to students in the biological sciences.
- (b) *Prerequisite: Chemistry 108a or consent of instructor.*
Lecture 3 hours
Laboratory 3 hours
A study of the organic compounds found in living organisms.

CONSTRUCTION Construction Technology

- 51. Home Maintenance and Repairs (3)**
Lecture 3 hours
Provides essential technical information in cooling, heating, plumbing, electricity, carpentry, concrete, and painting to establish preventative maintenance routine and to make necessary repairs.
- 101. Introduction to Carpentry (3)**
Lecture 3 hours
Theory and framing non-commercial buildings for private use. Construction of small non-structural projects. Local code ordinances governing such construction.

CONSTRUCTION/DRAFTING

- 111. Introduction to Residential Wiring (3)**
Lecture 3 hours
Electrical theory, blueprint reading, service, circuits, conduit, and flexible wiring in residential construction. Remodeling and large appliance installation procedures. Applicable local code ordinances.
- 121. Introduction to Residential Plumbing (3)**
Lecture 3 hours
Types of pipes and common fittings. Cold and hot water supply, soil pipe and drainage systems. Fixture mounting. Natural gas plumbing. Applicable local code ordinances.

DRAFTING

- 110abc. Basic Drafting (3) (3) (3)**
- (a) *Lecture 2 hours*
Laboratory 3 hours
The use of tools and materials, knowledge of lettering; geometry; freehand sketching, orthographic projection, sectioning and basic dimensioning.
- (b) *Prerequisite: Drafting 110a.*
Lecture 2 hours
Laboratory 3 hours
Orthographic projecting, auxiliary views, dimensioning, tolerancing, threads, fasteners and springs.
- (c) *Prerequisite: Drafting 110b.*
Lecture 2 hours
Laboratory 3 hours
Complete drawings (tracing and prints), applied design, shop process and fabrication.
- 115abc. Advanced Drafting (3) (3) (2)**
- (a) *Prerequisite: Drafting 110c.*
Lecture 2 hours
Laboratory 3 hours
Review of basic drafting, lettering devices, and special templates. Intersections and developments in sheet metal, welding representations, and design of cams and gears.
- (b) *Prerequisite: Drafting 115a.*
Lecture 2 hours
Laboratory 3 hours
Map drafting, electrical and electronic, aerospace, and technical illustration.
- (c) *Prerequisite: Drafting 115b.*
Laboratory 6 hours
Independent study in a concentrated area of drafting. Student's choice must involve current industrial practices.

- 123. Blueprint Reading** (2)
Lecture 2 hours
 Residential and commercial print reading, printing processes applied to drafting and trade competency testing.
- 130abc. Architectural Drafting** (3 (3) (3))
- (a) *Prerequisite: Drafting 110c.*
Lecture 3 hours
 Area planning, basic plans, locations, sections, foundations, framing, schedules and specification.
- (b) *Prerequisite: Drafting 130a.*
Lecture 3 hours
 Technical architectural plans, creative architectural drafting and design.
- (c) *Prerequisite: Drafting 130b.*
Lecture 3 hours
 Codes, related plans, modulars, design, theory, checking, and costs.

DRAMA

- 102. Oral Expression & Interpretation** (5)
(See also Speech 102)
Lecture 4 hours
Activity 2 hours
 Techniques in reading literature aloud; understanding and interpreting prose, poetry, and dramatic selections; oral presentation, and expression of thought.
(Credit for this course will be awarded for either Drama 102 or Speech 102 but not both. May not be repeated.)
- 112. Theatre Production: Dance Emphasis** (1-3)
(See also P.E. 112)
Prerequisite: Audition.
Laboratory 3-9 hours
 Directed activities in theatre production for public performance with a concentration in dance.
(Credit will be awarded for either Drama 112 or P.E. 112 but not both. May be repeated for credit.)
- 116. Dance Production (See also P.E. 116)** (4)
Prerequisite: Modern Dance I or Modern Dance II, Drama 143a or Drama 144, or consent of instructor.
Lecture 1 hour
Laboratory 9 hours
 Dance production for public performance; theory and practice in choreography, performance styles, and dance rehearsal combined with theatrical structure, non-verbal dramatic techniques, and technical staging designed for concert presentation.
(Credit for this course will be awarded for either Drama 116 or Physical Education 116 but not both. May be repeated a maximum of three times.)

- 117. Choreography and Composition** (4)
(See also P.E. 117)
Prerequisite: Previous or concurrent enrollment in Modern Dance I or Modern Dance II or Ballet I or Jazz I or Drama 116 or Physical Education 116.
Lecture 3 hours
Laboratory 3 hours
 Exploration of choreography fundamentals through a problem solving approach. Studies deal with aspects of time, space, dynamics, and design in movement with emphasis on extending communication skills of the body. Offered only once a year and not offered the same quarter as Drama/P.E. 116.
(Credit for this course will be awarded for either Drama 117 or P.E. 117, but not both.)
- 119. Dance Touring Company (See also P.E. 119)** (3)
Prerequisite: Drama 116 or Physical Education 116, or consent of instructor.
Lecture 1 hour
Laboratory 6 hours
 Dance performance company offering a variety of dances in styles ranging from modern, jazz and ballet to character and comedy, which will tour the Mother Lode Area performing for schools and community organizations. Dance workshops will be offered at selected sites.
(Credit for this course will be awarded for either Drama 119 or Physical Education 119, but not both.)
- 120. Fencing (See also P.E. 120)** (1)
Activity 2 hours
 Introduction to foil fencing. Instruction in basic skills and rules of the sport.
(Credit for this course will be awarded for either Drama 120 or P.E. 120 but not both. May not be repeated.)
- 122. Introduction to Readers' Theatre** (4)
(See also Speech 122)
Lecture 3 hours
Laboratory 3 hours
 Theory and practice of Readers' Theatre as an art form. Directed experiences in selecting, cutting, arranging and performing the Readers' Theatre script.
(Credit for this course will be awarded for either Drama 122 or Speech 122 but not both. May not be repeated.)
Field trips will be required.
- 133abc. Dramatic Literature** (4) (4) (4)
(See also English 133abc)
- (a) *Greek to Renaissance*
Lecture 4 hours
 An investigation into the history and development of the theatre, its significant figures and selected plays from the Greeks through Renaissance, 500 B.C. - 1550 A.D.

133abc. (continued)

- (b) *Shakespeare to 19th Century*
Lecture 4 hours

A study in-depth of the historical and literary development of the theatre from Shakespeare through the 19th Century with focus upon selected plays, significant theatrical figures, the physical theatre and the social and philosophical contexts.

- (c) *Contemporary*
Lecture 4 hours

An in-depth study of historical and literary development of the theatre in the 20th century with focus upon selected plays, significant theatrical figures, the physical theatre and the social and philosophical contexts.

(Credit will be awarded for either Drama 133a or English 133a, Drama 133b or English 133b and Drama 133c or English 133c but not both. May not be repeated.)

- 136. Playwriting (See also English 136) (5)**
Lecture 5 hours

Theory and practice of writing for the theatre; analysis of relevant literature and productions; investigation of dramatic methods appropriate to the playwright.

May be repeated.

- 143abc. Acting (4) (4) (1.5)**

- (a) *Fundamentals*
Lecture 3 hours
Laboratory 3 hours

Investigation of techniques and theories prerequisite to theatrical performances; psychological, philosophical, and practical preparation for the actor's art.

- (b) *Acting-Directing*
Prerequisite: Drama 143a or consent of instructor.
Lecture 3 hours
Laboratory 3 hours

A workshop in techniques of both acting and directing with specific focus upon the production of short scenes from a variety of theatrical genre.

- (c) *Advanced Projects*
Prerequisite: Drama 143b or consent of instructor.
Laboratory 3 hours equals 1 unit of credit.
Lecture 3 hours, laboratory 3 hours equals 4 units of credit.
Lecture 3 hours, laboratory 6 hours equals 5 units of credit.

Advanced workshop activity for production of one-act plays, segments of longer plays or full length plays whose technical requirements are minimal; intensive workshop concentration designed for public performances in the areas of improvisation or mime.

May be repeated.

- 144. Mime (4)**
Lecture 3 hours
Laboratory 3 hours

Techniques of mime, pantomime, silent acting, and "the clown", concentration on classical mime illusions, elements of mime conditioning, movement, coordination, juggling exercises, and their incorporation into theatrical presentations.

- 145. Improvisation (4)**
Lecture 3 hours
Laboratory 3 hours

Intensive study of the basic techniques of improvisational acting with specific concentration on improvisational theatre production formats as well as development of group inspired and created scenarios and one-act plays.

- 147. Auditions (3)**
Lecture 2 hours
Activity 2 hours

Theory, techniques, and practice in auditioning for performance, development of audition materials, practical audition experience.

- 152. Media Technology (See also Media Tech. 152) (5)**
Lecture 5 hours

A technical survey of television production, audio production, theatre lighting and related electronics; designed to prepare student technicians for practical application.

(Credit for this course will be awarded for either Drama 152 or Media Technology 152 but not both. May not be repeated.)

- 155. Survey of Technical Theatre (See also Art 155) (3)**
Lecture 3 hours

An overview of the basic techniques, materials and concepts of design and construction related to physical theatre production. Survey of costume, make-up, stagecraft, properties, lighting and sound.

(Credit for this course will be awarded for either Drama 155 or Art 155 but not both. May not be repeated.)

- 156. Technical Theatre Laboratory (See also Art 156) (1-3)**
Prerequisite: Drama 155 or Art 155 or consent of instructor.
Laboratory 3-9 hours

Applied laboratory experience in all phases of technical theatre related to mounting a production; practical projects in design and construction involving costumes, stage settings, stage properties, lighting, sound, and make-up for a specific theatre production.

(Credit for this course will be awarded for either Drama 156 or Art 156 but not both. May be repeated.)

DRAMA

- 157. Theatre Touring Company** (5)
Prerequisite: Audition.
Lecture 2 hours
Laboratory 9 hours
 A production company offering a variety of theatrical expressions ranging from a full length play to improvisations, mime and puppetry for touring performances to schools and community organizations in the Mother Lode area.
(May be repeated.)
- 158. Theatre Production** (5)
Lecture 1 hour
Laboratory 12 hours
 Directed activities in acting and technical theatre with participation in public performances and related production activities.
(May be repeated.)
- 160. Children's Theatre-Creative Dramatics** (5)
Lecture 5 hours
 An investigation into the literature and techniques of children's theatre, including appropriate plays, theatre games, pantomime, improvisation, story-telling, play production, children's puppetry, creative crafts, and simplified technical production skills; methods and concepts of creative dramatics in communication, problem-solving, and presentational activities for and with children; supervised practical field experience involving local elementary school children.
- 161. Applied Drama Workshop** (1)
Lecture 1 hour
 A practical workshop in theatre arts appropriate to the elementary school; varying emphases on techniques in puppetry, mime, improvisation, theatre games, creative dramatics, and simplified production for the elementary classroom.
- 162. Applied Drama Laboratory** (1)
Prerequisite: Drama 160 or Drama 161 or consent of instructor.
Laboratory 3 hours
 Supervised drama activities and projects conducted in the elementary school.
(May be repeated four times.)
- 163ab. Puppetry (See also Art 163ab)** (4) (4)
 (a) *Lecture 3 hours*
Laboratory 3 hours
 The design and construction of puppets and puppet theatres; techniques in manipulation and puppet play production; the survey and adaptation of appropriate literature for the puppet stage; rehearsal and performance experience in creative puppetry.

DRAMA/EARTH SCIENCE

- 163ab. (continued)**
 (b) *Prerequisite: Drama 163a or consent of instructor.*
Lecture 3 hours
Laboratory 3 hours
 Rehearsal and performance of puppet theatre productions; advanced techniques in design, construction, manipulations, direction and performance of puppet theatre; survey and adaptation of literature appropriate to the puppet stage.
(Credit for this course will be granted in either Drama 163ab or Art 163ab but not both. May not be repeated.)
- 165. Theatre Production: Music Emphasis** (1-3)
(See also Music 165)
Prerequisite: Audition.
Laboratory 3-9 hours
 Directed activities in theatre production for public performance with a concentration in vocal or instrumental music.
(Credit will be awarded for either Drama 165 or Music 165 but not both. May be repeated for credit.)

EARTH SCIENCE

- 59. Geology of the Mother Lode** (3)
Prerequisite: High School Earth Science course or equivalent or consent of instructor.
Lecture 3 hours
 A synoptic view of the geologic history of the Sierra Nevada.
- 63. Mother Lode Skies** (.5)
Lecture .5 hours
 Viewing and understanding the night sky in the latitude of the Mother Lode identifying constellations, determining sunrise and sunset; using star charts; observing celestial objects with telescopes.
May be repeated.
- 101. Survey of Geology** (2)
Lecture 3 hours
Laboratory 3 hours
 A brief survey of the principles and processes of geology, including an introduction to volcanoes, earthquakes, glaciers, the motion of continental plates, and the methods of identifying rocks.
- 110. Introduction to Physical Geology** (1)
Lecture 1 hour
 The role of energy and matter in the geologic process, rocks and minerals, the contents of the universe, the earth as an astronomical body, and the chemical principles needed for the study of rocks and minerals.

EARTH SCIENCE

Completion of the sequence Earth Science 111, 112, 113 is equivalent to the course "Physical Geology" and meets the Physical Science General Education Breadth Requirement.

111. Rocks and Minerals (2)

Prerequisite: Previous or concurrent enrollment in E.S. 110 recommended.

Lecture 1 hour

Laboratory 3 hours

Composition, structure, formation, and identification of crystals and minerals as well as igneous, sedimentary and metamorphic rocks.

112. Erosion — Water, Wind and Ice (1)

Lecture 1 hour

The shaping of land by water, wind and ice — erosional and depositional features.

113. Mountains and Earthquakes (1)

Lecture 1 hour

The earth's interior, types of mountains, earthquakes, introduction to global tectonics.

125. Geology of the National Parks (4)

Lecture 4 hours

Interpretation of the geologic features of our national parks and monuments with an introduction to the geologic processes responsible for their formation. Students may choose a particular park for their in-depth study.

Field trips may be required.

133. Global Tectonic Geology (4)

Lecture 4 hours

An introduction to the new global geology and how it has revolutionized man's understanding of the way the earth works. For all who wish to learn about the earth's wandering continents and spreading sea floors; what causes rising mountain ranges, volcanoes, and earthquakes.

139. Field Geology (1-3)

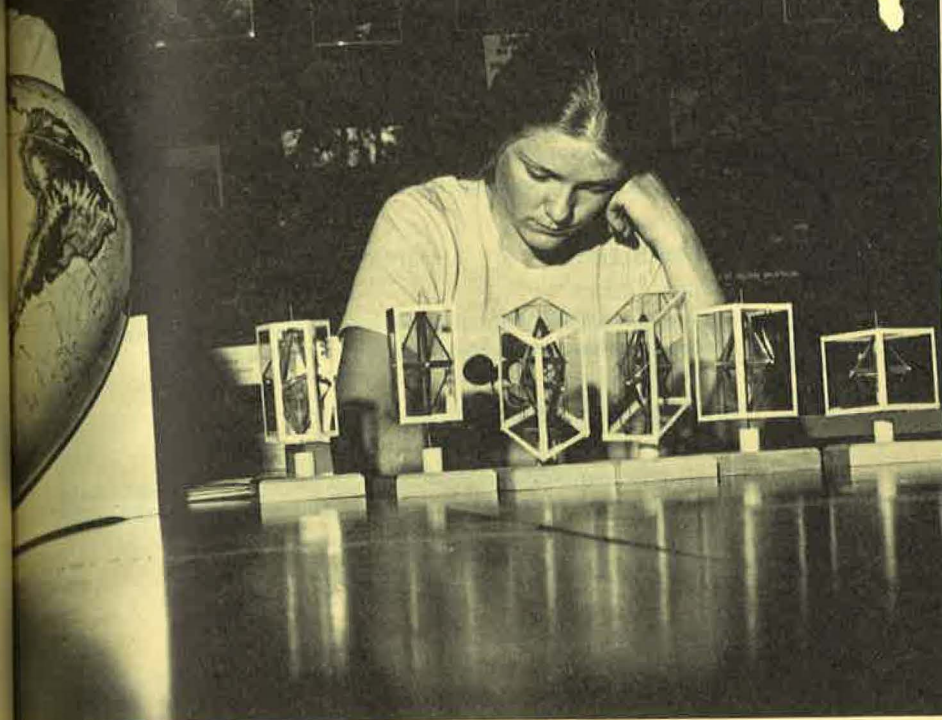
Prerequisite: A previous course in Earth Science is desirable.

Lecture .5-1.5 hours

Laboratory 1.5-4.5 hours

A field study of selected geologic features and related Earth Science topics. A one to seven day field trip will be taken with pre and post-classroom sessions.

(May be repeated for a maximum of 6 units of credit with consent of instructor.)



141. Survey of Astronomy (2)

Lecture 3 hours

Laboratory 3 hours

A brief survey of the principles of astronomy with emphasis on selected astronomical methods.

142. Descriptive Astronomy (3)

Lecture 3 hours

A non-mathematical survey course in astronomy for non-science majors. Topics include history of astronomy, telescopes, solar system, stars, galaxies, origin of universe, and extra-terrestrial life.

144. General Astronomy (4)

Prerequisite: A high school science and Mathematics 55 or consent of instructor.

Lecture 3 hours

Laboratory 3 hours

History of astronomy, modern astronomy, tools of astronomy, the solar system and its relationship to the galaxies, properties and evolution of stars.

Field trips may be required.

EARTH SCIENCE/ECONOMICS

- 149. Observational Astronomy (2)**
Prerequisite: Previous or concurrent enrollment in Earth Science 144 or consent of instructor.
Lecture 2 hours
 Development of observatory skills such as setting up and using telescopes; learning astrophotographic procedures; determining sunrise, sunset and sidereal time; and learning constellations.
Field trips may be required.
- 150. Space Science (4)**
Lecture 4 hours
 History and development of space technology. Basic understanding of the problems of man in space.
- 155. Intelligent Extraterrestrial Life (4)**
Lecture 4 hours
 A scientific and factual analysis of the possibility of intelligent life in outer space and the possibility of finding such life in time and space.
- 161. Survey of Meteorology (2)**
Lecture 3 hours
Laboratory 3 hours
 A brief survey of the principles of meteorology and their effect on modern society.
- 171. Survey of Oceanography (2)**
Lecture 3 hours
Laboratory 3 hours
 A brief survey of the principles of oceanography and their effect on modern society.

Note: Completion of any two of the courses Earth Science 101, 141, 161, and 171 or all three of the courses Earth Science 111, 112, and 113 will fulfill General Education Breadth Requirements of a laboratory science.

ECONOMICS

- 55. Understanding the American Economy (3)**
Lecture 3 hours
 Introduction to macro-economic principles with an emphasis on U.S. economic policies and institutions. Topics are gross national product, recession, inflation, fiscal policy, money and the Federal Reserve System, monetary policy, wage and price controls, balance of payment policies.

ECONOMICS/ENGLISH

- 101ab. Principles of Economics (5) (5)**
Lecture 5 hours
 (a) Macro-economics. Introduction to the U.S. economy, capitalism, and socialism. National income and employment analysis, economic fluctuations, monetary and fiscal policy.
 (b) *Lecture 5 hours*
 Micro-economics. The corporation, analysis of costs, theory of production, pricing factor inputs including wages, rent, and industry.
- 105. Topics in Economics (3)**
Lecture 3 hours
 Topics of current interest to economics such as international economics and imperialism, pollution, and environment economics, developing countries, land use, and poverty problems.
- 107. Consumer Economics (3)**
(See also Business Administration 107)
Lecture 3 hours
 Values and attitudes which result in "conspicuous consumption" habits. Emphasis will be placed on family financial planning, buying, borrowing, investing, and investment protection.
(Credit for this course will be awarded for either Economics 107 or Business Administration 107 but not both. May not be repeated.)
- 125. Money and Banking (4)**
(See also Banking and Finance 125)
Lecture 4 hours
 An introduction to and evaluation of banks and banking systems, price movements, international payments, and monetary theory and policies.
(Credit for this course will be awarded for either Economics 125 or Banking and Finance 125 but not both. May not be repeated.)

ENGLISH

- 51. College Composition (4)**
Lecture 4 hours
 or
Lecture 3 hours
Laboratory 3 hours
 Training in basic composition skills, reading, interpretation, and discussion of college-level materials. Basic mechanics, sentence structure, paragraph development, essay and report organization.

- 65. Business English (See also Off. Oc. 65) (3)**
Lecture 3 hours
 The mechanics of English as applied to the field of business, including skills of written communication, sentence structure, punctuation, spelling and use of the dictionary.
(Credit for this course will be awarded for either English 65 or Office Occupations 65 but not both. May not be repeated.)
- 70. Report Writing (See also Office Oc. 70) (3)**
Lecture 3 hours
 Study and practice of the skills necessary to write intelligent reports.
(Credit for this course will be awarded for either English 70 or Office Occupations 70, but not both. May not be repeated.)
- 75. Writing Laboratory (.5-1)**
Laboratory 1.5-3 hours
 Individualized instructional materials and tutoring in the basic fundamentals of writing.
May be repeated for credit.
- 101ab. Reading and Composition (5) (5)**
- (a) *Beginning*
Lecture 5 hours
 or
Lecture 4 hours
Laboratory 3 hours
 Development of reading and composition skills with emphases on applying techniques of logic in interpreting and writing the expository essay and reading and interpretation of the short story.
- (b) *Advanced*
Prerequisite: English 101a.
Lecture 5 hours
 Further development of reading and composition skills with an emphasis on reading and interpreting one novel with secondary sources, poetry, and drama, with the composition of a longer, documented paper.
- 110. Creative Writing (5)**
Prerequisite: English 101a, English 51, or consent of instructor.
Lecture 5 hours
 Instruction and practice in writing poetry, fiction, and drama. Analysis of contemporary works with respect to literary techniques.
May be repeated one time.
Field trips may be required.
- 111. Film Appreciation (4)**
Lecture 4 hours
 Development of sensitivity and critical judgment in audience response to film.
Field trips may be required.

- 117abc. Literature of the United States (4) (4) (4)**
- (a) *Prerequisite: English 51 or English 101a.*
Lecture 4 hours
 A study of the literature of the United States from the beginning of the English colonization to the work of Hawthorne, Poe, and Melville. Reading, analysis, and discussion of the major literary trends and authors of the time.
- (b) *Prerequisite: English 51 or English 101a.*
Lecture 4 hours
 A study of the literature of the United States from the Transcendentalists until the beginning of the 20th Century. Writers to be studied include Emerson, Thoreau, Whitman, Dickinson, Longfellow, Twain, Bret Harte, Steven Crane.
- (c) *Prerequisite: English 51 or English 101a.*
Lecture 4 hours
 A study of the literature of the United States from 1900 to the present. Focus will be upon reading poetry and fiction by authors whose works exemplify contemporary literary trends.
- 133abc. Dramatic Literature (See also Drama 133abc) (4) (4) (4)**
- (a) *Greek to Renaissance*
Lecture 4 hours
 An investigation into the history and development of the theatre, its significant figures and selected plays from the Greeks through Renaissance, 500 B.C. - 1550 A.D.
- (b) *Shakespeare to 19th Century*
Lecture 4 hours
 A study in-depth of the historical and literary development of the theatre from Shakespeare through the 19th century with focus upon selected plays, significant theatrical figures, the physical theatre and the social and philosophical contexts.
- (c) *Contemporary*
Lecture 4 hours
 An in-depth study of historical and literary development of the theatre in the 20th century with focus upon selected plays, significant theatrical figures, the physical theatre and the social and philosophical contexts.
(Credit will be awarded for either English 133a or Drama 133a, English 133b or Drama 133b, English 133c or Drama 133c but not both. May not be repeated.)
- 136. Playwriting (See also Drama 136) (5)**
Lecture 5 hours
 Theory and practice of writing for the theatre; analysis of relevant literature and productions; investigation of dramatic methods appropriate to the playwright.
May be repeated.

ENGLISH/FIRE SCIENCE

146abc. Survey of English Literature

(4) (4) (4)

(a) *Prerequisite: English 51 or English 101a or consent of instructor.*
Lecture 4 hours

English literature from the Anglo-Saxons through the 18th century.

(b) *Prerequisite: English 51 or English 101a or consent of instructor.*
Lecture 4 hours

English literature of the 19th century.

(c) *Prerequisite: English 51 or English 101a or consent of instructor.*
Lecture 4 hours

English literature of the 20th century.

149. California Literature

(5)

Prerequisite: English 51 or English 101a or consent of instructor.
Lecture 5 hours

A chronological survey of California literature in the 19th and 20th centuries with emphasis on selected works of major American authors living and writing in California.

150. Introduction to Shakespeare

(4)

Prerequisite: English 101a.

Lecture 4 hours

An introduction to the representative works by Shakespeare including the characteristics of the different genres — comedy, history, and tragedy, and a study of a number of sonnets. In addition, students will study the literary, social, and historical backgrounds of Shakespeare's time as they affect the meaning of the works studied.

FIRE SCIENCE

See Page 48 for Certificate Requirements

55ab. Volunteer Firefighter Training

(2) (2)

(a) *Lecture 2 hours*

Laboratory 1 hour

(b) *Prerequisite: Fire Science 55a.*

Lecture 2 hours

Laboratory 1 hour

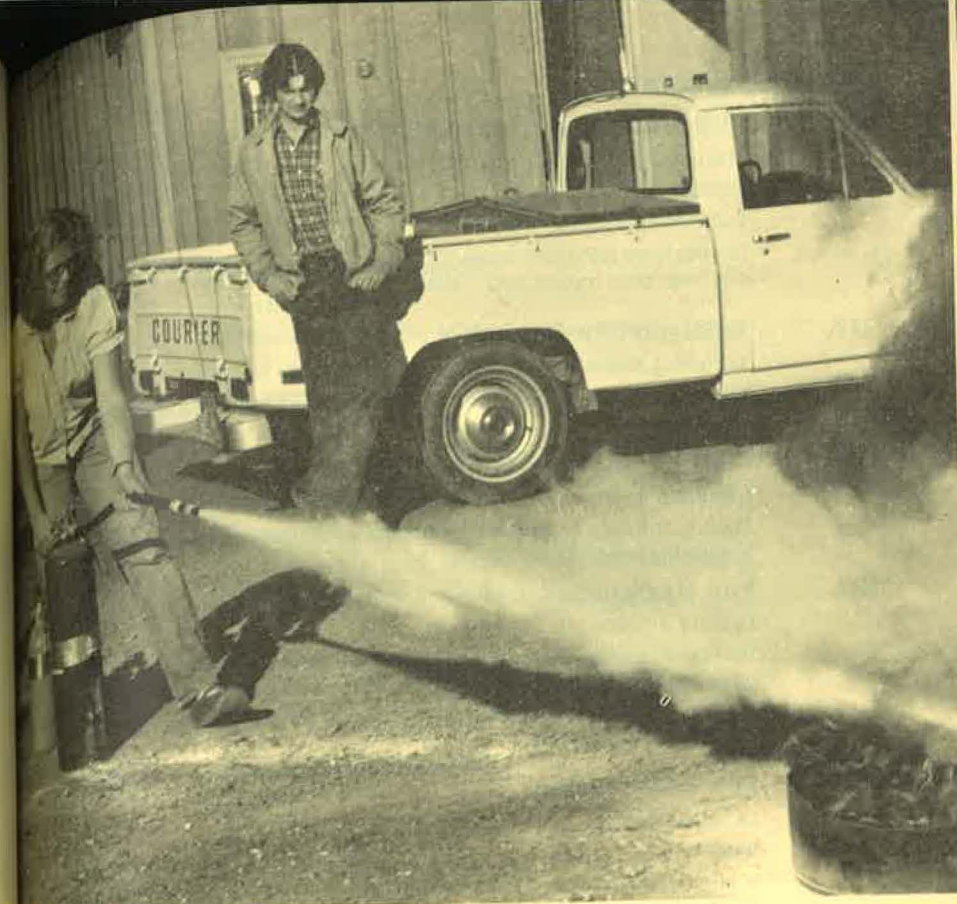
Basic concepts, techniques, skills and theories for volunteer firefighters.

101. Introduction to Fire Suppression

(3)

Lecture 3 hours

Fire suppression organization; equipment; characteristics and behavior of fire; fire hazards; properties of combustible materials; building design and construction; extinguishing agents; basic fire fighting tactics; public education.



105ab. Fundamentals of Fire Prevention

(3) (3)

(a) *Lecture 3 hours*

(b) *Prerequisite: Fire Science 105a or consent of instructor.*

Lecture 3 hours

Fire prevention organizations; inspections; surveying and mapping; recognition of fire hazards; engineering a solution of the hazard; enforcement of solution.

108. Fire Fighting Strategy and Tactics

(3)

Prerequisite: Fire Science 101.

Lecture 3 hours

Fire chemistry; equipment and manpower; fire fighting tactics and strategy; pre-planning fire problems.

111. Hazardous Materials

(3)

Prerequisite: Fire Science 101.

Lecture 3 hours

Flammable liquids, water reactive chemicals, oxidizers, acids, flammable solids, and flammable gases. Flammable metals, plastics, explosives, fuels, radiation hazards, and insecticides.

- 114. Fire Apparatus and Equipment (3)**
Prerequisite: Fire Science 101.
Lecture 2 hours
Laboratory 3 hours
 Driving laws and techniques. Construction and operation of pumping engines, tank trucks, and trailers.
- 117. Wildland Fire Control (3)**
Lecture 3 hours
 Factors affecting wildland fire prevention, fire behavior, and control techniques.
- 120. Heavy Equipment in Fire Control (3)**
Lecture 3 hours
 Theory of heavy equipment used by a coordinated fire control team in fighting range fires.
- 123. Fire Hydraulics (3)**
Lecture 3 hours
 Review of basic mathematics, hydraulic laws and formulas as applied to the fire service; application of formulas and mental calculation to hydraulic problems; water supply problems; underwriters' requirements for pumps.
- 127. Fire Investigation (3)**
Lecture 3 hours
 Determining causes and types of fires; possible evidence at the scene; interviewing witnesses and suspects; arrest, detention, and court procedures; and giving court testimony.
(Students may not receive credit for both Fire Science 127 and Law Enforcement 140.)
- 130. Fire Protection Equipment and Systems (3)**
Prerequisite: Fire Science 101.
Lecture 3 hours
 Portable fire extinguishing equipment, sprinkler systems, protection systems for special hazards, fire alarm and detection systems.
- 133. Related Codes and Ordinances (3)**
Prerequisite: Fire Science 101.
Lecture 3 hours
 National, state and local laws and ordinances which influence the field of fire prevention.
- 145. Fire Vehicle Maintenance (3)**
Prerequisite: Fire Science 101 or consent of instructor.
Lecture 3 hours
 Fundamentals of all vehicle structure. Basic construction of the vehicles, including the main powering systems (fire pumps excluded) and techniques of maintenance.

FOREIGN LANGUAGE

- French (1)**
- 50. Conversational French (1)**
Laboratory 3 hours
 Practice in vocabulary, idioms and grammatic usage.
May be repeated for a maximum of 6 units.
- Italian (1)**
- 50. Conversational Italian (1)**
Laboratory 3 hours
 Practice in vocabulary, idioms and grammatic usage.
May be repeated for a maximum of 6 units.
- Spanish (3-4) (3-4) (3-4)**
- 100abc. Conversational Spanish (3-4) (3-4) (3-4)**
- (a) *Beginning*
Lecture 3 hours
Laboratory 3 hours
 or
Lecture 3 hours
May be repeated one time.
- (b) *Intermediate*
Prerequisite: Spanish 100a or consent of instructor.
Lecture 3 hours
Laboratory 3 hours
 or
Lecture 3 hours
May be repeated one time.
- (c) *Advanced*
Prerequisite: Spanish 100b or consent of instructor.
Lecture 3 hours
Laboratory 3 hours
 or
Lecture 3 hours
 Practice in vocabulary, idloms, and grammatic usage with emphasis
 In conversational use of the language as spoken in Mexico.
May be repeated one time.

FORESTRY

- 101. Introduction to Forestry (4)**
Lecture 3 hours
Laboratory 3 hours
 History of the forest industry, survey of forest resources, forestry management and utilization techniques, career opportunities, legislation, and forest practices.
Field trips may be required.
- 105. Forest Surveying (5)**
Prerequisite: Math 102 recommended.
Lecture 3 hours
Laboratory 6 hours
 Utilization of basic forest surveying instruments and equipment. Techniques of collecting, recording, plotting, and drafting field data.
Field trips may be required.
- 110. Dendrology (4)**
Prerequisite: Biology 120 or 121 recommended.
Lecture 3 hours
Laboratory 3 hours
 Characteristics, identification, and range of native trees and shrubs of the Western United States; emphasis on plants of economic importance to forest practices in California.
Field trips may be required.



FORESTRY TECHNOLOGY

See Page 48 for Certificate Requirements

- 50. Introduction to Technical Forestry (4)**
Lecture 3 hours
Laboratory 3 hours
 Nature and scope of the forest technician's work; knowledge and skills for employment; employment opportunities. Survey of forest resources, history of forestry, forest utilization, and applied forest management.
Field trips may be required.
- 51. Introduction to Forest Instruments (2)**
Lecture 1 hour
Laboratory 3 hours
 Installation, use and recording of data and take-down of various forest instruments; transportation, storage, care and basic maintenance.
- 53. Forest Surveying Techniques (3)**
Prerequisite: Forestry Technology 51.
Lecture 2 hours
Laboratory 3 hours
 Basic forest surveying instruments. Application of hand and staff compass, topographic and engineer's chain, abney and dumpy level, pocket altimeter, and engineer's transit.
Field trips may be required.
- 56. Tree and Plant Identification (3)**
Lecture 2 hours
Laboratory 3 hours
 Classification and identification of major western United States timber species with emphasis on local and California plant cover. Description of physical, economic and silvicultural characteristics of these trees as related to forest management and utilization.
Field trips may be required.
- 59. Forest Inventory (5)**
Prerequisite: Forestry Technology 53.
Lecture 3 hours
Laboratory 6 hours
 Forest inventory techniques; applied timber cruising, scaling, and marketing. Field tabulation and computation techniques.
Field trips may be required.

FORESTRY TECHNOLOGY/GEOGRAPHY/GUIDANCE

62. **Applied Forest Management** (5)
Prerequisite: Forestry Technology 56. Forestry Technology 59 and Natural Resources Technology 60 recommended.
Lecture 2 hours
Laboratory 9 hours
Locate and inventory a given forest property in the field; develop property boundaries; inventory timber and other natural resources. Design topographic and timber type map and road system for property.

70. **Logging Equipment** (3)
Lecture 2 hours
Laboratory 3 hours
Use of heavy equipment in the lumbering industry and land clearing. Safety training and accident prevention; fire laws and equipment.

GEOGRAPHY

102. **Introduction to Cultural Geography** (5)
Lecture 5 hours
The study of humankind's relationship with the earth's environment. An inter-disciplinary approach will be emphasized. The techniques and resources of the cultural and political geography, anthropology, environmental science, history, and sociology will be utilized.

105. **Physical Geography** (5)
Lecture 5 hours
An introduction to the distribution over the earth of selected aspects of climate, plant and animal life, soils and landforms, and the processes and conditions giving rise to these distributions. Attention to map construction, interpretation and use in comparative analysis.
Field trips may be required.

GUIDANCE

101. **Career Exploration** (3)
Lecture 3 hours
Designed to clarify thinking regarding the selection of and preparation for a career. Personal assessment of interests, aptitudes and values (includes use of selected interest and aptitude inventories); relationship between education and occupations; occupational trends; and development of skills in resume writing and interviewing. Offered for CR/NC only.
107. **Search for Self (See also Psychology 107)** (2)
Lecture 2 hours
An Inquiry into "What does it mean to be me?"
Field trips may be required.
(Credit for this course will be awarded for either Guidance 107 or Psychology 107 but not both. May be repeated one time.)

GUIDANCE/HEALTH EDUCATION

120. **Interpersonal Growth (See also Psychology 120)** (2)
Lecture 2 hours
Small group experience affording the opportunity to share opinions and feelings.
Field trips may be required.
(Credit for this course will be awarded for either Guidance 120 or Psychology 120 but not both.)
May be repeated one time for credit.
122. **Assertive Behavior (See also Psychology 122)** (2)
Lecture 2 hours
Exploring responsible independence.
Field trips may be required.
(Credit for this course will be awarded for either Guidance 122 or Psychology 122 but not both.)
May be repeated one time for credit.

HEALTH EDUCATION

101. **Health and Fitness Education** (4)
Lecture 4 hours
Personal and community health: an understanding of contemporary health issues and problems with an emphasis on personal fitness and adjustment. An informative material survey contributing to a person's physical, mental, and social well being.
105. **Consumer Health** (3)
Prerequisite: Health 101 recommended.
Lecture 3 hours
A survey of health fads, frauds, and fallacies most frequently encountered by today's health consumer in the marketplace; emphasis on developing individual awareness of questionable advertising and outright quackery.
110. **Safety and First Aid Education** (3)
Lecture 3 hours
Causes and prevention of accidents. Covers Red Cross Standard First Aid with certificate available upon satisfactory completion of course.
May be repeated.
113. **Advanced First Aid and Emergency Care** (5)
Lecture 5 hours
To develop functional capabilities of individuals who as a part of everyday experiences may be required to provide emergency first aid care prior to care by qualified medical personnel.
May be repeated.

HEALTH EDUCATION/HEALTH OCCUPATIONS

115. **Advanced First Aid and Emergency Care Refresher** (2)
Prerequisite: A valid certificate in advanced first aid.
Lecture 2 hours
A review of emergency first aid care. Upon the successful completion of the course, a certificate is issued for Advanced First Aid and Emergency Care.
120. **Nutrition (See also Hosp. Mgmt. 132)** (4)
Lecture 4 hours
Introductory study of energy, protein, mineral, and vitamin requirements of the body in relation to growth, maintenance, and reproduction; factors influencing normal metabolism; construction of the adequate diet.
(Credit for this course will be awarded for either Health Education 120 or Hospitality Management 132, but not both. May not be repeated.)
- ### HEALTH OCCUPATIONS
60. **Coping With Stress** (1)
Lecture 1 hour
Laboratory .5 hour
The nature of stress and the coping strategies that can lead to effective stress management and self regulation; combined with relaxation exercises, visualizing techniques, and demonstrations.
103. **Emergency Medical Technician Training** (8)
Prerequisite: Completion of a standard first aid course within the last four years or consent of instructor.
Lecture 8 hours
An intensive course to assist the student in developing skill in recognition of illness and injuries and proper procedures in administering emergency care.
- 105ab. **Home Health Aide** (4) (4)
(a) *Lecture 3 hours*
Laboratory 3 hours
An orientation to local health facility procedures. Basic patient care. Introduction to personal hygiene, body systems, illness and nutrition.
(b) *Prerequisite: Health Occupations 105a.*
Lecture 3 hours
Laboratory 3 hours
Post hospital patient care using prescribed exercises, assisting with self administered medications, and performing household services essential to patients' care in the home.
Field trips may be required.

HEALTH OCCUPATIONS/VOCATIONAL NURSING

107. **Emergency Medical Technician Refresher** (2)
Prerequisite: E.M.T. Certificate
Lecture 2 hours
Laboratory 1/2 hour
Update of the existing E.M.T. certificates which are expiring.

VOCATIONAL NURSING

See Page 56 for Certificate Requirements

The Vocational Nursing Program is accredited by the California Vocational Nurse and Psychiatric Technician Examiners. Students who successfully complete all courses with a grade of "C" or better are eligible to take a state examination leading to licensure as a vocational nurse.

Eligibility requirements for admission are established by the California State Board of Vocational Nursing and by the affirmative action guidelines of the college. A variety of screening and testing techniques are used culminating with a personal interview. A part of the screening process will be the findings of a required physical examination. All applicants must file two applications: one to the college for admission and one to the program specifically. Students interested in applying should contact the Admission and Records office for further information.

Vocational Nursing courses are intended for health oriented professional students. They may not be used for continuing education credit required for renewal of licensure by registered or licensed vocational nurses. Students may be admitted to certain courses provided they have met the prerequisite either by enrollment in the current LVN class, transfer from another vocational nursing program, as a refresher course, or by consent of the instructor.

110. **Introduction to Vocational Nursing** (5)
Prerequisite: Current enrollment in Vocational Nursing Program.
Lecture 5 hours
An introduction to the Licensed Vocational Nurses' role in the allied health field including law, professional ethics, hospital routine, calculation of dosages and maternity nursing.
- 113ab. **Anatomy and Physiology for Voc. Nurses** (5) (5)
Prerequisite: Current enrollment in Vocational Nursing Program or consent of instructor.
(a) *Lecture 5 hours*
A study of the human body with emphasis on the individual systems and their function.
(b) *Prerequisite: Health Occupations 113a.*
Lecture 5 hours
A continuation of Health Occupations 113a including study of food metabolism and energy requirements.
115. **Maternity Nursing** (3)
Prerequisite: Health Occupations 110 or consent of instructor.
Lecture 3 hours
Knowledge of the signs, symptoms and care of the obstetrical patient.

VOCATIONAL NURSING

- 118. Pharmacology for Vocational Nurses** (2)
Prerequisite: Health Occupations 110 or consent of instructor.
Lecture 2 hours
Drug sources, standards, and dosages. Basic procedures for administering drugs.
- 120ab. Effects of Medication on Body Systems** (2) (2)
(a) *Prerequisite: Satisfactory completion of Health Occupations 118 or consent of instructor.*
Lecture 2 hours
Medications used to alleviate patient discomfort. Medications used for the treatment of common symptoms of allergy, neoplastic, circulatory, and respiratory diseases.
- (b) *Prerequisite: Health Occupations 120a.*
Lecture 2 hours
Medications used in the treatment of diseases of the gastrointestinal system, diseases with an endocrine disorder, and diseases of the specialized systems.
- 123. Pediatrics** (3)
Prerequisite: Health Occupations 115 or consent of instructor.
Lecture 3 hours
The child's growth, development and care. Diseases of children and their treatment.
- 125ab. Medical-Surgical Nursing** (5) (5)
(a) *Prerequisite: Health Occupations 113ab or consent of instructor.*
Lecture 5 hours
A study of abnormalities and diseases and an introduction to the care of the surgical patient.
- (b) *Prerequisite: Health Occupations 125a.*
Lecture 5 hours
A continuation of Health Occupations 125a with emphasis on care and treatment of the medical patient.
- 128. Community Health** (3)
Prerequisite: Health Occupations 110 or consent of instructor.
Lecture 3 hours
Disease control and prevention, mental health and first aid, the community services available in prevention of disease and promotion of good health.
- 140abcd. Clinic** (8) (8) (8) (8)
Prerequisite: Current enrollment in Vocational Nursing Program.
Laboratory 25 hours
Practical clinical experience in a hospital; to include hospital routine, departments, and patient care.

HEAVY EQUIPMENT AND TRUCK REPAIR

HEAVY EQUIPMENT AND TRUCK REPAIR

See Page 49 for Certificate Requirements

- 50. Bus Driver Training** (2)
Prerequisite: Possession of a valid California drivers license.
Lecture 2 hours
The driver's responsibility for pupils, care and operation of a school bus, and laws relating to pupil transportation.
- 52. Recreational Vehicle Engine Repair** (2)
Lecture 1 hour
Laboratory 3 hours
Maintenance and repair of all terrain vehicles, trail bikes, vans, snowmobiles, motorcycles and boat engines.
- 101. Introduction to Heavy Equipment** (3)
Lecture 3 hours
The use of on-road and off-road equipment in transportation and construction. Safety and accident prevention, fundamentals of math, fasteners. Use of hoisting and lifting equipment and devices and shop safety. Students may be requested to arrange a basic skills class including math and reading with the Learning Skills Center.
- 102. Preventive Maintenance (Tractors)** (2)
Lecture 1 hour
Laboratory 3 hours
Principles of basic preventive maintenance. Lubricants, filters, and air systems, as well as basic lubrication processes are stressed.
- 103. Heavy Equipment Apprenticeship** (1)
Prerequisite: Previous or current enrollment in Heavy Equipment 101.
Lecture 1 hour
Historical and legal background, administration of apprenticeship systems, the operating engineer apprenticeship, federal and state laws that provide worker security.
- 104. Preventive Maintenance (Trucks)** (2)
Lecture 1 hour
Laboratory 3 hours
Care and maintenance of trucks. Preventive maintenance schedules, tire repair, lubrication and cooling systems of the engine, air systems maintenance, chassis lubrication, safety inspection and maintenance. Axles and brakes are covered.
- 114. Machine Shop Procedures** (2)
(See also Auto Tech. 114)
Lecture 1 hour
Laboratory 3 hours
Practical experience in head, block service and common machine shop procedures used in repair shops.
(Credit for this course will be awarded for either Heavy Equipment 114 or Automotive Technology 114, but not both. May not be repeated.)

HEAVY EQUIPMENT AND TRUCK REPAIR

115abc. Diesel Engine Rebuilding

- (a) **Caterpillar** (3) (3) (3)
Prerequisite: Heavy Equipment 114.
Lecture 1.5 hours
Laboratory 4.5 hours
Understanding of the principles, construction, and operation of diesel engines. Practical experience in the dismantling, assembly, operation and maintenance of Caterpillar diesel engines.
- (b) **Detroit**
Prerequisite: Heavy Equipment 114.
Lecture 1.5 hours
Laboratory 4.5 hours
Understanding of the principles, construction, and operation of diesel engines. Practical experience in the dismantling, assembly, operation and maintenance of Detroit diesel engines.
- (c) **Cummins**
Prerequisite: Heavy Equipment 114.
Lecture 1.5 hours
Laboratory 4.5 hours
Understanding of the principles, construction, and operation of diesel engines. Practical experience in the dismantling, assembly, operation and maintenance of Cummins diesel engines.

116abc. Diesel Engine Tune-up

- (a) **Caterpillar** (1) (1) (1)
Lecture .5 hour
Laboratory 1.5 hours
Techniques and procedures for tuning a Caterpillar diesel engine.
- (b) **Detroit**
Lecture .5 hour
Laboratory 1.5 hours
Techniques and procedures for tuning a Detroit diesel engine.
- (a) **Cummins**
Lecture .5 hour
Laboratory 1.5 hours
Techniques and procedures for tuning a Cummins diesel engine.

130. Transmissions (3)

Lecture 1.5 hours
Laboratory 4.5 hours

Maintenance and repair procedure of truck clutches and transmissions.

134. Rear Axles and Drive Lines (3)

Lecture 1.5 hours
Laboratory 4.5 hours

Maintenance and repair procedures of rear axles and drive lines, power dividers.



- 136. Tractor Power Trains** (3)
 Lecture 1.5 hours
 Laboratory 4.5 hours
 Repair of clutches, transmission, bevel gears, and cross shafts, steering clutches, and steering brakes as well as clutches and transmission of rubber tire tractors.
- 140. Heavy Duty Brake Systems** (2)
 Lecture 1 hour
 Laboratory 3 hours
 Operation and principles of air brake systems as well as the techniques of diagnosis and service.
- 142. Tractor Undercarriage** (3)
 Lecture 1.5 hours
 Laboratory 4.5 hours
 Maintenance and repair of undercarriage part on crawler tractors such as track frames, rollers, tracks, final drives.
- 144. Steering and Suspension Systems** (3)
 Lecture 1.5 hours
 Laboratory 4.5 hours
 Wheel alignment and adjustments of front axles and steering mechanisms. Rear axles and suspension system maintenance and adjustments are covered.
- 150abcd. Vehicle Electricity** (2) (2) (2) (2)
(See also Auto. Tech. 150abcd.)
- (a) *Electrical Theory*
 Lecture 1 hour
 Laboratory 3 hours
 Fundamentals of electricity that apply to all electrical systems.
- (b) *Charging Systems*
 Prerequisite: Heavy Equipment 150a.
 Lecture 1 hour
 Laboratory 3 hours
 Diagnosis and repair of the battery and charging systems.
- (c) *Starting and Ignition Systems*
 Prerequisite: Heavy Equipment 150a.
 Lecture 1 hour
 Laboratory 3 hours
 Diagnosis and repair of starting systems, magnetos and battery ignitions.

150abcd. (continued)

- (d) *Lighting and Chassis Electrics*
 Prerequisite: Heavy Equipment 150a.
 Lecture 1 hour
 Laboratory 3 hours
 Diagnosis and repair of headlamp, stoplight, turn signals, as well as fuse box, traller wiring, gauges.
 (Credit for this course will be awarded for either Heavy Equipment 150abcd or Automotive Technology 150abcd, but not both. May not be repeated.)

160ab. Electricity (3) (3)

- (a) *DC Electricity*
 Prerequisite: Mathematics 55 or equivalent.
 Lecture 3 hours
 Elementary principles of direct current generation, distribution and utilization in light and power with a special emphasis on power plant production.
- (b) *AC Electricity*
 Prerequisite: Heavy Equipment 160a.
 Lecture 3 hours
 Elementary principles of alternating current generation, distribution and utilization in light and power with a special emphasis on power plant production.

165. Hydraulic Systems (3)

- Lecture 1.5 hours
 Laboratory 4.5 hours
 Understanding the operation and principles of hydraulic systems as well as techniques of diagnosis and service as it applies to the hydraulic mechanic.

170abcd. Practical Laboratory (2) (2) (2) (2)

- (a) Prerequisite: 8 units of shop classes with no more than 2 of the 8 units taken concurrently with Heavy Equipment 170a or consent of instructor.
 Laboratory 6 hours
- (b) Prerequisite: Heavy Equipment 170a.
 Laboratory 6 hours
- (c) Prerequisite: Heavy Equipment 170b.
 Laboratory 6 hours
- (d) Prerequisite: Heavy Equipment 170c.
 Laboratory 6 hours
 Special repair projects are assigned to advanced students with emphasis on speed, accuracy, and work habits.

HISTORY

- 104abc. World Civilization (4) (4) (4)**
 (a) *Lecture 4 hours*
 Rise and decline of civilizations to 500 A.D. Prehistoric cultures, the ancient Near East, the ancient Far East, Greek history and civilization, Roman history and civilization.
- (b) *Lecture 4 hours*
 Development of major civilizations from 500 to 1700 A.D. Rise of medieval Europe, the Byzantine Empire, the Moslem world and Africa; contemporary India, China and Japan; the Renaissance and Reformation periods; the expansion of Europe into the non-Western world to the age of Louis XIV.
- (c) *Lecture 4 hours*
 Development of European, American and non-Western civilizations from 1700 A.D. to the present. Emergence of national states, their struggle for world power, and their impact on the non-western world.
- 111. Asia (4)**
Lecture 4 hours
 Survey of the political and cultural history of India, China, Japan, and Southeast Asia; the response of Asian nations to the impact of the West, and resulting contemporary problems.
- 113. China (4)**
Lecture 4 hours
 Survey of the development of China from its earliest civilization to its major place in the contemporary world.
- 117ab. United States (5) (5)**
 (a) *Lecture 5 hours*
 Survey of United States history from Colonization to Reconstruction. Analysis and interpretation of English Imperialism, Revolution, Nationalism, Political Democracy, slavery, and Civil War.
- (b) *Lecture 5 hours*
 Survey of United States history from Reconstruction to the present. Analysis and interpretation of Industrialism, Progressivism, Internationalism, New Deal, and Contemporary America.
- 121ab. California (3) (3)**
 (a) *Lecture 3 hours*
 Survey of California history from the pre-Columbian period to the transcontinental railroad. Emphasis will be on the native Californians, Spanish-Mexican institutions, Immigration, Conquest, and Gold Rush.
Field trips may be required.
- (b) *Lecture 3 hours*
 Survey of California history from the Gold Rush to the present. Emphasis will be on the mineral wealth, agriculture, transportation, water systems, and Contemporary California.

- 133. Oral History (2)**
Lecture 1 hour
Laboratory 3 hours
 Fundamentals of the tape-recorded interview. Demonstrations and discussions of the interview as a method in historical research and writing.
May be repeated one time.
- 149. The Mother Lode (3)**
Lecture 3 hours
 History and lore of the Mother Lode Country, with particular emphasis on Tuolumne County.
Field trips may be required.
- 155. The American Frontier (4)**
Lecture 4 hours
 Study of successive frontier zones and hostile environments in reshaping imported customs and habits into uniquely "American" characteristics. Emphasis will be on the 19th Century.

HOSPITALITY MANAGEMENT

See Page 50 for Certificate Requirements.

- 101. Introduction to the Hospitality Industry (4)**
Lecture 4 hours
 Survey of the hotel-motel, food services, travel-tourism, club and recreation business. Analysis of the organizational structure of the hospitality industry, including historical development and examination of industry trends. Major emphasis will be placed on career planning and management in the hospitality industry.
Field trips may be required.
- 103. Marketing of Hospitality Services (4)**
Lecture 4 hours
 A study of people, product, package, price, and promotion, and how they interrelate and constitute the ingredients in a marketing program.
Field trips may be required.
- Food Services**
- 130. Food Service Management (3)**
Lecture 3 hours
 Introduction to culinary nomenclature, cost controls, kitchen equipment, planning, management reports, menu planning, food purchasing, nutrition and sanitation.
Field trips may be required.

HOSPITALITY MANAGEMENT

- 131. Dining Room Service (3)**
Prerequisite: Hospitality Management 101 or consent of instructor.
Lecture 1 hour
Laboratory 6 hours
Service techniques, table setting, and etiquette used in all aspects of dining room service. Emphasis on developing the finer points in skill and showmanship.
Field trips may be required.
- 132. Nutrition (See also Health Ed. 120) (4)**
Lecture 4 hours
Introductory study of energy, protein, mineral and vitamin requirements of the body in relation to growth, maintenance, and reproduction; factors influencing normal metabolism; construction of the adequate diet.
(Credit for this course will be awarded for either Hospitality Management 132 or Health Education 120, but not both. May not be repeated.)



HOSPITALITY MANAGEMENT

- 134. Fast Foods (3)**
Prerequisite: Previous or concurrent enrollment in Hospitality Management 130 or consent of instructor.
Lecture 1.5 hours
Laboratory 4.5 hours
Introduction to the fast food style of service; packaging, promotion, design, labor problems, food preparation, storage and control of supplies.
- 135. Commercial Baking (3)**
Prerequisite: Hospitality Management 130 or consent of instructor.
Lecture 1 hour
Laboratory 6 hours
Tools, terms, and functions in preparation of baked goods, cake decorating, and gourmet desserts.
Field trips may be required.
- 136. Advanced Baking (3)**
Prerequisite: Hospitality Management 135 or consent of instructor.
Lecture 1 hour
Laboratory 6 hours
Formulas used in commercial pastry shop; gum paste work, design, sugar decoration, wax work.
Field trips may be required.
- 137. Buffet Catering (3)**
Prerequisite: Hospitality Management 130 or consent of instructor.
Lecture 1.5 hours
Laboratory 4.5 hours
Selecting and handling of specialized equipment, planning and preparation of foods, advertising and customer relations, food service costs, beverages.
- 138. Family Restaurant Service (3)**
Prerequisite: Previous or concurrent enrollment in Hospitality Management 130 or consent of instructor.
Lecture 1.5 hours
Laboratory 4.5 hours
Introduction to the family restaurant, use of equipment, preparation of foods, table service, employee development controls.
- 140abc. Classical Cuisine (3) (3) (3)**
(a) Beginning
Prerequisite: Hospitality Management 134, Hospitality Management 137 and Hospitality Management 138.
Lecture 2 hours
Laboratory 3 hours
Safety, sanitation, culinary nomenclature, cook's tools, recipe conversion, and food costs; preparation of beverages, breakfasts, and salads; commissary control and ordering of supplies for the Continental and French kitchen.

HOSPITALITY MANAGEMENT

140abc. (continued)

(b) *Intermediate*

Prerequisite: Hospitality Management 140a.

Lecture 1.5 hours

Laboratory 4.5 hours

A continuation of Hospitality Management 140a with emphasis on preparation of vegetables, sauces, rice and farinaceous products. Basic techniques of broiling, roasting, sauteing, and deep fat frying.

(c) *Advanced*

Prerequisite: Hospitality Management 140c or consent of instructor.

Lecture 1 hour

Laboratory 6 hours

Preparation of gourmet and more complicated foods using representative selections from the eight entree groups.

Field trips may be required.

144. **Meat Analysis** (3)

Prerequisite: Hospitality Management 130 or consent of instructor.

Lecture 2 hours

Laboratory 3 hours

Study of various grades and cuts of meat, and their use in restaurant sales. Cost control and fabrication.

Field trips may be required.

147ab. **Beverage Management** (3) (3)

(a) *Prerequisite: At least 21 years of age and Hospitality Management 101 or consent of instructor.*

Lecture 2 hours

Laboratory 3 hours

Study of all aspects of beverage management including federal, state and local regulations, mixology, background, and future of beverage industry.

Field trips may be required.

(b) *Prerequisite: Hospitality Management 147a or consent of instructor.*

Lecture 3 hours

Control, distribution, planning of bar inventories and purchases, labor planning, laws.

148. **History and Production of California Wines.** (3)

Lecture 3 hours

Introduction to the history, development, production, and types of wines, pronunciations and label reading, and service.

Field trips may be required.

HOSPITALITY MANAGEMENT/HUMANITIES

Recreation Industry

151. **Introduction to Parks and Recreation** (3)

Lecture 2 hours

Laboratory 3 hours

An introductory course for individuals interested in parks and recreation, with exposure to park management, design, maintenance and construction. Recreational aspects, job opportunities and duties.

160. **Introduction to the Travel-Tourism Industry** (3)

Lecture 3 hours

Evolution of tourism as an industry. Survey of domestic and international travel, laws, services, communications systems, and interaction with other sectors of the hospitality industry.

Field trips may be required.

HUMANITIES

101. **Old World Culture** (4)

Lecture 4 hours

An introductory survey of humanistic culture, historically structured from classical Greece to the Renaissance, presenting highlights from history, philosophy, literature, drama, art, and music.

102. **Modern Culture** (4)

Lecture 4 hours

An introductory survey of humanistic culture, historically structured from the Enlightenment to the present scene, presenting highlights from history, philosophy, literature, drama, art and music.

110. **Current Religious Movements** (3)

Lecture 3 hours

The search for religious meaning in the contemporary world, reflected in modern cults like Eckankar, Scientology, Urantia, Satanism, and Transcendental Meditation, and current trends in old religions like the Jesus Movement, the Ecumenical Movement, Hari Krishna Hinduism and Zen Buddhism.

120. **America's Religious Heritage** (3)

Lecture 3 hours

Historical forces in American religion traced from their European origins and colonial development up to modern American religious trends and their impact upon society.

130. **World Religious Consciousness** (3)

Lecture 3 hours

Development of religious consciousness from primitive beliefs in ancient times to the major religions of the world: Hinduism, Buddhism, Taoism, Judaism, Christianity, and Islam.

INDUSTRIAL ARTS/INTERDISCIPLINARY STUDIES

INDUSTRIAL ARTS

55. **Basic Woodworking** (1)
Laboratory 3 hours
Woodworking skills and processes and the safe use of hand and woodworking tools.
56. **Advanced Woodworking** (1)
Prerequisite: Industrial Arts 55.
Laboratory 3 hours
Development of skills using hand and machine tools. Students will design and complete a major project. Advanced machine skills will include tapering, mitering, and dovetailing.
70. **Auto Maintenance I** (1)
Laboratory 3 hours
Designed to provide the student with information needed to maintain his/her own vehicle.
May be repeated one time.
71. **Auto Maintenance II** (1)
Prerequisite: Industrial Arts 70 or auto maintenance experience.
Laboratory 3 hours
A continuation of Industrial Arts 70 to provide the student with additional supervised experience and subject area knowledge.
May be repeated one time for credit.
74. **Basic Engine Tune-up** (2)
Lecture 1 hour
Laboratory 3 hours
Beginning class in basic ignition system tune-up using hand tools and meters reasonably affordable for home use; will include practical experience on the student's vehicles.

INTERDISCIPLINARY STUDIES

50. **Introduction to Mother Lode Studies** (1)
(Six Week Short Course)
Lecture 3 hours
An introduction to the Mother Lode. Topics covered may include any of a wide variety such as history and folklore, wildflowers, art, music, geology, the environment, and writers of the Mother Lode.
Field trips may be required.
May be repeated three times.

INTERDISCIPLINARY STUDIES/JOURNALISM/LAW ENFORCEMENT

101. **Introduction to Fine Arts** (4)
Lecture 3 hours
Laboratory 3 hours
A cross-disciplinary introduction to contemporary styles, important works, major figures, trends, and techniques common to art, drama, and music; practicum and field experiences in fine arts toward understanding and appreciation.
Field trips may be required.
105. **Humanities Through the Arts** (4)
Lecture 4 hours
Humanities through the arts: a cross-disciplinary historical survey of the origins and development common to art, music, and drama; a survey of the major literature, periods, styles, works, and figures in art, music, and drama within the context of prevailing historical, social and philosophical periods.

JOURNALISM

- 101abc. **Introduction to Journalism** (3) (3) (3)
(a) *Prerequisite: Typing speed of 30 words per minute recommended.*
Lecture 2 hours
Laboratory 3 hours
(b) *Prerequisite: Journalism 101a.*
Lecture 2 hours
Laboratory 3 hours
(c) *Prerequisite: Journalism 101b.*
Lecture 2 hours
Laboratory 3 hours
Introduction to basic newsgathering, writing techniques, production methods, photography, commercial art, advertising, libel and slander laws, journalism careers.
107. **Newspaper Production** (1-3)
Prerequisite: Journalism 101a, previous or concurrent enrollment in Journalism 101b or 101c.
Laboratory 3-9 hours
Laboratory using campus newspaper publications and other programs for application of newsgathering, writing skills and production methods.
Field trips may be required.
May be repeated to a maximum of 9 units.

LAW ENFORCEMENT

100. **Introduction to Administration of Justice** (4)
Lecture 4 hours
The history and philosophy of administration of justice in America. Theories of crime, punishment, and rehabilitation; ethics, education, and training for professionalism in the system.

LAW ENFORCEMENT

- 102. Principles and Procedures of the Justice System (4)**
Lecture 4 hours
 An in-depth study of the role and responsibilities of each segment within the Administration of Justice system: law enforcement, judicial, corrections, and the relationship each segment maintains with its system members.
- 106. Concepts of Criminal Law (4)**
Lecture 4 hours
 Historical development, philosophy of law and constitutional provisions; definitions, classification of crime, and their application to the system of administration of justice: legal research, study of case law, methodology, and concepts of law as a social course.
- 108. Legal Aspects of Evidence (4)**
Lecture 4 hours
 Origin, development, philosophy, and constitutional basis of evidence; constitutional and procedural considerations affecting arrest; search and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies.
- 110. Police, Community Relations (4)**
Lecture 4 hours
 An in-depth exploration of the roles of the Administration of Justice practitioners and their agencies. Principal emphasis will be placed upon the professional image of the system of Justice Administration and the development of positive relationships between members of the system and the public.
- 120. Substantive Law (4)**
Prerequisite: Law Enforcement 100.
Lecture 4 hours
 An in-depth study of the substantive laws commonly encountered by the municipal, county, or state police officer or investigator or other criminal justice employee. The scope of the course includes misdemeanor and felony violations of the criminal statutes.
- 122. Concepts of Enforcement Services (4)**
Prerequisite: Law Enforcement 100.
Lecture 4 hours
 Exploration of theories, philosophies, and concepts related to the role expectations of the line enforcement officer. Emphasis on the patrol, and public service responsibilities and their relationship to the administration of justice system.
- 124. Principles of Investigation (4)**
Prerequisite: Law Enforcement 100.
Lecture 4 hours
 The study of basic principles of all types of investigations utilized in the justice system. Coverage will include human aspects in dealing with the public, specific knowledge necessary for handling crime scenes; interview, evidence, surveillance, followup, technical resources, and case preparations.

LAW ENFORCEMENT

- 130. California Penal Code (4)**
Prerequisite: Law Enforcement 100.
Lecture 4 hours
 Law relating to criminal offenders and inmates of California institutions; administration of California Penal Code.
- 132. Juvenile Procedures (4)**
Prerequisite: Law Enforcement 100.
Lecture 4 hours
 The organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures.
- 134. Self Defense (2)**
Prerequisite: Law Enforcement 100.
Lecture 1 hour
Laboratory 3 hours
 Protection against persons armed with dangerous and deadly weapons; demonstration and drill in a limited number of holds and come-alongs; restraint of prisoners and the mentally ill; use of the baton.
- 138. Firearms (1)**
Prerequisite: Law Enforcement 100.
Laboratory 3 hours
 The moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms; firing of the sidearm and shotgun; gas weapons.
- 140ab. Arson Investigation (4) (4)**
 (a) *Beginning*
Lecture 4 hours
 Designed to prepare fire suppression officers and police patrol officers to carry out the responsibility of arson detection and establish the foundations for an indepth arson investigation.
- (b) *Advanced*
Prerequisite: Law Enforcement 140a or consent of instructor.
Lecture 4 hours
 A continuation of the introductory course emphasizing preservation of evidence, explosive devices, testimony as an expert, insurance laws, and advanced fire problems.
(Students may not receive credit for both Fire Science 127 and Law Enforcement 140ab.)
- 150. Supervised Field Work (4)**
Prerequisite: Law Enforcement 100.
Lecture 2 hours
Laboratory 6 hours
 Supervised field work with experiences in several of the surrounding facilities involved in crime prevention.

- 160. Advanced Officers' Training** (2-4)
Prerequisite: Law Enforcement 100.
Lecture 2-4 hours
 Designed to upgrade officers currently working in any phase of law enforcement. Studies include administration of justice, patrol procedures, criminal law, and criminal investigation.

LIBRARY

- 101. Introduction to Library Resources** (2)
Lecture 1 hour
Laboratory 3 hours
 Instruction and practice in locating and utilizing library resources. Emphasis on basic library techniques with respect to preparing bibliographies.

MATHEMATICS

The five unit Mathematics courses may be offered either as five lecture hours or as four lecture and three laboratory hours. Refer to the Schedule of Classes.

- 50. Basic Mathematics** (2)
Lecture 1 hour
Laboratory 3 hours
 A basic course in arithmetic.
- 55. Beginning Algebra** (5)
Lecture 5 hours
 or
Lecture 4 hours
Laboratory 3 hours
 Algebraic structure of real numbers, development of algebraic techniques, rational operations, radicals, polynomials, factoring, linear equations, inequalities, and quadratic equations.
- 60. Geometry** (5)
Prerequisite: Math 55 or one year high school algebra recommended.
Lecture 5 hours
 or
Lecture 4 hours
Laboratory 3 hours
 Plane geometry, solid geometry, and coordinate geometry.
- 63. Business Mathematics (See also Bus. Ad. 63)** (4)
Lecture 4 hours
 Mathematical problems of buying, selling, discounts, interest, credit, insurance, commissions, payrolls, depreciation, taxes and bank reconciliations.
(Credit for this course will be awarded for either Mathematics 63 or Business Administration 63 but not both. May not be repeated.)

- 65. The Metric System (See also Bus. Ad. 65)** (1)
Lecture 1 hour
 The new language of the modernized metric system in areas of common, everyday application: volume, weight, linear, and cubic measures, temperature, and electricity.
(Credit for this course will be awarded for either Mathematics 65 or Business Administration 65 but not both. May not be repeated.)
- 71. Chemical Calculations (See also Chemistry 71)** (1)
Prerequisite: Mathematics 55 or equivalent.
Lecture 1 hour
 A basic math course designed to prepare the student for solving problems in Chemistry 100 or Chemistry 101abc.
(Credit for this course will be awarded for either Mathematics 71 or Chemistry 71 but not both. May not be repeated.)
- 101. Intermediate Algebra** (5)
Prerequisite: Math 55 or one year high school algebra.
Lecture 5 hours
 or
Lecture 4 hours
Laboratory 3 hours
 Extension of elementary algebra; includes complex numbers.
- 102. Trigonometry** (5)
Prerequisite: Math 60 or Math 101 or second year high school algebra and one year geometry.
Lecture 5 hours
 or
Lecture 4 hours
Laboratory 3 hours
 An analytic approach to trigonometric functions.
- 103. College Algebra** (5)
Prerequisite: Mathematics 101 or equivalent high school course.
Lecture 5 hours
 or
Lecture 4 hours
Laboratory 3 hours
 Extension of algebraic concepts; includes quadratic equations, inequalities, complex numbers, mathematical induction, binomial theorem, determinants, permutations, combinations, and logarithms.

- 105. Elements of Statistics (5)**
Prerequisite: Math 101 or second year high school algebra.
 Lecture 5 hours
 or
 Lecture 4 hours
 Laboratory 3 hours
 Statistical concepts of probability, analysis and significance of measurements, measures of central tendency, correlation, variation, distributions, and reliability and validity of tests.
- 110. Finite Mathematics (5)**
Prerequisite: Math 55 or one year of high school algebra.
 Lecture 5 hours
 or
 Lecture 4 hours
 Laboratory 3 hours
 Symbolic logic, sets, probability, vectors, matrices, and game theory.
- 115. Matrix Mathematics for Computers (2)**
Prerequisite: Mathematics 55 or one year high school algebra.
 Lecture 1 hour
 Laboratory 3 hours
 Matrix properties and operations, matrix identity and inverse, matrix translation and rotation, systems of equations, and applications.
- 120abc. Calculus with Analytic Geometry (5) (5) (5)**
 (a) *Prerequisite: Two years of high school algebra, one year of plane geometry, and one-half year of trigonometry or Math 102. Math 103 recommended.*
 Lecture 5 hours
 or
 Lecture 4 hours
 Laboratory 3 hours
 Inequalities, relations, functions, graphs, limits, the derivative, continuity, lines, circles, and conics with geometric and physical interpretations of the derivative.
 (b) *Prerequisite: Math 120a.*
 Lecture 5 hours
 or
 Lecture 4 hours
 Laboratory 3 hours
 Elements of analytic geometry, introduction to integral calculus with applications and continuation of differential calculus; trigonometric, logarithmic, exponential, and hyperbolic functions.

- 120abc. (continued)**
 (c) *Prerequisite: Math 120b.*
 Lecture 5 hours
 or
 Lecture 4 hours
 Laboratory 3 hours
 Polar coordinates, vectors in the plane, techniques in integration, and applications of the integral.
- 136. Computer Logic (4)**
(See also Philosophy 136 and Bus. Ad. 136)
 Lecture 4 hours
 A detailed survey of the use of truth functional logic in digital computers. The emphasis of the course will be on the logical functions of the connectives, "and," "or," "if . . . then," "if and only if" and their combinations in determining "truth" and "falsehood" in statements and their effect on computer logic, control and data manipulation. The course also includes an introduction to the mechanics of a computer.
(Credit for this course will be awarded for Mathematics 136 or Philosophy 136 or Business Administration 136, but not all three. May not be repeated.)
- 138. Computers and Society (4)**
(See also Bus. Ad. 138.)
 Lecture 4 hours
 Computers and their relation to modern society. Includes history of computing, use of computers in various occupational fields, effects of computers upon the society in which we live.
(Credit for this course will be given for either Mathematics 138 or Bus. Ad. 138, but not both. May not be repeated.)
- 140abc. Computer Programming (3) (3) (3)**
(See also Media Tech. 140abc and Bus. Ad. 170abc.)
 (a) *Introductory*
Prerequisite: Two years high school algebra or consent of instructor.
 Lecture 2 hours
 Laboratory 3 hours
 Introduction to computer programming using the BASIC language. Includes systems commands, input/output statements, unconditional and conditional branching, loops, variables and operators, and singly subscripted arrays.
 (b) *Intermediate*
Prerequisite: Mathematics 140a.
 Lecture 2 hours
 Laboratory 3 hours
 Continuation of Mathematics 140a. Includes doubly subscripted variables, logical operators, subroutines, computed branching and structured programming.

140abc. (continued)

- (c) *Advanced*
Prerequisite: Mathematics 140b or consent of instructor.
Lecture 2 hours
Laboratory 3 hours
 Advanced techniques of programming in BASIC language, including disk operation and file management, optimization of core usage, algorithm efficiency, and advanced I.O. commands.
(Credit for this course will be given for either Mathematics 140abc or Media Tech. 140abc or Bus. Ad. 170abc, but not all three. May not be repeated.)

145. **Computer Programming: Applications** (3)
(See also Bus. Ad. 172)

Prerequisite: Two years high school algebra or equivalent or consent of instructor.
Lecture 2 hours
Laboratory 3 hours

Various topics in computer programming including string variables and functions, array manipulation, files and record I/O, lists (sequential, linked, circular), computer graphics. Course individualized to meet specific individual needs.

(Credit for this course will be awarded for either Mathematics 145 or Business Administration 172, but not both. May not be repeated.)

155. **Computers and Control** (5)
(See also Physics 155 or Bus. Ad. 175)

Prerequisite: Mathematics 140a or consent of instructor.
Lecture 3 hours
Laboratory 6 hours

Introduction to the use of computers to control and monitor scientific equipment and the outside environment. Includes techniques for the use of temperature sensing, optical sensing, sound sensing, and motion sensing probes, analog/digital and digital/analog data acquisition and control techniques, the proper use of electronic test equipment, and bit programming of computer I/O ports and hand-shake conventions.

(Credit for this course will be given for either Mathematics 155 or Physics 155, or Bus. Ad. 175, but not all three. May not be repeated.)

MEDIA TECHNOLOGY

140abc. **Computer Programming** (3) (3) (3)
(See also Mathematics 140abc)

- (a) *Introductory*
Prerequisite: Two years high school algebra or consent of instructor.
Lecture 2 hours
Laboratory 3 hours

Introduction to computer programming using the BASIC language. Includes systems commands, input/output statements, unconditional and conditional branching, loops, variables and operators, and singly subscripted arrays.

140abc. (continued)

- (b) *Intermediate*
Prerequisite: Media Tech. 140a.
Lecture 2 hours
Laboratory 3 hours
 Continuation of Media Tech. 140a. Includes doubly subscripted variables, logical operators, subroutines, computed branching and structured programming.

- (c) *Advanced*
Prerequisite: Media Tech. 140b or consent of instructor.
Lecture 2 hours
Laboratory 3 hours

Advanced techniques of programming BASIC language, including disk operation and file management, optimization of core usage, algorithm efficiency, and advanced I.O. commands.

(Credit for this course will be given for either Media Tech. 140abc or Mathematics 140abc or Bus. Ad. 170abc, but not all three. May not be repeated.)

152. **Media Technology (See also Drama 152)** (5)

Lecture 5 hours

A technical survey of television production, audio production, theatre lighting and related electronics; designed to prepare student technicians for practical application.

(Credit for this course will be awarded for either Media Technology 152 or Drama 152 but not both. May not be repeated.)

MUSIC

100. **Standard Notation** (3)

Lecture 3 hours

Introduction to traditional musical notation, key signatures, scales, intervals and chords, sight singing and aural perception.

102. **Introduction to Music** (4)

Lecture 4 hours

Study and analysis of music, including instrumentation, form, basic elements, and general background of styles and composers.

109. **Performance Practicum** (.5)

Activity 1 hour

A series of concerts and recital demonstration involving students, staff and visiting artists for the development of performance methodology and critical listening skills.

110abc. **Survey of Music History and Literature** (5) (5) (5)

- (a) *Lecture 5 hours*

Ancient through classical periods.

110abc. (continued)

- (b) *Lecture 5 hours*
Romantic period.
- (c) *Lecture 5 hours*
Impressionistic and contemporary periods.
Field trips may be required.

112. Survey of Jazz and Popular Music (4)

Lecture 4 hours
Nature, processes and history of jazz and popular music from its origins to the present.
Field trips may be required.

115. Survey of Eastern Music (4)

Lecture 4 hours
Introduction to the music cultures of the Near East, Asia, the Orient, and the Pacific Islands.

120abc. Music Theory (5) (5) (5)

- (a) *Lecture 4 hours*
Activity 2 hours
Analysis of the essentials for understanding and writing music. Included are rhythm, scales, intervals, chords, notation, melody writing, elementary harmony, ear training, and keyboard applications.
- (b) *Prerequisite: Music 120a.*
Lecture 4 hours
Activity 2 hours
Study of diatonic 4-part harmony with analysis of Bach chorales, figured bass, chord progressions, harmonic motion, orchestration, harmonic ear training, and keyboard harmony.
- (c) *Prerequisite: Music 120b.*
Lecture 4 hours
Activity 2 hours
Continuing study in harmony and composition with secondary key centers, modulation, altered chords, non-harmonic notes, form and analysis of contemporary music.

122abc. Advanced Music Theory (5) (5) (5)

- (a) *Prerequisite: Music 120c or equivalent.*
Lecture 4 hours
Activity 2 hours
Further study in dominant harmony, extended diatonic chords, unusual chord progressions, borrowed chords, irregular resolutions, beginning counterpoint, and advanced harmonic analysis. Continuing study in sightsinging, ear training, and keyboard applications.

122abc. (continued)

- (b) *Prerequisite: Music 122a.*
Lecture 4 hours
Activity 2 hours
Study of advanced tonal harmony with modulation to distant keys, non-dominant resolutions, the Neapolitan chord, the augmented sixth chords, chromatic harmony, and further study in melody, counterpoint, sightsinging, ear training, and keyboard applications.
- (c) *Prerequisite: Music 122b.*
Lecture 4 hours
Activity 2 hours
Study of music beyond the common practice period, modern analytical systems, scalar and non-tertian harmony, pandiatonicism, modal harmony, tonality supporting and weakening elements, atonality, atonal harmony, chromatic sightsinging and ear training.

126. Composition (3)

Prerequisite: Music 120b.
Lecture 2 hours
Laboratory 3 hours
Composing in various musical styles as well as synthesis of student's own style. Study and analysis of different methods of composition of music in relation to project chosen by student.
May be repeated one time.

130. Beginning Guitar (3)

Prerequisite: Concurrent enrollment in Music 109 recommended.
Lecture 2 hours
Activity 2 hours
Beginning group instruction in methods and techniques of playing the guitar.
May be repeated one time.

131. Beginning Keyboard (3)

Prerequisite: Concurrent enrollment in Music 109 recommended.
Lecture 2 hours
Activity 2 hours
Group instruction in performance methods and techniques on keyboard instruments
May be repeated one time.

134. Beginning Strings (3)

Prerequisite: Concurrent enrollment in Music 109 recommended.
Lecture 2 hours
Activity 2 hours
Beginning performance methods and techniques on string instruments.
May be repeated one time.

- 136. Beginning Voice** (3)
Prerequisite: Concurrent enrollment in Music 109 recommended.
 Lecture 2 hours
 Activity 2 hours
 Group instruction in the techniques of singing. Practice in correct tone production, diction, stage presence, and reading of musical notation by student.
May be repeated one time.
- 138. Beginning Jazz Improvisation** (3)
 Lecture 2 hours
 Activity 2 hours
 Beginning study in jazz improvisation with emphasis on style, rhythm, and pentatonic and diatonic scales.
- 140. Intermediate Guitar** (3)
Prerequisite: Music 130, or consent of instructor. Concurrent enrollment in Music 109 recommended.
 Lecture 2 hours
 Activity 2 hours
 Intermediate instruction in a class situation of methods and techniques of playing the guitar.
May be repeated one time.
- 141. Intermediate Keyboard** (3)
Prerequisite: Music 131, or consent of instructor. Concurrent enrollment in Music 109 recommended.
 Lecture 2 hours
 Activity 2 hours
 Group instruction in performance methods and techniques on keyboard instruments.
May be repeated one time.
- 144. Intermediate Strings** (3)
Prerequisite: Music 134, or consent of instructor. Concurrent enrollment in Music 109 recommended.
 Lecture 2 hours
 Activity 2 hours
 Intermediate instruction in a class situation of methods and techniques of playing string instruments.
May be repeated one time.
- 146. Intermediate Voice** (3)
Prerequisite: Music 136, or consent of instructor. Concurrent enrollment in Music 109 recommended.
 Lecture 2 hours
 Activity 2 hours
 Group instruction in techniques of singing for those with demonstrated interest in developing solo capability. Practice in correct tone production, diction, stage presence, and reading of musical notation by the student.
May be repeated one time.

- 148. Intermediate Jazz Improvisation** (3)
Prerequisite: Music 138 or consent of instructor.
 Lecture 2 hours
 Activity 2 hours
 Study and practice of jazz improvisation techniques including basic chord scales, style, selected ear training, and analysis of transcribed solos.
May be repeated one time.
- 150. Series — Applied Music**
Prerequisite: Audition. Concurrent enrollment in Music 109 recommended.
 Lecture 1 hour
 Study of performance techniques, interpretation, and repertoire related to private music instruction.
May be repeated.
- | | | |
|-----|----------------------------|-----|
| 150 | Applied Music, Guitar | (1) |
| 151 | Applied Music, Keyboard | (1) |
| 152 | Applied Music, Woodwinds | (1) |
| 153 | Applied Music, Brass | (1) |
| 154 | Applied Music, Strings | (1) |
| 155 | Applied Music, Percussion | (1) |
| 156 | Applied Music, Voice | (1) |
| 157 | Applied Music, Synthesizer | (1) |



MUSIC

- 160. Choir (2)**
Prerequisite: Concurrent enrollment in Music 109 recommended.
Activity 4 hours
 Study and performance of mixed choral works of various periods and styles.
May be repeated.
- 164. Jazz Choir (3)**
Prerequisite: Audition.
Activity 6 hours
 Study and performance of vocal jazz and improvisation in an ensemble of limited size.
- 165. Theatre Production: Music Emphasis (1-3)**
(See also Drama 165)
Prerequisite: Audition.
Laboratory 3-9 hours
 Directed activities in theatre production for public performance with a concentration in vocal or instrumental music.
(Credit will be awarded for either Drama 165 or Music 165 but not both. May be repeated.)
- 166. Community Chorus (2)**
Prerequisite: Concurrent enrollment in Music 109 recommended.
Activity 4 hours
 Study and performance of mixed choral works of various periods and styles.
May be repeated.
- 169. Ensemble: Vocal Emphasis (1)**
Prerequisite: Audition, concurrent enrollment in Music 109 recommended.
Activity 2 hours
 Preparation and performance of various musical styles and media.
May be repeated.
- 170. Wind Ensemble (2)**
Prerequisite: Audition; concurrent enrollment in Music 109 recommended.
Activity 4 hours
 Study and performance of advanced wind ensemble literature. Attendance at all scheduled performances is required.
May be repeated.

MUSIC/NATURAL RESOURCES

- 172. Jazz Ensemble (2)**
Prerequisite: Audition; concurrent enrollment in Music 109 recommended.
Activity 4 hours
 Study and performance of instrumental jazz and improvisation; techniques of improvisation will be explored.
May be repeated.
- 176. Orchestra (2)**
Prerequisite: Audition; concurrent enrollment in Music 109 recommended.
Activity 4 hours
 Study and performance of orchestral literature of various styles and media.
May be repeated.
- 179. Ensemble: Instrumental Emphasis (1)**
Prerequisite: Audition; concurrent enrollment in Music 109 recommended.
Activity 2 hours
 Study and performance of music for small ensembles, duets, and chamber groups.
May be repeated.

NATURAL RESOURCES

See Page 51 for Certificate Requirements

- 100. Conservation of Natural Resources (4)**
Lecture 4 hours
 Natural resources conservation; history of land use, field practices, and current problems of physical and biological natural resources conservation.
Field trips may be required.
- 101. Introduction to Soil, Water, and Atmospheric Resources (4)**
Prerequisite: Biology 110 recommended.
Lecture 4 hours
 Characteristics, properties, formation, development, and utilization of soils, water and atmosphere. Problems of wildlands and agricultural management.
Field trips may be required.
- 102. Properties of Soils (4)**
Prerequisite: Previous or concurrent enrollment in Chemistry 100.
Lecture 3 hours
Laboratory 3 hours
 Physical, chemical, and biological properties of soils related to wildland and cultivated soils.
Field trips may be required.

NATURAL RESOURCES

105. **Alternative Energy Sources: Solar and Wind** (3)

Lecture 2 hours

Laboratory 3 hours

Cause and effect relationships of the energy crisis. Home energy conservation and construction methods. Practical application of solar and wind energy systems for heating, cooling, food drying, water pumping, and electrical production.

Field trips may be required.

106. **Alternative Energy Sources: Water, Methane, and Geothermal** (3)

Lecture 3 hours

Practical applications of waterwheels, turbines, and hydraulic rams as examples of water power. Design, use and limitations of methane digesters. Discussions on geothermal, tidal, pedal power, animal power, biofuels, nuclear, and fossil fuel energy.

Field trips may be required.

107. **Land Use Planning** (3)

Lecture 2 hours

Laboratory 3 hours

Introduction to resources inventory, planning processes and environmental impact report preparation.

109. **Parks and Forests Law Enforcement** (4)

Lecture 4 hours

A general understanding of the rights and responsibilities of both the visitor and the employee in a wildland recreation setting.

Field trips may be required.

122. **Fire Ecology** (3)

Lecture 3 hours

The use of fire and its relationship to Sierra plant and animal communities.

130. **Wild Edible Plants** (3)

Lecture 2 hours

Laboratory 3 hours

Survey of wild edible plants with particular emphasis on Tuolumne County. Methods of collection, preserving and preparing plant material for domestic use. Historical uses of plant material, emphasizing acorn preparation. Survey of poisonous plants included.



133. **Wild Edible and Useful Plants** (3)

Prerequisite: Natural Resources 130.

Lecture 2 hours

Laboratory 3 hours

Survey of wild edible and useful plants, emphasizing nutrient content of plants and forms of plant preservation and preparation. Survey of maple sugaring and mushrooms. Exposure to plants used in the areas of basketry; dyeing; flute, clapper and pipe making; and herbal preparations.

Field trips may be required.

NATURAL RESOURCES TECHNOLOGY

See Page 52 for Certificate Requirements.

52. **Applied Wildlands Management** (3)

Lecture 2 hours

Laboratory 3 hours

Techniques of managing wildlands for maximum forage, water, and soil quality. Field observations and applications for restoration and protection of range and watershed values. Field identification of important forage and browse species.

Field trips may be required.

NATURAL RESOURCES TECHNOLOGY/PHILOSOPHY

- 55. Interpretive Guided Tours (3)**
Lecture 2 hours
Laboratory 3 hours
 Methods of meeting and serving diverse public groups in their social, cultural, and recreational use of multiple recreation lands.
Field trips may be required.
- 60. Aerial Photography and Map Interpretation (3)**
Lecture 2 hours
Laboratory 3 hours
 Basic photogrammetric instruments and equipment. Techniques of delineating soil-vegetation types and distinguishing physical features on aerial photographs.
Field trips may be required.
- 63. Water for Consumption (4)**
Lecture 4 hours
 Study of present and future sources of community water supply with special attention to state standards for potable water. Analysis processing, treatment, quality control, storage and distribution of community water.
Field trips may be required.
- 81. California Wildlife — Game Mammals and Furbearers (3)**
Lecture 2 hours
Laboratory 3 hours
 Methods and problems of manipulating and appraising game mammals and furbearers. Field identification and life history of local game mammals and furbearers.
Field trips may be required.
- 83. California Wildlife — Upland Game And Fish (3)**
Lecture 2 hours
Laboratory 3 hours
 Methods and problems of manipulating and appraising upland game and fisheries habitats. Field identification and life history of local game birds and fish.
Field trips may be required.

PHILOSOPHY

- 101. Knowledge and Reality (4)**
Lecture 4 hours
 Survey of the problems of philosophy with emphasis on epistemology, metaphysics and existentialism.
- 102. Ethics and Religion (4)**
Lecture 4 hours
 Problems in ethics and philosophy of religion (Western and Oriental).

PHILOSOPHY

- 103. Values in Politics and Esthetics (4)**
Prerequisite: Philosophy 101 or consent of instructor.
Lecture 4 hours
 Problems of individual and social values in political philosophy and esthetics.
- 105. Alternate Views in Philosophy (4)**
Prerequisite: Philosophy 101 or 102, or consent of instructor.
Lecture 4 hours
 Major viewpoints in philosophy studied by reading and discussing the original writings of the philosophers.
- 108. Humanistic and Scientific Thought (4)**
(See also Physics 108)
Lecture 4 hours
 A study of the relationships between the sciences and the humanities, and the major problems in the philosophy of science.
(Credit for this course will be awarded for either Philosophy 108 or Physics 108 but not both. May not be repeated.)
- 110ab. Logic (5) (5)**
 (a) *Lecture 5 hours*
 Basic principles of classical logic and some major aspects of modern logic: deductive reasoning, including syllogisms, fallacies, truth functions, and techniques of symbolic logic. Analysis of arguments in editorials, advertisements, and news reports.
 (b) *Prerequisite: Philosophy 110a or equivalent.*
Lecture 5 hours
 A brief review of syllogistic and truth-functional logic, and a survey of quantificational logic, induction, probability, and the logic of the scientific method.
- 113. Art and Philosophy Since 1945 (4)**
(See also Art 113)
Lecture 4 hours
 A study of the relationship between the arts and philosophy since 1945, emphasizing current value systems dominant in both disciplines.
(Credit for this course will be awarded in either Philosophy 113 or Art 113, but not both. May not be repeated.)
- 125. Twentieth Century Philosophy (4)**
Lecture 4 hours
 A brief survey of the twentieth century philosophy emphasizing the leading exponents of each school of thought and their contributions to our understanding of man, nature, society, history, science, technology, human values and the meaning of life.

136. **Computer Logic** (4)
(See also Math 136 or Bus. Ad. 136)

Lecture 4 hours

A detailed survey of the use of truth functional logic in digital computers. The emphasis of the course will be on the logical functions of the connectives and their combinations in determining "truth" and "falseness" in statements and their effect on computer logic, control and data manipulation. The course also includes an introduction to the mechanics of a computer.

(Credit for this course will be awarded for Philosophy 136 or Mathematics 136 or Business Administration 136, but not all three. May not be repeated.)

PHYSICAL EDUCATION

Materials fees, special clothing, and field trips are required for some courses. These will be designated on the current class schedules. Any course may be taken three times except as noted.

101. **Introduction to Physical Education** (2)

Lecture 2 hours

Background and principles of Physical Education and sports. Study of the aims and objectives of modern physical education with a view toward development of basic philosophy and background for professional education.

Field trips may be required.

103. **Basketball: Advanced - Theory and Practice** (3)

Prerequisite: P.E. 120, Basketball, or consent of instructor.

Lecture 1 hour

Activity 4 hours

Advanced concepts, strategy, and practice necessary in the playing and understanding of collegiate basketball.

May be repeated twice.

105. **Personal Fitness Concepts and Evaluation** (3)

Lecture 2 hours

Activity 2 hours

A study of the "how," "why," and "what" of physical activity and exercise. This course is intended to help students make important lifetime decisions about their own personal fitness directions. Evaluative laboratory testing includes oxygen capacity, rest and exercise electrocardiography, flexibility strength and body composition analyses. An ensuing exercise prescription is individually designed to ameliorate determined weaknesses.

106. **Theory and Practice of Adaptive Physical Education** (3)

Lecture 2 hours

Laboratory 3 hours

Designed to provide formal training and practical experience for students interested in pursuing a career in physical education, physical therapy, corrective rehabilitative physical education, therapeutic recreation, corrective therapy and cardiac rehabilitation or any other area which involves working with the physically limited.

107. **Corrective and Rehabilitative Physical Education - Assisting** (1-3)

Prerequisite: Physical Education 106.

Laboratory 3-9 hours

Designed to allow P.E. 106 students who have gone through the training program to assist in P.E. 144 at the level of teaching assistants. Students will be able to effectively use the knowledge and skills learned in P.E. 106 and learn advanced techniques. May be repeated for a maximum of 9 hours or a total of 3 units.

108. **Weight Training Principles and Programming** (1)

Lecture 1 hour

A study of the major theoretical concepts of weight training. Students are led in a clear, meaningful fashion from the physiological mechanisms underlying training techniques to actual practices of them.

110. **Intramural Leadership** (2)

Lecture 2 hours

Instruction and practical experience in the organization and administration of the intramural sports program. Students will be required to coordinate and supervise an activity within the college program.

- 111abc. **Leadership Laboratory** (1) (1) (1)

Prerequisite: Previous or concurrent enrollment in P.E. 110.

Laboratory 3 hours

Practical experience in the organization and administration of the intramural sports program. Students will be required to coordinate and supervise an activity within the college program.

112. **Theatre Production: Dance Emphasis** (1-3)
(See also Drama 112)

Prerequisite: Audition

Laboratory 3-9 hours

Directed activities in theatre production for public performance with a concentration in dance.

(Credit will be awarded for either P.E. 112 or Drama 112 but not both. May not be repeated for credit.)

116. Dance Production (See also Drama 116) (4)

Prerequisite: Modern Dance I or Modern Dance II, Drama 143a or Drama 144, or consent of instructor.

Lecture 1 hour

Laboratory 9 hours

Dance production for public performance; theory and practice in choreography, performance styles, and dance rehearsal combined with theatrical structure, non-verbal dramatic techniques, and technical staging designed for concert presentation.

(Credit for this course will be awarded for either Physical Education 116 or Drama 116 but not both. May be repeated a maximum of three times.)

117. Choreography and Composition (See also Drama 117) (4)

Prerequisite: Previous or concurrent enrollment in Modern Dance I or Modern Dance II or Ballet I or Jazz I or Drama 116 or Physical Education 116.

Lecture 3 hours

Laboratory 3 hours

Exploration of choreography fundamentals through a problem solving approach. Studies deal with aspects of time, space, dynamics and design in movement with emphasis on extending communication skills of the body. Offered only once a year and not offered the same quarter as Drama/P.E. 116.

(Credit for this course will be awarded for either Physical Education 117 or Drama 117 but not both.)

119. Dance Touring Company (See also Drama 119) (3)

Prerequisite: Drama 116 or Physical Education 116 or consent of instructor.

Lecture 1 hour

Laboratory 6 hours

Dance performance company offering a variety of dances in styles ranging from modern, jazz and ballet to character and comedy, which will tour the Mother Lode Area performing for schools and community organizations. Dance workshops will be offered at selected sites.

(Credit for this course will be awarded for either Physical Education 119 or Drama 119, but not both.)

Activity Courses

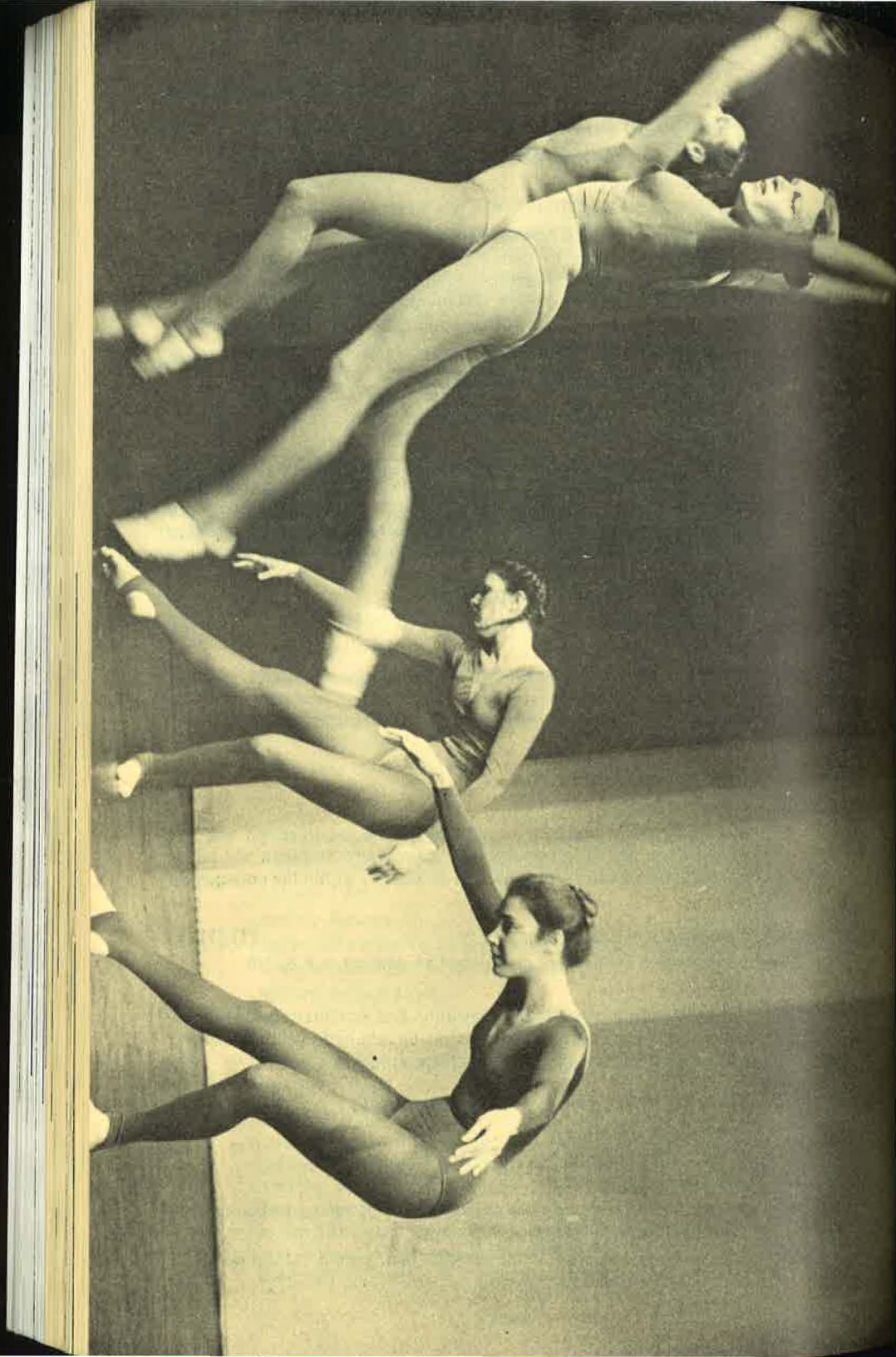
120 Series: Courses meeting 2 hours per week for 1 unit of credit.

Badminton

The techniques involved in basic strokes. Emphasis on rules, use and care of equipment, and singles and doubles class competition.

Basketball

Instruction and practice in the basic fundamentals of the game, including individual and team concepts with intra-class competition.



PHYSICAL EDUCATION

120 Series (continued)

Body Mechanics

Exercise for body balance, agility, coordination, confidence, poise, and weight control.

Bowling

Instruction and practice in the basic fundamentals of bowling emphasizing the four step approach. Lines (games) are bowled and scored for record.

Dance, Aerobic

The development of aerobic dance routines for the non-dance student emphasizing cardiovascular fitness, coordination, flexibility, and balance.

Dance, Folk

Instruction and participation in folk dances from countries around the world. Background information on dances, and an introduction to basic folk dance steps.

Fencing (See also Drama 120)

Introduction to foil fencing. Instruction in basic skills and rules of the sport.

(Credit for this course will be awarded in either P.E. 120 or Drama 120 but not both. May not be repeated.)

Hatha Yoga

Fitness through the practice of Hatha Yoga posture, movement, and breath exercises; progressive exercise emphasizing balance, coordination, strength, flexibility, concentration, and relaxation.

Volleyball I

Basic techniques with emphasis on offensive and defensive tactics of team play. Rules and intra-class competition included.

130 Series: Courses meeting 3 hours per week for 1 unit of credit.

Ballet I

Introduction to fundamental classical ballet forms, including basic concepts, positions, and combinations designed to acquaint the student with the technical and expressive elements of ballet.

Ballet II

Prerequisite: Ballet I or consent of instructor.

Study of advanced techniques and principles of classical ballet including phrasing, combinations, and stylistic elements.

Dance, Jazz I

Introduction to the fundamentals of jazz dance with emphasis on basic technique, rhythmical analysis, and various cultural and historical styles.

PHYSICAL EDUCATION

130 Series (continued)

Dance, Jazz II

Advanced work in jazz dance with emphasis on developing stylistic elements and performance techniques. Specific attention given to learning extended movement combinations and compositional forms indigenous to American jazz.

Dance, Modern I

Introduction to modern dance movement. Fundamentals, basic movement, and composition presented and practiced as an opportunity for the student to express himself/herself creatively through dance forms.

Dance, Modern II

Prerequisite: Modern Dance I or consent of instructor.

Advanced work on Modern Dance movement and elements of rhythm, space and dynamics, emphasis on contemporary dance techniques, individual and group choreography, and cultural influences on expressive dance forms.

Dance, Social I

Instruction and practice in the beginning ballroom and social dance steps including waltz, fox-trot, tango, swing, Latin dances, and current fad dances.

Football, Touch

Rules, techniques, and strategy of touch and flag football with emphasis on strong fundamentals. Class participation in team play to enhance improvement.

Golf I

Instruction and practice in fundamentals.

Golf II

Prerequisite: Golf I or consent of instructor.

Instruction and practice in skills, rules and strategy.

Gymnastics

Class participation in all fundamental routines. Individualized instruction in basic stunts and use of gymnastic apparatus.

Intramurals

Intramural participation in varied sports activities. Low key approach to competition, with participation being the meaningful factor.

Jogging and Conditioning

Instruction in progressive exercises: hiking, running and jogging techniques for physical fitness.

Karate

Instruction and practice in the martial art of Karate. Emphasis on individual development in mental concentration and physical skills.

130 Series (continued)

Movement Improvisation

Introduction to movement improvisation with emphasis on esthetic awareness through generation of new movement material and forms. Directed opportunity to explore physical exercise through creativity in dance movement motivated by various sources such as music, voice, shape, sports, etc.

Paddle Tennis

Instruction and practice of the fundamental skills employed; an indoor activity adapted from court tennis.

Self-Defense

A practical course in self-defense. Practice of various basic techniques and principles of balance, leverage, and momentum. Discussion of how to avoid threatening situations in the home or on the street.

Skilling Conditioning

Instruction, practice, and conditioning for intercollegiate competition in the Alpine and Nordic events of snow skiing.

Tennis I

Instruction and practice in fundamentals of Eastern grip tennis. Emphasis on development of sound ground strokes, serve and volley. Includes rules, scoring, and game play.

Tennis II

Prerequisite: Tennis I or consent of instructor.

Instruction and practice in the advanced aspects of Eastern grip tennis. Emphasis on learning the different methods of serving, spins, pace, placement and their tactical application to the singles and doubles game.

Volleyball II

Prerequisite: Volleyball I or consent of instructor.

An intermediate level of skills and strategies for the experienced player; and introduction to power volleyball play.

Weight Training

Instruction in use of weights and body building equipment with emphasis upon individual program development.

Wrestling

Instruction in basic skills, knowledge, and strategy. Class participation to develop fundamental holds and movements.

140 Series: Courses meeting 4 hours per week for 2 units of credit.

Backpacking I

Practical experience in the sport of backpacking. Selection and use of equipment, preparation, planning and physical performance of hiking and backpacking. Natural history interpretation related to backpacking experience.

Field trips may be required.

140 Series (continued)

Backpacking II

Prerequisite: Backpacking I or consent of instructor.

Advanced practical experience in the sport of backpacking; intensive field activity in extended trail and cross-country packing; related techniques and equipment.

May be repeated one time.

Backpacking, Winter

Prerequisite: Backpacking I or consent of instructor.

Lecture 1 hour

Laboratory 3 hours

Introduction to snow camping, winter travel, and survival techniques. Practical experience in constructing and sleeping in igloos and snow caves. Discusses winter perils, mountain safety, and navigation.

May be repeated one time.

Horsemanship I

Fundamentals of Western style riding, as well as the care of the horse and equipment, feeding, grooming, tack, shoeing problems, common ailments, and their prevention. What to look for when purchasing a horse.

Horsemanship II

Prerequisite: Horsemanship I or consent of instructor.

An in-depth study of various horse training techniques and fundamentals. The use of training equipment and aids. A close study of ailments, unsoundnesses and their prevention and cure. Emphasis on training and corrective measures.

Jogging and Conditioning: Advanced (Bay to Breakers Run)

Designed to prepare students to run in the annual Bay to Breakers 7.8 mile run which starts at the San Francisco Bay and goes crosstown to finish at the Pacific Ocean.

May be repeated.

Field trips are required.

Mountaineering I

Introduction to rope management, knots, and technical climbing equipment. Experience and practice in belaying, rappelling and the basic climbing skills.

May not be repeated.

Mountaineering II

Prerequisite: Mountaineering I or consent of instructor.

Introduction to direct aid climbing, jumar techniques, mountain rescue techniques, and advanced knots and rope management. Experience and practice in difficult free climbing, chock and piton placement, aid climbing, and rescue work.

PHYSICAL EDUCATION

140 Series (continued)

Soccer

Instruction, practice, and participation in game play. Emphasis on rules, individual skills and strategy in the field.

Winter Expeditions

Prerequisite: Winter Backpacking or consent of instructor.

Practical experience in planning and carrying out a major winter expedition into or across the Sierra Nevada mountains. A three or four day expedition involving cross country travel on snow and snow camping is required. Covers mountain perils and safety, special equipment, and high altitude physiology. Special equipment required.

144. Adaptive Physical Education (1-3)

Activity 2-6 hours

Designed to offer individually prescribed fitness direction to the physically limited with emphasis on the improvements of cardiovascular flexibility and strength components.

150 Series: Courses meeting 5 hours per week for 2 units of credit.

Alpine Skiing

Instruction and practice in basic fundamentals of snow skiing on the slopes. Care and selection of equipment, terminology and safety included.

May not be repeated.

Cross Country Skiing

Instruction and practice for snow skiing in the open country. Care and selection of equipment, safety, and outdoor orientation emphasized.

May be repeated one time.

Intercollegiate Athletics

These courses are for full-time students and require daily practice plus travel time and competition with other colleges.

160 Series: Courses meeting 10 or more hours per week for 2 units of credit. May be repeated for credit to limit of student's eligibility.

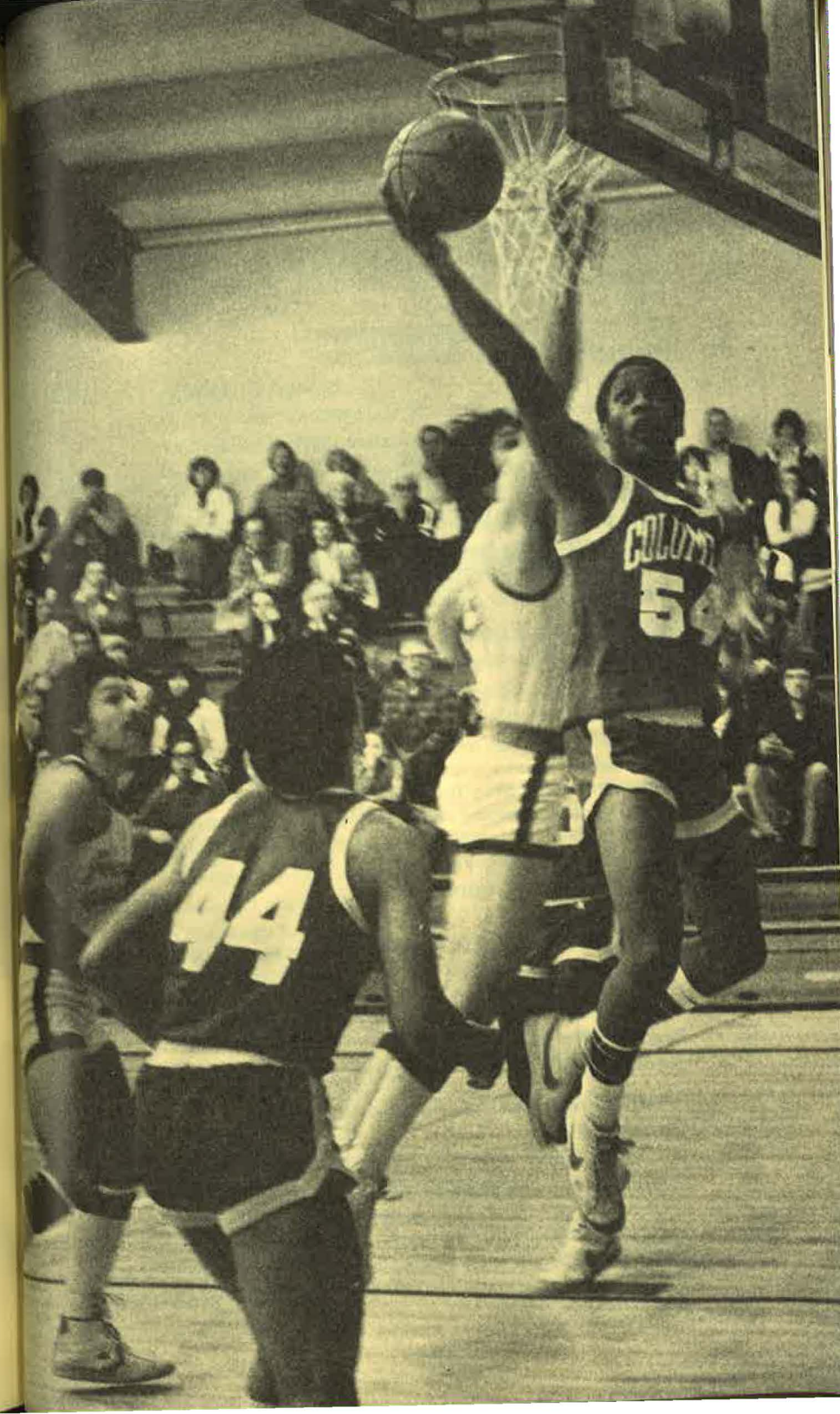
Basketball

Tennis

Volleyball (Women's Rules)

Preparation and training for intercollegiate varsity competition. Participation in contests with other colleges will be scheduled.

Field trips are required.



Adult Fitness Program

- 170ab. Cardiac Therapy: Phase IV** (2) (2)
 (a) *Prerequisite: Primary Physician Referral.*
Lecture 1 hour
Laboratory 3 hours
 A secondary prevention program designed for patients with angina pectoris, healed myocardial infarctions, or post-cardiac surgical referrals whose functional capacity is relatively uncompromised. (Primary physician referral is mandatory.)
 (b) *Prerequisite: Physical Education 170a.*
Lecture 1 hour
Laboratory 3 hours
 Continuation of Physical Education 170a.
- 171. Introduction to Adult Fitness** (3)
Lecture 3 hours
 An overview of the essential principles of physical fitness theory and health appropriate to adults; a survey of exercise theory and techniques designed for adults.
May be repeated for credit.
- 172. Multi-Phasic Fitness Testing Program** (1)
Prerequisite: Physician Release Form.
Lecture .5 hour
Laboratory 2 hours
 Physician supervised multi-phasic fitness evaluation including exercise stress test on a treadmill or bicycle ergometer with electrocardiographic monitoring for the purpose of determining functional capacity and an ensuing safe exercise prescription. Evaluations also include pulmonary function, body composition to determine percent fat and blood chemistry.
- 173ab. Adult Fitness Program** (2-3) (2-3)
 (a) *Activity 4-6 hours*
 Individual evaluation of cardio-vascular function and development of a personalized prescription program for aerobic fitness improvement; monitoring and supervision of exercise regimens and related fitness activities for continued health and fitness maintenance.
 (b) *Activity 4-6 hours*
 A continuation of Physical Education 173a.
- 175. Health and Physical Fitness Workshop** (2)
Lecture 1 hour
Activity 2 hours
 Instruction in the relationship between the human body, health and physical fitness. Testing to establish individual fitness status involves exercise electrocardiogram, body composition analysis, flexibility and strength evaluations followed by the design of and participation in a personal fitness program with particular emphasis on aerobic type activities.

- 177. Introduction to Exercise Stress Testing** (3)
Lecture 2 hours
Activity 2 hours
 The study of graded exercise tolerance testing; concepts, protocols, and practices in measuring cardio-vascular response and functional capacity employing the treadmill and bicycle ergometer.
- PHYSICS**
- 100. Modern Physics** (3)
Prerequisite: Mathematics 101.
Lecture 3 hours
 An algebra level investigation of the special and general theories of relativity as well as the later physical theories that gave rise to the concepts of anti-matter and black holes.
- 108. Humanistic and Scientific Thought** (4)
(See also Philosophy 108)
Lecture 4 hours
 A study of the relationships between the sciences and the humanities, and of major problems in the philosophy of science.
(Credit for this course will be awarded for either Physics 108 or Philosophy 108 but not both. May not be repeated.)
- 110abc. Applied Physics** (4) (4) (4)
 (a) *Prerequisite: Mathematics 102.*
Lecture 3 hours
Laboratory 3 hours
 (b) *Prerequisite: Physics 110a.*
Lecture 3 hours
Laboratory 3 hours
 (c) *Prerequisite: Physics 110b.*
Lecture 3 hour
Laboratory 3 hours
 A trigonometry level investigation of physics that includes mechanics, heat, light, sound, electricity and magnetism, and an introduction to modern physics.
- 120abc. General Physics** (6) (6) (6)
 (a) *Prerequisite: Mathematics 120abc or Mathematics 102 and concurrent enrollment in Mathematics 120a.*
Lecture 4 hours
Laboratory 6 hours
 (b) *Prerequisite: Physics 120a.*
Lecture 4 hours
Laboratory 6 hours

PHYSICS/POLITICAL SCIENCE

120abc. (continued)

- (c) *Prerequisite: Physics 120b.*
Lecture 4 hours
Laboratory 6 hours

A general calculus level investigation of physics covering the topics of mechanics, heat, light, sound, electricity and magnetism as well as modern physics.

155. **Computers and Control** (5)
(See also Math. 155 and Bus. Ad. 175.)

- Prerequisite: Physics 110a or Physics 120a or consent of instructor.*
Lecture 3 hours
Laboratory 6 hours

Introduction to the use of computers to control and monitor scientific equipment and the outside environment. Includes techniques for the use of temperature sensing, optical sensing, sound sensing, and motion sensing probes, analog/digital and digital/analog data acquisition and control techniques, the proper use of electronic test equipment, and bit programming of computer I/O ports and hand-shake conventions.

(Credit for this course will be given for either Physics 155 or Mathematics 155 or Bus. Ad. 175, but not all three. May not be repeated.)

POLITICAL SCIENCE

101. **Constitutional Government** (5)

Lecture 5 hours

Basic principles of United States and California constitutional governments with emphasis on the dynamics of the American federal system, governmental powers and sources of power at the national, state, and local levels, and the rights and responsibilities of democratic citizenship.

110. **American Political Thought** (4)

Lecture 4 hours

Historical survey of American political doctrines and issues; influence of political traditions on American politics; contemporary American political issues.

112. **Internship in Government** (1-12)

- Prerequisite: Political Science 101 and acceptance in approved program (such as legislative internship).*
Laboratory 3 to 36 hours

Laboratory experience in the practical operation of Political Science through individual student participation in an approved internship program in national, state or local government.

115. **International Relations** (4)

Lecture 4 hours

Dynamics of interstate power relations; diplomacy and international law; international, regional and supranational organizations; war and peace; foreign policy.

POLITICAL SCIENCE/PSYCHOLOGY

125. **Comparative Political Systems** (4)

Lecture 4 hours

Comparative analysis of major political cultures and systems in the Western and non-Western world.

PSYCHOLOGY

101ab. **General Psychology** (5) (5)

- (a) *Lecture 5 hours*

An introduction to the field of psychology. Topics to be covered include conditioning, personality development, aggression, emotions, stress, anxiety, therapy, sexuality, values, self-direction, and self-control.

- (b) *Prerequisite: Psychology 101a.*

Lecture 5 hours

A look at the more advanced areas of study on psychology, including perception, thinking and memory, experimental design, and other current issues in the field.

Field trips may be required.

103. **Social Psychology** (5)

- Prerequisite: Psychology 101a.*

Lecture 5 hours

Interrelationship between the individual and his social environment. Social influence upon motivation, perception, group pressure, conformity, attraction, prejudice, behavior. Development of changes of attitudes and opinions. Psychological analysis of small groups, social stratification and mass phenomena.

Field trips may be required.

105. **Physiological Psychology** (5)

- Prerequisite: Psychology 101a.*

Lecture 5 hours

Study of the biological basis of behavior; body behavior relationships, neural, mechanical, and chemical integrating systems.

107. **Search for Self: (See also Guidance 107)** (2)

Lecture 2 hours

An inquiry into "What does it mean to be me?"

Field trips may be required.

(Credit for this course will be awarded for either Psychology 107 or Guidance 107 but not both.)

May be repeated one time.

115. **Introduction to Transactional Analysis** (2)

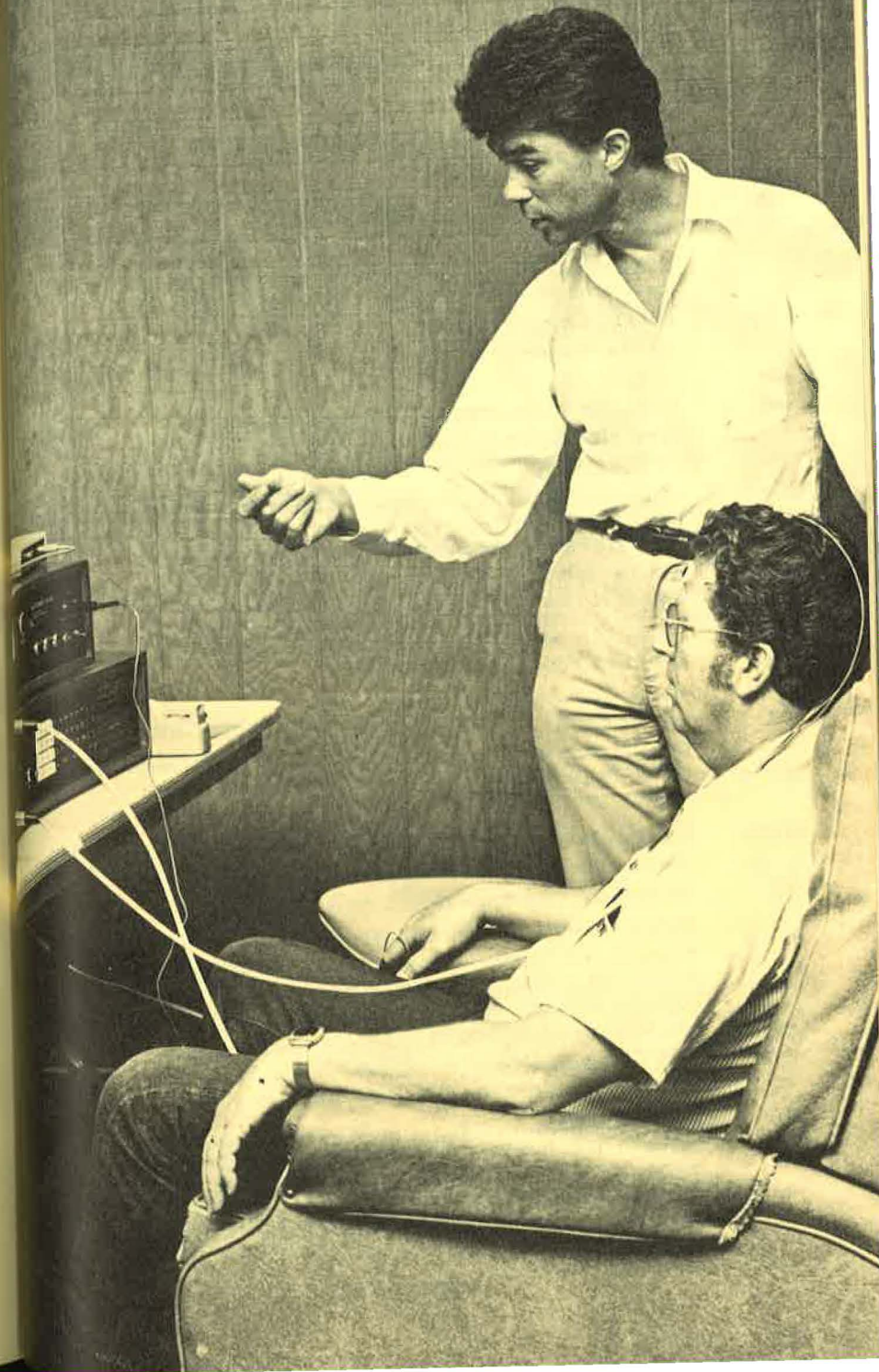
Lecture 2 hours

Theory of transactional analysis and its application to interpersonal situations.

May be repeated one time.

PSYCHOLOGY

- 120. Interpersonal Growth (2)**
(See also Guidance 120)
Lecture 2 hours
A small group experience affording the opportunity to share opinions and feelings.
Field trips may be required.
(Credit for this course will be awarded for either Psychology 120 or Guidance 120 but not both.)
May be repeated one time.
- 122. Assertive Behavior (2)**
(See also Guidance 122)
Lecture 2 hours
Exploring responsible independence.
Field trips may be required.
(Credit for this course will be awarded for either Psychology 122 or Guidance 122 but not both.)
May be repeated one time.
- 124. Psychology of Consciousness (4)**
Lecture 4 hours
A survey course of the current research in the psychology of consciousness.
- 125. Biofeedback and Self-Control (3)**
Lecture 2 hours
Laboratory 3 hours
An introduction to and a practical application of the self-regulatory technique of biofeedback training.
(This course will be offered on a Credit/No Credit grading system except for those students who opt for a letter grade before the end of the fourth week of the quarter.)
May be repeated one time.
- 126. Biofeedback and Self-Control Laboratory (1)**
Prerequisite: Psychology 125 or consent of instructor.
Laboratory 3 hours
A practical application of the self-paced regulatory technique of biofeedback training.
(The course will be offered on a Credit/No Credit grading system except for those students who opt for a letter grade before the end of the fourth week of the quarter.)
May be repeated twice.
- 127. Aging (See also Sociology 127) (4)**
Lecture 4 hours
Selected issues concerning the process of aging; the socio-psychological perspectives of older persons, and public concerns with which the society becomes involved.
(Credit for this course will be awarded for either Psychology 127 or Sociology 127, but not both. May not be repeated.)
Field trips may be required.



PSYCHOLOGY

- 128. Death and Dying (See also Sociology 128)** (4)
Lecture 4 hours
 Examination of the student's feelings, beliefs, and values regarding death and dying; study of the various perspectives of older persons, and public concerns with which the society becomes involved.
(Credit for this course will be awarded for either Psychology 128 or Sociology 128 but not both. May not be repeated.)
Field trips may be required.
- 130. Personal and Social Adjustment** (5)
Lecture 5 hours
 Group process experience in which students have the opportunity to learn more about themselves in relation to others.
Field trips may be required.
May be repeated one time.
- 135. Effective Interpersonal Communication (See also Speech 135)** (2)
Lecture 2 hours
 Understanding and utilizing new techniques of listening, paraphrasing, and problem solving in an effective manner for better communication between parents, children, and other adults.
(Credits for this course will be awarded for either Psychology 135 or Speech 135 but not both. May not be repeated.)
- 144. Creative Process in Groups** (4)
Prerequisite: Psychology 101a.
Lecture 4 hours
 Creative process of small groups; understanding the creative potential in interpersonal relations.
- 145ab. Developmental Psychology** (4) (4)
 (a) *Prenatal Through Early Childhood*
Prerequisite: Psychology 101a.
Lecture 4 hours
 Research and theories in developmental psychology from prenatal life through early childhood, covering physical, social, emotional, cognitive, language, and personality development. Issue of heredity and environment considered.
- (b) *Later Childhood Through Adulthood*
Prerequisite: Psychology 101a. Psychology 145a recommended.
Lecture 4 hours
 Research and theories in developmental psychology from later childhood through adulthood, covering continuing developmental changes and special concerns of these years, e.g., peer acceptance, sexuality, sex roles, drug usage, parent-child relations, career choices, mid-life crisis, etc.

PSYCHOLOGY/SEARCH AND RESCUE

- 160. Personality Theory** (5)
Prerequisite: Psychology 101a.
Lecture 5 hours
 A survey course of the various theories of personality development.
- SEARCH AND RESCUE**
- 103. Environmental Injuries** (2)
Prerequisite: Health Education 113 or Health Occupations 103 or consent of instructor.
Lecture 2 hours
 A review of injuries caused by recreational and vocational activities in the outdoors, including, heat, cold, water, altitude, and animal-caused injuries.
- 105. Mountain Medicine** (1)
Prerequisite: Health Education 115 or Health Occupations 103 or consent of instructor.
Lecture 1 hour
 Review of common injuries and illness encountered in the outdoors. Emphasis on improvised treatment of trauma with a minimum of manpower, equipment and mobility, includes discussion of psychological aspects, proper nutrition and diseases arising from travel in rural areas and recommended first aid supplies.
- 110. Introduction to Search Theory** (2)
Lecture 2 hours
 An overview of search theories as developed by the National Park Service and the National Association for Search and Rescue.
Field trips may be required.
- 112. Managing the Search Function** (3)
Prerequisite: Search and Rescue 110.
Lecture 3 hours
 An in-depth presentation of those areas unique to search management; chalkboard search missions, search management, base camp and communications management, proper utilization of personnel, statistical justifications and termination factors.
- 114. Introduction to Man Tracking and Sign Cutting** (1)
Lecture 1 hour
 An overview of current tracking theories and techniques as developed by the U.S. Border Patrol.
Field trips may be required.

SEARCH AND RESCUE

116. **The Use of Dogs in Search and Rescue Operations** (1)
Lecture 1 hour
 Designed to familiarize search and rescue personnel with the uses and limitations of SAR dogs; availability of dog units, call-out procedures, OES transportation availability, weather, terrain factors, avalanche dogs and night searching. The student will observe and work with various SAR dog handlers in practice searches.
Field trips may be required.
118. **Basic Survival Skill** (2)
Lecture 1.5 hours
Laboratory 1.5 hours
 An intensive seminar in short-term survival in cold and wet wilderness environments; psychological skills, equipment preparedness, emergency prevention, adaptation of basic skills to the factors of snow, rain, and high winds.
120. **Cold Weather Survival Skills** (1.5)
Lecture 1 hour
Laboratory 1.5 hours
 An intensive seminar in short-term survival in cold and wet wilderness environments; psychological skills, equipment preparedness, emergency prevention, adaptation of basic skills to the factors of snow, rain, and high winds.
122. **Wilderness Navigation** (2)
Lecture 1 hour
Laboratory 3 hours
 Review of useful maps, compass and navigation techniques for outdoor activities; wilderness route-finding and orientation using terrain clues, map and compass, reduction of error via multi-person techniques and concise communication of location.
126. **Introduction to Non-Winter Grid Techniques** (1)
Lecture 1 hour
 An overview of current non-winter grid search techniques as developed by William G. Syrotuck and the National Association of Search and Rescue.
130. **Introduction to Rescue Techniques** (4)
Lecture 4 hours
 A survey course covering the following three specialized areas critical to an effective and field safe search and rescue person; rescue carries, rope management and communication.
Field trips may be required.

SEARCH AND RESCUE

131. **Climbing Safety Seminar** (1.5)
Lecture 1.5 hours
 An intensive seminar concerning travel in vertical environments. Basic safety skills, equipment selection and self rescue discussed. A general course emphasizing accident prevention. Designed primarily to provide a basic understanding of climbing methods in a non-functional format.
132. **Descending and Ascending Techniques in Rescue** (4)
Prerequisite: Search and Rescue 130 or consent of instructor.
Lecture 2 hours
Laboratory 6 hours
 Intensive review of rope safety techniques for rescue personnel with emphasis on methods of descent for rescuer and ambulatory victims in wilderness and urban rescue situation. Instruction and demonstration of safe techniques for the ascent of slopes, buildings and cliffs. Emphasis on rope-safety techniques; knots, belaying and anchors; basic four-point climbing techniques and use of friction knots and mechanical ascenders. Handling and safe use of fire-service ladders reviewed.
Field trips may be required.
134. **Helicopter Operations and Personnel Safety** (1)
Lecture 1 hour
 The role of the helicopter in rescue situations with emphasis on the role of ground rescue personnel. Helicopter safety rules, interagency helicopter request information and procedures, selecting a landing zone, evaluations, inserts, crash procedures, and communications.
138. **Technical Litter Evacuation** (2)
Prerequisite: Search and Rescue 130, Search and Rescue 132, or consent of instructor.
Lecture 1 hour
Laboratory 3 hours
 Instruction and demonstration of techniques used to evacuate injured parties over steep terrain in either urban or wilderness setting; use of rescue litters in conjunction with mechanical advantage rope systems in high angle ascending, descending, and traversing rescue situations; review of rope safety belaying and anchoring techniques.
142. **Vehicle Extrication** (2)
Lecture 2 hours
 Use of the Hurst Tool and Black Hawk Extrication kits; hands-on instruction on various extrication techniques with special emphasis given to patient management and handling at the accident scene.

143. **Swiftwater Dynamics Seminar** (1.5)
Lecture 1.5 hours
 Designed to introduce the novice to the swiftwater problems and characteristics that are necessary, basic information for the new whitewater enthusiast, novice whitewater guide and professional rescue personnel.
144. **Introduction to Dive Rescue** (3)
Prerequisite: Demonstration of appropriate swimming skills or consent of instructor.
Lecture 2 hours
Laboratory 3 hours
 A course designed to train persons as basic rescue scuba divers.
145. **Advanced Dive Rescue** (2)
Prerequisite: Search and Rescue 144.
Lecture .5 hours
Laboratory 5 hours
 Designed to develop basic rescue scuba divers who have completed Search and Rescue 144 into fully certified advanced open water divers and Public Safety Scuba Divers.
146. **Swift Water Rescue** (2)
Prerequisite: Search and Rescue 130 or consent of instructor.
Lecture 1.5 hours
Laboratory 1.5 hours
 Designed to develop a sense of confidence in rescue personnel dealing with swift water rescue situations. Topics include: swift water physiology, equipment, swimming, line tending, search techniques, and use of helicopters.
147. **Advanced Swift Water Rescue** (1)
Prerequisite: Search and Rescue 146.
Lecture .5 hour
Laboratory 1.5 hours
 Leadership, management, or organization of swift water rescue on both small and large scale rescue efforts. The practical and theoretical aspect of heavy water rescue, salvage, helicopter operations, extreme water rescue, scuba gear in swift water rescue, and applicable aspects of technical alpine rescue.
152. **Response to Radiation Emergencies** (1)
Lecture 1 hour
 An overview of the problem of radiation emergencies including the history of radiation accidents and basic radiation physics; monitoring devices, emergency response to radioactive accidents and procedures for emergency department personnel.

SEARCH AND RESCUE/SKILLS DEVELOPMENT

154. Introduction to Avalanche and Rescue (2)
Lecture 1.5 hours
Laboratory 1.5 hours
 Introduction to the basic concept dealing with avalanche, mountain snowpack, avalanche phenomena, meteorology, stability evaluation, avalanche safety, search and rescue.

158. Heavy Duty Rescue (3)
Prerequisite: Search and Rescue 130 or consent of instructor.
Lecture 2 hours
Laboratory 3 hours
 Training in safe rescue techniques relating to disasters associated with building collapse, mass transportation, caves and mines, including organization, procedures, and resources.

160. Emergency and Disaster Planning (3)
Lecture 3 hours
 A course designed primarily for persons responsible for preparing emergency and disaster plans for public and private organizations, or other persons with an interest in the mitigation of emergencies.

SKILLS DEVELOPMENT

50. Basic Reading (2)
Lecture 1 hour
Laboratory 3 hours
 Improvement of reading and study skills necessary for college level work.
May be repeated one time.

55. G.E.D. Preparation (2)
Lecture 1 hour
Laboratory 3 hours
 Designed to teach the general skills needed to pass the General Educational Development test.

60. Mathematics Skills (1-3)
Laboratory 3-9 hours
 Individualized instruction in fundamental operations with whole numbers, fractions, decimals.
May be repeated for a maximum of 3 units of credit.

61. Basic Arithmetic (1-3)
Laboratory 3-9 hours
 Basic course in arithmetic, starting with percentages.
May be repeated for a maximum of 3 units of credit.

SKILLS DEVELOPMENT

62. Review Algebra (1)
Prerequisite: High School Algebra.
Laboratory 3 hours
 Individualized instruction in review of high school algebra.
May be repeated for a maximum of 2 units of credit.

70. Writing Skills (1)
Laboratory 3 hours
 Individualized instruction and self-instructional material in specific writing skills units.
May be repeated for a maximum of 3 units of credit.

75. College Spelling (1-2)
Laboratory 3-6 hours
 A course to help students improve their spelling skills.
May be repeated for a maximum of 3 units of credit.

80. Reading Development (1-3)
Laboratory 3-9 hours
 Individualized instruction and self-instructional materials in specific reading skills units.
May be repeated for a maximum of 3 units of credit.

87. Vocabulary Development (1)
Laboratory 3 hours
 A course to help readers improve their vocabulary skills.
May be repeated for a maximum of 3 units of credit.

88. Speed Reading (1-2)
Laboratory 3-6 hours
 Designed to help competent readers improve their reading rate and skimming and scanning skills, to facilitate rapid reading for any purpose.
May be repeated for a maximum of 3 units of credit.

90. Study Skills (1-3)
Laboratory 3-9 hours
 Improvement of the basic study skills.
May be repeated for a maximum of 3 units of credit.

92. Library Skills (1)
Laboratory 3 hours
 A course to help students develop skill in using the library.

95. Test Taking Skills (1)
Laboratory 3 hours
 A course designed to help students develop skills in taking tests and examinations.

- 98. Peer Tutoring (2)**
Prerequisite: Approvals of tutoring instructor, tutorial coordinator, and instructor in the discipline to be tutored.
Lecture 1 hour
Laboratory 3 hours
 Provides students with an opportunity to give academic assistance to other students.
(Course will be offered for Credit/No Credit only.)
May be repeated one time for credit.

SOCIAL SCIENCE

- 55. Introduction to Crisis Intervention (3)**
Lecture 3 hours
 Examination of knowledge and skills necessary for effective initial intervention when a social crisis occurs in families or for an individual.
- 140. Human Sexual Behavior (3-5)**
Lecture 3-5 hours
 Exploration of issues in human sexuality from the perspective of the social sciences. Discussion of sex roles, feelings and attitudes as they affect one's self and others.
(Three unit course offered evenings only.)

SOCIOLOGY

See Pages 50-51 for Human Services Certificate Requirements

- 101. People In Groups: Introduction to Sociology (5)**
Lecture 5 hours
 People in relation to their physical, cultural, and social environment, with emphasis on the socialization process, stratification, sex roles, deviance, and social control.
- 102. American Social Patterns (5)**
Lecture 5 hours
 The study of social organization focusing on the major components, such as family, religion, education, economics, politics, and technology; group networks and formal organizations; and social change.
- 110. Deviance and Conflict (5)**
Lecture 5 hours
 The analysis of deviant behavior and social disorganization theories and trends in selected topics such as sexual deviance, family disorganization, aging, death, suicide, mental illness, drugs, medical care, population problems, poverty, crime, war.
Field trips may be required.

- 111. Crime and Delinquency (4)**
Lecture 4 hours
 Sociological analysis of criminal behavior related to social structure and the criminalization process. Juvenile delinquency related to the family, peer groups, community, and institutional structures. Roles of law enforcing and other community agencies in crime and delinquency control.
- 112. Family, Marriage, and The Individual (4)**
Lecture 4 hours
 The family as a social unit of interacting personalities; historical and structural development of the family life in different cultures; functions, duties, and problems of family life, factors underlying family disorganization.
- 119. Women In Society (4)**
Lecture 4 hours
 Study of woman's role in the modern world. Emphasis on the changing role of women in America: sex roles, alternative family structures, problems in the areas of employment, child care, legal rights, educational opportunities and political representation.
Field trips may be required.
- 127. Aging (See also Psychology 127) (4)**
Lecture 4 hours
 Selected issues concerning the process of aging; the socio-psychological perspectives of older persons, and public concerns with which the society becomes involved.
(Credit for this course will be awarded for either Sociology 127 or Psychology 127, but not both.) May not be repeated.
Field trips may be required.
- 128. Death and Dying (See also Psychology 128) (4)**
Lecture 4 hours
 Examination of the student's feelings, beliefs, and values regarding death and dying; study of the various perspectives of older persons, and public concerns with which the society becomes involved.
(Credit for this course will be awarded for either Sociology 128 or Psychology 128, but not both. May not be repeated.)
Field trips may be required.
- 140. Human Services (4)**
Prerequisite: Sociology 101 or Psychology 101a or consent of instructor.
Lecture 2 hours
Laboratory 6 hours
 Study and development of the skills needed for community social services and some of the helping professions; direct participation in an organized community human service agency.

SOCIOLOGY/SPEECH

- 141. Human Services Laboratory (2)**
Prerequisite: Sociology 140 in the quarter immediately preceding.
Laboratory 6 hours
Continuation of skills needed for community social services and some of the helping professions through direct participation in an organized community service agency.

SPEECH

- 101. Fundamentals of Speech (5)**
Lecture 5 hours
Principles of oral communication; speech composition and techniques of presenting informal and formal speeches. Emphasis given to organization, ideas, critical thinking, and evaluative listening.
- 102. Oral Expression & Interpretation (5)**
(See also Drama 102)
Lecture 4 hours
Activity 2 hours
Techniques in reading literature aloud; understanding and interpreting prose, poetry, and dramatic selections; oral presentation, and expression of thought.
(Credit for this course will be awarded for either Speech 102 or Drama 102 but not both. May not be repeated.)
- 115. Group Discussion (4)**
Lecture 4 hours
Communication processes applied to informal group discussions. Individual and group participation in problem solving discussions, parliamentary procedures, and various speaking activities.
- 122. Introduction to Readers' Theatre (4)**
(See also Drama 122)
Lecture 3 hours
Laboratory 3 hours
Theory and practice of Readers' Theatre as an art form. Directed experiences in selecting, cutting, arranging, and performing the Readers' Theatre script.
(Credit for this course will be awarded for either Speech 122 or Drama 122 but not both. May not be repeated.)
Field trips will be required.
- 135. Effective Interpersonal Communication (2)**
(See also Psychology 135)
Lecture 2 hours
Understanding and utilizing new techniques of listening, paraphrasing, and problem solving in an effective manner for better communication between parents, children, and other adults.
(Credit for this course will be awarded for either Speech 135 or Psychology 135 but not both. May not be repeated.)

SPEECH/TEACHER AIDE TRAINING/WELDING TECHNOLOGY

- 150ab. Sign Language (2) (2)**
(a) Lecture 2 hours
Developing receptive and expressive skills in sign language, including skills in finger spelling. Receptive skills emphasized.
May be repeated for credit.
(b) Prerequisite: Speech 150a or consent of instructor.
Lecture 2 hours
Developing advanced level receptive and expressive skills in conversational sign language and finger spelling.
May be repeated for credit.

TEACHER AIDE TRAINING

- 50. Survey of Education (3)**
Lecture 3 hours
Personal orientation to teaching as a para-professional. The goals and objectives of public education, the teacher's role, the school system and its organization; students as learners.
- 55ab. Teacher Aide Training (3) (3)**
(a) Beginning
Lecture 3 hours
Preparation for teacher aide duties which assist teachers in the classroom learning process with emphasis on the school environment as the place for learning.
(b) Intermediate
Prerequisite: Teacher Aide 55a or consent of instructor.
Lecture 3 hours
The classroom environment focused on the personalities in the classroom; teachers, students, teacher aides, and interpersonal relationships.
- 60. Audio-Visual Materials in Classroom Use (3)**
Lecture 2 hours
Laboratory 3 hours
Exploratory course in ways to assist classroom teacher to prepare, present, and fully utilize instructional media such as still and motion picture projection, graphic arts, audio systems, programmed material, bulletin boards, and other audio-visual materials.

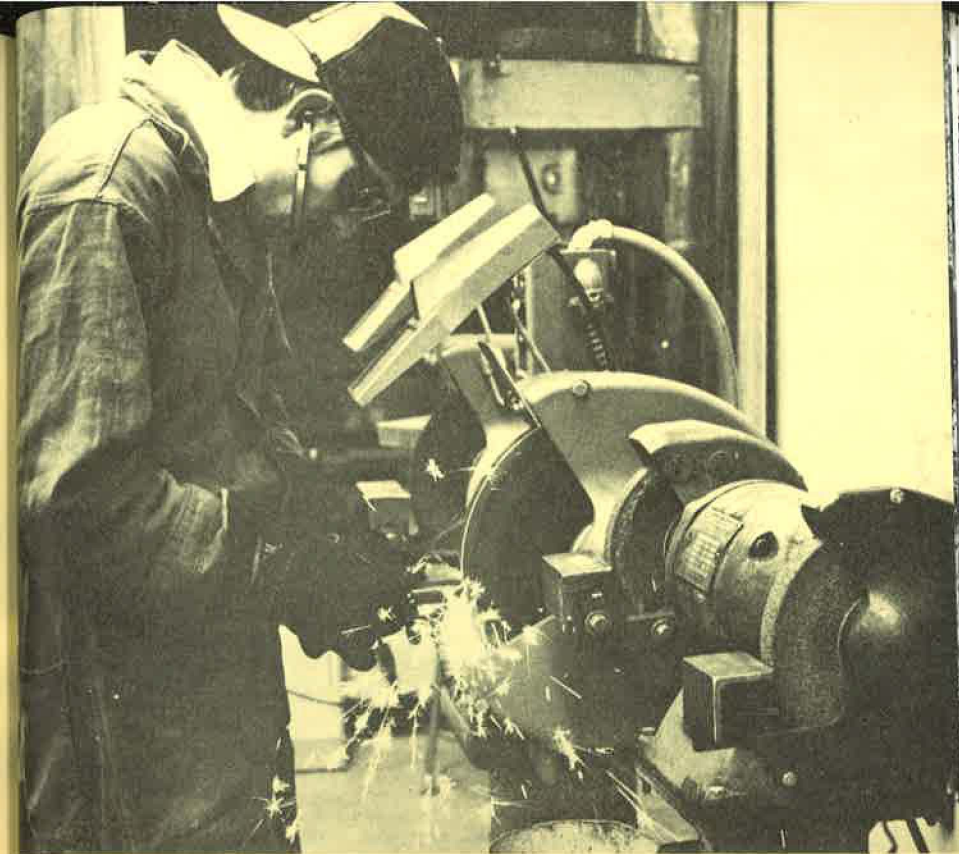
WELDING TECHNOLOGY

See Page 56 for Certificate Requirements

- 101. Introduction to Welding (3)**
Lecture 1.5 hours
Laboratory 4.5 hours
Basic arc and oxygen-acetylene welding as it applies to shop and field techniques.

WELDING TECHNOLOGY

- 103. Advanced Arc Welding Techniques (2)**
Prerequisite: Welding Technology 101.
Lecture 1 hour
Laboratory 3 hours
Arc welding in all positions (flat, horizontal and overhead). Special emphasis on control of heat and distortion.
- 110. Blueprint Reading for Welders (1)**
Prerequisite: Welding Technology 101.
Lecture 1 hour
Designed to develop in the student the ability to interpret shop drawings and blueprints common to the welding trades. Individualized instruction through the use of ATP and audio-tutorial programs.
- 120. Pipe Welding (3)**
Prerequisite: Welding Technology 103 or consent of instructor.
Lecture 1 hour
Laboratory 6 hours
Designed to familiarize students with all phases of pipe welding. Includes pipeline design and the fundamental skills involved in construction of the pipe weld.
- 122. Advanced Pipe Welding (3)**
Prerequisite: Welding Technology 120 or consent of instructor.
Lecture 1 hour
Laboratory 6 hours
Technical training and manipulative projects in construction of the pipeline weld, practical exercises in blueprint reading, shop drawing and pipe fitting. Designed to qualify the student for certification according to American Welding Society codes.
- 130. Maintenance Welding (2)**
Prerequisite: Welding Technology 103.
Lecture 1 hour
Laboratory 3 hours
Special techniques used in building up shafts, pins, gears, housings, frames, logging bunks; fabrication repair and sheet metal.
- 132. Attachment Repair (2)**
Prerequisite: Welding Technology 103.
Lecture 1 hour
Laboratory 3 hours
Repair of major heavy equipment components — emphasis on straightening bent and misaligned members, special electrodes, and hard surfacing techniques.



- 140. Welding Non-Ferrous Metals (2)**
Prerequisite: Welding Technology 103.
Lecture 1 hour
Laboratory 3 hours
Welding non-ferrous metals with the electric arc, oxygen-acetylene, and MIG and TIG processes.
- 145. Metal Fabrication (3)**
Prerequisite: Welding Technology 103 and Welding Technology 110.
Lecture 1 hour
Laboratory 6 hours
Project-oriented course designed to give students experience in building or modifying frames, chassis and support equipment. Aspects of layout, quality control, appearance and utility will be emphasized, as well as cost estimation.
- 160. Practical Laboratory (2)**
Prerequisite: Welding Technology 103.
Laboratory 6 hours
The student shall gain practical experience by working on an individual project (including certification projects). Emphasis on quality, appearance and function.
May be repeated one time for credit.

WORK EXPERIENCE

WORK EXPERIENCE

95. Occupational Work Experience (Alternate Term Plan) (1-8)

Prerequisite: Employment approved by Work Experience Coordinator. Must have successfully completed 7 units at Columbia College. Must be enrolled in at least seven units including Work Experience. During Summer Session must be enrolled in at least one other course.

Provides students with vocational learning opportunities through quarters of full-time employment alternated with quarters of instruction. The student employment must be related to educational or occupational goals.

May be repeated for a maximum of 24 units of credit.

97. General Work Experience (1-4)

Prerequisite: Employment must be approved by Work Experience Coordinating class. Must be enrolled in at least seven units including Work Experience. During Summer Session must be enrolled in at least one other course.

50 hours of satisfactory paid employment equals one quarter unit.

40 hours of satisfactory non-paid work equals one quarter unit.

Provides students an opportunity to experience supervised employment in order to acquire desirable work habits and attitudes and to develop career awareness. The student's employment need not be related to the college program or occupational goal.

May be repeated for a maximum of 9 units of credit.

98. Occupational Work Experience (1-4)

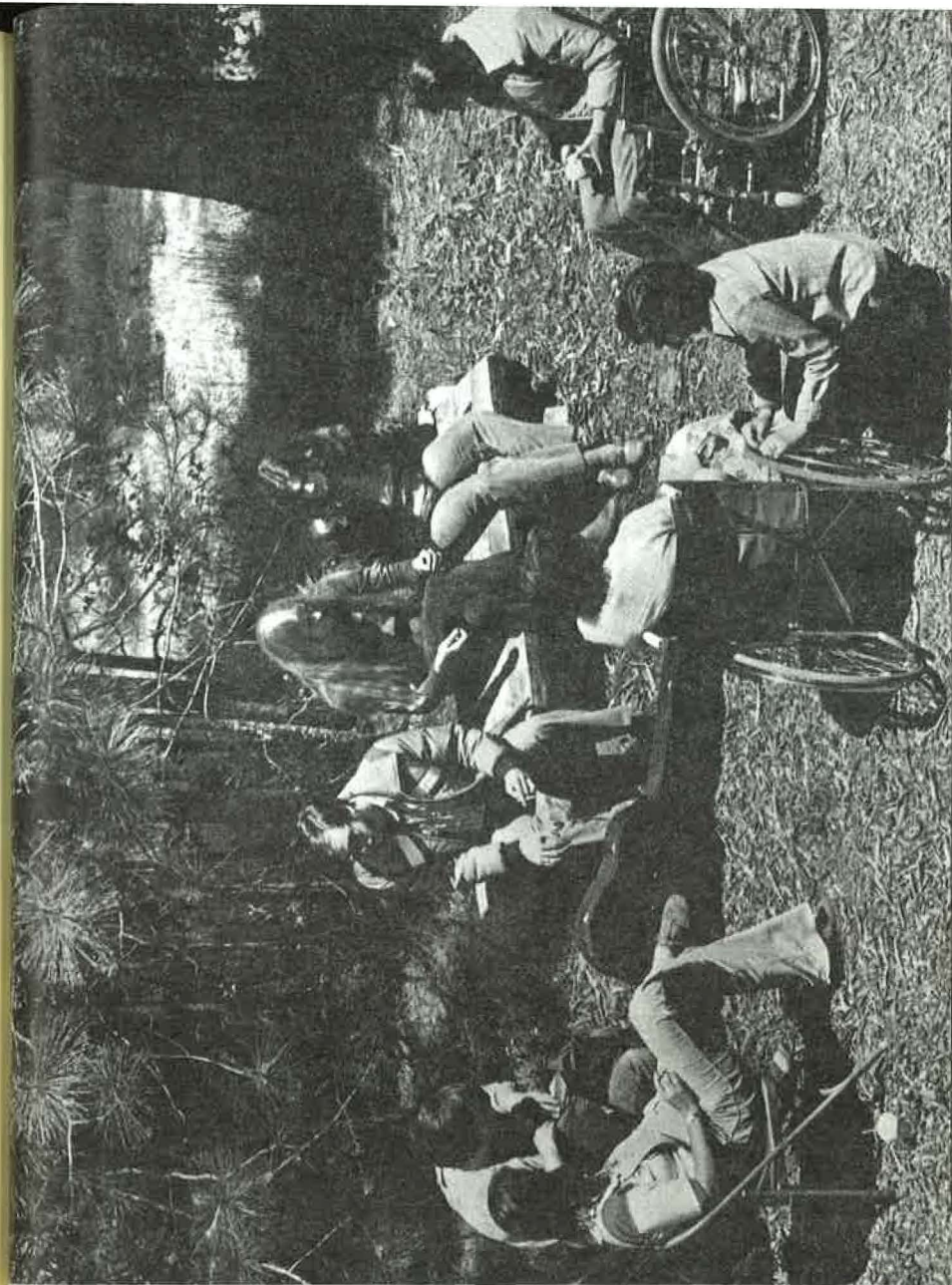
Prerequisite: Employment must be approved by Work Experience Coordinator and concurrent enrollment in Occupational Work Experience Coordinating class. Must be enrolled in at least seven units including Work Experience. During Summer Session must be enrolled in at least one other course.

50 hours of satisfactory paid employment equals one quarter unit.

40 hours satisfactory non-paid employment equals one quarter unit.

Provides students occupational learning opportunities through supervised employment. The student's employment must be related to educational or occupational goals.

May be repeated for a maximum of 24 units of credit, less any units earned in Work Experience 95 or 97.



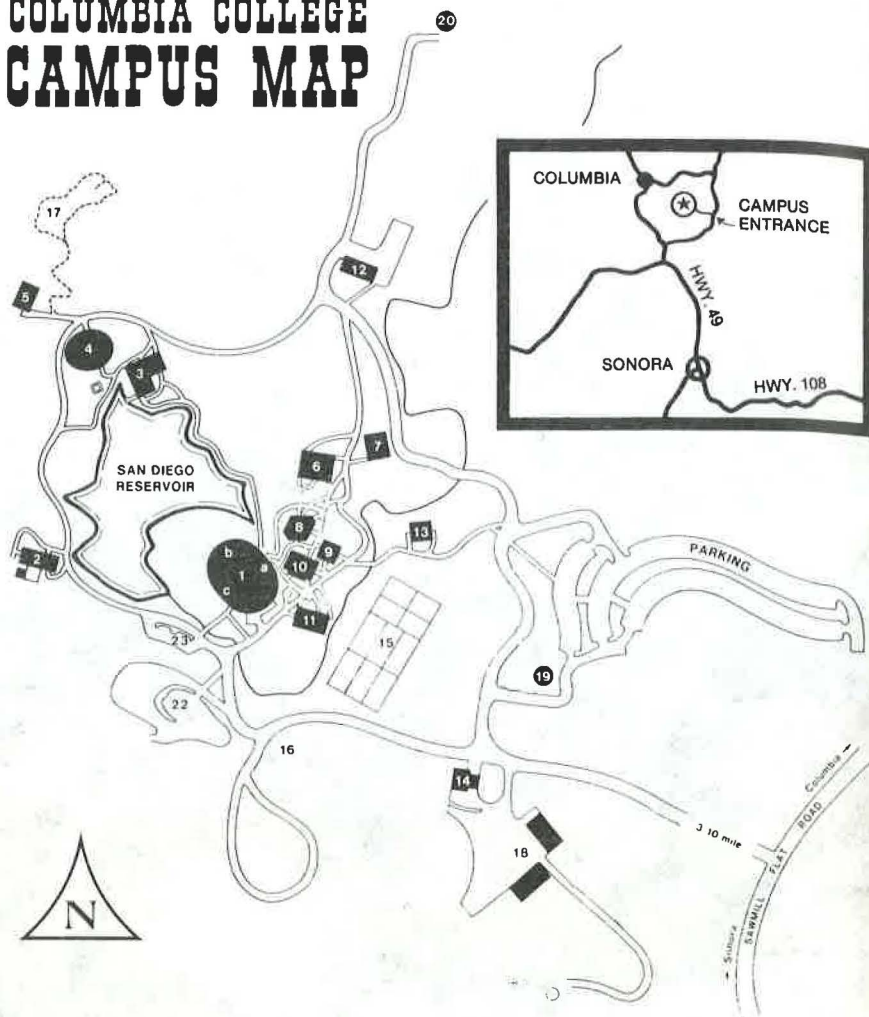
A Guiding Principle . . .

This College shall be responsive to the needs and desires of the total community. Moreover, this responsibility will transgress the artificial boundaries of town, country, or region in providing a meaningful expression of the occupational, intellectual, sociological, and cultural needs of the community.

THE COLLEGE



COLUMBIA COLLEGE CAMPUS MAP



KEY:

- 1 Learning Resource Center, Rms. 100-110 *
- a) Admisslon Information b) Library c) Presidents Office
- 2 Creative Arts Center, Rm. 200 *
- 3 Physical Science Center, Rms. 300-301 *
- 4 Biological Science Center, Rms. 350-360 *
- 5 Forestry and Natural Resources Center, Rms. 310-312
- 6 Interdisciplinary Center, Rms. 400-403 *
- 7 Health Occupations Center, Rms. 500-501 *
College Nurse
- 8 Forum, Rm. 600
- 9 Seminar Building, Rms. 610-611
- 10 General Education, Rms. 620-622
- 11 Business Education Center, Rms. 700-702 *

- 12 Heavy Equipment Center, Rm. 800 *
- 13 Physical Education Center, Rm. 900 *
- 14 Fire Science Center, Rms. 1000-1001 *
- 15 Tennis Courts
- 16 Judge Ross Carkeet Community Park
- 17 Nature Trail
- 18 Warehouse, Shipping, Receiving,
and Maintenance
- 19 Mi-Wok Cultural Center
- 20 Astronomy Dome
- 21 Career Center — Job Placement
(Building #1 lower floor)
- 22 Staff Parking
- 23 Handicapped Parking

* Restrooms in building

COLUMBIA COLLEGE

History

Columbia College and Modesto Junior College are the two community colleges located in the Yosemite Community College District. The former Modesto Junior College District was expanded into the larger Yosemite Community College District in 1964 by action of the district electorate. The district is geographically one of the largest in the State and transects more than 100 miles of the fertile San Joaquin Valley from the Coast Range on the west to the Sierra Nevada on the east. The boundaries include nearly 4,000 square miles encompassing all of Tuolumne and Stanislaus Counties and parts of San Joaquin, Merced, Calaveras and Santa Clara Counties.

Because of an increase in student enrollment, the need for greater educational opportunities in the mountain counties, and the great distance involved in travel for students to attend Modesto Junior College, the Yosemite Community College District Board of Trustees authorized the formation of Columbia College and scheduled its opening for September, 1968.

More than 200 acres of forest and land adjacent to Columbia State Historic Park in Tuolumne County were acquired from the U.S. Department of Interior, Bureau of Land Management, as the site for the Columbia College.

Campus buildings are planned around San Diego Reservoir from which wooded foothills join the rugged majesty of Sierra Nevada. In keeping with the historic atmosphere of the Mother Lode Region, the design concept of the campus is in the architectural style of early California during the Gold Rush Days. In this unusual and picturesque setting, the College is committed to a comprehensive program of academic and occupational education which focuses on the worth and dignity of each student.

Columbia College is dedicated to serve the educational needs of all residents of post high school age with the most current and innovative educational program feasible.

Philosophy

This community college is dedicated to the worth and dignity of each student. Its primary responsibility is to the goals of the student, his/her needs, desires, and aspirations.

We believe an effective education teaches that one has a life to live as well as a living to earn. Columbia College will, therefore, involve each student in opportunities for developing his/her capabilities to become a useful and contributing member of society. This objective will be accomplished through a living, dynamic and continuing experience in which each individual can confront opportunities to participate actively in the learning process. In effect, education will not happen to him/her, but with him/her and by him/her.

Guiding Principles

Each student is a separate and unique individual who shall be accepted as such. It shall be the responsibility of each student and staff member to accept and perpetuate the philosophy of this college.

This College shall provide a focus on learning as an individual process that can best be accomplished through active involvement in a setting of reality. It shall be

recognized that learning is a logical outgrowth of experiences that are meaningful to each student and not the rote acquisition of a specific body of knowledge.

The College shall be characterized by its flexibility in meeting student needs. Every facet of the institution shall expect and promote this quality.

This College shall serve the total community. It will provide educational opportunities for all people of post high school age, regardless of socioeconomic class, level of aspiration, or previous performance. Thus, this college shall adhere strictly to the open-door policy.

The College shall combine the strengths of the various disciplines, so that each will contribute to and support the bases used by students to reach their goals. No single instructional area or individual will be self-sustaining, but only as a component of the student's educational progress.

This College shall perceive achievement as a function of individual growth and not of time alone. Progress will not terminate at an artificial barrier, but continue on through the student's goal.

This College shall focus on student success. This will be accomplished by preserving an environment where each individual will have maximum freedom of choice. It will afford each student an opportunity to profit from education to the fullest extent of his capabilities.

This College shall be responsive to the needs and desires of the total community. Moreover, this responsibility will transgress the artificial boundaries of town, county, or region in providing a meaningful expression of the occupational, intellectual, sociological, and cultural needs of this community.

The personnel, functions, and services provided at this College shall be distinguished by their specific ability to meet the needs of students in reaching their particular goals. None shall base its existence upon the sole fact that it is a usual occurrence at a community college.

This College shall enable each student to acquire the trait of learning as a lifelong pattern. Learning will be considered a continuous process and not an isolated incident in given time or place.

This College shall require that each member of the faculty assume the dual roles of academic advisor in general and specific academic counselor in his/her discipline. This responsibility shall be apparent in student-faculty relationships and will not be the sole responsibility of Student Services personnel.

This College shall be committed to continuous planning, development, and evaluation. It shall seek and expect constant reexamination as a natural process for making appropriate modifications in every phase of its activities.

There shall be change with a purpose. Toward this end the College shall seek innovation, support creativity and imagination, while conformity for its own sake will be ignored. It shall consider technological and methodical advances which appear to have promise.

The natural and human resources adjacent to and beyond the campus shall be an integral part of the educational program.

The College shall encourage student involvement in responsible citizenship.

College Functions

Implementation of the philosophy and guiding principles of this College shall be carried out through a variety of functions. These functions may be described as the actions the College will perform in meeting the defined needs of its students.

I. General Education Function

Provide a broad program of knowledge and skill acquisition in humanities, arts, and sciences for personal development.

General Education Definition

General education may be defined as a process of exposure for a variety of experiences that allow one to build a basis for meeting the challenges of life as they are encountered.

II. Transfer Education Definition

Provide a comprehensive program that meets the lower division requirements for acceptance at designated institutions.

Transfer Education Definition

Transfer education may be defined as a required study pattern of bodies of knowledge needed to gain entry into a given field of endeavor at a specified four-year institution upon leaving Columbia College.

III. Occupational Education Function

Provide specialized training programs needed to develop skills, knowledge, attitudes, and other occupational competencies.

Occupational Education Definition

Occupational education may be defined as the acquisition of specified skills and knowledge needed to develop vocational competencies.

IV. Ancillary and Consultative Education Function

Provide educational services of an ancillary and consultative nature to individual students and the community.

Ancillary and Consultative Education Definition

Ancillary and consultative educational services may be defined as that range of activities which complement the students' educational program and provide the community with immediate access to the unique resources of the college.

V. Remedial Education Function

Assist the student to acquire those basic competencies needed for effective participation in programs leading to his/her goal.

Remedial Education Definition

Remedial education may be defined as an activity designed to develop in students the basic skills needed to participate in the educational process.

VI. Occupational and Educational Planning Function

Provide an opportunity for students to attain personal goals through a program of realistic planning and direction.

Occupational and Educational Planning Definition

Educational and occupational planning may be defined as a logical process of individual and goal analysis that guides the student to perceive directions that might best serve his/her needs.

VII. Continuing Education Function

Provide continuing educational and vocational activities for adults.

Continuing Education Definition

Continuing education may be defined as that broad spectrum of activities that promote learning as an ongoing process of a changing adult life.

Accreditation

Columbia College is accredited by the Accrediting Commission for Junior Colleges, Western Association of Schools and Colleges. All courses have been approved by the State Department of Education.

The College is listed in directories of the United States Office of Education, the American Council on Education, and the Western Association of Schools and Colleges.

Appropriate lower division courses completed at Columbia College will be accepted with full credit upon transfer to California Universities and four-year colleges.

Institutional Membership

Columbia College is a member of Region 4, California Junior College Association, the Western Association of Schools and Colleges, and the American Association of Junior Colleges.



A Guiding Principle . . .

This College shall require that each member of the faculty assume the dual roles of academic advisor in general and specific academic counselor in his discipline. This responsibility shall be apparent in student-faculty relationships and will not be the sole responsibility of Student Services personnel.

COLLEGE STAFF



FACULTY

(Date of District appointment follows name.)

DONALD L. ANDREWS (1977)

B.A., Stanford University
M.A., Stanford University

Music

JOEL C. BARBER (1967)

B.A., Willamette University
M.A., University of Oregon

Art, Art History

PAUL K. BECKER (1971)

A.B., Western State College of Colorado
M.A., Stanford University

Dean of Student Services

JOSHUA E. BIGELOW (1981)

A.A., Columbia College
A.B., University of California, Berkeley
M.A., University of California, Berkeley

Physical Education

ELSIE M. BRUNO (1980)

B.S., University of California, Los Angeles
M.S., California State University, Los Angeles

Counselor

DALE L. BUNSE (1975)

B.A., Willamette University
M.F.A., Arizona State University

Art

ROSS A. CARKEET, JR. (1968)

A.A., Modesto Junior College
B.S., University of California, Berkeley
M.S., California State University, Humboldt

Natural Resources

D. IRVING COBB (1971)

B.S., University of California, Berkeley

Natural Resources Technology

DEAN C. COLLI (1975)

B.S., California State University, Fresno
M.A., University of California, Santa Barbara

Business

L. FRANCES CULLEN (1971)

B.S., University of California, Los Angeles
M.S., University of Southern California
Ed.D., University of Southern California

**Psychology, Counselor,
Student Activities**

W. DEAN CUNNINGHAM (1979)

B.A., Doane College
M.A., Illinois Wesleyan University
Ed.D., Arizona State University

President

EDWARD C. DOELL, JR. (1973) English
 A.A., Foothill Junior College
 B.A., California State University, San Francisco
 M.A., California State University, San Francisco

RICHARD L. DYER (1966) History, Political Science
 A.A., Mount San Antonio College
 B.A., LaVerne College
 M.A., California State University, Los Angeles

McKINLEY FROST (1970) Heavy Equipment Maintenance,
 A.A., Columbia College Welding Technology

ROBERT H. GIBSON (1970) Physical Education
 A.A., Graceland College
 B.A., Central College
 M.A., California State University, San Jose
 Ed.D., University of Central Arizona

ARLENE S. GIORDANO (1976) Psychology
 A.B., Hunter College
 M.A., University of California, Berkeley
 Ph.D., University of California, Berkeley

JON M. HAGSTROM (1962) English
 A.A., Shasta College
 B.A., California State University, Chico
 M.A., University of the Pacific

ROBERT H. HAMILTON (1968) History, Political Science,
 A.A., University of California, Berkeley Humanities
 Th.M., Dallas Theological Seminary
 M.A., University of California, Berkeley

ROD D. HARRIS (1979) Music
 A.A., Fort Stelling Community College
 B.A.E., Pacific Lutheran University
 M.M., Pacific Lutheran University

FRANCES V. HEGWEIN (1974) Health Occupations
 R.N., South Shore Hospital

TERRY J. HOFF (1974) Physical Education
 B.A., University of California, Berkeley
 M.A., Mills College

TOM G. HOLST (1974) Earth Science
 A.B., Augustana College
 M.N.S., University of South Dakota
 Ed.D., University of Northern Colorado

NANCY T. HORNBERGER (1974) Sociology
 B.A., University of Rochester
 M.A., University of the Pacific

THELMA A. JENSEN (1968) Coordinator of Health Occupations
 R.N., Highland School of Nursing
 A.A., Columbia College

GLORIA L. JACOBSON (1979) Health Occupations
 B.S., Loma Linda University

MARYALYCE D. JOHNSON Learning Disabilities Specialist
 B.A., San Jose State College
 M.A., University of Santa Clara

DONALD A. JONES (1968) Biological Science
 A.A., San Francisco City College
 A.B., California State University, San Francisco
 M.A., California State University, San Francisco

MATILD M. KAMBER (1976) Philosophy
 B.A., American College for Girls, Istanbul, Turkey
 M.A., University of Istanbul

JAMES R. KINDLE (1974) Coordinator of Learning Skills
 B.A., Wisconsin State College
 M.A., Rockford College
 M.A., Colorado Springs College

DOUGLAS E. KOTAREK (1974) Business, Economics
 B.S., Northern Illinois University
 M.B.A., Northern Illinois University

WALTER L. LEINEKE (1968) Speech
 B.A., California State University, Sacramento
 M.A., California State University, San Francisco

RAYMOND D. LIEDLICH (1981) Dean of Instruction
 B.S., Bowling Green State University
 M.A., California State University, Los Angeles

JERRY D. LYON (1971) Business
 A.A., Edinburg Junior College
 B.B.A., University of Texas
 M.E., Abilene Christian College

ROBERT L. McDONALD (1969) Mathematics, Physics
 A.A., Mount San Antonio College
 B.S., California State Polytechnic University, Pomona
 M.A., California State Polytechnic University, Pomona

JAMES ROBERT MENDONSA (1981) Search and Rescue
 B.A., California State College, Stanislaus
 M.A., California State College, Stanislaus

JOHN C. MINOR (1970) English
 B.A., Linfield College
 M.A., University of Washington

THOMAS G. MUNRO (1981)

B.S., Chico State University
M.S., Chico State University

Business**CHESTER H. PALMER (1976)**

B.A., University of Arizona
M.A., University of Arizona

*Assistant Dean of Instruction
Continuing Education*

DAVID G. PURDY (1971)

B.A., California State University, San Jose
M.A., California State University, Fresno

Drama**BLAINE D. ROGERS (1972)**

A.A., Bakersfield College
B.A., California State University, Humboldt
M.A., California State University, Humboldt

Biological Science**RICHARD H. ROGERS (1968)**

A.B., California State University, Fresno
M.A., California State University, Fresno

Business**MELBORN N. SIMMONS (1969)**

B.S.E., Henderson State College
M.S., University of Arkansas

Mathematics**TERRY L. SMITH (1981)**

A.S., Miramar Community College

Fire Science**ELLEN H. STEWART (1979)**

B.A., San Francisco State University
M.A., Fresno State University

Drama**V. PETER SULLIVAN (1961)**

A.A., Modesto Junior College
B.A., Pepperdine University
M.A., California State University, Sacramento

Physical Education**ROBERT THOMASON (1981)**

B.A., University of Pacific

Physical Education**CANDACE L. WILLIAMSON (1979)**

B.A., California State University, Humboldt
M.A., California State University, Humboldt

Business**DAVID I. WILLSON (1975) Automotive Technology and Heavy Equipment**

B.S., California Polytechnic State University, San Luis Obispo
M.A., California Polytechnic State University, San Luis Obispo

WILLIAM H. WILSON, JR. (1974)

A.A., Solano College
B.A., San Jose State College
M.S., California State University, Hayward

Counselor**CLARENCE O. WOLGAMOTT, JR. (1971)**

B.S., Tennessee Technological University
M.A., Tennessee Technological University

Chemistry**FACULTY ON LEAVE****VIRGINIA L. BLACKBURN (1967)**

B.A., Wichita State University
M.A., Claremont Graduate School

**Psychology
(Extended Medical Leave)**

ROBERT W. DEAL (1966)

B.S., Kent State University
M.A., Kent State University

**Occupational Dean
(Extended Medical Leave)**

MARION C. EVANS (1975)

R.N., St. Therese School of Nursing, DePaul University
B.V.E., California State University, Sacramento

**Health Occupations
(Extended
Medical Leave)**

JAMES R. HASTINGS (1973)

A.A., American River College
B.A., California State University, Sacramento
M.A., California State University, Sacramento

**Anthropology, Psychology
(Sabbatical Leave 1981-82)**

RAYMOND L. STEUBEN (1976)

B.A., University of California, Santa Barbara
M.L.S., University of California, Los Angeles

**Director of Library Services
(On Leave 1981-82)**

FACULTY EMERITI**BARBARA C. PAINTER (1969)**

A.A., Modesto Junior College
A.B., California State University, San Jose
M.A., University of the Pacific
Ed.D., University of the Pacific

Counselor**HARVEY B. RHODES (1947)**

A.B., California State University, San Jose
M.S., University of Southern California
Ed.D., University of California, Berkeley

**President
1967-1979**

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NONDISCRIMINATION

Columbia College does not discriminate in employment on the basis of race, color, religion, sex or national origin in accordance with Executive Order 11246.

Nondiscrimination on Basis of Sex: Columbia College has adopted compliance procedures to effectuate Title IX of the Education Amendments of 1972 which provides that "No person in the United States shall upon the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity, with certain exceptions."

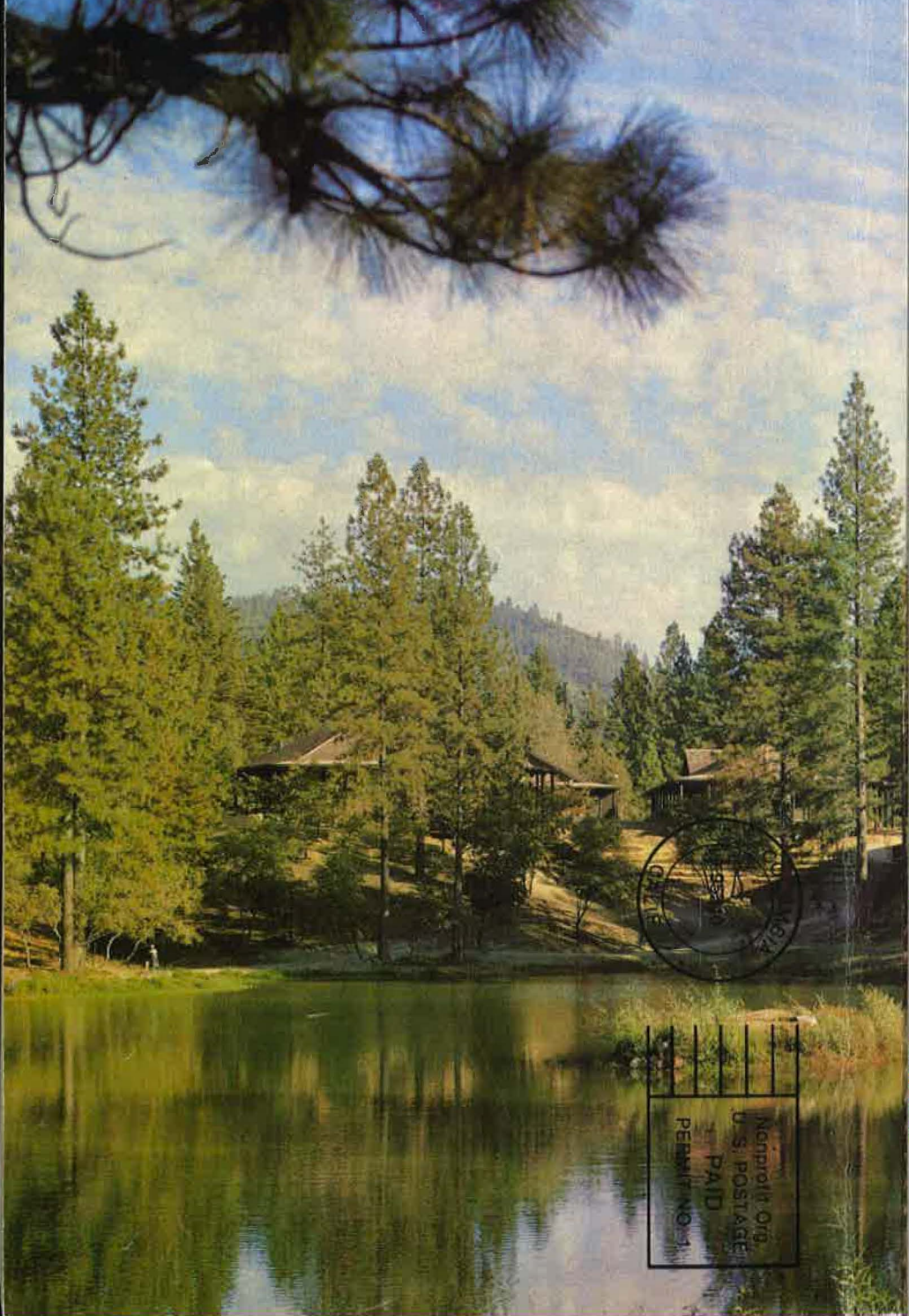
OPEN DOOR POLICY

It is the policy of this District that, unless specifically exempted by statute, every course, course section or class, the average daily attendance of which is to be reported for state aid, wherever offered and maintained by the District, shall be fully open to enrollment and participation by any person who has been admitted to the college(s) and who meets such prerequisites as may be established pursuant to Chapter 11, Division 2, Part VI, Title 5 of the California Administrative Code, commencing with Section 51820.

As per Title 5, Section 51823 (f), exception to this policy will be made where health, safety, legal requirements or the facility is a limiting factor in the conduct of a course. Students denied enrollment by this section may appeal to the College President or designee.

STATEMENT OF INTENT

The Yosemite Community College District and Columbia College have made every reasonable effort to determine that everything stated in this catalog is accurate. Courses and programs offered together with other matters contained herein, are subject to change without notice by the administration of the Yosemite Community College District or Columbia College for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the District and the College. The District and the College further reserve the right to add, amend, or repeal any of their rules, regulations, policies and procedures.



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