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.
FALL QUARTER 1980

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August 6 Application for admission and transcripts for day students should be on file
September 3 Beginning advisement for Fall Quarter for new and former students
August 25 Registration commences for students taking evening classes only
September 19 Day registration for Fall Quarter (by permit only)
September 22 Instruction begins
October 3 Last day to enter a class
October 10 Deadline for filing intent to graduate for Fall Quarter
October 16 Last day to elect for CR/NC or letter grade
November 11 Veterans Day Holiday
November 27-28 Thanksgiving Holiday
December 5 Last day to withdraw from course without penalty
December 19 Fall Quarter ends
December 22 Winter Recess
January 4 Application for admission and transcripts for day students should be on file

WINTER QUARTER 1981

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November 7 Application for admission and transcripts for day students should be on file
November 24 Beginning advisement for continuing students for Winter Quarter
December 1 Beginning advisement for Winter Quarter for new and former students
December 1 Registration commences for students taking evening classes only
January 5 Instruction begins
January 16 Last day to enter a class
January 23 Deadline for filing intent to graduate for Winter Quarter
January 27 Last day to elect for CR/NC or letter grade
February 12 Lincoln Day Holiday
February 13 Board Declared Holiday
February 16 Washington Day Holiday
March 12 Last day to withdraw from course without penalty
March 26 Winter Quarter ends
March 27 Spring Recess

SPRING QUARTER 1981

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March 2 Beginning advisement for continuing students for Spring Quarter
March 3 Application for admission and transcripts for day students should be on file
March 17 Beginning advisement for Spring Quarter for new and former students
March 18 Registration commences for students taking evening classes only
March 30 Instruction begins
April 10 Last day to enter a class
April 17 Deadline for filing intent to graduate for Spring Quarter
April 21 Last day to elect for CR/NC or letter grade
May 25 Memorial Day Holiday
May 26 Beginning advisement for continuing students for Fall Quarter
June 4 Last day to withdraw from course without penalty
June 18 Spring Quarter ends
June 19 Graduation

SUMMER SESSION 1981

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July 6 Instruction begins
August 6 Five week Summer Session ends
August 3-9
September 11 Various special short courses offered during this period
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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 16)

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 17)

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 18)

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 $41.00 per unit.

Students will be charged for no more than a maximum of 15 units each quarter. 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.

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:

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<tr>
<td>Personal Expenses and Transportation</td>
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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?
Several scholarships, grants and student loans have been established. Further information is available in 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 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. (Page 56-61)

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 29)

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 in planning their career goals. This information is located at the Career Center adjacent to the Cafeteria. Counselors are available to aid in career decision making. This may include interest and aptitude testing when appropriate.

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 My Rights as a Student?
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.
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.
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 1980-81 are September 19, 1980, for Fall Quarter; January 5, 1981, for Winter Quarter; March 30, 1981, for Spring Quarter; and July 6, 1981, 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 many community college districts in the State of California. With other districts, there is exchange of students by agreement. Please contact the Admissions Office to determine whether an interdistrict permit is required to attend Columbia College.

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 no later than four weeks prior to the beginning of each quarter. 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 counseling 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 counseling 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 approval. With the exception of open entry/open exit classes, short term classes and some performance oriented classes, no student will be admitted to a class after the tenth day of the quarter.

Admission After Disqualification
A student disqualified from Columbia or any other college may petition for admission one year after disqualification. In extraordinary circumstances the Dean of Student Services may consider petitions.
A student unable to maintain a "C" average may be permanently disqualified.
Petitions must be submitted to the Dean of Student Services no later than four weeks prior to the quarter for which admission is being requested.

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 guarantee of a sponsor in the United States.
(5) Pay tuition at the current rate of $41 per unit or a total of $615 per quarter of attendance. International students must be full-time students.
(6) 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

Student Orientation
An introduction to the College is provided for new incoming students at the time of their initial advisement appointment. Since this is an overall 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 academic potential, 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 frequently with a faculty person to discuss educational objectives, plan a study 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 a program of study 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
Specialized assistance and resources are available to physically disabled students to help them gain maximum benefit from their educational experience. These services are designed to allow handicapped students to take advantage of activities and courses at the College. Services include: academic advisement, personal registration assistance, tutoring, note taking assistance for the hearing and sight handicapped, mobility assistance and special transportation and designated parking. Interested individuals should contact the Enabler for the handicapped at the College.

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, data 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 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.

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.

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 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
To assist students with their college expenses, grants of money are handled through the Columbia College Scholarship Fund, Columbia College Foundation, and the Student Services area. Service clubs, community organizations and individuals are encouraged to provide this financial aid and may specify the criteria for their scholarships. Students are encouraged to apply for consideration for scholarships.

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 immediately 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.

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 body in the inauguration of activities. Students are urged to become actively involved in the introduction and organization of activities.

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.
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:

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

Grading Scale

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
</tbody>
</table>

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

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:

\[ \begin{align*}
5 \text{ units} \times 4 &= 20 \text{ grade points} \\
4 \text{ units} \times 3 &= 12 \text{ grade points} \\
3 \text{ units} \times 2 &= 6 \text{ grade points} \\
2 \text{ units} \times 1 &= 2 \text{ grade points} \\
2 \text{ units} \times 0 &= 0 \text{ grade points} \\
\end{align*} \]

\[ 16 \text{ units} \times 40 \text{ grade points} \]

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

The result in this example is a GPA of 2.50.

Units for which a grade of "W," "N," "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 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. Once a course is made a part of the student's program of attendance, and the student does not drop the course prior to the end of the third week of the quarter, achievement in the course will be recorded on the permanent transcript of record.

The last day to withdraw without penalty shall be 10 days prior to the end of the quarter for all full-time, graded courses; the instructor has the option to allow a withdrawal grade ("W") at any time during the quarter if there are extenuating circumstances. 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.
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 course 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 be automatically changed to a “W”, unless the instructor has authorized additional time.

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.
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 17 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 3.49 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 36.

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 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.
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 TRICOUNTY 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 BUSINESS ADMINISTRATION, FIRE SCIENCE, FORESTRY TECHNOLOGY, HEAVY EQUIPMENT, HOSPITALITY MANAGEMENT, NATURAL RESOURCES TECHNOLOGY, OFFICE OCCUPATIONS, REAL ESTATE, SUPERVISION, TEACHER AIDE, VOCATIONAL NURSING. SEE PAGE 43-52 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 DIPLOMA

HIGH SCHOOL COURSES, DESIGNED FOR ADULT STUDENTS, ARE SCHEDULED DURING THE EVENING. THE PROGRAM IS NOT OPEN TO STUDENTS ATTENDING HIGH SCHOOL DURING THE DAY. A STUDENT MAY BE ADMITTED TO THE...
College High School Program if he/she:

1. Is 18 years of age or older and not enrolled in day high school.
2. Is married, less than 18 years of age and not enrolled in day high school.
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.

Graduation requirements may be completed during any quarter. Diplomas are awarded at the close of the Spring Quarter. High school diplomas will not be awarded before a student’s normal graduation date. The College will certify completion of courses which fulfill high school graduation requirements to the student’s high school district 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.

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 may also satisfy major requirements.

Certificates of achievement are offered in the following disciplines:
- Business Administration
- Natural Resources Technology
- Fire Science
- Office Occupations
- Forestry Technology
- Real Estate
- Heavy Equipment
- Supervision
- Hospitality Management
- Teacher Aide
- Natural Resources
- Vocational Nursing

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.

### BUSINESS ADMINISTRATION

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus. Ad. 101</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>Bus. Ad. 115a</td>
<td>Commercial Law</td>
</tr>
<tr>
<td>Bus. Ad. 115b</td>
<td>Commercial Law</td>
</tr>
<tr>
<td>Bus. Ad. 120</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>Bus. Ad. 130a</td>
<td>Principles of Accounting</td>
</tr>
<tr>
<td>Bus. Ad. 130b</td>
<td>Principles of Accounting</td>
</tr>
<tr>
<td>Bus. Ad. 130c</td>
<td>Principles of Accounting</td>
</tr>
<tr>
<td>Bus. Ad. 61</td>
<td>Small Business Accounting</td>
</tr>
<tr>
<td>Bus. Ad. 140</td>
<td>Principles of Management</td>
</tr>
<tr>
<td>Bus. Ad. 150</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>Econ. 101a</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>Econ. 101b</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>Off. Oc. 68</td>
<td>Business Correspondence</td>
</tr>
</tbody>
</table>

**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

*Substitutions for required courses must be approved by the Vocational Administrator.

### FIRE SCIENCE

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Sci. 101</td>
<td>Intro. to Fire Suppression</td>
</tr>
<tr>
<td>Fire Sci. 105a</td>
<td>Fund. of Fire Prevention</td>
</tr>
<tr>
<td>Fire Sci. 105b</td>
<td>Fund. of Fire Prevention</td>
</tr>
<tr>
<td>Fire Sci. 108</td>
<td>Fire Flight, Strat. &amp; Tactics</td>
</tr>
<tr>
<td>Fire Sci. 111</td>
<td>Hazardous Materials</td>
</tr>
<tr>
<td>Fire Sci. 114</td>
<td>Fire Apparatus &amp; Equipment</td>
</tr>
<tr>
<td>Fire Sci. 117</td>
<td>Wildland Fire Control</td>
</tr>
<tr>
<td>Fire Sci. 123</td>
<td>Fire Hydraulics</td>
</tr>
<tr>
<td>Fire Sci. 127</td>
<td>Fire Investigation</td>
</tr>
<tr>
<td>Fire Sci. 130</td>
<td>Fire Protection Equip. &amp; Sys.</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS 30**

### FORESTRY TECHNOLOGY

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology 60</td>
<td>Natural History &amp; Ecology</td>
</tr>
<tr>
<td>Fire Sci. 117</td>
<td>Wildland Fire Control</td>
</tr>
<tr>
<td>For. Tech. 50</td>
<td>Intro. to Technical Forestry</td>
</tr>
<tr>
<td>For. Tech. 53</td>
<td>Forest Surveying Techniques</td>
</tr>
<tr>
<td>For. Tech. 56</td>
<td>Tree &amp; Plant Identification</td>
</tr>
<tr>
<td>For. Tech. 59</td>
<td>Forest Inventory</td>
</tr>
<tr>
<td>For. Tech. 62</td>
<td>Applied Forest Management</td>
</tr>
<tr>
<td>For. Tech. 70/</td>
<td>Hvy. Equip. 70 Logging Equipment</td>
</tr>
<tr>
<td>Nat.Res. Tech. 52</td>
<td>Applied Wildlands Management</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS 30**
HEAVY EQUIPMENT REPAIR

(First Year Certificate)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hvy. Equip. 101 Intro. to Heavy Equipment</td>
<td>3</td>
</tr>
<tr>
<td>Hvy. Equip. 105 Intern. Combustion Engines — Diesel</td>
<td>4</td>
</tr>
<tr>
<td>Hvy. Equip. 108 Brake Systems</td>
<td>2</td>
</tr>
<tr>
<td>Hvy. Equip. 110 Preventive Maintenance</td>
<td>2</td>
</tr>
<tr>
<td>Hvy. Equip. 112 Power Trains</td>
<td>4</td>
</tr>
<tr>
<td>Hvy. Equip. 115a Hydraulic Systems, Practical</td>
<td>2</td>
</tr>
<tr>
<td>Hvy. Equip. 120 Gas Welding</td>
<td>2</td>
</tr>
<tr>
<td>Hvy. Equip. 125 Arc Welding</td>
<td>2</td>
</tr>
<tr>
<td>Hvy. Equip. 130a Electrical Control Systems</td>
<td>4</td>
</tr>
<tr>
<td>Hvy. Equip. 138a Advanced Maintenance Lab</td>
<td>2</td>
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Total Required Units: 27

(Second Year Certificate)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Hvy. Equip. 60 Diesel Engine Tune-up</td>
<td>2</td>
</tr>
<tr>
<td>Hvy. Equip. 106 Intern. Combustion Engines — Gasoline</td>
<td>4</td>
</tr>
<tr>
<td>Hvy. Equip. 107 Fuel System</td>
<td>3</td>
</tr>
<tr>
<td>Hvy. Equip. 109 Heavy Duty Brake Systems</td>
<td>2</td>
</tr>
<tr>
<td>Hvy. Equip. 115b Hydraulic Systems, Practical</td>
<td>2</td>
</tr>
<tr>
<td>Hvy. Equip. 130b Electrical Control Systems</td>
<td>4</td>
</tr>
<tr>
<td>Hvy. Equip. 132 Heavy Duty Power Train Repair</td>
<td>2</td>
</tr>
<tr>
<td>Hvy. Equip. 134 Heavy Duty Equipment Repair</td>
<td>2</td>
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<tr>
<td>Hvy. Equip. 138b Advanced Maintenance Lab</td>
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<tr>
<td>Hvy. Equip. 140 Heavy Equipment Attachment Repair</td>
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Total Required Units: 25
**Interpretation (continued)**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Earth Sci. 111</td>
<td>Rocks and Minerals</td>
<td>2</td>
</tr>
<tr>
<td>Earth Sci. 112</td>
<td>Erosion — Water, Wind and Ice</td>
<td>1</td>
</tr>
<tr>
<td>Earth Sci. 113</td>
<td>Mountains and Earthquakes</td>
<td>1</td>
</tr>
<tr>
<td>Earth Sci. 125</td>
<td>Geology of the National Parks</td>
<td>4</td>
</tr>
<tr>
<td>Earth Sci. 142</td>
<td>Descriptive Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>Fire Sci. 117</td>
<td>Wildland Fire Control</td>
<td>3</td>
</tr>
<tr>
<td>For. Tech. 56</td>
<td>Tree and Plant Identification</td>
<td>3</td>
</tr>
<tr>
<td>Health Ed. 113</td>
<td>Adv. First Aid and Emergency Care</td>
<td>4</td>
</tr>
<tr>
<td>History 149</td>
<td>The Mother Lode</td>
<td>3</td>
</tr>
<tr>
<td>History 155</td>
<td>The American Frontier</td>
<td>3</td>
</tr>
<tr>
<td>Nat. Res. 100</td>
<td>Conservation of Natural Resources</td>
<td>4</td>
</tr>
<tr>
<td>Nat. Res. 109</td>
<td>Parks and Forest Law Enforcement</td>
<td>4</td>
</tr>
<tr>
<td>Nat. Res. 130</td>
<td>Wild Edible Plants</td>
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<tr>
<td>Nat. Res. Tech. 52</td>
<td>Applied Wildlands Management</td>
<td>3</td>
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<tr>
<td>Nat. Res. Tech. 55</td>
<td>Interpretive Guided Tours</td>
<td>3</td>
</tr>
<tr>
<td>Nat. Res. Tech. 81</td>
<td>Calif. Wildlife—Mammals/Furbears or</td>
<td>3</td>
</tr>
<tr>
<td>Nat. Res. Tech. 83</td>
<td>Calif. Wildlife—Upland Game and Fish</td>
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**TOTAL REQUIRED UNITS 58-59**

**NATURAL RESOURCES TECHNOLOGY**

**REQUIRED COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Biology 60</td>
<td>Natural History &amp; Ecology</td>
<td>3</td>
</tr>
<tr>
<td>Earth Sci. 125</td>
<td>Geology of National Parks</td>
<td>4</td>
</tr>
<tr>
<td>Fire Sci. 117</td>
<td>Wildland Fire Control</td>
<td>3</td>
</tr>
<tr>
<td>For. Tech. 50</td>
<td>Intro. to Technical Forestry</td>
<td>4</td>
</tr>
<tr>
<td>For. Tech. 53</td>
<td>Forest Surveying Techniques</td>
<td>3</td>
</tr>
<tr>
<td>For. Tech. 56</td>
<td>Tree &amp; Plant Identification</td>
<td>3</td>
</tr>
<tr>
<td>For. Tech. 70/ Hvy. Equip. 70</td>
<td>Logging Equipment</td>
<td>3</td>
</tr>
<tr>
<td>Nat. Res. Tech. 52</td>
<td>Applied Wildlands Management</td>
<td>3</td>
</tr>
<tr>
<td>Nat. Res. Tech. 55</td>
<td>Interpretive Guided Tours</td>
<td>3</td>
</tr>
<tr>
<td>Nat. Res. Tech. 60</td>
<td>Aerial Photog. &amp; Map Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>Nat. Res. Tech. 81</td>
<td>California Wildlife</td>
<td>3</td>
</tr>
<tr>
<td>Nat. Res. Tech. 83</td>
<td>California Wildlife</td>
<td>3</td>
</tr>
<tr>
<td>Nat. Res. 109</td>
<td>Parks &amp; Forests Law Enforcement</td>
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**TOTAL REQUIRED UNITS 42**

**REQUIRED 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) ...................... 2
- Writing Examination or Skills 70/40 Writing Skills (or English 51 or 101a) ............. 3

**RECOMMENDED OPTIONAL COURSES:**

- Nat. Res. 122 Fire Ecology ........................................ 3

**OFFICE OCCUPATIONS**

**CLERK TYPIST**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>*Bus. Ad. 60a/60b</td>
<td>Bookkeeping</td>
<td>5</td>
</tr>
<tr>
<td>*Bus. Ad. 63/65/66</td>
<td>Business Math</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 103</td>
<td>Intermediate Typing</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 130</td>
<td>Machine Transcription</td>
<td>3</td>
</tr>
<tr>
<td>Off. Oc. 134</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Off. Oc. 138</td>
<td>Office Procedures</td>
<td>3</td>
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</tbody>
</table>

**TOTAL REQUIRED UNITS 35**

*Bus. Ad. 61 Small Business Accounting (5) or Bus. Ad 130ab Principles of Accounting (4) (4) may be substituted for Bus. Ad. 60ab Bookkeeping.

**GENERAL CLERK**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
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<tr>
<td>*Bus. Ad. 60a/60b</td>
<td>Bookkeeping</td>
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</tr>
<tr>
<td>*Bus. Ad. 63/65/66</td>
<td>Business Math</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 103</td>
<td>Intermediate Typing</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 130</td>
<td>Machine Transcription</td>
<td>3</td>
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<tr>
<td>Off. Oc. 134</td>
<td>Office Machines</td>
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**TOTAL REQUIRED UNITS 24-29**

*Bus. Ad. 61 Small Business Accounting (5) or Bus. Ad. 130ab Principles of Accounting (4) (4) may be substituted for Bus. Ad. 60ab Bookkeeping.

**MEDICAL TRANSCRIPTION**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
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<td>Business English</td>
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<tr>
<td>Off. Oc. 103</td>
<td>Intermediate Typing</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 130</td>
<td>Machine Transcription</td>
<td>3</td>
</tr>
<tr>
<td>Off. Oc. 134</td>
<td>Office Machines</td>
<td>3</td>
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</table>

**TOTAL REQUIRED UNITS 17**

*Bus. Ad. 61 Small Business Accounting (5) or Bus. Ad. 130ab Principles of Accounting (4) (4) may be substituted for Bus. Ad. 60ab Bookkeeping.
### OFFICE OCCUPATIONS

#### SECRETARIAL

**REQUIRED COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus. Ad. 60a</td>
<td>Bookkeeping</td>
<td>5</td>
</tr>
<tr>
<td>Bus. Ad. 60b</td>
<td>Bookkeeping</td>
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<tr>
<td>Bus. Ad. 63/</td>
<td>Math 63</td>
<td>4</td>
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<tr>
<td>Off. Oc. 65/</td>
<td>Business Math</td>
<td>4</td>
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<tr>
<td>Off. Oc. 68</td>
<td>Business English</td>
<td>2</td>
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<tr>
<td>Off. Oc. 103</td>
<td>Intermediate Typing</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 115</td>
<td>Machine Shorthand III</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 113a</td>
<td>Advanced Stenography</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 113b</td>
<td>Advanced Stenography</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 130</td>
<td>Filing Systems and Records Mgmt.</td>
<td>3</td>
</tr>
<tr>
<td>Off. Oc. 132</td>
<td>Machine Transcription</td>
<td>3</td>
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<tr>
<td>Off. Oc. 134</td>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Off. Oc. 138</td>
<td>Office Procedures</td>
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</tbody>
</table>

**TOTAL REQUIRED UNITS 38-43**

*Bus. Ad 61 Small Business Accounting (5) or Bus. Ad 130ab Principles of Accounting (4) (4) may be substituted for Bus. Ad 60ab Bookkeeping.*

#### STENOGRAPHIC

**REQUIRED COURSES:**

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<td>Bus. Ad. 63/</td>
<td>Math 63</td>
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<td>Off. Oc. 65/</td>
<td>Business English</td>
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<td>Off. Oc. 103</td>
<td>Intermediate Typing</td>
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<tr>
<td>Off. Oc. 112a</td>
<td>Intermediate Stenography</td>
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<td>Off. Oc. 112b</td>
<td>Intermediate Stenography</td>
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</tr>
<tr>
<td>Off. Oc. 111a</td>
<td>Machine Shorthand</td>
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<tr>
<td>Off. Oc. 111b</td>
<td>Machine Shorthand</td>
<td>4</td>
</tr>
<tr>
<td>Off. Oc. 130</td>
<td>Filing Systems &amp; Records Mgmt.</td>
<td>3</td>
</tr>
<tr>
<td>Off. Oc. 132</td>
<td>Machine Transcription</td>
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<tr>
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<tr>
<td>Off. Oc. 138</td>
<td>Office Procedures</td>
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**TOTAL REQUIRED UNITS 38-43**

*Bus. Ad 61 Small Business Accounting (5) or Bus. Ad 130ab Principles of Accounting (4) (4) may be substituted for Bus. Ad 60ab Bookkeeping.*

### REAL ESTATE

**REQUIRED COURSES:**

<table>
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<th>Units</th>
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<td>Bus. Ad. 63/</td>
<td>Math 63</td>
<td>4</td>
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<tr>
<td>Bus. Ad. 101</td>
<td>Principles of Business</td>
<td>3</td>
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<tr>
<td>Real Est. 101</td>
<td>Principles of Real Estate</td>
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<tr>
<td>Real Est. 105</td>
<td>Real Estate Practice</td>
<td>4</td>
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<tr>
<td>Real Est. 110</td>
<td>Legal Aspects of Real Estate</td>
<td>4</td>
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<tr>
<td>Real Est. 115</td>
<td>Real Estate Finance</td>
<td>4</td>
</tr>
<tr>
<td>Real Est. 120</td>
<td>Real Estate Appraisal</td>
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<td>Real Est. 125</td>
<td>Real Estate Economics</td>
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**TOTAL REQUIRED UNITS 30**

### SUPERVISION

**REQUIRED COURSES:**

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<td>Bus. Ad. 101</td>
<td>Principles of Business</td>
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<tr>
<td>Bus. Ad. 104</td>
<td>Human Relations in Business</td>
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<tr>
<td>Bus. Ad. 110</td>
<td>Fund. of Data Processing</td>
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<tr>
<td>Off. Oc. 70/</td>
<td>English 70</td>
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<td>Speech 101</td>
<td>Fundamentals of Speech</td>
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<td>Supervision 110</td>
<td>Elements of Supervision</td>
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<tr>
<td>Supervision 115</td>
<td>Middle Management</td>
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<tr>
<td>Electives in Business</td>
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**TOTAL REQUIRED UNITS 30**

### TEACHER AIDE

**REQUIRED COURSES:**

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<tr>
<td>Tchr. Aide 50</td>
<td>Survey of Education</td>
<td>3</td>
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<td>Tchr. Aide 55a</td>
<td>Teacher Aide Training: Beginning</td>
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<tr>
<td>Tchr. Aide 55b</td>
<td>Teacher Aide Training: Intermediate</td>
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</tr>
<tr>
<td>Tchr. Aide 60</td>
<td>Audio-Visual Materials</td>
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<td>Psych. 101</td>
<td>Introduction to Psychology</td>
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<tr>
<td>Sociol. 112</td>
<td>Family, Marriage, Individual</td>
<td>4</td>
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</table>

plus four units selected from the following:

| 戇 électives from Social Sciences |
|                                | 4     |
| Work Experience                 | 5     |

**TOTAL REQUIRED UNITS 34**

### VOCATIONAL NURSING

**REQUIRED COURSES:**

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<th>Course Name</th>
<th>Units</th>
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<tbody>
<tr>
<td>Health Oc. 110</td>
<td>Intro. to Vocational Nursing</td>
<td>5</td>
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<tr>
<td>Health Oc. 113a</td>
<td>Anatomy &amp; Physiology for Voc. Nurses</td>
<td>5</td>
</tr>
<tr>
<td>Health Oc. 113b</td>
<td>Anatomy &amp; Physiology for Voc. Nurses</td>
<td>5</td>
</tr>
<tr>
<td>Health Oc. 115</td>
<td>Prenatal Care</td>
<td>3</td>
</tr>
<tr>
<td>Health Oc. 118</td>
<td>Pharmacology for Voc. Nurses</td>
<td>2</td>
</tr>
<tr>
<td>Health Oc. 120a</td>
<td>Effects of Medication</td>
<td>2</td>
</tr>
<tr>
<td>Health Oc. 120b</td>
<td>Effects of Medication</td>
<td>2</td>
</tr>
<tr>
<td>Health Oc. 123</td>
<td>Pediatrics</td>
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**TOTAL REQUIRED UNITS 34**
<table>
<thead>
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<td>Medical-Surgical Nursing</td>
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<td>Health Oc. 125b</td>
<td>Medical-Surgical Nursing</td>
<td>5</td>
</tr>
<tr>
<td>Health Oc. 128</td>
<td>Community Health</td>
<td>3</td>
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<tr>
<td>Health Oc. 140a</td>
<td>Clinic</td>
<td>8</td>
</tr>
<tr>
<td>Health Oc. 140b</td>
<td>Clinic</td>
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<tr>
<td>Health Oc. 140c</td>
<td>Clinic</td>
<td>8</td>
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<tr>
<td>Health Oc. 140d</td>
<td>Clinic</td>
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TOTAL REQUIRED UNITS 72
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 111. Principles of Biology (5).
- Biology 120. Fundamentals of Plant 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 111. Rocks and Minerals (2).
- Earth Science 112. Erosion — Water, Wind and Ice (1).
- Earth Science 113. Mountains and Earthquakes (1).

C. OTHER SOCIAL SCIENCES COURSES

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

HUMANITIES

A 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).
- English 146a or 146b or 146c. Survey of English Literature (4) (4).

B. SOCIAL SCIENCES

- Anthropology 101a or 101b. Introduction to Anthropology (5).
- Psychology 101. Introduction to Psychology (5).
- Sociology 101. Introduction to Sociology (5).

C. OTHER SOCIAL SCIENCES COURSES

- Anthropology 115. Indians of North America (5).
- Geography 102. Introduction to Cultural Geography (5).
- History 155. The American Frontier (4).
- Psychology 130. Personal and Social Adjustment (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).
- English 146a or 146b or 146c. Survey of English Literature (4) (4).
- History 104a or 104b or 104c. World Civilization (4) (4).
Interdisciplinary Studies 105. Humanities Through the Arts (4).
Philosophy 101. Knowledge and Reality (4).
Philosophy 108. Humanistic and Scientific Thought (4).
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).
Interdisciplinary Studies 101. Introduction to Fine Arts (4).
Music 102. Introduction to Music (4).

LEARNING SKILLS (Basic Subjects)
One course must be completed from each category — A, Communications; B, Computation Skills; and C, Health Education/Physical Education.

A. COMMUNICATIONS
   English 51. College Composition (4).
   English/Office Occ 65 and Occ 68. Business English and Business Correspondence (2) (3).
   English 101a. Reading and Composition (5).

B. COMPUTATION SKILLS
   Mathematics 55. Beginning Algebra (5).

C. HEALTH EDUCATION/PHYSICAL EDUCATION
   P.E. activity classes (2 courses minimum) (P.E. 120, 130, 140, 150, 160 or 173a).

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:

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

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.

CALIFORNIA STATE UNIVERSITIES AND COLLEGES
GENERAL EDUCATION BREADTH REQUIREMENTS

Columbia College has adopted a pattern of General Education Breadth Requirements accepted by the state universities and colleges.

Completion of the pattern satisfies 60 quarter units of General Education at any state university or college. If a state university or college requires more than 60 quarter units, the student may take the additional units after transfer.

Columbia College will certify completion of the pattern of General Education Breadth Requirements in total or in part for students transferring to state universities and colleges.

COLUMBIA COLLEGE PATTERN

NATURAL SCIENCES
A minimum of 3 units from each Category A, Biological Sciences, and Category B, Physical Sciences, including one laboratory course, must be completed.

A. BIOLOGICAL SCIENCES
   Biology 100. Biology, Man and Contemporary Society (4).
   Biology 110. Fundamentals of Biology (4). (lab course)
   Biology 111. Principles of Biology (5). (lab course)
   Biology 120. Fundamentals of Plant Biology (3). (lab course)
   Biology 130. Fundamentals of Animal Biology (3). (lab course)

B. PHYSICAL SCIENCES
   Chemistry 100. Fundamentals of Chemistry (4). (lab course)
   Chemistry 101a. General Chemistry (5). (lab course)
   *Earth Science 111. Survey of Astronomy (2).
   *Earth Science 142. Descriptive Astronomy (3).
   *Earth Science 144. General Astronomy (4). (lab course)
   *Earth Science 161. Survey of Meteorology (2).
   *Earth Science 171. Survey of Oceanography (2).
   Physics 100. Modern Physics (3).

   *Any two of the series 101, 141, 161, 171 or all three of 111, 112, 113 will fulfill General Education Breadth Requirements of a laboratory science.

SOCIAL SCIENCE
Two courses must be completed from Category A, American History and Institutions, and three courses from Category B, Social Science Courses.

A. AMERICAN HISTORY AND INSTITUTIONS
   History 117a. United States (5).
   History 117b. United States (5).
   Political Science 101. Constitutional Government (3 units min.)

B. SOCIAL SCIENCE COURSES
   Anthropology 101a or 101b. Introduction to Anthropology (5).
   Psychology 101. Introduction to Psychology (5).
   Sociology 101. Introduction to Sociology (5).

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

A. LITERATURE, HISTORY AND PHILOSOPHY
   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).
Interdisciplinary Studies 105. Humanities Through the Arts (4).
Philosophy 101. Knowledge and Reality (4).
Philosophy 108. Humanistic and Scientific Thought (4).
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).
Interdisciplinary Studies 101. Introduction to Fine Arts (4).
Music 102. Introduction to Music (4).

LEARNING SKILLS (Basic Subjects)
The courses listed in Category A, Communications, and Category B, Computation Skills, and one of the two options listed in Category C, Health Education/Physical Education, must be completed.

A. COMMUNICATIONS
   English 101a and 101b. Reading and Composition (5) (5).

B. COMPUTATION SKILLS

C. HEALTH EDUCATION/PHYSICAL EDUCATION
   P.E. activity class (2 courses minimum)
   (P.E. 120, 130, 140, 150, 160 or 173a).

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 eligible for direct admission to the University from high school may transfer at the end of any quarter with a cumulative Grade Point Average of 2.0 ("C") or better.

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.
COURSE INFORMATION

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 1-6 hours for 1-6 units of credit.
   Classes in which a particular topic in a discipline (such as History) is treated 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. 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 1-6 hours for 1-6 units of credit.
   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.

ANTHROPOLOGY

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 32 for conditions, limitations.)

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

(a) Physical
   Lecture 5 hours
   Man and his evolutionary history with emphasis on recent developments; primatology; the fossil sequence beginning with preman 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.
ANTHROPOLOGY/APPRENTICE CARPENTRY

101abc. (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.

115. Indians of North America

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 101abc.

101abc. Apprentice Carpentry

(a) Prerequisite: Apprentice Carpentry 101a or Consent of Instructor

Lecture 3 hours


102abc. Apprentice Carpentry

(a) Prerequisite: Apprentice Carpentry 101c

Lecture 3 hours

103abc. Apprentice Carpentry

(a) Prerequisite: Apprentice Carpentry 102a.

Lecture 3 hours

Simplified framing, framing tables, sheathing, and insulation.

(b) Prerequisite: Apprentice Carpentry 102b.

Lecture 3 hours

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

(c) Prerequisite: Apprentice Carpentry 102c.

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.
ART

100.  Portrait Drawing  

   Studio 2 hours  
   Introduction to portrait drawing emphasizing interesting Mother Lode personalities.

109abc.  Life Drawing  

   (a)  Introductory  
   Studio 3-6 hours  
   Problems in figure drawing, working from the undraped model.  
   May be repeated one time.

   (b)  Advanced  
   Studio 3-6 hours  
   An extension of Art 109a emphasizing various media and compositional problems.  
   May be repeated one time.

   (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.

111abc.  History of Art  

   (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  

   (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  

   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  

   (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.

   (b)  Advanced  
   Studio 3-6 hours  
   An extension of Art 121a emphasizing technique.  
   May be repeated one time.

   (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.

122abc.  Oil Painting  

   (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.

123abc.  Watercolor  

   (a)  Introductory  
   Studio 3-6 hours  
   Introduction to the basic techniques and problems of transparent watercolors.
ART

123abc. (continued)

(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.

125. Mixed Media Painting

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

Studio 6 hours

Group participation in planning, designing, and executing large scale wall paintings.

131abc. Ceramics

(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.

133. Primitive and Environmental Ceramics

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.

141ab. Photography

(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

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.

145. Field Photography

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

(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.

(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 (See also Drama 156) (1-3)
   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).

163ab. Puppetry (See also Drama 163ab) (4)
   (a) Lecture 3 hours
   Laboratory 3 hours
   The design and construction of puppets and puppet theatres; techni-
   ques in manipulation and puppet play production; the survey and
   adaptation of appropriate literature for the puppet stage; rehearsal
   and performance experience in creative puppetry.

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. Em-
   phasis will be placed on design in western tooling and other leather
   working processes.
   May be repeated.

167abc. Textile Design (2)
   (a) Introductory
   Studio 4 hours
   Introduction to basic textile design. Problems and techniques of the
   fiber arts.
   May be repeated one time.

   (b) Advanced
   Prerequisite: Art 167a or Consent of Instructor
   Studio 4 hours
   Continuation of Art 167a with emphasis on original concepts in tex-
   tile design.
   May be repeated one time.

   (c) Special Problems
   Prerequisite: Art 167b or Consent of Instructor
   Studio 4 hours
   Continuation of Art 167b with special emphasis on advanced in-
   dividual projects and non-traditional approaches.
   May be repeated one time.

169abcd. Silversmithing (1.5)
   (a) Introductory
   Studio 3 hours
   Manufacture of jewelry and related items made of silver. Selecting
   and polishing stones to be mounted.
ART/AVIATION

169abcd. (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

(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

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

May be repeated.

AVIATION

105. Private Pilot Ground School

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

(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

(a) Prerequisite: Aviation 105.
Lecture 3 hours
Preparation for Federal Aviation Administration written examination for instrument rating certificate.

(b) Prerequisite: Aviation 115a.
Lecture 3 hours

Airports and Operation

Lecture 3 hours
An overview of the major functions of an airport from a management point of view.

Organic Living

Lecture 1 hour
A course in living a simple, self-sufficient lifestyle. Producing and preserving foods, dietary requirements and food additives, and small animal husbandry are among the topics discussed and demonstrated.

Organic Gardening

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.
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<tr>
<th>Course Code</th>
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<th>Code</th>
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<tbody>
<tr>
<td>58.</td>
<td>Birds of the Mother Lode</td>
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<td>(2)</td>
<td>Fundamentals of Biology</td>
<td>(4)</td>
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<td>A survey of the birds of the Mother Lode area of</td>
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<td>Modern concepts, inquiry methods, and historical</td>
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<td>California through field observations. Stresses</td>
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<td>patterns. Discusses ecological relationships,</td>
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<td>nesting habits, and economic importance.</td>
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<td>Field trips will be required.</td>
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<td>59.</td>
<td>Wildflowers of the Mother Lode</td>
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<td>(3)</td>
<td>Principles of Biology</td>
<td>(5)</td>
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<td>Lecture 3 hours</td>
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<td>Prerequisite: One year of high school chemistry</td>
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<td>Wildflowers of the Mother Lode with emphasis on</td>
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<td>common and scientific names of wild flowers.</td>
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<td>60.</td>
<td>Natural History and Ecology</td>
<td></td>
<td>(3)</td>
<td>Heredity and Evolution</td>
<td>(4)</td>
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<tr>
<td></td>
<td>Lecture 2 hours</td>
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<td></td>
<td>Laboratory 3 hours</td>
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<td></td>
<td>Natural history of California flora and fauna</td>
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<td>with emphasis on ecological principles and</td>
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<td>relationships.</td>
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<td></td>
<td>Field trips may be required.</td>
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<td>65.</td>
<td>Desert Wildflowers</td>
<td></td>
<td>(1)</td>
<td>Fundamentals of Plant Biology</td>
<td>(3)</td>
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<td></td>
<td>Lecture .5 hours</td>
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<td>Laboratory 1.5 hours</td>
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<td></td>
<td>An introduction to desert wildflowers and their</td>
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<td>common names.</td>
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<td>Field trips may be required.</td>
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<tr>
<td>68.</td>
<td>Birds of the Sierra Nevada</td>
<td></td>
<td>(2)</td>
<td>Principles of Plant Biology</td>
<td>(5)</td>
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<tr>
<td></td>
<td>Lecture 1 hour</td>
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<td>Laboratory 3 hours</td>
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<td>Study of bird species inhabiting alpine</td>
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<td>meadows and forests of the Sierra Nevada through</td>
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<td>field observations and lectures. Normally</td>
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<td>offered during summer only.</td>
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<td>Field trips required.</td>
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<td>May be repeated one time.</td>
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<td>100.</td>
<td>Biology, Man and Contemporary Society</td>
<td></td>
<td>(4)</td>
<td>Plant Taxonomy of the Sierra Nevada</td>
<td>(4)</td>
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<td></td>
<td>Lecture 4 hours</td>
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<td></td>
<td>A study of the biological concepts of ecology,</td>
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<td>genetics, and behavior as they relate to</td>
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<td></td>
<td>modern society.</td>
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<td>76</td>
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</tr>
</tbody>
</table>
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.

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
Regular Quarters: Field studies of terrestrial ecosystems with emphasis on techniques for gathering and analysis of physical biological data.
Field trips are required.
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.
(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.

**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 for both. May not be repeated.)

Business Administration
See Pages 44-45 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.
### BUSINESS ADMINISTRATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>115ab.</td>
<td>Commercial Law</td>
<td>(3) (3)</td>
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<tr>
<td>(a)</td>
<td>Lecture 3 hours</td>
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<td></td>
<td>Historical development of common law; statutes of California. Federal and State court decisions; legal aspects of business; law of contracts, agency and employment.</td>
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<td>(b)</td>
<td>Lecture 3 hours</td>
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<td>Law of sales, negotiable instruments, personal property, real property, partnerships, corporations, insurance, suretyship.</td>
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<td>120.</td>
<td>Principles of Marketing</td>
<td>(5)</td>
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<td></td>
<td>Lecture 5 hours</td>
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<td></td>
<td>Marketing principles, policies, and functions, price policies and controls, trade channels, merchandising, market research, advertising, and competitive practices.</td>
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<td>123.</td>
<td>Sales</td>
<td>(3)</td>
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<td>Lecture 3 hours</td>
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<td>Description of the fundamental principles and practices of sales. Critical look at the selling process.</td>
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<td>125.</td>
<td>Advertising and Display Promotion</td>
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<td>Lecture 3 hours</td>
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<td></td>
<td>Fundamental principles and practices of merchandising through advertising and display.</td>
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<tr>
<td>130abc.</td>
<td>Accounting</td>
<td>(4) (4)</td>
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<tr>
<td>(a)</td>
<td>Lecture 4 hours</td>
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<td></td>
<td>Accounting principles and procedures, closing books, revenue and expense adjustments, merchandising operations, statement and ledger organization, receivables and payables, deferrals and accruals.</td>
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<td></td>
<td><strong>Prerequisite:</strong> Business Ad. 130a.</td>
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<td>(b)</td>
<td>Lecture 4 hours</td>
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<td></td>
<td>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.</td>
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<td><strong>Prerequisite:</strong> Business Ad. 130b.</td>
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<td>(c)</td>
<td>Lecture 4 hours</td>
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<td></td>
<td>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.</td>
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</tbody>
</table>

### BUSINESS ADMINISTRATION/OFFICE OCCUPATIONS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>140.</td>
<td>Principles of Management</td>
<td>(5)</td>
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<tr>
<td></td>
<td>Lecture 5 hours</td>
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<td></td>
<td>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.</td>
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<tr>
<td>145.</td>
<td>Retail Business Management</td>
<td>(4)</td>
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<td>Lecture 4 hours</td>
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<td></td>
<td>The retailing world and its functions including organization, buying, merchandising, store management and operations, customer operations, financial control, and systematic problem solving techniques.</td>
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<tr>
<td>150.</td>
<td>Small Business Management</td>
<td>(3)</td>
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<td>Lecture 3 hours</td>
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<td></td>
<td>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.</td>
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<td>160.</td>
<td>Introduction to Public Administration</td>
<td>(3)</td>
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<td>Lecture 3 hours</td>
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<td></td>
<td>Fundamental principles and practices underlying the field of public administration in federal, state, and local government, career opportunities, and responsibilities.</td>
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<tr>
<td>163.</td>
<td>Public Personnel Administration</td>
<td>(3)</td>
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<td>Lecture 3 hours</td>
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<td>Fundamental principles and practices underlying public fiscal policy including budget process, taxing and revenue systems, federal government financial assistance, fiscal legislation and regulations.</td>
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<td>165.</td>
<td>Public Finance Administration</td>
<td>(3)</td>
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<td>Lecture 3 hours</td>
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<td></td>
<td>Fundamental principles and practices underlying public fiscal policy including budget process, taxing and revenue systems, federal government financial assistance, fiscal legislation and regulations.</td>
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<td></td>
<td><strong>Office Occupations</strong></td>
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<td>See Pages 49-50 for Certificate Requirements</td>
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<tr>
<td>50.</td>
<td>Personal Typing</td>
<td>(3)</td>
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<tr>
<td></td>
<td>Lecture 2 hours</td>
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<td></td>
<td>Laboratory 3 hours</td>
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<td>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.</td>
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</table>
**OFFICE OCCUPATIONS**

53. **Review Typing**
   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 Stenography (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) (2)**
   Lecture 1 hour
   Laboratory 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.)*

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.

101. **Beginning Typing**
    Lecture 3 hours
    Laboratory 3 hours
    Development of speech and accuracy, typing skills for vocational or personal use.

103. **Intermediate Typing**
    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**
    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 (3)**
    Prerequisite: Office Occupations 103, Office Occupations 132.
    Laboratory 9 hours
    Development of skills in performing secretarial operations on the automated or memory typewriter.

110ab. **Beginning Stenography (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.

111ab. **Machine Shorthand (4)**
    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.
### 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.

### Intermediate Stenography (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.

### Advanced Stenography (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.

### 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.

### Filling Systems and Records Management
**Lecture:** 3 hours
Study of alphabetic, numeric, geographic, and subject filing systems; survey of records management procedures.

### Machine Transcription
**Prerequisite:** Office Occupations 103 or equivalent experience.
- **Lecture:** 2 hours
- **Laboratory:** 3 hours
Study and use of various transcribing machines.
REAL ESTATE/SUPERVISION

Real Estate
See Page 51 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
See Page 51 for Certificate Requirements

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.

SUPERVISION/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 granted 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.

101abc. General Chemistry (5) (5) (5)
(a) Prerequisite: One year of high school chemistry with a "B" average and Math. 101 or equivalent; or Chemistry 100 and Math. 101; or Consent of Instructor.
Lecture 3 hours
Laboratory 6 hours
Survey of atoms, molecules, ions, chemical bonding, gases and organic compounds.

(b) Prerequisite: Chemistry 101a or equivalent or Consent of Instructor.
Lecture 3 hours
Laboratory 6 hours
Survey of liquids, solids, solutions, kinetics, equilibria and thermodynamics.
### CHEMISTRY/CONSTRUCTION

**101abc. (continued)**

- **(c)** Prerequisite: Chemistry 101b or equivalent.
  - Lecture 3 hours
  - Laboratory 6 hours
  - Survey of acids, bases, complex ions, oxidation-reduction and nuclear chemistry.

**108ab.** Chemistry of Carbon Compounds (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 preventive 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.

**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.

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**CONSTRUCTION/DRAFTING**

**121.** Introduction to Residential Plumbing (3)

- Lecture 3 hours

**DRAFTING**

**110abc. Basic Drafting (3) (3) (3)**

- **(a)** Prerequisite: Drafting 110a.
  - Lecture 2 hours
  - Laboratory 3 hours
  - The use of tools and materials, knowledge of lettering; geometry; freehand sketching, othographic 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.
DRAFTING/DRAMA

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 (See also P.E. 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 Drama 117 or P.E. 117, but not both.)

118. Circus and Clown (See also P.E. 118) (4)
Lecture 3 hours
Laboratory 3 hours
A study of "clowning" with specific concentration on the silent acting performing format, as well as the development of comic stunts, clown shows, and comic acrobatic exhibition.
(Credit will be awarded for either Drama 118 or P.E. 118 but not both. May not be repeated.)

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)  
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  
(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  
(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.

(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.  
(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)  
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  
(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  
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  
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  
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.)

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.

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.)

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)
(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.
Prerequisite: Drama 163a or Consent of Instructor.
(b) 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.)
Drama/Earth Science

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.)

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)
(5 Week Short Course — Formerly part of E.S. 100a)
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)
(Formerly part of E.S. 110a)
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.

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
(Formerly part of E.S. 110a)
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
(Formerly part of E.S. 110a)
Lecture 1 hour
The shaping of land by water, wind and ice — erosional and depositional features.

113. Mountains and Earthquakes
(Formerly part of E.S. 110a)
Lecture 1 hour
The earth's interior, types of mountains, earthquakes, introduction to global tectonics.

125. Geology of the National Parks
(Formerly E.S. 130)
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
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
(Formerly E.S. 135)
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.)
### EARTH SCIENCE

**141. Survey of Astronomy**  
(5 Week Short Course — Formerly part of E.S. 100a)  
Lecture 3 hours  
Laboratory 3 hours  
A brief survey of the principles of astronomy with emphasis on selected astronomical methods.

**142. Descriptive Astronomy**  
(Formerly E.S. 119)  
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**  
(Formerly E.S. 120)  
Prerequisite: A high school science and Beginning Algebra 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.

**149. Observational Astronomy**  
(Formerly E.S. 121)  
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**  
(Formerly E.S. 122)  
Lecture 4 hours  
History and development of space technology. Basic understanding of the problems of man in space.

**155. Intelligent Extraterrestrial Life**  
(Formerly E.S. 125)  
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.

### EARTH SCIENCE/ECONOMICS

**161. Survey of Meteorology**  
(5 Week Short Course — Formerly part of E.S. 100b)  
Lecture 3 hours  
Laboratory 3 hours  
A brief survey of the principles of meteorology and their effect on modern society.

**171. Survey of Oceanography**  
(5 Week Short Course — Formerly part of E.S. 100b)  
Lecture 3 hours  
Laboratory 3 hours  
A brief survey of the principles of oceanography and their effect on modern society.

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**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**  
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.

**101ab. Principles of Economics**  
(a) Lecture 5 hours  
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**  
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.
**Consumer Economics**  
(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.)

**Money and Banking**  
(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.)

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

**Business English**  
(See also Off. Oc. 65)  
Lecture 1 hour  
Laboratory 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.)

**Writing Laboratory**  
Laboratory 1.5-3 hours  
Individualized instructional materials and tutoring in the basic fundamentals of writing.  
May be repeated for credit.

**Creative Writing**  
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.  
Field trips may be required.

**Film Appreciation**  
Lecture 4 hours  
Development of sensitivity and critical judgment in audience response to film.  
Field trips may be required.

**Literature of the United States**  
(See also Off. Oc. 117)  
(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.
ENGLISH

117abc. (continued)
(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.

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.

ENGLISH/FIRE SCIENCE

146abc. (continued)
(c) Prerequisite: English 51 or English 101a or Consent of Instructor.
Lecture 4 hours
English literature of the 20th century.

149. California Literature
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.

FIRE SCIENCE
See Page 45 for Certificate Requirements

55ab. Volunteer Fireman 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 of 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 To Fire Prevention (3) (3)
(a) Prerequisite: Fire Science 105a or Consent of Instructor.
Lecture 3 hours
(b) 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**  
*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**  
*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**  
*Lecture 3 hours*  
Factors affecting wildland fire prevention, fire behavior, and control techniques.

120. **Heavy Equipment in Fire Control**  
*Lecture 3 hours*  
Theory of heavy equipment used by a coordinated fire control team in fighting range fires.

123. **Fire Hydraulics**  
*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**  
*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**  
*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**  
*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**  
*(See also Hvy. Eqmt. 145)*  
*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.  
*(Credit for this course will be awarded for either Fire Science 145 or Heavy Equipment 145 but not both.)*

### FOREIGN LANGUAGE

50. **Conversational French**  
*Laboratory 3 hours*  
Practice in vocabulary, idioms and grammatical usage.  
*May be repeated for a maximum of 6 units.*

50. **Conversational Italian**  
*Laboratory 3 hours*  
Practice in vocabulary, idioms and grammatical usage.  
*May be repeated for a maximum of 6 units.*

100abc. **Conversational Spanish**  
*(a)*  
*Beginning*  
*Lecture 3 hours*  
*Laboratory 3 hours*  
*May be repeated one time.*  
*(b)*  
*Intermediate*  
*Prerequisite: Spanish 100a or Consent of Instructor.*  
*Lecture 3 hours*  
*Laboratory 3 hours*  
*May be repeated one time.*
FOREIGN LANGUAGE/FORESTRY/FORESTRY TECHNOLOGY

100abc. (continued)

(c) Advanced
Prerequisite: Spanish 100b or Consent of Instructor.
Lecture 3 hours
Laboratory 3 hours
Practice in vocabulary, idioms, 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
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
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
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 im-
portance to forest practices in California.
Field trips may be required.

FORESTRY TECHNOLOGY

See Pages 45-46 for Certificate Requirements

50. Introduction to Technical Forestry
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.

FORESTRY TECHNOLOGY

51. Introduction to Forest Instruments
Lecture 1 hour
Laboratory 3 hours
Installation, use and recording of data and take-down of various
forest instruments; transportation, storage, care and basic maint-
enance.

53. Forest Surveying Techniques
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
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
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.

62. Applied Forest Management
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 prop-
erty boundaries; inventory timber and other natural resources.
Design topographic and timber type map and road system for proper-
ty.
70. Logging Equipment
(See also Heavy Equipment 70)
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.
(Credit for this course will be awarded for either Forestry Technology 70 or Heavy Equipment 70 but not both. May not be repeated.)

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

101. Career Exploration
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)
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.)

120. Interpersonal Growth (See also Psychology 120)
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.

122. Assertive Behavior (See also Psychology 122)
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.)

101. Health and Fitness Education
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. Health: Fads, Frauds and Fallacies
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
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
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.

115. Advanced First Aid and Emergency Care Refresher
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.
HEALTH EDUCATION/HEALTH OCCUPATIONS

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 offered for either Health Education 120 or Hospitality Management 132, but not both. May not be repeated.)

HEALTH OCCUPATIONS

103. Emergency Medical Technician Training  (8)
Prerequisite: One or more of the following: Appropriate emergency medical terminology background; basic first aid; employment that requires the course; medical terminology classes.
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.

107. Emergency Medical Technician Refresher  (2)
Prerequisite: E.M.T. Certificate
Lecture 2 hours
Laboratory ½ hour
Update of the existing E.M.T. certificates which are expiring.

108. 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.

109. Mountain Medicine  (1)
Prerequisite: Health Education 115 or Health Occupations 103 or Consent of Instructor.
Lecture 1 hour
Review of common injuries and illnesses 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.

VOCATIONAL NURSING

See Pages 51-52 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 Admissions 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.
HEALTH OCCUPATIONS

113ab. (continued)

(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 pa­
tient.

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 ad­
ministering 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, cir­
culatory, and respiratory diseases.
(b) Prerequisite: Health Occupations 120a.
Lecture 2 hours
Medications used in the treatment of diseases of the gastro­
intestinal 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
Prerequisite: Health Occupations 110 or Consent of Instructor.
Lecture 3 hours
Disease control and prevention, mental health and first aid, the com­
unity 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.

150. Introduction to Search Theory
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.

151. Managing the Search Function (3)
Prerequisite: Health Occupations 150
Lecture 3 hours
An indepth presentation of those areas unique to search manage­
ment; chalkboard search missions, search management, base camp
and communications management, proper utilization of personnel,
statistical justifications and termination factors.

152. Basic Survival Skill
Lecture 1.5 hours
Laboratory 1.5 hours
An intensive seminar in short-term wilderness survival with em­
phasis on preventing survival emergencies by psychological and
skills preparedness; human energy and water balance, proper
clothing, emergency responses to survival in arid and cold climates.

153. Cold Weather Survival Skills
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.
HEALTH OCCUPATIONS

154. **Wilderness Navigation**
   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.

158. **Introduction to Man Tracking and Sign Cutting**
   Lecture 1 hour
   An overview of current tracking theories and techniques as developed by the U.S. Border Patrol.
   Field trips may be required.

159. **The Use of Dogs In Search and Rescue Operations**
   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.

165. **Introduction to Rescue Techniques**
   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 communications.
   Field trips may be required.

166. **Ascending Techniques in Rescue**
   Prerequisite: Health Occupations 165, Health Occupations 167 or Consent of Instructor.
   Lecture 1 hour
   Laboratory 3 hours
   Instruction and demonstration of safe techniques for the ascent of slopes, buildings, and cliffs. Emphasis will be on rope-safety techniques, knots, belaying and anchors; basic 4-point climbing techniques, friction knots use, and mechanical ascenders.

167. **Descending Techniques in Rescue**
   Lecture 1 hour
   Laboratory 3 hours
   Instruction and demonstration of rope safety techniques for rescue personnel, with emphasis on methods of descent for rescuer and ambulatory victims in wilderness and urban situations.
   Field trips may be required.

168. **Technical Litter Evacuation**
   Prerequisite: Health Occupations 165, Health Occupations 166, 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 settings; 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.

170. **Vehicle Extrication**
   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.
HEALTH OCCUPATIONS/HEAVY EQUIPMENT

172. Swift Water Rescue (2)
Prerequisite: Health Occupations 165 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.

175. 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.

176. 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.

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

HEAVY EQUIPMENT
See Pages 46-47 for Certificate Requirements

50. Bus Driver Training (3)
Prerequisite: Possession of a valid California drivers license.
Lecture 2 hours
Laboratory 3 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.

60. Diesel Engine Tuneup (2)
Lecture 1 hour
Laboratory 3 hours
Principles of diesel engine tuneup and preventive maintenance. Practical experience in tuning a running engine.

70. Logging Equipment (See also Forestry Technology 70) (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. (Credit for this course will be awarded for either Heavy Equipment 70 or Forest Technology 70 but not both. May not be repeated.)

101. Introduction to Heavy Equipment (3)
Lecture 3 hours
Use of heavy equipment in construction industry; safety training and accident prevention; plan reading and grade setting.

103. Heavy Equipment Apprenticeship (1)
Lecture 1 hour
Historical and legal background, administration of apprenticeship systems, the operating engineer apprenticeship, Federal and State laws that provide worker security.

105. Internal Combustion Engines — Diesel (4)
Lecture 2 hours
Laboratory 6 hours
Principles, construction, and operation of diesel engines. Practical experience in dismantling, assembly, operation and maintenance of diesel engines.

106. Internal Combustion Engines — Gasoline (4)
Lecture 2 hours
Laboratory 6 hours
Principles, construction and operation of gasoline engines. Practical experience in engine rebuilding, relating automotive machine shop processes and carburetor rebuilding.

107. Fuel Systems (3)
Lecture 2 hours
Laboratory 3 hours
Introduction to gasoline fuel systems; operation of systems as well as service and maintenance. Emphasis on trouble shooting; diagnosis, and failure analysis.
HEAVY EQUIPMENT

108. Brake Systems (2)
Lecture 1 hour
Laboratory 3 hours
Hydraulic brake system operations as well as maintenance, diagnosis, and service procedures on drum and disc brakes.

109. Heavy Duty Brake Systems (2)
Prerequisite: Heavy Equipment 108 or Consent of Instructor.
Lecture 1 hour
Laboratory 3 hours
Operation and principles of air brake systems as well as the techniques of diagnosis and service.

110. Preventive Maintenance (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.

112. Power Trains (4)
Lecture 2 hours
Laboratory 6 hours
Repair and maintenance of manual transmissions, drive lines, rear axles, locking differentials, transfer cases, locking hubs, and overdrives.

113ab. Automatic Transmissions (2) (2)
(a) Lecture 1 hour
Laboratory 3 hours
Theory of automatic transmissions and their advantages and disadvantages.
(b) Lecture 1 hour
Laboratory 3 hours
Practical experience in disassembly and assembly, failure and analysis, trouble shooting, pressure testing and automatic transmission rebuilding.

115ab. Hydraulic Systems Practical (2) (2)
(a) Lecture 1 hour
Laboratory 3 hours
Prerequisite Hydraulic Systems Practical 115a.
(b) Lecture 1 hour
Laboratory 3 hours
Understanding the operation and principles of hydraulic systems as well as techniques of diagnosis and service as it applies to the hydraulic mechanic.

117. Vehicle Air Conditioning (2)
Lecture 1 hour
Laboratory 3 hours
Understanding the principles and operations of air conditioning, as well as the techniques of recharging diagnosis and service.

120. Gas Welding (2)
Lecture 1 hour
Laboratory 3 hours
Basic gas welding for shop and field repair of heavy equipment components.

123. Welding Non-Ferrous Metals (1)
Laboratory 3 hours
Welding of non-ferrous metals with the oxygen acetylene torch and the shielded arc process.

125. Arc Welding (2)
Lecture 1 hour
Laboratory 3 hours
Basic arc welding for shop and field repair of heavy equipment components.

130ab. Electrical Control Systems (4) (4)
(a) Lecture 2 hours
Laboratory 5 hours
Basic electricity as it relates to construction equipment. Electrical theory, switches, conductors, resistors, semi-conductors, batteries, as well as trouble shooting and rebuilding of charging systems.
(b) Lecture 2 hours
Laboratory 6 hours
Advanced study of electricity, magnetism, starter motors and circuits, magnetos, battery ignition and light plans.

132. Heavy Duty Power Train Repair (2)
Lecture 1 hour
Laboratory 3 hours
Repair of undercarriage, final drives and steering clutches.

134. Heavy Duty Equipment Repair (2)
Lecture 1 hour
Laboratory 3 hours
Repair of air compressors, air tools, and pneumatic operated devices — trucks and rollers.
HEAVY EQUIPMENT

136. Construction Rigging
Lecture 1 hour
Laboratory 3 hours
Use of ropes, chains, hooks and slings. Handling loads on cranes, hoists, derricks. Safe operation of jacks, rollers, and skids.

138ab. Advanced Maintenance Laboratory
(a) Prerequisite: 8 units of shop classes with no more than 2 of the 8 units taken concurrently with Heavy Equipment 138a, or Consent of Instructor.
Laboratory 6 hours
(Independent study and guided practice.)
Special repair projects are assigned to advanced students with emphasis on speed, accuracy, and work habits.

(b) Prerequisite: Heavy Equipment 138a.
Laboratory 6 hours
(Independent study and guided practice.)
A continuation of Heavy Equipment 138a.
May be repeated for a total of three times.

140. Heavy Equipment Attachment Repair
Lecture 1 hour
Laboratory 3 hours
Repair and maintenance of attachments common to construction equipment. Special emphasis on build-up, hardfacing, and repair of bent and broken members under field conditions.

145. Fire Vehicle Maintenance
(See also Fire Science 145)
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 system (fire pumps excluded) and techniques of maintenance.
(Credit for this course will be awarded for either Fire Science 145 or Heavy Equipment 145 but not both.)

170. Directed Field Study
Lecture 1 hour
Laboratory 6 hours
Specialized areas of field work and/or individual study projects not available as regular course offerings.
(See provisions on credit limitation page 33.)

HISTORY

59. Local History
Lecture 1 hour equals 1 unit of credit.
Lecture 1 hour, Laboratory 3 hours equals 2 units of credit.
An introduction to Tuolumne County through the use of speakers, field trips, and informal discussions.
Field trips are required.

104abc. World Civilization
(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
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
Lecture 4 hours
Survey of the development of China from its earliest civilization to its major place in the contemporary world.

117ab. United States
(a) Lecture 5 hours
Historical development of the United States from colonization to the Civil War and Reconstruction; an analysis and interpretation of political, economic, and social institutions and ideas.
(b) Lecture 5 hours
Historical development of the United States through an analysis and interpretation of political, economic, and social institutions and ideas. The Reconstruction period; expansion of the West; growth of industrialization; rise to world power; contemporary American problems.
HISTORY/HOSPITALITY MANAGEMENT

121ab. California (3) (3)
   (a) Lecture 3 hours
   Formative years of California history from the Spanish discovery to 1870; institutions and personalities of the Spanish-Mexican period; United States conquest; and the gold rush period.
   Field trips may be required.
   (b) Lecture 3 hours
   Economic, social, intellectual, and political development of California since 1845. Influences of gold, isolation, transportation, water, petroleum, farming, population growth and progressivism.

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)
   Prerequisite: History 117a Recommended.
   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 47 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 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.

**Lodging**

110. **Hotel-Motel Management** (3)
Prerequisite: Hospitality Management 101 or Consent of Instructor.
Lecture 3 hours
Organization and operation of public lodging facilities.
Field trips may be required.

112. **Front Office Management** (3)
Prerequisite: Hospitality Management 101, Office Occupations 101 or equivalent typing skill or Consent of Instructor.
Lecture 3 hours
Essential equipment, routines, and duties of the front desk clerk and relationships to other hotel departments.
Field trips may be required.

114. **Introduction to Maintenance and Housekeeping** (3)
Lecture 3 hours
Provides essential technical information on equipment and its servicing to establish a preventive maintenance routine. Provides broad scope of the housekeeping position, stressing employee responsibilities, record-keeping, and use of equipment and materials.

116. **Laws of Innkeeping** (3)
Prerequisite: Hospitality Management 101 or Consent of Instructor.
Lecture 3 hours
Legal relationships between California innkeepers and others; rights, duties, and liabilities of innkeepers and their personnel.
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.

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 offered for either Hospitality Management 132 or Health Education 120, but not both. May not be repeated.)

Introducing to Commercial Food Preparation (3) (3)
   (a) Prerequisite: Hospitality Management 130 and a negative tuberculinosis test.
      Lecture 2 hours
      Laboratory 3 hours
      General introduction to safety, sanitation, culinary nomenclature, cook's tools, recipe conversion and food costs. Preparation of beverages, breakfasts and salads. Commissary control and ordering of supplies.
   (b) Prerequisite: Hospitality Management 133a and a negative tuberculinosis test.
      Lecture 1.5 hours
      Laboratory 4.5 hours
      Continuation of Hospitality Management 133a with emphasis on preparation of vegetables, sauces, rice and farinaceous products. Basic techniques of broiling, roasting, sauteing, and deep fat frying.

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.

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.

140. Classical Cuisine (3)
   Prerequisite: Hospitality Management 133ab 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.

143. 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.

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.
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.

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.

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.

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.

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.

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.

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.

Basic 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.

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.

Auto Maintenance (1)
Laboratory 3 hours
Designed to provide the student with information needed to maintain his/her own vehicle.
May be repeated one time.

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/JOURNALISM

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.

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. (This course may be used for
meeting graduation and/or breadth requirements in Art, Drama,
Humanities or Music.)
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 (2) (2) (2)
(a) Prerequisite: Eligibility for English 101a or Consent of Instructor.
Lecture 2 hours
(b) Prerequisite: Journalism 101a.
Lecture 2 hours
(c) Prerequisite: Journalism 101b.
Lecture 2 hours
Introduction to basic newsgathering, writing techniques, production
methods, photography, commercial art, advertising, libel and slander
laws, journalism careers.

JOURNALISM/LAW ENFORCEMENT

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 pro­
grams for application of newsgathering, writing skills and produc­
tion 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.

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 ar­
rest; 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.
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Prerequisite</th>
<th>Lecture Hours</th>
<th>Laboratory Hours</th>
<th>Description</th>
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<tbody>
<tr>
<td>120</td>
<td>Substantive Law</td>
<td>Law Enforcement 100.</td>
<td>4</td>
<td></td>
<td>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.</td>
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<tr>
<td>122</td>
<td>Concepts of Enforcement Services</td>
<td>Law Enforcement 100.</td>
<td>4</td>
<td></td>
<td>Exploration of theories, philosophies, and concepts related to the role expectations of the line enforcement officer. Emphasis on the patrol, traffic, and public service responsibilities and their relationship to the administration of justice system.</td>
</tr>
<tr>
<td>124</td>
<td>Principles of Investigation</td>
<td>Law Enforcement 100.</td>
<td>4</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>130</td>
<td>California Penal Code</td>
<td>Law Enforcement 100.</td>
<td>4</td>
<td></td>
<td>Law relating to criminal offenders and inmates of California institutions; administration of California Penal Code.</td>
</tr>
<tr>
<td>132</td>
<td>Juvenile Procedures</td>
<td>Law Enforcement 100.</td>
<td>4</td>
<td></td>
<td>The organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures.</td>
</tr>
<tr>
<td>134</td>
<td>Self Defense</td>
<td>Law Enforcement 100.</td>
<td>1</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>138</td>
<td>Firearms</td>
<td>Law Enforcement 100.</td>
<td>4</td>
<td></td>
<td>The moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms; firing of the sidearm and shotgun; gas weapons.</td>
</tr>
<tr>
<td>140</td>
<td>Arson Investigation</td>
<td>Law Enforcement 100.</td>
<td>4</td>
<td></td>
<td>Designed to prepare fire suppression officers and police patrol officers to carry out the responsibility of arson detection and establish the foundations for an in-depth arson investigation. (Students may not receive credit for both Fire Science 127 and Law Enforcement 140.)</td>
</tr>
<tr>
<td>150</td>
<td>Supervised Field Work</td>
<td>Law Enforcement 100.</td>
<td>4</td>
<td></td>
<td>Supervised field work with experiences in several of the surrounding facilities involved in crime prevention.</td>
</tr>
<tr>
<td>160</td>
<td>Advanced Officers’ Training</td>
<td>Law Enforcement 100.</td>
<td>2-4</td>
<td></td>
<td>Designed to upgrade officers currently working in any phase of law enforcement. Studies include administration of justice, patrol procedures, criminal law, and criminal investigation.</td>
</tr>
<tr>
<td>101</td>
<td>Introduction to Library Resources</td>
<td>Law Enforcement 100.</td>
<td>1</td>
<td>3</td>
<td>Instruction and practice in locating and utilizing library resources. Emphasis on basic library techniques with respect to preparing bibliographies.</td>
</tr>
<tr>
<td>50</td>
<td>Basic Mathematics</td>
<td>Law Enforcement 100.</td>
<td>1</td>
<td>3</td>
<td>A basic course in arithmetic.</td>
</tr>
</tbody>
</table>
55. **Beginning Algebra**

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**

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)**

Lecture 4 hours

Mathematical problems of buying, selling, interest, discounts, 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)**

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)**

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**

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 and logarithms.

102. **Trigonometry**

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**

Prerequisite: Previous or concurrent enrollment in Math 102 or high school trigonometry.
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, and combinations.

105. **Elements of Statistics**

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**

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.
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.

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.
(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.

Computer Programming (3) (3) (3)
(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.

145. Computer Programming: Applications (3)
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.

MEDIA TECHNOLOGY

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 demonstrations 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.
(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. In-
cluded are rhythm, scales, intervals, chords, notation, melody
writing, elementary harmony, ear training, and keyboard applica-
tions.
(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.
126. **Composition**
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**
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**
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**
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**
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**
Lecture 2 hours
Activity 2 hours
Beginning study in jazz improvisation with emphasis on style, rhythm, and pentatonic and diatonic scales.

140. **Intermediate Guitar**
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**
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**
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**
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**  
*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*  
Individual instruction. One hour lesson per week with a private instructor chosen and paid for by the student and approved by the College Music Department.  
*May be repeated.*

150. **Applied Music, Guitar**  
151. **Applied Music, Keyboard**  
152. **Applied Music, Woodwinds**  
153. **Applied Music, Brass**  
154. **Applied Music, Strings**  
155. **Applied Music, Percussion**  
156. **Applied Music, Voice**  
157. **Applied Music, Synthesizer**

**160. Choir**  
*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**  
*Prerequisite: Audition.*  
*Activity 4 hours*  
Study and performance of vocal jazz and improvisation in an ensemble of limited size.

**165. Theatre Production: Music Emphasis**  
*(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**  
*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**  
*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**  
*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.*

**172. Jazz Ensemble**  
*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**  
*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.*
MUSIC/NATURAL RESOURCES

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 Pages 47-48 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.

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

NATURAL RESOURCES TECHNOLOGY
See Page 48 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.

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.

PHILOSOPHY

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.

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).

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 (See also Physics 108) (4)
   Lecture 4 hours
   A study of the relationships between the sciences and the humanities, and of 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.
**PHILOSOPHY/PHYSICAL EDUCATION**

110ab. (continued)

(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**

(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**

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.

**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**

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**

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.

**PHYSICAL EDUCATION**

105. **Personal Fitness Concepts and Evaluation**

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 decisions about their own personal exercise program and their personal physical fitness directions for a lifetime.

108. **Weight Training Principles and Programming**

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**

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**

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**

(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 Drama 112 or P.E. 112 but not both. May not be repeated for credit.)
PHYSICAL EDUCATION

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 may 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.)

118. Circus and Clown (See also Drama 118) (4)

Lecture 3 hour
Laboratory 3 hours

A study of "clowning" with specific concentration on the silent acting performing format, as well as the developments of comic stunts, clown shows, and comic acrobatic exhibitions.

(Credit will be awarded for either P.E. 118 or Drama 118 but not both. May not be repeated.)

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.)

PHYSICAL EDUCATION

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.

Body Mechanics I
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.

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

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
Prerequisite: Modern Dance I or Consent of Instructor.
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.
PHYSICAL EDUCATION

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.

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.
PHYSICAL EDUCATION

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

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.

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.

Skiing 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; an introduction to power volleyball play.

Weight Training
Prerequisite: Previous or concurrent enrollment in P.E. 108.
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.

PHYSICAL EDUCATION

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.

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.

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

Fitness for the Physically Limited (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.

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.

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.
PHYSICAL EDUCATION

Intercollegiate Athletics
These courses 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
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
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
Prerequisite: Physician Release Form.
Lecture .5 hour
Activity 1 hour
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.

PHYSICS

Modern Physics
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.
PHYSICS/POLITICAL SCIENCE

108. Humanistic and Scientific Thought
(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
(a) 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
(a) Lecture 4 hours
Laboratory 6 hours
(b) Prerequisite: Physics 120a.
Lecture 4 hours
Laboratory 6 hours
(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.

PHYSICS/PSYCHOLOGY

110. American Political Thought
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
Lecture 4 hours
Dynamics of interstate power relations; diplomacy and international law; international, regional and supranational organizations; war and peace; foreign policy.

125. Comparative Political Systems
Lecture 4 hours
Comparative analysis of major political cultures and systems in the Western and non-Western world.

PSYCHOLOGY

101. Introduction to Psychology
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.

103. Social Psychology
Prerequisite: Psychology 101.
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**
Prerequisite: Psychology 101.
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)**
Lecture 2 hours
An inquiry into "What does it mean to 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.

110. **General Psychology**
Prerequisite: Psychology 101.
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.

115. **Introduction to Transactional Analysis**
Lecture 2 hours
Theory of transactional analysis and its application to interpersonal situations.
May be repeated one time.

120. **Interpersonal Growth**
(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**
(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**
Lecture 4 hours
A survey course of the current research in the psychology of consciousness.

125. **Biofeedback and Self-Control**
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**
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)**
Lecture 4 hours
Selected issues concerning the process of aging; the sociopsychological 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.

128. **Death and Dying (See also Sociology 128)**
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.
PSYCHOLOGY/SKILLS DEVELOPMENT

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 (2)
(See also Speech 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 Psychology 135 or Speech 135 but not both. May not be repeated.)

144. Creative Process in Groups (4)
Prerequisite: Psychology 101.
Lecture 4 hours
Creative process of small groups; understanding the creative potential in interpersonal relations.

145. Child Development (5)
Prerequisite: Psychology 101 or Consent of Instructor.
Lecture 5 hours
Growth and development of the child from prenatal life through adolescence.

160. Personality Theory (5)
Prerequisite: Psychology 101.
Lecture 5 hours
A survey course of the various theories of personality development.

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.

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.
### SKILLS DEVELOPMENT/SOCIAL SCIENCES

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>Speed Reading</td>
<td>(1-2)</td>
<td>Designed to help competent readers improve their reading rate and skimming and scanning skills, to facilitate rapid reading for any purpose. <strong>May be repeated to a maximum of 3 units of credit.</strong></td>
</tr>
<tr>
<td>90</td>
<td>Study Skills</td>
<td>(1-3)</td>
<td>Improvement of the basic study skills. <strong>May be repeated for a maximum of 3 units of credit.</strong></td>
</tr>
<tr>
<td>92</td>
<td>Library Skills</td>
<td>(1)</td>
<td>A course to help students develop skill in using the library.</td>
</tr>
<tr>
<td>95</td>
<td>Test Taking Skills</td>
<td>(1)</td>
<td>A course designed to help students develop skills in taking tests and examinations.</td>
</tr>
<tr>
<td>98</td>
<td>Peer Tutoring</td>
<td>(2)</td>
<td><em>Prerequisite: Approvals of tutoring instructor, tutorial coordinator, and instructor in the discipline to be tutored.</em> <strong>Lecture 1 hour Laboratory 3 hours</strong> Provides students with an opportunity to give academic assistance to other students. <em>(Course will be offered for Credit/No Credit only.)</em> May be repeated on time for credit.</td>
</tr>
</tbody>
</table>

### SOCIAL SCIENCES

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
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</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>Introduction to Crisis Intervention</td>
<td>(3)</td>
<td><strong>Lecture 3 hours</strong> Examination of knowledge and skills necessary for effective initial intervention when a social crisis occurs in families or for an individual.</td>
</tr>
<tr>
<td>140</td>
<td>Human Sexual Behavior</td>
<td>(3-5)</td>
<td><strong>Lecture 3-5 hours</strong> 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. <em>(Three unit course offered evenings only.)</em></td>
</tr>
</tbody>
</table>

### SOCIOLOGY

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
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</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>People in Groups: Introduction to Sociology</td>
<td>(5)</td>
<td><strong>Lecture 5 hours</strong> People in relation to their physical, cultural, and social environment, with emphasis on the socialization process, stratification, sex roles, deviance, and social control.</td>
</tr>
<tr>
<td>102</td>
<td>American Social Patterns</td>
<td>(5)</td>
<td><strong>Lecture 5 hours</strong> 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.</td>
</tr>
<tr>
<td>110</td>
<td>Deviance and Conflict</td>
<td>(5)</td>
<td><strong>Lecture 5 hours</strong> 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. <em>Field trips may be required.</em></td>
</tr>
<tr>
<td>111</td>
<td>Crime and Delinquency</td>
<td>(4)</td>
<td><strong>Lecture 4 hours</strong> 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.</td>
</tr>
<tr>
<td>112</td>
<td>Family, Marriage, and The Individual</td>
<td>(4)</td>
<td><strong>Lecture 4 hours</strong> 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.</td>
</tr>
<tr>
<td>119</td>
<td>Women in Society</td>
<td>(4)</td>
<td><strong>Lecture 4 hours</strong> 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. <em>Field trips may be required.</em></td>
</tr>
</tbody>
</table>
### Sociology/Speech

#### 127. Aging (See also Psychology 127) (4)
- **Lecture 4 hours**
- Selected issues concerning the process of aging; the sociopsychological 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 101 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.

#### 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 (See also Drama 102) (5)
- **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 (See also Drama 122) (4)
- **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 (See also Psychology 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.
  
  *(Credit for this course will be awarded for either Speech 135 or Psychology 135 but not both. May not be repeated.)*

#### 150ab. Sign Language (2) (2)
- **Lecture 2 hours**
- Developing receptive and expressive skills in sign language, including skills in finger spelling. Receptive skills emphasized. The sign language system emphasized in Signing Exact English.
  
  *May be repeated for credit.*
SPEECH/TEACHER AIDE TRAINING

(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
See Page 51 for Certificate Requirements

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)
(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.

WORK EXPERIENCE

95. Occupational Work Experience (Alternate Term Plan) (1-12)
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 Coordinator and concurrent enrollment in General 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.
HIGH SCHOOL COURSES

(Each course earns 5 credits toward a high school diploma. Certain college courses may be substituted for some of the high school courses listed below when written approval is given by the appropriate high school district superintendent.)

English I. Grammar and Composition
   Lecture 6 hours
   Reading, grammar, and composition skills with emphasis on sentence patterns, punctuation, vocabulary, and spelling.

English II. Intermediate Grammar and Composition
   Prerequisite: English I.
   Lecture 6 hours
   Continuation of English I; emphasis on complex sentence patterns, grammar techniques and accuracy in writing.

English III. Advanced Grammar and Composition
   Prerequisite: English II.
   Lecture 6 hours
   Continuation of English II; emphasis on advanced usage in grammar, writing, and reading.

Civics: State, Local, and Federal Government
   Lecture 6 hours
   Origin, development, structure, and functions of the state, local and federal government. Analysis of American democratic ideals and system of government compared with other forms of government.

United States History
   Lecture 6 hours
   American history from English colonization to the present.

General Mathematics
   Lecture 6 hours
   Refresher mathematics with emphasis on operation and application of real numbers; fractions, decimals, and percentages.

General Science
   Lecture 6 hours
   Introduction to science; concepts, techniques and limitations of physical and biological science.
COLUMBIA COLLEGE
CAMPUS MAP

KEY:
1 Learning Resources Center, Rms. 100-110
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
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 Carkew Community Park
17 Nature Trail
18 Warehouse, Shipping, Receiving, and Maintenance
19 Mi-Wok Cultural Center
20 Astronomy Dome
21 Career Center-Job Placement
22 Staff Parking
23 Handicapped Parking

Restrooms in building
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 transsects 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 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 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.

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 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 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 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 Function
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.

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.
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NANCY T. HORNBERGER (1974)  
B.A., University of Rochester  
M.A., University of the Pacific

THELMA A. JENSEN (1968)  
R.N., Highland School of Nursing  
A.A., Columbia College

GLORIA L. JACOBSON (1979)  
B.S., Loma Linda University

DONALD A. JONES (1968)  
A.A., San Francisco City College  
A.B., California State University, San Francisco  
M.A., California State University, San Francisco

MATILD M. KAMBER (1976)  
B.A. American College for Girls, Istanbul, Turkey  
M.A., University of Istanbul

JAMES R. KINDLE (1974)  
B.A., Wisconsin State College  
M.A., Rockford College  
M.A., Colorado Springs College

DOUGLAS E. KOTAREK (1974)  
B.S., Northern Illinois University  
M.B.A., Northern Illinois University

WALTER L. LEINEKE (1968)  
B.A., California State University, Sacramento  
M.A., California State University, San Francisco

JERRY D. LYON (1971)  
A.A., Edinburg Junior College  
B.B.A., University of Texas  
M.E., Abilene Christian College

ROBERT L. McDONALD (1969)  
A.A., Mount San Antonio College  
B.S., California State Polytechnic University, Pomona  
M.A., California State Polytechnic University, Pomona

JOHN C. MENZIE (1980)  
A.B., University of California  
M.A.T., Brown University  
Ed.D., University of California

JOHN C. MINOR (1970)  
B.A., Linfield College  
M.A., University of Washington

CHESTER H. PALMER (1976)  
B.A., University of Arizona  
M.A., University of Arizona

BLAINE D. ROGERS (1972)  
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RICHARD H. ROGERS (1968)  
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JOHN R. ROSS (1970)  
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MELBORN N. SIMMONS (1969)  
B.S.E., Henderson State College  
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RAYMOND L. STEUBEN (1976)  
B.A., University of California, Santa Barbara  
M.L.S., University of California, Los Angeles

V. PETER SULLIVAN (1961)  
A.A., Modesto Junior College  
B.A., Pepperdine University  
M.A., California State University, Sacramento

CANDACE L. WILLIAMSON (1979)  
B.A., California State University, Humboldt  
M.A., California State University, Humboldt

DAVID I. WILLSON (1975)  
B.S., California Polytechnic State University, San Luis Obispo  
M.A., California Polytechnic State University, San Luis Obispo

A.A., Solano College  
B.A., San Jose State College  
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CLARENCE O. WOLGAMOTT, JR. (1971)  
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M.S., California State University, Hayward

CLARENCE O. WOLGAMOTT, JR. (1971)  
B.S., Tennessee Technological University  
M.A., Tennessee Technological University
FACULTY ON LEAVE

VIRGINIA L. BLACKBURN (1967)
B.A., Wichita State University
M.A., Claremont Graduate School

ROBERT W. DEAL (1966)
B.S., Kent State University
M.A., Kent State University

MARION C. EVANS (1975)
R.N., St. Therese School of Nursing, DePaul University
B.V.E., California State University, Sacramento

DAVID G. PURDY (1971)
B.A., California State University, San Jose
M.A., California State University, Fresno

ELLEN H. STEWART (1979)
B.A., San Francisco State University
M.A., Fresno State University

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

HARVEY B. RHODES (1947)
A.B., California State University, San Jose
M.S., University of Southern California
Ed. D., University of California, Berkeley

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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 the Yosemite Community College 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 colleges and who meets such prerequisites as may be established pursuant to Chapter II, Division 2, Title 5 of the California Administrative Code, commencing with Section 51820.

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.