PHILOSOPHY

This community College is dedicated to the worth and dignity of each student. It will be subservient to the goals of the student, his needs, his desires, his aspirations.

Columbia Junior College will involve each student in opportunities to develop his capabilities to become a useful and contributing member of the American society. This will be accomplished through a living, dynamic, and continuing experience where each individual can confront opportunities to actively participate in the learning process. In effect, education will not happen to him, but with him and by him.
FALL QUARTER 1970

Aug. 17-Sep. 16 ............. Registration for fall quarter
Sep. 17-18 ................. Late registration
21 ................ Instruction begins
25 ................ Last day to enter class
Nov. 11 .................. HOLIDAY (Veterans Day)
13 ................ Last day to drop class without penalty
26-27 .................. HOLIDAY (Thanksgiving)
30 ................ Beginning advisement for winter quarter
Dec. 16-18 ............... Final examinations
Dec. 21-Jan. 1 .......... CHRISTMAS RECESS

WINTER QUARTER 1971

Dec. 29-30 ............... Late registration
Jan. 4 ................ Instruction begins
8 ................ Last day to enter class
Feb. 12 .................. HOLIDAY (Lincoln Day)
15 ................ HOLIDAY (Washington Day)
26 ................ Last day to drop class without penalty
Mar. 1 ................ Beginning advisement for spring quarter
17-19 .................. Final examinations
22-26 ................ SPRING RECESS

SPRING QUARTER 1971

Mar. 25-26 .............. Late registration
29 ................ Instruction begins
Apr. 2 ................ Last day to enter class
May 21 ................ Last day to drop class without penalty
24 ................ Beginning advisement for fall quarter
31 ................ HOLIDAY (Memorial Day)
June 9-11 ............... Final examinations
10 ................ GRADUATION

SUMMER SESSION 1971

June 24-25 ............... Registration for summer session
28 ................ Instruction begins
30 ................ Last day to enter class
July 5 .................. HOLIDAY (Independence Day)
27 ................ Last day to drop class without penalty
30 ................ Campus Summer Program Ends
Aug. 6 .................... Off Campus Summer Program Ends
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This College shall focus on student success. This will be accomplished by preserving an environment where each individual will have maximum freedom of choice. Each student will be offered an opportunity to profit from education to the fullest extent of his capabilities.
QUESTIONS OF INTEREST

Who May Attend Junior College?
By State law, junior colleges are open to high school graduates and other persons 18 years of age or older who can profit from instruction.

Am I Eligible to Attend Columbia Junior College?
Any legal resident of the Yosemite Junior College District is eligible to attend Columbia Junior College.

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

Residents of other junior college districts may attend Columbia when they have obtained an attendance permit from their junior college district of residence. (Page 16)

May Out-of-State Students Attend Columbia?
Yes, residents of other states may attend Columbia; however, a nonresident tuition fee is charged. ($675.00 per school year)

May International Students Attend Columbia?
Yes, Columbia welcomes international students provided they have proper visas, show financial responsibility, and meet other educational requirements. (Page 18)

Are There Tuition Costs at Columbia?
There is no tuition fee for California residents.

Nonresidents of California are required to pay an out-of-state tuition fee of $9.33 per quarter unit. International students are required to pay tuition fees on the same basis as out-of-state students.

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 $25 to $50 per quarter. Some programs may be more expensive, others less.

Why Are Textbooks and Educational Supplies So Expensive?
Actually, the cost of a first-rate textbook is quite reasonable when one considers the amount of scholarly effort that has gone into its production. Textbooks must constantly be revised and updated to keep them useful. One also must realize that an average textbook will not have nearly the degree of circulation that a "best seller" may enjoy, and the limited nature of the edition is reflected in its price.

How Can I Regain Some of My Textbook Investment?
The College-operated Manzanita Bookstore will buy back textbooks which will be reused in courses. The trade-in price will depend on the condition, original cost, and resale value.

Does the Bookstore Make a Profit?
The Manzanita Bookstore is not in business to make a profit. Its function is to provide textbooks and quality educational supplies at the lowest possible price for students and faculty of Columbia Junior College. The cost of textbooks and supplies is primarily dictated by the firms that supply these materials. Any profits that may accrue from the bookstore operation are allocated to support student services and activities.

Are There Any Other Educational Expenses?
Again, this depends upon the type of program undertaken. Certain classes may assess special fees for consumable items such as welding, art, or craft supplies. Laboratory breakage fees may be assessed if equipment is broken due to negligence. Special activity or field trip classes may require additional expenses.

What Kind of Living Accommodations Are Available?
There are no residence halls or dormitories on the campus. Students must make their own arrangements for housing within the community. Listings of rooms, apartments, and houses are posted in the Office of Student Personnel Services.

Rental listings are available at the College.

How Much Should I Plan for Living Expenses?
The following cost breakdown for 10 months is used as a guide for those who live at home and commute to the campus:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Fees</td>
<td>$15.00</td>
</tr>
<tr>
<td>Books and Supplies</td>
<td>150.00</td>
</tr>
<tr>
<td>Meals and Transportation</td>
<td>400.00</td>
</tr>
<tr>
<td>Personal Needs</td>
<td>400.00</td>
</tr>
<tr>
<td>Emergencies</td>
<td>100.00</td>
</tr>
</tbody>
</table>

$1065.00

For those living away from home the costs will increase approximately $1000 for a school year not including a summer session.
Will There Be Bus Transportation to the Campus?
School bus transportation will be provided to the extent and frequency required by student need. Students desiring bus transportation should notify the College so bus schedules can be made to serve the greatest number of students. (Page 22)

Are Scholarships or Student Loans Available?
Several scholarships, grants and student loans have been established. As more civic groups and organizations realize the need, it is anticipated additional loans and scholarships will become available.
Contact the Student Personnel Service Office for further information. (Page 22)

Where Can I Find Out About Job Placement?
The Student Personnel Services Office maintains a list of job vacancies for students. This includes jobs reported by local employers and vacancies for student help on campus. On-campus jobs may include positions as library, bookstore, groundsman and laboratory assistants and part-time clerical helpers for College offices and faculty. (Page 22)

Is There a Student Association?
The Student Executive Council is the elected head of the student government. The Student Executive Council is responsible for the conduct of student business, coordinates the social activities of campus organizations, sponsors educational and recreational opportunities, and serves as spokesman for the student body.

Do I Belong to the Student Association?
All students are members of the Associated Students of Columbia Junior College and are provided a student identification card. Student support demonstrates interest and concern for the college and its programs.

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 Executive Council and College staff along with district policy and college procedures. Columbia is your community college and will be responsive to your interests.

How Can A Counselor Assist Me?
The counselor is readily available in the Student Personnel Services Office. Some of the services include assisting students with schedules, personal problems, housing, financial assistance, scholarships and your general scholastic progress.

How Can I Go About Starting a Student Activity?
First of all, you should discuss your ideas with your fellow students, formulate a plan that you would like to see in operation at Columbia, take it to any faculty member (you may want to orient your activity to the interests of particular faculty members), and he will help you inaugurate a sound program. You are urged to pursue the development of important extracurricular activities and become personally involved.

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 is most reluctant to direct the kind of student activities to be carried on and thus looks to the student body for direction.

How Do I Begin Registration?
You can obtain an application from the College or your high school counselor. Fill out the application, and send high school transcripts and any previous college work completed to the Office of Student Records. After the College receives these documents, you will be scheduled for an advising appointment where your program of classes will be developed and enrollment completed.

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 Junior 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 counselor or Division Deans 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 Dean of General Education. The General Education Major provides greater flexibility in the event you are undecided about your occupational goals. (Page 49)
Who Is My College Advisor?

Your college advisor is a faculty member 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.

How Will My Advisor Be Selected?

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 If I Decide to Change My Major?

The choice of a college program of study and 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, and he will make suggestions as how to best pursue your goals.

What Are Transfer Courses?

Courses designed for transfer to California State Colleges and the University are numbered from 100 to 199. Courses numbered below 100 also may be accepted by colleges where agreements are in effect. 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 you if you have questions. (Pages 39-44)

What Is a Prerequisite? Why Do Some Classes Have Prerequisites?

A prerequisite is a requirement prior to entering certain courses. Prerequisites are intended to insure you have sufficient preparation before entering a course to allow for a reasonable chance of success. (Page 25)

How Can I Get Help With My Reading and Study Skills Problems?

There are two ways to get such help:

(1) You can enroll in a 2 unit course called Reading 21. Developmental Reading (Page 63) which is designed to sharpen your study skills and reading abilities, or

(2) You can pursue a no-credit independent study program which concentrates on your specific needs, e.g., speed reading, vocabulary improvement, how to study the social sciences, etc.

More information will be provided at the Learning Skills Center in the Learning Resources Building.

May Students Take Both Day and Evening Classes?

Classes are scheduled during day and evening as 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.

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 and suggestions for course planning in order to determine graduation requirements.

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 Junior College.
A Guiding Principle...

Each student is a separate and unique individual who shall be accepted as such. The student may fail the institution if he chooses, but the institution shall not fail the student. Moreover, it shall be the responsibility of each staff member to focus on the worth and dignity of each student.
ADMISSIONS

Eligibility
Graduates of accredited high schools or persons 18 years of age or older who are able to profit from instruction are eligible for admission to Columbia Junior College. Admission with Advanced Standing will be granted upon evidence of official transcripts showing satisfactory scholarship and an unqualified honorable dismissal from an accredited college.

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

1. Is a legal resident of the Yosemite Junior College District with a local address.
2. Is a legal resident of a high school district not affiliated with a junior college district.
3. Is a legal resident of another junior college district and presents a proper permit from that district to attend Columbia Junior College.
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 nonresident fee.
6. Is a member of the armed forces on active duty or his dependent.
7. Is a veteran attending under the G.I. Bill.

Interdistrict Attendance Permits
The Yosemite Junior College District, under the provisions enacted by the 1965 Legislature of the State of California, has issued a Notice of Restriction of Attendance to each junior college district in the State.

Students residing in other junior college districts may attend Columbia Junior College under specific terms of interdistrict attendance agreements. Agreements may be negotiated and permits issued when it is demonstrated to be in the best interest of the student or necessary for his educational objectives to attend a college other than in his district of residence.

Admission Procedures
Students who desire admission to Columbia Junior College are to complete and return application forms to the College Office of Student Records. Application forms are available from Columbia Junior College or high school counselors in the Yosemite Junior College District.

Before admittance, official transcripts for high school and previous college work must be received by the College.

It is the student's responsibility to furnish the College with official documentation for previous college work or training to be evaluated for credit.

For students under 21 years of age, a Report of Medical History and Health Evaluation is to be completed by a physician.

Applications should be submitted no later than four weeks prior to the beginning of each quarter. A local address must be supplied before completion of registration.

Notice of Acceptance
Students will be notified officially of their acceptance of admission to Columbia Junior College after all application forms and documents have been received. Advisement appointments will then be scheduled to enable students to register. Early advisement is desirable to allow the student a maximum choice of classes.

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

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
The last day to enter a class is the fifth day of instruction of each quarter, except upon approval of a late registration petition. Late registrants are required to make up course work missed.

Admission After Disqualification
A student disqualified from Columbia or any other college may petition for admission one year after disqualification.

If the petition is approved, the student is placed on probation until his cumulative Grade Point Average is 2.0 ("C" average) or above. A student unable to maintain a "C" average may be permanently disqualified.

Petitions must be submitted 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 Junior 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 Junior College.
3. Have a physician complete a Report of Medical History and Health Evaluation. The report shall be in English and returned to the College.
4. Purchase a comprehensive accident and health insurance policy. This policy may be obtained through the Office of Student Records.
5. Furnish evidence of satisfactory financial support. This may be accomplished by a guarantee of a sponsor residing in the College area or by a deposit of sufficient money in a California bank to insure the student’s ability to meet all financial obligations.

These requirements must be completed six weeks before the start of the first quarter of attendance.

The 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 appropriate Division Dean, may take junior college courses.

This advanced placement program is designed to introduce motivated high school students to a college environment when, in the judgment of their principal and the appropriate Dean, 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 orientation program is presented for incoming students. Information concerning the College's responsibility to the student, the student's responsibility to the College, and student services is discussed.

Orientation programs are informational sessions designed to acquaint students with academic procedures and campus activities, to introduce College staff members, to plan student-faculty meetings, and to outline areas in which students may participate in the College community.

Faculty Advisement Program
Each student will be assigned a faculty advisor to:

1. discuss educational objectives.
2. plan a study program.
3. assist in registration procedures.
4. evaluate academic progress.

The advisement program is an on-going service and students are encouraged to meet with their advisors frequently.

Scheduled student-advisor conferences are held the eighth week 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 at the College Counseling Office upon individual student request.

Columbia Junior College serves as an American College Testing (ACT) Program Center and General Educational Development (GED) Testing Center.

Student Insurance
Broad coverage student health and accident insurance is not carried by the College or District. Students who desire individual protection may make arrangements in the Office of Student Records. A list of programs and activities that require approved health and accident insurance may be obtained from the Office of Student Records.
Student Employment
Employers are encouraged to report job openings with the College. Listings of student employment opportunities are maintained in the Office of Student Records.

Work Study Funds
Students who need financial assistance to defray college expenses may be eligible for funds under the College's Federal Work Study Program. For further information contact the College Financial Aids Officer.

Student Loans, Scholarships, and Grants
To enable students to continue their education, loans, scholarships, and grants have been established by individuals and organizations to provide financial aid. These funds are administered by the College Financial Aids Officer.

Transportation
Bus transportation is provided to students who wish to attend Columbia Junior College. Buses will service Tuolumne, Calaveras, and Stanislaus Counties.
Students requiring bus transportation should notify the College at the time of registration in order that bus schedules may be established.

Selective Service
Students are responsible for communication with their Selective Service Boards on matters relative to draft status.

Veterans Affairs
Students who are eligible to apply for Federal and State educational benefits for veterans should contact the Office of Student Records at the time of registration each quarter.

Student Activities
College life fosters an attitude 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, athletics, community projects, campus improvement, recognition honors, seminars, 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. 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.
ACADEMIC PROCEDURES

Unit of Credit
A “unit of credit” is typically earned on the basis of one hour of lecture-recitation per week or three hours of laboratory activity per week during a quarter. It is common to find courses composed of learning activities resulting in many combinations of lecture-recitation, independent and tutorial study, directed and nondirected laboratory experiences. 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 insure that the student will have sufficient preparation before entering a course and to assure a reasonable chance for his success. Where no prerequisite is stated as part of the course description, none is required. Any prerequisite may be waived 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. Once a course is made a part of the student's program of attendance, his achievement in the course will be recorded on his permanent transcript of record by one of the following symbols:
**Auditing a Course**

Students will not be permitted to attend classes in which they are not officially registered.

**Grade Points**

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

- A — 4 grade points per unit
- B — 3 grade points per unit
- C — 2 grade points per unit
- D — 1 grade point per unit
- F — 0 grade points per unit
- WF — 0 grade points per unit
- W — Not included in computing grade point average.
- I — Not included in computing grade point average.
- CR-NC — Not included in computing grade point average.

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**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:

- 5 units A x 4 = 20 grade points
- 4 units B x 3 = 12 grade points
- 3 units C x 2 = 6 grade points
- 2 units D x 1 = 2 grade points
- 2 units F x 0 = 0 grade points

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

\[
\text{GPA} = \frac{40 \text{ grade points}}{16 \text{ units attempted}} \approx 2.50
\]

The result in this example is a GPA of 2.50.

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

**Repetition of Courses**

Courses for which "D," "F," "WF," "CR," and "NC" grades have been earned at Columbia Junior College may be repeated once.

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," "WF," or "NC" grades were earned, the new grade, grade points, and units for the course will be recorded.

Approval to repeat a course must be authorized by the appropriate Division Dean.

Courses completed with a grade of "C" or better may not be repeated for the purpose of raising the grade.
Incomplete Grades
An incomplete grade ("I") may be given for an approved reason if a student does not complete all course requirements.

The student and instructor will negotiate a "Contract of Performance" for removal of the "I" grade. In the event the student does not fulfill the conditions of the "Contract of Performance" for removal of the incomplete grade within the time specified by the instructor, the "I" grade will revert to an "F" grade on the student's permanent transcript of record. Responsibility for removal of incomplete grades within the time granted by the instructor rests with the student.

Forgiveness of "F" Grades
Any "F" grade recorded on the transcript for the first 45 quarter units of college work attempted will not be included in computing the Grade Point Average for graduation. However, "F" grades will be computed in the Grade Point Average subsequent to the quarter the first 45 quarter units were attempted.

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.

Conditions
To be admitted to Independent Study, a student shall:

(1) have completed two quarters in residence and have a cumulative Grade Point Average of 3.0 ("B" average).
(2) have written approval of the instructor directing the student's Independent Study, and written verification by the Office of Student Records that the maximum credit limitation for Independent Study will not be exceeded.

Limitations
The following limitations apply to Independent Study courses:

(1) Registration is restricted to one Independent Study course per quarter.
(2) Only Credit-No Credit will apply to Independent Study courses.
(3) An overall maximum of 7 units of credit attempted will be allowed for Independent Study.

Students who intend to transfer are advised that Independent Study credit does 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
A student may petition any course outside his major for Credit-No Credit ("CR-NC"). A grade of "CR" indicates satisfactory completion of the course, "NC" is unsatisfactory.

A maximum of 21 "CR" units may be counted toward graduation requirements. No more than one course may be petitioned for "CR-NC" each quarter. Credit-No Credit units are not computed in determining a student's Grade Point Average.

The decision to petition a course for "CR-NC" must be made during the week prior to final examinations. A student who has received unit credit for a course in which a "CR" grade was earned may convert it to a letter grade by repeating the course or challenging the course by examination.

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 previous training or experience for which credit or advanced standing was not previously granted.

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

(1) be registered in College at the time the course 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). Credit by examination may not be granted for courses the student has failed, received a grade of "NC," or as a means to raise a grade. Only Columbia Junior College courses may be challenged by examination. A maximum of 30 units may be earned by Credit by Examination. Units earned by Credit by Examination are not applicable toward fulfillment of the residence requirement.

Credit granted by examination at accredited colleges will be accepted; such credit will be included in the maximum allowed by examination.
Procedures
Petitions for Credit by Examination must be obtained from the student's Advisor, approved by the instructor giving the examination, and endorsed by the appropriate Division Dean.
The instructor will outline the course requirements and schedule the examination.
The petition must be filed in the Office of Student Records during registration and the course will be recorded as part of the student's regular program for that quarter.
The examination will be completed during the fourth week of the quarter.

Advanced Standing
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 service will receive:

Military Service
Three ungraded quarter units. The graduation requirement in Health and Safety Education will be waived.

Military Service Schools
Credit for military service schools in accordance with credit recommendations published by the American Council on Education.

United States Armed Forces Institute (USAFI)
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 Junior 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 Junior College.

Student Load
Normal program load is 14 to 17 units per quarter.
A student who desires to carry more than 17 units must secure approval from his Advisor.
Students on academic probation will be limited to a unit load recommended by their Advisor.

Change of Program
A change of program includes dropping a course, adding a course, adding or reducing units to a course for which the student is already registered, or changing sections of the same course.

A change of program is initiated by petition obtained from the student's Advisor. Program changes become official when filed by the student in the Office of Student Records.

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. After the fifth day of instruction courses or units may not be added.

Dropping a Course
A student may drop a course or reduce the number of units in a course during the first five days of instruction. The course or units will be removed from his program of attendance without a grade being recorded.
After the fifth day of instruction and before the end of the eighth week of the quarter, a student also may drop a course — a grade of "W" will be recorded.

After the eighth week of instruction, a student doing passing work will be awarded a "W" upon dropping a course; if failing, "WF."

All petitions for adding or dropping a course must be approved by the student's Advisor.

**Attendance**

Attendance is the student's responsibility. There are no provisions for "cuts."

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**

Final examinations are held at the end of each quarter. Students are responsible for taking final examinations at the time published in the final examination schedule.

Permission to be absent from a final examination is granted only under exceptional circumstances with prior approval of the instructor. An excused absence from a final examination will result in a grade of "I"; an unexcused absence may be cause to record a grade of "F" for the course.

Final grades are permanent and are not subject to change.

**Scholastic Honors**

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

Students whose cumulative Grade Point Average is between 3.3 and 3.5 are awarded the Associate in Arts degree With Honors.

The Deans' List is published each quarter to recognize students who achieve a 3.0 average or better scholarship in at least 12 units of work.

**Scholarship Reports**

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

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**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 for computing the Grade Point Average is illustrated on page 29.

A student with a Grade Point Average less than 2.0 is doing unsatisfactory work and is subject to academic probation or disqualification.

**Academic Probation**

The purpose of academic probation at Columbia Junior College is to insure that students who are deficient in scholastic achievement will receive special advisement.

A student whose cumulative Grade Point Average falls below 2.0 at the end of any quarter will be placed on academic probation.

**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 probation when his cumulative Grade Point Average is 2.0 or better.

**Disqualification**

A student on academic probation may be disqualified under either 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.

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.
Conduct

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 the campus.

Leave of Absence

An emergency leave of absence not to exceed two weeks may be granted. Petitions for leave of absence are available in the Office of Student Records.

Students must notify the Office of Student Records before resuming classes.

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

Absences of less than one week need not be reported to the College.

Withdrawal From College

A student withdrawing from college after the last day to drop classes without penalty must notify the Office of Student Records in order that an Honorable Dismissal be recorded on his transcript of record. Grades of "W" or "WF" will be recorded, depending upon the student's achievement in his classes on the date of his official withdrawal.

Students who cease to attend classes without completing the official withdrawal procedures may receive grades of "WF."

Physical Education Requirement

Students are required by State law to take physical education each quarter in attendance unless exempted. A student may be excused if he is:

1. junior college graduate.
2. 21 years of age on or before the first day of instruction of each quarter.
3. taking less than 9 units.
4. a veteran with at least one year of service.

Students also may be excused for medical reasons. A physician's statement must be filed in the Office of Student Records and renewed each quarter.

Residence Requirement

To be eligible to receive the Associate in Arts degree from Columbia Junior College, a student must:

1. complete at least 15 quarter units of work at a campus of the Yosemite Junior College District, and
2. be registered in Columbia Junior College during the quarter in which graduation requirements for Columbia Junior College are completed.

Notice of Intent to Graduate

A Notice of Intent to Graduate must be filed by each student who is eligible to receive the Associate in Arts degree from Columbia Junior College. The notice must be filed in the Office of Student Records during registration for 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.
A Guiding Principle...

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 occurring in a given time or place.
GRADUATION REQUIREMENTS

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

UNITS: Completion of 90 quarter units.

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

RESIDENCE: Completion of at least 15 quarter units of work at a campus in the Yosemite Junior College District and registration in Columbia Junior College during the quarter in which graduation requirements for Columbia Junior College are completed.

PHYSICAL EDUCATION: One physical activity course is required each quarter of attendance. (Page 34)

MAJOR: An approved major course of study of at least 30 quarter units.

GENERAL COLLEGE: One or more courses in each of the following categories. General college course requirements may be challenged by examination.

- **AMERICAN HISTORY AND INSTITUTIONS (one sequence):**
  - History 117ab
  - Political Science 101.

- **SOCIAL SCIENCE (one course):**
  - Anthropology 101a or b
  - Economics 101a, b, or c.
  - History 104b
  - Political Science 101, 110
  - Psychology 101.
  - Sociology 101a or b.

- **NATURAL SCIENCE (one course):**
  - Biology 10, 110, or 111.
  - Chemistry 110a.
  - Earth Science 100.
  - Earth Science 110a or b.
  - Earth Science 120a or b.
  - Natural Resources 100.
  - Physics 115a.

- **WRITTEN COMMUNICATIONS (one sequence):**
  - English 51ab.
  - English 101ab.

- **ORAL COMMUNICATIONS (one course):**
  - Speech 101.
  - Speech 115.

- **HUMANITIES (one course):**
  - Art 101.
  - Art 110a, b, or c.
  - English 101c.
  - English 117a or b.
  - English 146a or b.
  - History 104a.
  - Philosophy 101a or b.
  - Speech 102.

- **HEALTH EDUCATION (one of the following):**
  - Health Education 101.
  - Biology 110 or 111.
  - Satisfactory Military Service.
  - Completion of Vocational Nursing Program.

NOTICE OF INTENT TO GRADUATE: A Notice of Intent to Graduate must be filed in the Office of Student Records during registration for 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.

†Armed forces personnel or veterans with a minimum of one year of service may petition for credit under the provisions for Advanced Standing listed on page 30.
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 insure 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 COLLEGE TRANSFER

The California State College system has established the following campuses:

California State at Dominguez Hills  
California State at Fullerton  
California State at Hayward  
California State at Long Beach  
California State at Los Angeles  
California State at San Bernardino  
California State Polytechnic, Pomona  
California State Polytechnic, San Luis Obispo  
Chico State  
Fresno State  
Humboldt State  
Sacramento State  
San Diego State  
San Fernando Valley State  
San Francisco State  
San Jose State  
Sonoma State  
Stanislaus State

Students may complete their lower division preparation for transfer to one of the state 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 college has its own academic emphasis and program requirements.

A student who is eligible for direct admission to a state college from high school may transfer at any time provided his cumulative Grade Point Average is 2.0 ("C" average) or better.

A student not eligible for direct admission to a state college from high school may transfer after he 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 college:

1. General Education—Breadth Requirements: After September 1, 1969, state colleges will require a minimum of 60 quarter units of general education for the Bachelors degree.

2. Designated General Education Requirements: Students should consult the transfer college catalog for specific General Education—Breadth Requirements that may be designated by a major department.

3. Department Requirements: Designated lower division major requirements. Students should refer to the transfer college catalog to identify any special lower division major requirements.

4. Minor Requirements: In many programs a minor is required. Students should consult the transfer 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 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 college. Units in excess of 105 may be applied toward fulfillment of requirements in General Education, the major, or the minor.
### California State Colleges

#### General Education—Breadth Requirements

Columbia Junior College has adopted a pattern of General Education for the state colleges. Completion of the pattern satisfies 60 quarter units of General Education at any state college. If a state college requires more than 60 quarter units, the student may take the additional units after transfer.

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

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### Columbia Junior College Pattern

#### NATURAL SCIENCES

<table>
<thead>
<tr>
<th>A. Biological Science (one course).</th>
</tr>
</thead>
<tbody>
<tr>
<td>†Biology 110. Fundamentals of Biology (3)</td>
</tr>
<tr>
<td>†Biology 111. Principles of Biology (5)</td>
</tr>
<tr>
<td>†Biology 120. Fundamentals of Plant Biology (3)</td>
</tr>
<tr>
<td>†Biology 121. Principles of Plant Biology (5)</td>
</tr>
<tr>
<td>†Biology 130. Fundamentals of Animal Biology (3)</td>
</tr>
<tr>
<td>†Biology 131. Principles of Animal Biology (5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Physical Science (one course).</th>
</tr>
</thead>
<tbody>
<tr>
<td>†Chemistry 110a. Fundamentals of Chemistry (3)</td>
</tr>
<tr>
<td>†Chemistry 110b. Fundamentals of Chemistry (4)</td>
</tr>
<tr>
<td>†Chemistry 110c. Fundamentals of Chemistry (4)</td>
</tr>
<tr>
<td>†Earth Science 100. Survey of Earth Science (4)</td>
</tr>
<tr>
<td>†Earth Science 110a. Physical Geology (4)</td>
</tr>
<tr>
<td>†Earth Science 110b. Historical Geology (4)</td>
</tr>
<tr>
<td>†Earth Science 120a, 120b. General Astronomy (3)(3)</td>
</tr>
</tbody>
</table>

†One laboratory science selected from area A or B.

#### SOCIAL SCIENCES

<table>
<thead>
<tr>
<th>A. American History and Institutions (one sequence).</th>
</tr>
</thead>
<tbody>
<tr>
<td>History 117ab. History of the United States (5)(5)</td>
</tr>
<tr>
<td>History 117a or 117b. History of the United States and Political Science 101. Constitutional Government (5)(1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Psychology (one course).</th>
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</thead>
<tbody>
<tr>
<td>Psychology 101. General Psychology (5)</td>
</tr>
<tr>
<td>Psychology 102. Experimental and Biological Psychology (5)</td>
</tr>
<tr>
<td>Psychology 103. Social and Individual Psychology (5)</td>
</tr>
<tr>
<td>Psychology 130. Personal and Social Adjustment (5)</td>
</tr>
</tbody>
</table>

#### HUMANITIES

<table>
<thead>
<tr>
<th>A. Literature, History and Philosophy (one course).</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 117a, 117b. Literature of the United States (5)(5)</td>
</tr>
<tr>
<td>English 146a, 146b. Survey of English Literature (5)(5)</td>
</tr>
<tr>
<td>History 104a. History of Civilization (5)(5)</td>
</tr>
<tr>
<td>Philosophy 101a, 101b. Introduction to Philosophy (4)(4)</td>
</tr>
<tr>
<td>Philosophy 105. Perspectives in Philosophy (4)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Fine Arts (one course).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 101. Art Appreciation (3)</td>
</tr>
<tr>
<td>Art 110a. History of Art: Ancient and Medieval (3)</td>
</tr>
<tr>
<td>Art 110b. History of Art: Renaissance and Baroque (3)</td>
</tr>
<tr>
<td>Art 110c. History of Art: 19th and 20th Century (3)</td>
</tr>
<tr>
<td>Speech 102. Oral Expression and Interpretation (5)</td>
</tr>
</tbody>
</table>

#### BASIC SUBJECTS

<table>
<thead>
<tr>
<th>A. Communications (all courses).</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101abc. Reading and Composition (3)(3)(3)</td>
</tr>
<tr>
<td>Speech 101. Fundamentals of Speech (5)</td>
</tr>
</tbody>
</table>

#### ADDITIONAL REQUIREMENTS

<table>
<thead>
<tr>
<th>A. Health Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Education 101. Health and Safety Education (3)</td>
</tr>
<tr>
<td>(Biology 110 or 111 fulfills the requirement in Health Education.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Physical Education (3). Six quarters of activity courses required for students under 21 years of age.</th>
</tr>
</thead>
</table>

| C. Electives; additional units to complete the 60 units of General Education may be selected from courses listed in the above categories. |

**TOTAL GENERAL EDUCATION—BREADTH REQUIREMENTS** 60 units
ASSOCIATE IN ARTS DEGREE
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 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. Subject requirements, deficiencies, or low scholarship will be waived after completion of 84 quarter units with a cumulative Grade Point Average of 2.4 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 advisor, determine the proper courses needed to fulfill breadth requirements. The library 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 Junior College. The student should consult with his advisor for guidance.
A Guiding Principle . . .

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

DESCRIPTION OF COURSES

Numbering of Courses
Courses numbered 1 to 99 are not intended for transfer, but may be accepted for transfer credit by agreement with specific four-year colleges.
Courses numbered 100 to 199 are designated as transfer courses to four-year colleges and universities.

Credit Value
The number in parenthesis after the course title 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.

Course Information
A course description is given for each 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.

Prerequisites
Prerequisites are intended to insure 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 when, in the instructor's judgment, the student has adequate preparation to satisfy the course objectives.

Credit-No Credit Courses
Except for courses taken to fulfill Major Requirements, all courses may be petitioned for Credit-No Credit. (Pages 29 and 39)
The General Education Division provides a broad program of studies that offers students an opportunity to explore courses, to gain new insights and interests, and to advance their understanding about our evolving cultural, social, economic, and political environment.

This Division is primarily responsible for offering appropriate general education breadth required courses for students preparing to transfer to four-year universities and colleges.

In keeping with its operational philosophy, the General Education Division provides support courses and instructional services whenever appropriate to augment specialized occupational or technical programs of study.

**General Education Major**

A General Education Major leading to the Associate in Arts degree is appropriate for students who are:

1. Interested in general studies of the arts and sciences.
2. Undecided about a specialized major course of study.

Undecided students who have met all the required courses in the general education pattern for state colleges may elect the General Education Major for transfer.

Students planning two years of college may begin their program as a General Education Major and later elect a specific major.

**Degree Requirements**

The Associate in Arts degree requirements with a General Education Major are:

1. The General College Requirements listed on page 39.
2. At least 30 quarter units selected from any three of the General Education Major Groups.
   No more than 15 quarter units from any Major Group will be counted toward the General Education Major.
   Courses which are taken to fulfill General College Requirements will not be counted toward fulfillment of the General Education Major.
3. Additional electives selected to broaden interests in arts and sciences or explore the various occupational courses of study.
GENERAL EDUCATION MAJOR GROUPS

HUMANITIES
Art 101. Art Appreciation (3)
Art 110a. History of Art: Ancient and Medieval (3)
Art 110b. History of Art: Renaissance and Baroque (3)
Art 110c. History of Art: 19th and 20th Century (3)
English 146ab. Survey of English Literature (5)(5)
History 104a. History of Civilization (5)
Philosophy 101ab. Introduction to Philosophy (4)(4)
Speech 102. Oral Expression and Interpretation (5)

SOCIAL SCIENCE
Anthropology 101ab. Introduction to Anthropology (5)(5)
History 104b. History of Civilization (5)
History 111. History of Eastern Asia (4)
Political Science 101. Constitutional Government (1)
Political Science 110. American Political Thought (4)
Psychology 101. General Psychology (5)
Sociology 101ab. Introduction to Sociology (5)(5)

BIOLOGICAL SCIENCE
Biology 10. Natural History and Ecology (3)
Biology 110. Fundamentals of Biology (3)
Biology 111. Principles of Biology (5)
Biology 120. Fundamentals of Plant Biology (3)
Biology 121. Principles of Plant Biology (5)
Biology 130. Fundamentals of Animal Biology (3)
Biology 131. Principles of Animal Biology (5)
Natural Resources 100. Conservation of Natural Resources (4)

PHYSICAL SCIENCE
Chemistry 110abc. Fundamentals of Chemistry (3)(4)(4)
Earth Science 100. Earth Science (4)
Earth Science 110a. Physical Geology (4)
Earth Science 110b. Historical Geology (4)
Earth Science 120ab. General Astronomy (3)(3)

MATHEMATICS
Mathematics 32. Algebra (3)
Mathematics 33. Geometry (3)
Mathematics 101. Intermediate Algebra (3)
Mathematics 102. Trigonometry (3)
Mathematics 103. College Algebra (3)
Mathematics 105. Elements of Statistics (2)
Mathematics 105.1. General Statistics (2)
Mathematics 105.2. Biological Statistics (2)
Mathematics 105.3. Psychology — Educational Statistics (2)
Mathematics 105.4. Economics — Business Statistics (2)

Anthropology
101ab. Introduction to Anthropology (5)(5)
(a) Lecture 5 hours.

(b) Lecture 5 hours.
Primitive culture and society. Races of mankind. The housing, handicrafts, clothing, art, and kinship systems of primitive man. The supernatural world including shamans, animism, mana and primitive cults.

110. Introduction to Archaeology (3)
Prerequisite. Anthropology 101a or 101b.
Lecture 2 hours.
Laboratory 3 hours.
Development of archaeology as an anthropological study; objectives and methods of modern archaeology; a review of archaeological projects in North and South America. Archaeological methods, techniques and site survey methods under field conditions. Basic laboratory and museum techniques. Preparation of an archaeological site report.
Field trips are required.

Art
101. Art Appreciation (3)
Lecture 3 hours.
Introduction to historical and present-day art emphasizing principles and purposes of various forms of art.

102abc. Drawing (2)(2)(2)
(a) Basic
Laboratory 6 hours.
Introduction to perspective, composition, and rendering techniques and media.

(b) Anatomy
Laboratory 6 hours.
Study of human anatomy and its application to problems in figure drawing.

(c) Figure
Laboratory 6 hours.
Continuation of Art 102b with emphasis on problems of proportion, foreshortening, rendering, and composition.
104abc. Design (2)(2)(2)
(a) Basic Laboratory 6 hours.
Fundamental elements and principles of design explored through lectures, reading problems, and studio projects.
(b) Color Laboratory 6 hours.
Continuation of Art 104a with emphasis on principles and application of color theory.
(c) Structure Laboratory 6 hours.
Continuation of Art 104ab working with three-dimensional designs and structures.

106abc. Watercolor (2)(2)(2)
(a) Introductory Laboratory 6 hours.
Introduction to the basic techniques and problems of transparent watercolors.
(b) Advanced Laboratory 6 hours.
Continuation of Art 106a introducing opaque watercolors and various experimental techniques.
(c) Special Problems Laboratory 6 hours.
Continuation of Art 106ab with emphasis on further experimentation and development of personal expression.

110abc. History of Art (3)(3)(3)
(a) Ancient and Medieval Lecture 3 hours.
Survey of art history from the Paleolithic Age through the Late Gothic Era.
Field trips are required.
(b) Renaissance and Baroque Lecture 3 hours.
Continuation of Art 110a studying the art of the 15th through the 18th Centuries.
Field trips are required.
(c) 19th and 20th Century Lecture 3 hours.
Continuation of Art 110b exploring the background, causes, and evolution of contemporary art.
Field trips are required.

112abc. Oil Painting (2)(2)(2)
(a) Introductory Laboratory 6 hours.
Basic principles, techniques, and problems of oil painting.
(b) Advanced Laboratory 6 hours.
Continuation of Art 112a emphasizing advanced oil painting techniques and problems.
(c) Special Problems Laboratory 6 hours.
Study and application of 19th and 20th Century painting techniques to contemporary studio practice.

Drama

58. Performing Arts Workshop (3)
Laboratory 9 hours.
Directed activities in acting and technical theatre with participation in public performances and related production activities.

135. Theatre Expression (2)
Lecture 1 hour.
Laboratory 3 hours.
Developmental experiences in movement and speech as they contribute to the actor’s resources for theatre expression.

143. Acting Laboratory (3)
Lecture 2 hours.
Laboratory 3 hours.
Extensive practice in development of the actor’s resources: concentration, imagination, and use of objectives as applied to character creation in selected scenes and one act plays.

159. Simplified Production Techniques (5)
Lecture 3 hours.
Laboratory 6 hours.
Basic principles of production for recreational and school dramatic activities; scene design, stagecraft, properties, costuming, lighting, sound. Emphasis on using minimal equipment and budget.

178. Performing Arts Company Laboratory (1)
Laboratory 3 hours.
Practical experience in various phases of activity associated with the management and operation of the Performing Arts Workshop; box office operation, house management, promotion and publicity, and selected aspects of production and performance preparation.
Economics

(a) Lecture 3 hours.
The market economy. Resource allocation; the price system; supply and demand analysis; general equilibrium.
(b) Lecture 3 hours.
Macroeconomic analysis. National income measurement and levels of employment; monetary-fiscal policy; economic fluctuations; economic growth and stabilization; international trade.
(c) Lecture 3 hours.
Microeconomic analysis. The firm; analysis of costs; theory of production; pricing factor inputs including wages, rent, and interest.

English

51ab. College Composition (3)(3)
(a) Lecture 3 hours.
Training in basic composition skills, reading, interpretation, and discussion of college-level materials. Basic mechanics, sentence structure, paragraph development, essay and report organization.
(b) Prerequisite: English 51a.
Lecture 3 hours.
Development of college composition skills; reading, interpretation, and discussion of college-level materials, including units of logic. Organization and development of technical reports and the term paper.

101abc. Reading and Composition (3)(3)(3)
(a) Prerequisite. Qualifying score on the English diagnostic examination. Lecture 3 hours.
Development of skills in writing and reading expository prose.
(b) Prerequisite. English 101a.
Lecture 3 hours.
Continuation of the writing and reading skills presented in English 101a with concentration on the research paper and an introduction to literary analysis.
(c) Prerequisite. English 101b.
Lecture 3 hours.
Concentration on the continued development of the skills necessary in literary analysis and critical writing. Reading material chosen from prose fiction, verse, and drama.

117ab. Literature of the United States (5)(5)
(a) Prerequisite. English 51ab or English 101ab.
Lecture 5 hours.
A study of the literature of the United States from the beginning of English colonization to the Civil War and Reconstruction. Reading, analysis, and discussion of the works of the major American writers in all genres, with special emphasis on the formation of American ideas and ideals.
(b) Prerequisite. English 51ab or English 101ab.
Lecture 5 hours.
A study of the literature of the United States from the Civil War to the present. Reading, analysis, and discussion of the works of the major American writers in all genres, with special emphasis on the formation of American ideas and ideals.

146ab. Survey of English Literature (5)(5)
(a) Prerequisite. English 51ab or English 101ab.
Lecture 5 hours.
English literature from the Anglo-Saxons to the 19th Century.
(b) Prerequisite. English 51ab or English 101ab.
Lecture 5 hours.
English literature from the 19th Century to contemporary literary works.

149. California Literature
Prerequisite. English 51ab or English 101ab.
Lecture 5 hours.
Survey of California literature from the Spanish discovery to the present, with special emphasis on the Gold Rush Period and life and times in the Mother Lode.

Health Education

101. Health and Safety Education (3)
Lecture 3 hours.
Physical, mental, and social well-being of the individual; prevention and control of hazardous environmental factors; personal and community health; body systems and disorders; narcotics, tobacco and alcohol; fire prevention and public safety.
Fulfills State requirement for graduation.

110. First Aid (2)
Lecture 2 hours.
Immediate and temporary care of the victim of an accident or sudden illness; accident prevention.

History

104ab. History of Civilization (5)(5)
(a) Lecture 5 hours.
Rise and decline of civilization in the ancient world; foundations of Christianity; growth and transformation of the Medieval world. Period of the Renaissance and Reformation to the early modern world of the 17th Century.
(b) Lecture 5 hours.
Development of European and American civilization in the early modern and modern periods. Emergence of national states in the 18th and 19th Centuries; struggle for world power in the 20th Century; and the impact of western civilization on the non-European world.
Fulfills State requirement for graduation.

111. History of Eastern Asia (4)
Lecture 4 hours.
117ab. History of the United States (5)(5)

(a) Lecture 5 hours.
Historical development of the United States from the beginning of English colonization to the Civil War and Reconstruction; an analysis and interpretation of political, economic, and social institutions and ideas.
Fulfills State requirement for graduation.

(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.
Fulfills State requirement for graduation.

121ab. History of California (3)(3)

(a) Lecture 3 hours.
Formative years of California history from the Spanish discovery to 1860. Institutions and personalities of the Spanish-Mexican period; United States conquest; and the gold rush period prior to the Civil War.

(b) Lecture 3 hours.
Economic, social, intellectual, and political development of California since 1849. Influences of gold, isolation, transcontinental transportation, water, petroleum, large scale farming, population growth, and progressivism.

Mathematics

30. Basic Mathematics
Lecture and laboratory 4 hours.
A basic course in mathematics covering the fundamentals of arithmetic, practical algebra, and informal geometry. The course is designed to strengthen concepts and to improve skills of mathematics for the vocational and technical fields.

30.1 Applied Mathematics
(Natural Resources Technology)
Prerequisite. Previous or concurrent enrollment in Math 30.
Laboratory 2 hours.
Application of fundamental mathematics to Natural Resources Technology.

30.2 Applied Mathematics (Nursing)
Prerequisite. Previous or concurrent enrollment in Math 30 or its equivalent.
Directed study laboratory 2 hours.
Application of fundamental mathematics to nursing education.

30.3 Applied Mathematics (Construction) (1)
Prerequisite. Previous or concurrent enrollment in Math 30 or its equivalent.
Directed study laboratory 2 hours.
Application of fundamental mathematics to the construction trades.

32. Algebra
Lecture and laboratory 5 hours.
Algebraic structure of real numbers, development of algebraic techniques, rational operations, radicals, polynomials, factoring, linear equations, inequalities, and quadratic equations.

33. Geometry
Prerequisite. Math 32 or one year high school algebra recommended.
Lecture and laboratory 5 hours.
Plane geometry, solid geometry, and coordinate geometry.

51. Business Mathematics
Lecture 4 hours.
Mathematical problems of buying, selling, interest, discounts, insurance, commissions, payrolls, depreciation, and taxes.

101. Intermediate Algebra
Prerequisite. Math 32 or one year high school algebra.
Lecture and laboratory 5 hours.
Extension of elementary algebra; includes complex numbers, logarithms, binomial theorem, progressions, and probability.

102. Trigonometry
Prerequisite. Math 33 and Math 101 or second year high school algebra and one year geometry.
Lecture 3 hours.
An analytical approach to trigometric functions.

103. College Algebra
Prerequisite. Previous or concurrent enrollment in Math 102 or high school trigonometry.
Lecture 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 and laboratory 3 hours.
Statistical concepts of probability, analysis and significance of measurements, measures of central tendency, correlation, variation, distribution, and reliability and validity of tests.
105.1 General Statistics  
*Prerequisite.* Previous or concurrent enrollment in Math 105.  
Small group seminar 2 hours.  
Emphasis on statistical applications.

105.2 Biological Statistics  
*Prerequisite.* Previous or concurrent enrollment in Math 105.  
Small group seminar 2 hours.  
Emphasis on statistical applications in biological science.

105.3 Psychology — Educational Statistics  
*Prerequisite.* Previous or concurrent enrollment in Math 105.  
Small group seminar 2 hours.  
Emphasis on statistical applications in education and psychology.

105.4 Economics — Business Statistics  
*Prerequisite.* Previous or concurrent enrollment in Math 105.  
Small group seminar 2 hours.  
Emphasis on statistical applications in economics and business.

120. Calculus with Analytic Geometry  
*Prerequisite.* Two years of high school algebra, one year of plane geometry, and one-half year of trigonometry or Mathematics 102. Mathematics 103 recommended.  
Lecture 5 hours.  
Inequalities, relations, functions, graphs, limits, the derivative, continuity, lines, circles, and conics with geometric and physical interpretations of the derivative.

121. Calculus with Analytic Geometry  
*Prerequisite.* Mathematics 120.  
Lecture 5 hours.  
Elements of analytic geometry, introduction to integral calculus with applications, and continuation of differential calculus; trigonometric, logarithmic, exponential, and hyperbolic functions.

122. Calculus with Analytic Geometry  
*Prerequisite.* Mathematics 121.  
Lecture 5 hours.  
Polar coordinates, vectors in the plane, techniques in integration, and applications of the integral.

Music  
121abc. College Chorus  
*Lecture 3 hours.*  
Mixed choral ensemble; study and performance of one large-scale work or representative choral literature of all periods.  
*May be repeated for credit.*

141. Community Orchestra  
*Prerequisite.* Instrumental Ability.  
Lecture 3 hours.  
Orchestra performance of classical, semi-classical, and contemporary compositions.  
*May be repeated for credit.*

147. Stage Band  
*Prerequisite:* Instrumental Ability.  
Lecture 3 hours.  
Development of American musical stage styles based on early and modern periods. Students will be expected to participate in public performances.  
*May be repeated for credit.*

Philosophy  
101ab. Introduction to Philosophy  
*(a) Lecture 4 hours.*  
Brief history of philosophy, study of knowledge (epistemology), exact thought (logic), human and cosmic reality (metaphysics).  
*(b) Lecture 4 hours.*  
Study of values (axiology): ethics, aesthetics, politics; philosophy of religion: classical, Judeo-Christian, Oriental, existentialist; relevance of philosophy to modern life.

105. Perspectives in Philosophy  
*Prerequisite.* Philosophy 101a or 101b.  
Group Seminar 4 hours.  
Major viewpoints or schools of philosophy studied in historical sequence: classical realism, naturalism, idealism, positivism, linguistic analysis, and existentialism.

Physical Education  
100. Archery (Coed)  
*Laboratory 2 hours.*  
Instruction and practice in basic archery skills and emphasis on target shooting.

103. Badminton (Coed)  
*Laboratory 2 hours.*  
Instruction in basic skills, rules and strategy of badminton.

106. Basketball (Men)  
*Laboratory 2 hours.*  
Instruction and practice in basic fundamentals of basketball.
109. Body Mechanics (Women)  
Laboratory 2 hours.  
Exercise for body balance, agility, coordination, confidence, poise and weight control.

112. Bowling (Coed)  
Laboratory 2 hours.  
Instruction and practice in basic fundamentals of bowling.  
Materials fees required.

115. Fencing (Coed)  
Laboratory 2 hours.  
Introduction to foil fencing. Instruction in basic skills and rules of the sport.

118. Golf (Coed)  
Laboratory 2 hours.  
Instruction and practice in fundamentals of golf.

120. Handball (Men)  
Laboratory 2 hours.  
Instruction and practice in the fundamentals of Handball with an introduction to Paddleball.

121. Jogging and Conditioning (Coed)  
Laboratory 2 hours.  
Instruction in progressive exercises: hiking, running and jogging techniques as training for physical fitness.

122. Mountaineering (Coed)  
Laboratory 2 hours.  
Instruction and practical experience in basic climbing skills, hiking, backpacking, and light camping.  
Field trips may be required.

124. Skiing (Coed)  
Laboratory 2 hours.  
Instruction in basic fundamentals of snow skiing.  
Materials fee and insurance required.

127. Softball (Coed)  
Laboratory 2 hours.  
Fundamentals and rules of softball.

130. Swimming (Coed)  
Laboratory 2 hours.  
Beginning swimming. Instruction in basic crawl stroke and elementary backstroke; water safety and survival.

133. Tennis (Coed)  
Laboratory 2 hours.  
Instruction and practice in fundamentals of eastern grip tennis.

136. Touch Football (Men)  
Laboratory 2 hours.  
Instruction in basic skills and fundamentals of touch football.

139. Volleyball (Coed)  
Laboratory 2 hours.  
Instruction and practice in basic fundamentals of volleyball.

140. Water Skiing (Coed)  
Prerequisite. Intermediate swimming ability.  
Laboratory 3 hours.  
Instruction and progressive practice in the fundamental skills of water skiing.  
Materials fee and insurance required.

142. Weight Training (Men)  
Laboratory 2 hours.  
Instruction in use of weights and body building equipment with emphasis upon individual program development.

Political Science

101. Constitutional Government  
Independent Study.  
United States constitution and national government; California state and local government.  
Fulfills State requirement for graduation.

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.
Psychology

41. Psychology of Supervision (3)
   Lecture 3 hours.
   Understanding of psychological principles to business and industry
   with understanding of employees situation.

101. General Psychology (5)
   Lecture 5 hours.
   Behavior; motivation, perception, emotion, intelligence, learning,
   and thinking; concepts of human development.

102. Experimental and Biological Psychology (5)
   Prerequisite. Psychology 101.
   Lecture 4 hours.
   Laboratory 2 hours.
   Psychological research; neural, mechanical, and chemical integrat­
   ing systems of behavior; experimental design, collection of data,
   and reporting observations.
   Field trips are required.

103. Social and Individual Psychology (5)
   Prerequisite. Psychology 101.
   Lecture 5 hours.
   Social influences on individual development and contemporary be­
   havior; small groups and interpersonal interactions; effects of so­
   cialization; social structure and attitude formation.
   Field trips are required.

130. Personal and Social Adjustment (5)
   Prerequisite. Psychology 101.
   Lecture 5 hours.
   Personality development; family relationships; social adjustment;
   factors modifying self-evaluation.

140. Childhood and Adolescence (5)
   Lecture 5 hours.
   Intellectual, emotional, social, and personality development during
   childhood and adolescence.

141. Industrial Psychology (5)
   Prerequisite. Psychology 101 and Psychology 103.
   Lecture 5 hours.
   Application of psychological principles to business and industry.

143. Introduction to Group Dynamics (4)
   Prerequisite. Psychology 101.
   Lecture 4 hours.
   Group behavior and interpersonal processes; analysis of group in­
   teractions.

144. Creative Process in Groups (4)
   Prerequisite. Psychology 143.
   Lecture 4 hours.
   Creative process of small groups; understanding the creative poten­
   tial in interpersonal relations.

199. Independent Study (2-5)
   Prerequisite. Psychology 101 and Psychology 102 or 103 or 140.
   Independent study and guided research.
   Specialized areas of field work and/or individual study projects not
   available as regular course offerings.
   See provision on credit limitation. (Page 30)

Skills Development

21. Developmental Reading (2)
   Lecture and Laboratory 4 hours.
   A course designed to improve the reading and study skills neces­
   sary for college level work. Emphasis is placed on raising vocabu­
   lary levels, improving comprehension skills, improving reading
   speeds, and developing college level study skills and listening
   skills.
   May be repeated once for credit.

50. Library Skills Development (1)
   Laboratory 3 hours by arrangement.
   This course is designed to meet the specific needs of students in
   the area of library-use skills and will employ self-instructional ma­
   terials as the primary teaching technique.
   The specific skills units available to the student electing to take
   Library Skills Development include:
   1. Introduction to the library and its staff
   2. Using the CJC Card Catalog
   3. Reference books as source material
   4. The Pamphlet File as source material
   5. The Reader's Guide to Periodical Literature; a finding tool
   6. Other guides and indexes as finding tools
   7. Using the Essay and General Literature Index
   8. Locating biographical information
   9. Newspapers as source material
   10. Audio-Visual materials
60. **Mathematics Skills Development**  
*(1)*  
Laboratory 3 hours by arrangement.

This course is designed to meet the specific needs of students in the area of mathematics skills and will employ self-instructional materials as the primary teaching technique.

The specific skills units available to the student electing to take Mathematics Skills Development include:
1. The fundamental operations with integers and rational numbers
2. Operation improvement skills in ratio, proportion, and per cent
3. Operation improvement skills in powers, roots, and radical expressions
4. The skills and techniques of algebra

70. **Writing Skills Development**  
*(1)*  
Laboratory 3 hours by arrangement.

This course is designed to meet the specific needs of students in the area of written communication skills and will employ self-instructional materials as the primary teaching technique.

The specific skills units available to the student electing to take Writing Skills Development include:
1. Spelling
2. Punctuation
3. Diction and usage
4. Basic sentence structure
5. Advanced sentence structure
6. Basic paragraph structure
7. Advanced paragraph structure
8. Outlining
9. Organization and development of the thesis-oriented essay
10. Writing the term paper

80. **Reading Skills Development**  
*(1)*  
Laboratory 3 hours by arrangement.

This course is designed to meet the specific needs of students in the area of reading skills and will employ self-instructional materials as the primary teaching technique.

The specific skills units available to the student electing to take Reading Skills Development include:
1. Vocabulary improvement and word study
2. Comprehension improvement
3. Rate improvement
4. Reading charts and graphs
5. Dictionary skills improvement
6. Reading skills in the content areas

90. **Study Skills Development**  
*(1)*  
Laboratory 3 hours by arrangement.

This course is designed to meet the specific needs of students in the area of study skills and will employ self-instructional materials as the primary teaching technique.

The specific skills units available to the student electing to take Study Skills Development include:
1. Listening improvement
2. Notetaking
3. Preparing for and taking examinations
4. Vocabulary improvement skills in various content areas
5. Spelling improvement
6. Dictionary skills improvement
7. Study formulas
8. Time management and scheduling

**Sociology**

101ab. **Introduction to Sociology**  
*(5)(5)*

*(a)* Lecture 5 hours.  
History and analysis of major theoretical concepts of sociology; man and his physical and cultural environment; society and personality with emphasis on the socialization process.

*(b)* Lecture 5 hours.  
Population problems and geographic distribution; organization of people in groups such as class and caste, racial and ethnic, urban and rural; study of social institutions such as education, family, religion, and law.

110. **Sociology of Social Problems**  
*(5)*

Lecture 5 hours.  
Analysis of contemporary social problems in America; socio-cultural factors; theories, perspectives, and trends on crime and delinquency, race and ethnic relations, poverty and family disorganization.

111. **Sociology of Crime and Delinquency**  
*(5)*

Lecture 5 hours.  
Sociological analysis of criminal behavior related to social structure and the criminalization process. Juvenile delinquency related to the family, peer groups, community, and institutional structures. Roles of law enforcing and other community agencies in crime and delinquency control.

112. **Sociology of the Family**  
*(5)*

Lecture 5 hours.  
The family as a social unit of interacting personalities; historical and structural development of family life in different cultures; functions, duties, and problems of family life; factors underlying family disorganization.
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 ideas, critical thinking, and evaluative listening.

102. Oral Expression and Interpretation (5)
Lecture 5 hours.
Techniques in reading literature aloud; understanding and interpreting prose, poetry, and dramatic selections; oral presentation and expression of thought.

106. Voice and Diction (4)
Lecture 4 hours.
Critical self-analysis; oral communication drills and exercises for developing voice tone production and control, voice quality, articulation, and pronunciation.

110. Argumentation and Persuasion (5)
Prerequisite. Speech 101.
Lecture 5 hours.
Public speaking involving the art of persuasion and argumentation; analysis of issues and evidence; use of logic; oral presentation of arguments and organized reasoning. Modern procedures of debate.

110.1 Intercollegiate Forensics (1)
Prerequisite. Previous or concurrent enrollment in Speech 110.
Laboratory 2 hours.
Preparation for and participation in intercollegiate forensics activity. Individual competition in various speaking events and team debate.
May be repeated for maximum of 6 units.
Field trips are required.

115. Group Discussion (4)
Lecture 4 hours.
Communication processes applied to informal group discussion. Individual and group participation in various speaking activities.
COLLEGE HIGH SCHOOL PROGRAM

Columbia Junior College offers courses that fulfill requirements for high school graduation.

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:

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. The student is required to obtain a signed release from the superintendent in his high school district of residence.

Note: An unmarried student, less than 18 years of age and not enrolled in day high school, may be admitted to the program if he obtains a signed release from the superintendent in his high school district of residence and secures approval from the College Dean of General Education.

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.

A Notice of Intent to Graduate must be filed with the College Office of Student Records at the beginning of the quarter in which the student will complete requirements for high school graduation.

Upon completion of high school graduation requirements, the College will certify to the student's district of residence that graduation requirements have been fulfilled. 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.

Residents are urged to contact the College Counseling Office for information about the College High School Program.

Services in the program include evaluation of previous high school work, requirements for graduating, and course planning.

Information will be mailed on request.

COLLEGE HIGH SCHOOL COURSES

English I. Grammar, Composition, and Literature (5)
   Lecture 5 hours.
   Reading, grammar, and composition skills with emphasis on sentence patterns, punctuation, vocabulary, and spelling.

English II. Intermediate Grammar, Composition, and Literature (5)
   Prerequisite. English I.
   Lecture 5 hours.
   Continuation of English I; emphasis on complex sentence patterns, grammar techniques, and accuracy in writing.

English III. Advanced Grammar, Composition, and Literature (5)
   Prerequisite. English II.
   Lecture 5 hours.
   Continuation of English II; emphasis on advanced usage in grammar, writing, and reading.

Federal and Comparative Government (5)
   Lecture 5 hours.
   Origin, development, structure, and functions of the Federal government. Analysis of American democratic ideals and system of government compared with other forms of government.

General Mathematics (5)
   Lecture 5 hours.
   Refresher mathematics with emphasis on operation and application of real numbers; fractions, decimals, and percentages.

General Science (5)
   Lecture 5 hours.
   Introduction to science; concepts, techniques, and limitations of physical and biological science.

State and Local Government (5)
   Lecture 5 hours.
   Structure of state, county, city, and other governmental bodies; political processes and relationships.

United States History (5)
   Lecture 5 hours.
   American history from English colonization to the present.
The Science and Natural Resources Division provides a program of courses to satisfy science education needs of liberal arts students, preprofessional and science majors, and technically oriented students.

The natural setting of the campus and region serves as a training environment in resource management. Preprofessional courses of study, which combine scientific theory with field experience, are offered in conservation, fisheries, forestry, park management, oceanology, watershed management, wildlife management, and general agriculture.

A two-year technical program prepares graduates for immediate employment in natural resources occupations. These Natural Resources Technicians are trained to assist professional resource managers and planners in the field, office, and laboratory, and to assume responsibilities intermediate between the professional resource manager and the skilled field hand. Maximum versatility of individual training and development is afforded by a curriculum structured around a core option in technical forestry and applied natural resources.

The need for understanding of science and technology is increasing in today's society. The Division provides a program of theoretical basic science coupled with practical aspects of scientific knowledge related to man and his environment.

Degree Requirements

The Associate in Arts degree requirements in Science and Natural Resources are:

1. The General College Requirements listed on page 39.
2. One of the Science and Natural Resources Major Groups.
3. Additional electives to meet graduation requirements.
SCIENCE AND NATURAL RESOURCES MAJOR GROUPS

BIOLOGICAL SCIENCES (Biology, Botany, Life Science, Paramedical, Sanitation, Zoology)

- Biology 111. Principles of Biology (5)
- Biology 121. Principles of Plant Biology (5)
- Biology 131. Principles of Animal Biology (5)
- Chemistry 110abc. Fundamentals of Chemistry (3)(4)(4)
- Physics 115abc. Technical Physics (3)(3)(3)
- Natural Resources 100. Conservation of Natural Resources (4)
- Mathematics 105. Elements of Statistics (2)
- Mathematics 105.2. Biological Statistics (2)

CONSERVATION, GAME MANAGEMENT, FISHERIES, OCEANOLOGY (Preprofessional)

- Biology 111. Principles of Biology (5)
- Biology 121. Principles of Plant Biology (5)
- Biology 131. Principles of Animal Biology (5)
- Chemistry 110abc. Fundamentals of Chemistry (3)(4)(4)
- Physics 115abc. Technical Physics (3)(3)(3)
- Natural Resources 100. Conservation of Natural Resources (4)
- Natural Resources 101. Introduction to Soil, Water, and Atmospheric Resources (4)
- Mathematics 105. Elements of Statistics (2)
- Mathematics 105.2. Biological Statistics (2)

FORESTRY (Preprofessional)

- Biology 111. Principles of Biology (5)
- Biology 121. Principles of Plant Biology (5)
- Biology 131. Principles of Animal Biology (5)
- Forestry 100. Introduction to Forestry (3)
- Forestry 101. Forestry Instruments and Equipment (5)
- Forestry 102. Dendrology (4)
- Natural Resources 100. Conservation of Natural Resources (4)
- Natural Resources 101. Introduction to Soil, Water, and Atmospheric Resources (4)
- Natural Resources 102. Properties of Soils (4)
- Chemistry 110abc. Fundamentals of Chemistry (3)(4)(4)
- Physics 115abc. Technical Physics (3)(3)(3)
- Mathematics 105. Elements of Statistics (2)
- Mathematics 105.2. Biological Statistics (2)

GENERAL AGRICULTURE (Preprofessional)

- Biology 111. Principles of Biology (5)
- Biology 121. Principles of Plant Biology (5)
- Biology 131. Principles of Animal Biology (5)
- Natural Resources 100. Conservation of Natural Resources (4)
- Natural Resources 101. Introduction to Soil, Water, and Atmospheric Resources (4)
- Natural Resources 102. Properties of Soils (4)
- Chemistry 110abc. Fundamentals of Chemistry (3)(4)(4)
- Economics 101ab. Principles of Economics (3)(3)
- Business Administration 101. Principles of Business (3) (Recommended)
- Mathematics 105. Elements of Statistics (2) (Recommended)
- Mathematics 105.2. Biological Statistics (2) (Recommended)

NATURAL RESOURCES (Technical)

- Biology 10. Natural History and Ecology (3)
- Natural Resources Technology 11. Applied Wildlife and Fisheries Management (3)
- Natural Resources Technology 12. Applied Wildlands Management (3)
- Natural Resources 100. Conservation of Natural Resources (4)
- Forestry Technology 10. Introduction to Technical Forestry (3)
- Forestry Technology 11. Forestry Equipment Techniques (3)
- Forestry Technology 12. Tree and Plant Identification (3)
- Forestry Technology 13. Forest Inventory (5)
- Mathematics 30. Basic Mathematics (2)
- Office Occupations 1 or 2. Typing (3)

PARK MANAGEMENT (Preprofessional)

- Biology 111. Principles of Biology (5)
- Biology 121. Principles of Plant Biology (5)
- Biology 131. Principles of Animal Biology (5)
- Natural Resources 100. Conservation of Natural Resources (4)
- Natural Resources 101. Introduction to Soil, Water, and Atmospheric Resources (4)
- Earth Science 110a. Physical Geology (4)
- Earth Science 110b. Historical Geology (4)
- Anthropology 101ab. Introduction to Anthropology (5)(5)
- Business Administration 101. Principles of Business (3)
- Mathematics 105. Elements of Statistics (2)
- Mathematics 105.2. Biological Statistics (2)

PHYSICAL SCIENCE

- Chemistry 110abc. Fundamentals of Chemistry (3)(4)(4)
- Physics 115abc. Technical Physics (3)(3)(3)
- Earth Science 110a. Physical Geology (4)
- Earth Science 110b. Historical Geology (4)
- Mathematics 105. Elements of Statistics (2)
- Mathematics 105.1. General Statistics (2)
- Mathematics 120. Calculus with Analytical Geometry (5)
- Mathematics 121. Calculus with Analytical Geometry (5)
- Mathematics 122. Calculus with Analytical Geometry (5)
Biology

10. Natural History and Ecology (3)
   Lecture 2 hours.
   Laboratory 3 hours.
   Natural history of California flora and fauna with emphasis on ecological principles and relationships.
   Field trips are required.

110. Fundamentals of Biology (3)
   Lecture 2 hours.
   Laboratory 3 hours.
   Lectures, demonstrations, and laboratories are integrated into a learning situation equivalent to 2 hours lecture and 3 hours laboratory per week.
   Modern concepts, inquiry methods, and historical background of biological unity and processes.
   Fulfills State requirement in Health and Safety Education.

111. Principles of Biology (5)
   Lecture 2 hours.
   Laboratory 6 hours.
   Seminar 1 hour.
   Lecture, demonstration and laboratories are integrated into a learning situation equivalent to the above listed hours per week. Modern concepts, inquiry methods, and historical background of biological unity and processes. Investigation of such subjects as the cell, growth and development, life functions, biological systems, heredity, behavior and ecology.
   Fulfills state requirement in Health and Safety Education.

120. Fundamentals of Plant Biology (3)
   Prerequisite. Biology 110.
   Lecture 2 hours.
   Laboratory 3 hours.
   Lectures, demonstrations, and laboratories are integrated into a learning situation equivalent to 2 hours lecture and 3 hours laboratory per week.
   Structure, functions, and diversity of the plant organism.

121. Principles of Plant Biology (5)
   Prerequisite. Biology 110 or Biology 111.
   Lecture 2 hours.
   Laboratory 6 hours.
   Seminar 1 hour.
   Lecture, demonstration and laboratories are integrated into a learning situation equivalent to the above listed hours per week. Emphasis placed on structure, functions, and diversity of the plant organism.

130. Fundamentals of Animal Biology (3)
   Prerequisite. Biology 110.
   Lecture 2 hours.
   Laboratory 3 hours.
   Lectures, demonstrations, and laboratories are integrated into a learning situation equivalent to 2 hours lecture and 3 hours laboratory per week.
   Structure, functions, and diversity of the animal organism.

131. Principles of Animal Biology (5)
   Prerequisite. Biology 110 or Biology 111.
   Lecture 2 hours.
   Laboratory 6 hours.
   Seminar 1 hour.
   Lecture, demonstration and laboratories are integrated into a learning situation equivalent to the above listed hours per week. Emphasis placed on structure, functions and diversity of the animal organism.

199. Independent Study (2-5)
   Prerequisite. Biology 121 or 131.
   Independent study and guided research.
   Specialized independent field work and/or study projects not available as a regular course offering.
   See provision on credit limitation. (Page 30)

Chemistry

110abc. Fundamentals of Chemistry (3)(4)(4)
   (a) Prerequisite. Math 32 or one year high school algebra.
   Lecture 2 hours.
   Demonstration laboratory 2 hours.

   (b) Prerequisite. Chemistry 110a.
   Lecture 2 hours.
   Laboratory 6 hours.

   (c) Prerequisite. Chemistry 110b.
   Lecture 2 hours.
   Laboratory 6 hours.
   Fundamental theories and principles of chemistry applied to inorganic, physical, organic and biological chemistry; atomic molecular structure, kinetic-molecular theory, basic quantum theory, chemical and physical changes, solutions and colloids, nuclear chemistry.
Earth Science

100. Survey of Earth Science (4)
Lecture 3 hours.
Demonstration laboratory 2 hours.
The physical environment of the earth and its place in the universe: topics selected from astronomy, geology, climatology, and oceanology. Not open to students with credit in geology or astronomy.

110a. Physical Geology (4)
Lecture 3 hours.
Demonstration laboratory 2 hours.
Materials and structure of the earth, agents of erosion, forces of change, volcanoes, and earthquakes.
Field trips are required.

110b. Historical Geology (4)
Lecture 3 hours.
Laboratory 3 hours.
Origin and history of the earth with a description of the life of successive geologic periods, time and geologic time scale. Special reference to North America and the Sierra Nevada.
Field trips are required.

120ab. General Astronomy (3)(3)
Prerequisite. High school general science, physics, or chemistry.
Lecture 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 are required.

199. Independent Study (2-5)
Prerequisite. Earth Science 110a and 110b.
Independent study and guided research.
Specialized independent field work and/or study projects not available as a regular course offering.
See provision on credit limitation. (Page 30)

Forestry

100. Introduction to Forestry (3)
Lecture 3 hours.
History of the forest industry, survey of forest resources, forestry management and utilization techniques, career opportunities, legislation, and forest practices.
Field trips are required.

101. Forestry Instruments and Equipment
Prerequisite. Math 102 recommended.
Lecture 3 hours.
Laboratory 6 hours.
Utilization of basic forestry instruments and equipment. Techniques of collecting, recording, plotting, and drafting field data.

102. Dendrology
Prerequisite. Biology 120.
Lecture 3 hours.
Laboratory 3 hours.
Characteristics, identification, and range of native trees and shrubs of the western United States; emphasis on plants of economic importance to forest practices in California.
Field trips are required.

Forestry Technology

10. Introduction to Technical Forestry (3)
Lecture 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. Role of forest technician in public and private forestry.
Field trips are required.

11. Forestry Equipment Techniques (3)
Lecture 2 hours.
Laboratory-field experience 3 hours.
Basic forest surveying and inventory instruments. Application of hand and staff compass, topographic and engineer's chain, abney and dumpy level, pocket altimeter, engineer's transit.

12. Tree and Plant Identification (3)
Lecture 2 hours.
Laboratory 3 hours.
Classification and identification of major western United States timber species with emphasis on local and California plant cover. Description of physical, economic, and silvicultural characteristics of these trees as related to forest management and utilization. Techniques of preparing plant specimens.
Field trips are required.

13. Forest Inventory
Prerequisite. Forestry Technology 11.
Lecture 3 hours.
Laboratory 6 hours.
Forest inventory techniques emphasizing applied timber cruising, scaling, and marking. Field tabulation and computation techniques of timber inventory. Training experience in forest inventory utilizing private and governmental forest tracts.

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100. Conservation of Natural Resources  
Lecture 4 hours.
Natural resources conservation. History of land use, field practices, and current problems of physical and biological natural resources conservation.
Field trips are 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 are required.

102. Properties of Soils (4)
Prerequisite. Previous or concurrent enrollment in Chemistry 110c.
Lecture 3 hours.
Laboratory 3 hours.
Physical, chemical, and biological properties of soils related to wildland and cultivated soils.

Natural Resources Technology

11. Applied Wildlife and Fisheries Management (3)
Lecture 2 hours.
Laboratory 3 hours.
Methods and problems of manipulating and appraising wildlife and fisheries habitats. Field identification and life history of local mammals, game birds, and freshwater fishes.
Field trips are required.

12. 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. Includes presentations by local resource personnel involved in range and watershed management. Field identification of important forage and browse species.
Field trips are required.

13. Natural Resources Management and Protection (2)
Lecture 1 hour.
Field work 5 hours.
Techniques of implementing natural resource protection on areas involving multiple resource management. Methods of meeting and serving diverse public groups in their social, cultural, and recreational use of these lands.

14. Soil Technology (3)
Prerequisite. Biology 10 recommended.
Lecture-demonstration 3 hours.
Properties of wildland and agricultural soils. The interrelationship of soil, geology, climate, and vegetation in wildland and agriculture resource management. Collection and testing of soil samples.
Field trips are required.

Physics

115abc. Technical Physics (3)(3)(3)
(a) Prerequisite. Math 101 or second year high school algebra. Math 102 recommended.
Lecture 2 hours.
Demonstration laboratory 2 hours.
(b) Prerequisite. Physics 115a.
Lecture 2 hours.
Demonstration laboratory 2 hours.
(c) Prerequisite. Physics 115b.
Lecture 2 hours.
Demonstration laboratory 2 hours.
Principles of mechanics, heat, sound, light, electricity, magnetism, and modern physics; application to technology.
The Occupational Education Division provides pre-service and in-service vocational training programs designed to meet the employment needs of post high school residents of the District.

This Division offers training for entry level jobs, mid-management positions, and retraining for new job skills, knowledge, and attitudes.

**Degree Requirements**

To graduate with the Associate in Arts degree with a major in an occupational course of study, the following requirements must be completed.

1. The General College Requirements listed on page 40.
2. At least 30 quarter units within the major field.
3. Additional electives to complete graduation requirements.

Specialized occupational courses of study may be individually planned with the student in consultation with the Division Dean.

**Certificate Programs**

Certificate programs are designed to offer a sequence of courses in particular occupations. These programs offer emphasis in studies which serve to prepare or upgrade a student in a vocational area.

Upon completion of designated units of work in a prescribed pattern of study, the Division Dean authorizes the issuance of the certificate.

Certificate programs include:

- Aviation
- Correctional Science
- Crime Prevention
- Drafting
- Fire Science
- Heavy Equipment
- Law Enforcement
- Office Occupations
- Real Estate
- Supervisory Training
Apprentice Carpentry

The Apprentice Carpentry Program is conducted in accordance with State Apprenticeship Laws. The program is open to men between 17 and 26 years of age with the equivalent of a high school education. Prospective apprentices must make application for union membership no later than the eighth day of employment. 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.

Students whose work or attendance is not satisfactory may be dropped from the program by recommendation of the Joint Apprenticeship 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 apprenticeship training program, by fulfilling the General College Requirements listed on page 40.

Non-apprentices who wish to enroll in the class for purposes of their own general education may do so with permission of the Division Dean.

Non-apprentices who wish to enroll in the class for purposes of their own general education may do so with permission of the Division Dean.

1abc. Apprentice Carpentry

Prerequisite. Apprenticeship standing.
Lecture 2 hours.
Directed laboratory 2 hours.

2abc. Apprentice Carpentry

Prerequisite. Apprentice Carpentry 1abc.
Lecture 2 hours.
Directed laboratory 2 hours.
Simplified framing, framing tables, sheathing, and insulation.

3abc. Apprentice Carpentry

Prerequisite. Apprentice Carpentry 2abc.
Lecture 2 hours.
Directed laboratory 2 hours.
Interior and exterior trim, stair layout, blueprint reading, and advanced framing techniques.

4abc. Apprentice Carpentry

Prerequisite. Apprentice Carpentry 3abc.
Lecture 2 hours.
Directed laboratory 2 hours.
Heavy timber construction, reinforced concrete form work, blueprint reading, and estimating.

Aviation

1. Private Pilot Ground School

Prerequisite. Private Pilot Ground School 1.
Lecture 3 hours.
Preparation for Federal Aviation Administration written examination for private pilot certificate. Instruction includes: aircraft operations, air traffic, pilot privileges and limitations, cross country flying, flight planning, map reading, radio communications, weather, and safety.

2ab. Commercial Pilot Ground School

(a) Prerequisite. Aviation 1.
Lecture 3 hours.
Flight information, civil air regulations, radio and navigational aids.

(b) Prerequisite. Aviation 2a.
Lecture 3 hours.
Preparation for Federal Aviation Administration written examination for commercial pilot certificate.

3ab. Instrument Rating Ground School

(a) Prerequisite. Aviation 1.
Lecture 3 hours.
Preparation for Federal Aviation Administration written examination for instrument rating certificate.

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

Business

BUSINESS ADMINISTRATION

10. Principles of Advertising

Prerequisite. Business Administration 10.
Lecture 3 hours.
Advertising principles and functions; products and services, consumers' media, the advertisement, career opportunities.

11. Advanced Advertising

Prerequisite. Business Administration 10.
Lecture 3 hours.
Creative and business functions: Preparation of advertisements; media analysis, consumer research, fundamental accounting. Career opportunities.
20ab. Bookkeeping

(a) Lecture 5 hours.
Double entry bookkeeping; general and special journals, general and subsidiary ledgers, business forms, financial statements, and completion of the bookkeeping cycle.

(b) Prerequisite. Business Administration 20a.
Lecture 5 hours.
Bookkeeping entries requiring analysis and interpretation; promissory notes, adjustments for prepaid, unearned, and accrued items, depreciation, voucher system, payroll records, property sales, and income taxes.

101. Principles of Business

Lecture 3 hours.
Business and its functions. Business organization; governmental institutions and controls; economics in business.

102abc. Accounting

(a) Lecture 3 hours.
Accounting principles and procedures, owner's equity, closing books, revenue and expense adjustments, merchandising operations, statement and ledger organization.

(b) Prerequisite. Accounting 102a.
Lecture 3 hours.
Forms of organization, cash and investments, receivables, inventories, fixed assets, liabilities, accounting principles, and manufacturing operations.

(c) Prerequisite. Accounting 102ab.
Lecture 3 hours.
Cost data and management needs, analysis of data, supplementary statements, uses of capital, cash-flow statements, department and branch operation, consolidation, profit planning, and income tax considerations.

103. Commercial Law

Lecture 5 hours.
Historical development of common law; statutes of California; Federal and State court decisions; legal aspects of business; law of contracts, sales, and agency; negotiable instruments; personal property.

104. Principles of Marketing

Lecture 5 hours.
Marketing principles, policies, and functions; price policies and controls, trade channels, merchandising, market research, advertising, and competitive practices.

105. Fundamentals of Data Processing

Lecture 4 hours.
History and future of data processing, card processing, computer data processing, and computer programming.

OFFICE OCCUPATIONS

1. Personal Typing

Lecture and laboratory 5 hours.
Instruction for personal use, including learning keyboard by the touch system, composing at the machine, practical application of typing skills to simple letter writing, manuscripts, and tabulation.

2. Review Typing

Lecture and laboratory 5 hours.
Development of speed and accuracy; review of simple correspondence, tabulation, manuscripts, and composition at the typewriter.

11. Review Stenography

Prerequisite. Typing rate 30 words per minute.
Lecture and laboratory 5 hours.
Review of Gregg dictation theory; transcription skills.

101. Beginning Typing

Lecture and laboratory 6-7½ hours.
Drills to develop speed and accuracy; development of typing skills for vocational or personal use; practice on typing straight copy; centering; manuscript typing; tabulation; letter placement.

103. Intermediate Typing

Prerequisite. Office Occupations 101 or typing rate of 30 words per minute.
Lecture and laboratory 6-7½ hours.
Development of speed and accuracy; advanced correspondence; tabulation; typing of manuscripts, outlines, and business forms.

104. Advanced Typing

Prerequisite. Office Occupations 103 or typing rate of 45 words per minute.
Lecture and laboratory 6-7½ 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.

110ab. Beginning Stenography

Prerequisite. Typing rate of 30 words per minute.
Lecture and laboratory 5 hours.
Complete theory of Gregg shorthand; foundation for dictation and transcription.
112ab. Intermediate Stenography (4)(4)
Prerequisite. Dictation rate at 60 words per minute for 3 minutes and typing rate of 45 words per minute.
Lecture and laboratory 5 hours.
Sustained dictation speed on new material; accuracy on transcription; spelling, punctuation, and office-style dictation.

113ab. Advanced Stenography (4)(4)
Prerequisite. Dictation rate at 80 words per minute for 3 minutes and typing rate of 45 words per minute.
Lecture and laboratory 5 hours.
Development of speed and accuracy; correlation of grammar, spelling, punctuation, and typing.

130abc. Office Practice (3)(3)(3)
(a) Prerequisite. Typing skill.
Lecture and laboratory 5 hours.
Filing rules and systems; use of office equipment and supplies.
(b) Prerequisite. Typing skill.
Lecture and laboratory 5 hours.
Machine transcription; use of mimeograph, ditto, and copy machines.
(c) Prerequisite. Typing skill.
Lecture and laboratory 5 hours.
Adding machines; rotary and printing calculators; key punch operation.

131. Office Occupations (1-5)
Prerequisite. Permission of Division Dean.
Laboratory 3 hours a week for each unit of credit.
Supervised office work experience.
May be repeated for a maximum of 12 units of credit.

REAL ESTATE

10. Principles of Real Estate (3)
Lecture 3 hours.
Real and personal property acquisition, ownership, estates, joint tenancies, partnerships, sales, contracts, deeds, taxes, and financing real estate.

11ab. Real Estate Practice
Prerequisite. Real Estate 10.
Lecture 3 hours.
Real estate office management; activities of brokers and salesmen; appraising, exchanges, listings, advertising, financing, property management; professional and public relations.

12ab. Legal Aspects of Real Estate
Prerequisite. Real Estate 10.
Lecture 3 hours.
California real estate law; titles, encumbrances, recording, real property acquisition and transfer; Penal Code.

13ab. Real Estate Finance
Prerequisite. Real Estate 10.
Lecture 3 hours.
Residential and commercial financing; lending institutions, money markets, and interest rates.

14ab. Real Estate Appraisal
Prerequisite. Real Estate 11ab and 12ab.
Lecture 3 hours.
Appraisal of residential and commercial properties; methods and techniques for determining market value; the appraisal report.

15ab. Real Estate Economics
Prerequisite. Real Estate 10.
Lecture 3 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.

16ab. Real Estate Advanced Practice
Prerequisite. Real Estate 11ab and 13ab.
Lecture 3 hours.
Completion of real estate forms; title escrow procedures; residential construction and design; investment and commercial properties.

SUPERVISORY TRAINING

1. Elements of Supervision (3)
Lecture 3 hours.
Supervisor's role in business and industry; organizational policies, management directives, personnel problems and practices; leadership techniques.
9. Self Defense
   Lecture 1 hour.
   Laboratory 2 hours.
   Protection against persons armed with dangerous and deadly weapons; demonstration and drill in a limited number of holds and come-alongs; restraint of prisoners and the mentally ill; use of the baton.

10. Firearms
    Lecture/Laboratory 2 hours.
    The moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms; firing of the sidearm and shotgun; gas weapons.

Drafting

1. Blueprint Reading
   Lecture and laboratory 3 hours.
   Residential and commercial print reading, printing processes applied to drafting and trade competency testing.

102abc. Basic Drafting
   (3)(3)(3)
   (a) Lecture 2 hours.
       Laboratory 3 hours.
       For those with no drafting knowledge. History, language, lettering, freehand sketching, instruments, and construction.
   (b) Prerequisite. Drafting 102a.
       Lecture 2 hours.
       Laboratory 3 hours.
       Orthographic projection, auxiliary views, dimensioning, tolerancing, threads, fasteners, and springs.
   (c) Prerequisite. Drafting 102b.
       Lecture 2 hours.
       Laboratory 3 hours.
       Complete drawings (tracings and prints), applied design, shop process and fabrication.

103abc. Advanced Drafting
   (3)(3)(3)
   (a) Prerequisite. Drafting 102c.
       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 103a.
       Lecture 2 hours.
       Laboratory 3 hours.
       Map drafting, electrical and electronic, aerospace, and technical illustration.
   (c) Prerequisite. Drafting 103b.
       Laboratory 6 hours.
       Independent study 3 hours.
       Independent study in a concentrated area of drafting. Student's choice must involve current industrial practices.

104ab. Architectural Drafting
   (4)(4)
   (a) Prerequisite. Drafting 102a.
       Lecture 3 hours.
       Laboratory 3 hours.
       Area planning, basic plans, sections, foundations, framing, schedules and specifications.
   (b) Prerequisite. Drafting 104a.
       Lecture 3 hours.
       Laboratory 3 hours.
       Technical architectural plans, creative architectural drafting and design.

108. Surveying
   Lecture 3 hours.
   Laboratory 3 hours.
   Field methods in surveying for engineering work; use and care of instruments; angle measurements; note keeping; stadia surveys; calculations of traverses; topographic mapping.

Fire Science

1ab. Introduction to Fire Suppression
(3)(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.

2ab. Fundamentals of Fire Prevention
(3)(3)
   Lecture 3 hours.
   Fire prevention organizations; inspections; surveying and mapping; recognition of fire hazards; engineering a solution of the hazard; enforcement of solution; fire prevention and the public.

3ab. Fire Fighting Strategy and Tactics
(3)(3)
   Prerequisite. Fire Science 1ab.
   Lecture 3 hours.
   Fire chemistry; equipment and manpower; fire fighting tactics and strategy; methods of attack; pre-planning fire problems.

4ab. Hazardous Materials
(3)(3)
   (a) Prerequisite. Fire Science 1ab.
       Lecture 3 hours.
       Flammable liquids, water reactive chemicals, oxidizers, acids, flammable solids, and flammable gases.
   (b) Prerequisite. Fire Science 4a.
       Lecture 3 hours.
       Flammable metals, plastics, explosives, fuels, radiation hazards, and insecticides.
5. **Fire Apparatus and Equipment** (3)
   
   Prerequisite. Fire Science lab.
   Lecture 2 hours.
   Laboratory 3 hours.
   Driving laws and techniques. Construction and operation of pumping engines and tank trucks, and trailers.

7. **Heavy Equipment in Fire Control** (3)
   
   Lecture 3 hours.
   Understanding theory of how heavy equipment is used by a coordinated fire control team in fighting range fires.

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**Health Occupations**

**Vocational Nursing Program**

Vocational nursing is a twelve-month program to prepare qualified men and women for employment as Licensed Vocational Nurses. New classes begin each September with the number of applicants determined by available clinical facilities.

An examination, leading to licensure, is administered by the California Board of Vocational Nurse Examiners to students who successfully complete the program. The Associate in Arts degree may also be earned by completing the General College Requirements.

**Requirements**

(1) Comply with College Admission Requirements on page 17.

(2) 18 years of age or over and completion of 10th grade (or equivalent).

(3) United States citizenship or declaration of intention to become a United States citizen.

(4) A qualifying interview.

**Expenses**

Students should be prepared to purchase insurance, uniforms, caps, white shoes, watch, and other incidentals. Each student must provide his own transportation to and from health facilities.

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**1abcd. Vocational Nursing** (18)(17)(17)(17)

(a) Lecture 10 hours.
   Laboratory 25 hours.

(b) Lecture 9 hours.
   Laboratory 25 hours.

(c) Lecture 9 hours.
   Laboratory 25 hours.

(d) Lecture 9 hours.
   Laboratory 25 hours.

Orientation to vocational nursing; health of individual, family and community; anatomy and physiology; nutrition in health and disease; cause and prevention of disease; reaction to disease; care of patients with specific medical-surgical conditions; rehabilitation; ethics and legal responsibilities; pregnancy; caring for mothers and infants; growth and development; the family unit; work organization.

Field trips are required.

Vocational nursing students who wish to complete an Associate in Arts degree with a major in vocational nursing must complete 21 units from the following groups in addition to 69 vocational nursing units.

- American History and Institutions, one sequence
- Social Science, one course
- Written Communications, one sequence
- Oral Communications, one course
- Humanities, one course

See page 40 for specific courses in each group.

**2abc. Home Health Aide** (4)(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. Students spend 3 hours in class and 3 hours in a hospital situation.

(b) Prerequisite. Health Occupations 2a.
   Lecture 3 hours.
   Laboratory 3 hours.

Training for local hospital duty. Emphasis on patient care. Assignment to duty (3 hours weekly) in local hospitals is required.

Field trips are required.

(c) Prerequisite. Health Occupations 2ab.
   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.
Heavy Equipment

1. Introduction to Heavy Equipment (2-3)
   Lecture 2 hours.
   Independent Study 1 hour.
   The use of heavy equipment in the construction industry; apprenticeship, safety training and accident prevention; plan reading and grade setting.
   Field trips required.

2ab. Internal Combustion Engines — Diesel (3) (2)
   (a) Lecture 3 hours.
   (b) Prerequisite. Previous or concurrent enrollment in 2a.
   Laboratory 6 hours.
   Understanding of the principles, construction, and operation of diesel engines. Practical experience in the dismantling, assembly, operation and maintenance of diesel engines.

3ab. Automatic Control Systems (3) (2)
   (a) Lecture 3 hours.
   (b) Laboratory 6 hours.
   The repair and maintenance of all heavy equipment control systems that are operated by physical controls.

4ab. Special Systems (3) (2)
   (a) Lecture 3 hours.
   (b) Laboratory 6 hours.
   Instruction in hydraulics, rigging, pneumatics, and basic electrical systems.

5. Gas Welding (2)
   Lecture 1 hour.
   Laboratory 3 hours.
   Basic gas welding as it applies to the shop and field repair of heavy equipment components.

6. Arc Welding (2)
   Lecture 1 hour.
   Laboratory 3 hours.
   Basic arc welding as it applies to the shop and field repair of heavy equipment components.

7ab. Electrical Control Systems (3) (2)
   (a) Lecture 3 hours.
   (b) Laboratory 6 hours.
   Advanced study of electricity, magnetism, batteries, generators, motors and circuits.

8ab. Heavy Duty Equipment Repair (3) (3)
   (a) Lecture 3 hours.
   Repair of bearings, clutches, fluid drives, transmissions and brakes.
   (b) Lecture 3 hours
   Repair of tracks, wheels, steering, pumps, and compressors.

9. Construction Rigging (2)
   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.

10ab. Advanced Maintenance Laboratory (2) (2)
   Laboratory 6 hours.
   Independent Study and Guided Practice.
   Special repair projects as may be brought into the shop are assigned to advanced students to carry through to completion. Students will be graded on speed and accuracy plus work habits. The intent of the experience is to allow each student some independence for varieties of repairs and to hold him accountable for satisfactory completion of his repair work.

12. Heavy Equipment Attachments (2)
   Lecture 2 hours.
   Major attachments for dozers, tractors, and cranes.

Home Occupations

1abc. Clothing (1) (1) (1)
   Laboratory 3 hours.
   Individual projects in clothing construction; selection of fabrics; pattern alteration; fitting, design; color selection.
   May be repeated for a maximum of 6 units of credit.

2. Child Development (1)
   Laboratory 3 hours.
   Demonstration and discussion of development of the child from birth.

3. Consumer Education (1)
   Laboratory 3 hours.
   Demonstration and discussion of intelligent purchasing of items for home and family.
4abc. **Tailoring**

Laboratory 3 hours.

Individual projects in fitting, construction, and finishing of tailored garments; design, fabric choice, fashion, textures, and color.

*May be repeated for a maximum of 6 units of credit.*

5. **Family Health**

Laboratory 3 hours.

Demonstration and discussion of fundamentals of keeping a family healthy.

6. **Family Relations**

Laboratory 3 hours.

Demonstration and discussion of personal adjustments within the modern family.

7. **Practical Nutrition**

Laboratory 3 hours.

Demonstration and discussion of food elements and their function in the body.

8. **Home Management**

Laboratory 3 hours.

Demonstration and discussion of use of time, energy, finances, equipment and supplies used in managing a home.

9. **Home Furnishings**

Laboratory 3 hours.

Demonstration and discussion of furnishing a home according to principles of art, economy and comfort.
CAMPUS PLAN

KEY:
1. Learning Resources Center
2. Creative Arts
3. Science
4. Natural Resources
5. Heavy Equipment Maintenance
6. Health Occupations
7. Forum
8. Seminar
9. Lecture
10. Physical Education
11. Business Education
12. Fire Science
13. Warehouse

THE COLLEGE
A Guiding Principle . . .

This College shall serve the total community. It will provide educational opportunities for all people of post high school age regardless of socio-economic class, level of aspiration, or previous achievement performance. Thus, this College shall adhere strictly to the open door policy.

COLUMBIA JUNIOR COLLEGE — THE BEGINNING

Columbia Junior College and Modesto Junior College are the two community colleges located in the Yosemite Junior College District. The former Modesto Junior College District was expanded into the larger Yosemite Junior College District in 1964 by action of the district electorate. The district is geographically one of the largest in the State and transects more than 100 miles of the fertile San Joaquin Valley from the Coast Range on the west to the Sierra Nevada on the east. The boundaries include nearly 4,000 square miles encompassing all of Tuolumne and Stanislaus Counties and parts of San Joaquin, Merced, 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 Junior College District Board of Trustees authorized the formation of Columbia Junior College and scheduled its opening for September, 1968.

More than 200 acres of forest 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 Junior College.

Campus buildings are planned around San Diego Reservoir from which wooded foothills join the rugged majesty of the 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 Junior 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. It will be subservient to the goals of the student, his needs, his desires, his aspirations.

Columbia Junior College will involve each student in opportunities to develop his capabilities to become a useful and contributing member of the American society. This will be accomplished through a living, dynamic, and continuing experience where each individual can confront opportunities to actively participate in the learning process. In effect, education will not happen to him, but with him and by him.
Guiding Principles

In order to implement its philosophy, Columbia Junior College is committed to the belief that:

... This College shall serve the total community. It will provide educational opportunities for all people of post high school age, regardless of socio-economic class, level of aspiration, or previous performance. Thus, this College shall adhere strictly to the open door policy.

... Each student is a separate and unique individual who shall be accepted as such. The student may fail the institution if he chooses, but the institution shall not fail the student. Moreover, it shall be the responsibility of each staff member to focus on the worth and dignity of each student.

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

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

... 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. Each student will be offered 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 the 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. These responsibilities shall not base their existence upon the sole fact that they are 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 occurring in a given time or place.

... This College shall require that each member of the staff contribute to the process of guidance and counseling. This responsibility shall be apparent in student-staff relationships and will not be the responsibility of specified persons alone.

... This College shall be committed to continuous planning, development, and evaluation. It shall seek and expect constant re-examination as a natural process for making appropriate modifications in every phase of its activities.

... There shall be change with a purpose. Toward this end the College shall seek innovation, support creativity, and encourage imagination while conformity for its own sake will be ignored. It shall take advantage of every technological and methodological advance which appears to have promise.

... The natural and human resources adjacent to and beyond the campus shall be an integral part of the educational program.

... This College shall promote and entrust with each student the democratic ideals that enable responsible citizenship in the American society.

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 and identification of the ventures it shall undertake.

I. Provide an environment that will stimulate the student to involve himself in the learning process.

Learning Environment Definitions
A. The learning environment may be defined as a total college activity that uses all available resources to maintain an atmosphere that promotes behavioral modifications.

B. Operationally, if a climate is established that stimulates intellectual curiosity, promotes creativity, provokes meditation, and spurs student use of campus resources, then a learning environment will exist.

II. Provide a broad program of knowledge and skill acquisition in the humanities, arts, and sciences for personal development.

General Education Definitions
A. General education may be defined as a process of exposure to a variety of experiences that allow one to build a basis for meeting the challenges of life as they are encountered.
B. Operationally, if a course of action provides an opportunity to explore and obtain knowledge, gain insight and develop interests, and acquire the ability to adapt to a changing world, then a general education will have been encouraged.

III. Provide a comprehensive program that meets the lower division requirements for acceptance at designated institutions.

Transfer Education Definitions

A. 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 Junior College.

B. Operationally, if a body of facts, principles, and experiences are transmitted and received by a student in such a manner that he is able to participate effectively in upper division programs, then he will have taken part in transfer education.

IV. Provide specialized training programs needed to develop skills, knowledge, attitudes, and other occupational competencies.

Occupational Education Definitions

A. Occupational education may be defined as the acquisition of specified skills and knowledge needed to develop vocational competencies.

B. Operationally, if an individual acquires those specific attributes and abilities that allow him to enter and progress in a vocational endeavor or area, then he is engaged in occupational education.

V. Provide educational services of an ancillary and consultive nature to individual students and the community.

Ancillary and Consultive Education Definitions

A. Ancillary and consultive 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.

B. Operationally, if an activity supplements the educational program in such a way that the individual student has a greater opportunity to participate in and profit from the educational process; and if the components of the educational program are extended in such a way that they augment existing resources to meet community needs, then there will be ancillary and consultive educational services.

VI. Assist the student to acquire those basic competencies needed for effective participation in programs leading to his goal.

Remedial Education Definitions

A. Remedial education may be defined as an activity designed to develop in students the basic skills needed to participate in the educational process.

B. Operationally, if an activity allows the individual to gain and expand communication, mathematics, and other basic skills that were inadequately acquired, so that he can participate effectively in further education to reach his goal, then that activity will be remedial education.

VII. Provide an opportunity for students to attain personal goals through a program of realistic planning and direction.

Occupational and Educational Planning Definitions

A. 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 needs.

B. Operationally, if an activity provides the student with leadership in exploring his potential, in acquiring an intimate knowledge of the alternatives, and in perceiving meaningful relationships between his activities and his goals, then he will have engaged in occupational and educational planning.

VIII. Provide continuing educational and vocational activities for adults.

Continuing Education Definitions

A. Continuing education may be defined as that broad spectrum of activities that promote learning as an ongoing process of a changing adult life.

B. Operationally, if an adult of post high school age is given the opportunity to broaden his outlook, develop or expand occupational skills, engage in self-improvement and personal growth, and adapt to a world in transition, then he will have engaged in continuing education.

Accreditation

Columbia Junior College has been accepted as a "Candidate for Accreditation" by the Accrediting Commission for Junior Colleges, Western Association of Schools and Colleges. All courses have been approved by the State Department of Education and Veterans Administration.

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 Junior College will be accepted with full credit upon transfer to California universities and four-year colleges.
Institutional Memberships
Columbia Junior 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 and is listed as a member institution by the State Department of Education and California Coordinating Council for Higher Education.

Organization
This College is organized into three instructional divisions: General Education, Occupational Education, and Science and Natural Resources. Each Division is administered by a Dean with equal responsibility for academic and occupational education in day and evening programs.

The College has combined the strengths of the disciplines so each will contribute to the educational experience of every student.

Community Services
Columbia Junior College is responsive to the community and extends opportunities for higher education beyond the scope of daily college life. It can furnish many special community services to enrich the cultural life of the Mother Lode area. Cultural events that could be scheduled include evening forums, concerts, plays, art exhibits, and lecture programs.

Faculty members may fill leadership and consultive roles in local organizations and projects and are available for speaking engagements.

President’s Advisory Committee
The development of a community college insists that there be meaningful involvement of representative citizens of the community it is privileged to serve.

In order to accomplish this purpose, 25 community leaders in Tuolumne and Calaveras Counties serve on a committee to advise the President on College policies and procedures that are recommended to the Board of Trustees.

The President’s Advisory Committee addresses itself to such questions as the philosophy of the College, the design concept of the College buildings, the master plan for campus development, residence hall development, gifts to the College, and the College curricula.
A Guiding Principle...

This College shall require that each member of the staff contribute to the process of guidance and counseling. This responsibility shall be apparent in student-staff relationships and will not be the responsibility of specified persons alone.
ROBERT H. GIBSON  
A.A., Graceland College  
B.A., Central College  
M.A., San Jose State College

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M.A., University of the Pacific

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M.S., University of Arkansas

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M.A., Sacramento State College

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