THE COLLEGE COMMITMENT

The Staff of Columbia College is committed to providing the highest quality educational programs and services. As part of that commitment, we make the following pledge to the students and community we serve:

We believe that the individual student is the cornerstone of the college and that each has unique talents, interests, needs and strengths. Because individual students learn in different ways and at different rates, we remain flexible in our teaching methods to encourage each student's greatest potential.

We emphasize how to think rather than what to think. Critical inquiry and creative problem-solving are incorporated in all appropriate courses and activities. Creativity, imagination and innovation are encouraged and supported.

We support the process of continuous learning and meaningful change. Our general education program will help students to redefine their goals and aspirations as they change.

We realize that classroom time is only one aspect of the students' education and only one of our responsibilities. We promote support activities, such as counseling, advising, and tutoring which contribute to one's growth.

Because we believe each student grows with participation in the teaching-learning process, we encourage students to be active participants and contributors throughout college life in areas of their own choosing.

We will maintain a balance between individual rights and social responsibilities in our relationships with our students and the community we serve. Respect for the individual will be maintained in all situations. We will not allow personal biases to affect our teaching, grading, or treatment of an individual or group.

We find student government to be best when it is involved in meaningful issues within the college community. Student government is informed of college concerns, activities, and issues. Its involvement is an important part of the decision-making process.

We will maintain the comprehensive nature of the community college. A broad general education and a variety of majors are offered. Academic, vocational, basic skills, and continuing education are offered in response to the needs of the community.

We will be specific in the course content, grading practices and attendance requirements for each course. These expectations are clearly communicated in the orientation to each course. Students are held responsible for meeting college standards and are graded according to their performance. We are available to assist each student's studies beyond the classroom. Posted office hours are maintained, and additional time will be made available by mutual agreement between the student and staff.

We will constantly evaluate the college curriculum for academic, vocational and community needs. Formal agreement with high schools and universities assure transfer students a smooth transition from high school to the state colleges and university system though our institution. Community advisory committees are consulted to make certain our vocational subjects are being taught for the job market, and our community services and continuing education classes are meeting local needs.

Finally, we believe that if the student recognizes the commitment that Columbia College has made and the student is willing to give to the college in return, the student's education will be positive, enjoyable and provide a lasting foundation for continued growth.
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FALL SEMESTER, 1986

May 4 ..................................................... Beginning advisement and registration for continuing students for Fall Semester
July 1 .................................................... Applications for admission and transcripts for day students should be on file
July 30 .................................................. Beginning advisement and registration for Fall Semester for former students
August 4 ................................................ Beginning advisement and registration for Fall Semester for new students
August 18 .......................... Instruction begins
August 29 ............................................. Last day to enter a class
September 1 .......................................... Labor Day Holiday
September 26 ........................................ Last day to elect for CR/NC or letter grade
October 3 ............................................... Deadline for filing for graduation or certificate for Fall Semester
November 10 ........................................ Veterans Day Holiday
November 18 ........................................ Beginning advisement and registration for Spring Semester for continuing students
November 24 ......................................... Application for admission and transcripts for day students should be on file
November 25 ........................................ Beginning advisement and registration for Spring Semester for former students
December 1 ........................................... Beginning advisement and registration for Spring Semester for new students
January 7 .............................................. Instruction begins
January 19 ........................................... Martin Luther King Holiday
January 20 ............................................ Last day to enter a class
February 13 ........................................... Lincoln Day Holiday
February 16 ........................................... Washington Day Holiday
February 17 ........................................... Last day to elect for CR/NC or letter grade
March 20 ............................................... Deadline for filing for graduation or certificate for Spring Semester
April 13-17 ............................ Spring Recess
April 22 ................................................ Last day to withdraw from course without penalty
May 18-21 .......................................... Final examinations
May 21 .................................................. Spring Semester ends
May 22 .................................................. Graduation

SUMMER SESSION, 1987

June 8 ............................................... Instruction begins
July 3 ................................................ Independence Day Holiday
July 17 ................................................ Six Week Summer Intersession Ends

1986

JULY

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OCTOBER

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29 30

DECEMBER

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22 23 24 25 26 27 28
29 30

Additional information pertaining to advisement, registration, final examinations, as well as other dates will be listed in the Schedule of Classes.
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terry J. Harrison</td>
<td>Physical Education</td>
<td>B.A., University of California, Berkeley</td>
</tr>
<tr>
<td>James R. Hastings</td>
<td>Anthropology, Psychology</td>
<td>A.A., American River College, Salt Lake City, Colorado</td>
</tr>
<tr>
<td>John L. Holloway</td>
<td>Business</td>
<td>B.A., California State University, Sacramento, Los Angeles</td>
</tr>
<tr>
<td>Tom G. Holst</td>
<td>Earth Science</td>
<td>B.A., Augustana College</td>
</tr>
<tr>
<td>Floyd L. Hopper</td>
<td>Computer Science</td>
<td>M.N.S., University of South Dakota</td>
</tr>
<tr>
<td>Douglas E. Kotarek</td>
<td>Business, Economics</td>
<td>B.S., Northern Illinois University</td>
</tr>
<tr>
<td>Walter L. Leineke</td>
<td>Assistant Dean of Instruction</td>
<td>B.A., University of Northern California, Long Beach</td>
</tr>
<tr>
<td>Raymond D. Liedlchi</td>
<td>Dean of Instruction</td>
<td>B.S., Bowing State University, Las Vegas</td>
</tr>
<tr>
<td>Paul W. Lockman</td>
<td>Director of EOPS and A.A.</td>
<td>B.A., University of California, Fresno</td>
</tr>
<tr>
<td>Ritchard L. Dyer</td>
<td>History, Political Science</td>
<td>A.A., San Diego State University, San Diego, California</td>
</tr>
<tr>
<td>Ronald L. Erickson</td>
<td>Hospital Management</td>
<td>B.A., University of Arizona</td>
</tr>
<tr>
<td>Robert H. Gibson</td>
<td>Physical Education</td>
<td>A.A., City College</td>
</tr>
<tr>
<td>Chester H. Palmer</td>
<td>English, Speech</td>
<td>B.A., University of Arizona</td>
</tr>
<tr>
<td>Fred J. Petersen</td>
<td>Computer Science</td>
<td>B.A., University of Arizona</td>
</tr>
<tr>
<td>Glenn D. Rogers</td>
<td>Biological Science</td>
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</tr>
<tr>
<td>John R. Ross</td>
<td>Music</td>
<td>B.A., University of California, Berkeley</td>
</tr>
<tr>
<td>Melborn N. Simmons</td>
<td>Mathematics</td>
<td>B.S., Mills College</td>
</tr>
<tr>
<td>Raymond L. Steuben</td>
<td>Director of Library Services</td>
<td>B.A., University of California, Santa Barbara, Los Angeles</td>
</tr>
<tr>
<td>V. Peter Sullivan</td>
<td>Physical Education</td>
<td>A.A., Pepperidge University</td>
</tr>
<tr>
<td>Janet M. Sweeney</td>
<td>Business</td>
<td>B.A., San Jose State University</td>
</tr>
<tr>
<td>Candace L. Williamson</td>
<td>Business</td>
<td>M.A., Mennon Technical University</td>
</tr>
<tr>
<td>John R. Nelson</td>
<td>Instructor</td>
<td>A.B., San Diego State University, San Diego</td>
</tr>
<tr>
<td>Happy L. Painter</td>
<td>Counselor</td>
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<tr>
<td>Ross L. Aldrich</td>
<td>Performing Arts</td>
<td>A.B., California State University, San Jose</td>
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<tr>
<td>Sigrid A. Andersen</td>
<td>Instructional, Audio Technology</td>
<td>M.A., University of Nebraska, San Luis Obispo</td>
</tr>
<tr>
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<td>B.A., San Diego State University, San Diego</td>
</tr>
<tr>
<td>Doryene M. Bentley</td>
<td>Secretary</td>
<td>B.A., California State University, San Luis Obispo</td>
</tr>
<tr>
<td>Arthur Busalacchi</td>
<td>Business Office</td>
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<td>Evaluation Technician</td>
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</tbody>
</table>

### CERTIFIED STAFF (Date of District appointment follows name.)

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Dennis Lee Albers</td>
<td>Mathematics, Physics</td>
<td>B.S., University of California, Berkeley</td>
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<tr>
<td>Joel C. Barber</td>
<td>Art, Art History</td>
<td>A.B., Willamette University, Oregon</td>
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<tr>
<td>Paul K. Becker</td>
<td>Dean of Student Services</td>
<td>A.B., Western State College of Colorado</td>
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<tr>
<td>Joshua E. Bigelow</td>
<td>Physical Education</td>
<td>A.A., Columbia College</td>
</tr>
<tr>
<td>Elsie M. Bruno</td>
<td>Counselor</td>
<td>B.A., University of California, Berkeley</td>
</tr>
<tr>
<td>Dale L. Bunse</td>
<td>Art</td>
<td>M.A., Arizona State University</td>
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<tr>
<td>Ross A. Carkeet</td>
<td>Natural Resources</td>
<td>A.A., Modesto Junior College</td>
</tr>
<tr>
<td>John R. Carpenter (1944)</td>
<td>Music</td>
<td>S.M., Chapman College</td>
</tr>
<tr>
<td>W. Dean Cunningham</td>
<td>President</td>
<td>M.M., Westminster Choir College</td>
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<tr>
<td>Edward C. Doell (1937)</td>
<td>English, Photography</td>
<td>A.A., Fort Hill Junior College</td>
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<td>Richard L. Dyar (1966)</td>
<td>History, Political Science</td>
<td>A.A., San Diego State University, San Diego, San Diego</td>
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<td>Ronald L. Erickson (1981)</td>
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<td>Glenn D. Rogers (1972)</td>
<td>Biological Science</td>
<td>A.A., Bakerfield College</td>
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<td>John R. Ross (1970)</td>
<td>Music</td>
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<tr>
<td>Norine D. Holmes</td>
<td>Evaluation Technician</td>
<td>A.A., San Diego State University, San Diego</td>
</tr>
</tbody>
</table>
DWAIN JACK (1974) Skilled Maintenance Worker
RONALD D. JACKSON (1976) Custodian
JANICE M. JORN (1974) Public Information Writer
FRANCES K. LEONE (1983) Instructional Aide, Computer Science, Earth Science, Psychology
WENDY LINK (1984) Media Assistant, Library A.V.
KENNETH R. LUCAS (1967) Supervisor, Transportation/Grounds
WILLIAM L. LUCE (1976) Custodian
DOROTHY A. MAECHLER (1981) Accompanist/Instructional Aide, Music
TIMOTHY MANN (1983) Athletic Equipment Attendant
ARDIS MARTINEZ (1984) Typist Clerk, Student Services
PAULA A. MAUCERE (1979) Instructional Aide, Learning Disabilities Center
ANDREW B. MAURER (1974) Graphic Artist, Instructional Materials Center
JOHN H. MILLER (1972) Supervisor, Buildings and Maintenance
NANCY M. MYERS (1982) Media Assistant, Library
SANDAE D. OVERHOLTZER (1985) Tutorial Coordinator, Learning Skills

PATRICIA PANTALEONI (1985) Secretary, Assistant Dean of Instruction
LUIS C. RAMIREZ (1970) Supervisor, Custodian
RONALD R. ROACH (1970) Printing Technician, Instructional Materials Center
JACQUELINE J. SEYBOLT (1985) Supervisor, Food Services
KATHLEEN SMITH (1984) Account Clerk, Bookstore
JILL L. SOUTHARD (1982) Instructional Aide, Physical Education
PATRICIA C. THOMAS (1972) Account Clerk, Business Services
WILLIAM R. THORPE (1985) Electronic Technician
CAROL A. VAUGHN (1974) Typist Clerk, Instructional Materials Center
BERNICE A. WADDELOW (1970) Secretary, Dean of Instruction
CHRISTINE M. WALKER (1978) Instructional Aide, Learning Skills
ARLENE F. WALLACE (1968) Secretary, President
ADELE WIKNER (1985) Media Assistant, Library
JAMES B. WOOD, SR. (1977) Custodian

ADVISORY COMMITTEES
ADVISORY COMMITTEES

On a voluntary basis, regional representatives of business, the professions, industry, government, labor and the community-at-large assist Columbia College in determining the needs and evaluating the performance of many of its programs. These processes are critical to the future overall direction of the College, the appropriate provision of services to special student populations, and the relevance of vocational training to the world of work. These individuals provide an invaluable service to the administration, faculty, and present and future students and, for that, the College is deeply grateful.

AUTOMOTIVE TECHNOLOGY

MIKE BREWER, Service Manager
Kety Morris

BOB ELLIOTT, Owner
Elliot's Auto & Truck Service

TOM HAIDLEN, Owner
Haidlen Ford-Mercury

STEVE KOEHLER, Auto Tech. Instructor
Bret Harris High School

PAUL MORGAN, Owner
Paul Morgan Brakes

BILL MOSS, Owner
Bill's Auto Repair

STANLEY SMITH, Auto. Tech. Instructor
Sonora Union High School

ED SUNDAY, Owner
Sun Automotive

BUSINESS

LYNN BRADSHAW, Medical Records Supervisor
Sonora Community Hospital

KAREN ETHER, Business Instructor
Sonora Union High School

TOM FIRTH, Manager
Lucky Store

CLAY MADDOX, Accountant

GEORGE PERRY, R.O.P. Instructor
Sonora Union High School

MELODY PERRY, Administrative Assistant
Sonora Medical Group

MARIAN RICHARDS, Secretary
California Dept. of Forestry

KEN ROY, Manager
Longs Drugs

PATRICIA SAKASITZ, Office Manager
Foothill Medical Group

BILL STEVENS, Personnel Officer
Stanislaus National Forest

MARSHA THORLASEK-DORMAN
Employment Program Representative
Employment Development, Dept.

JERRY YOUNGSTROM, Data Processing

CARDIAC REHABILITATION PROGRAM

PENNY ABLIN, M.D.

DANNY ANDREWS, M.D.

LYNN AUSTIN, M.D.

WARREN BORGUST, M.D.

JAMES COMAZZI, M.D.

ROBERT CAVREJO, M.D.

TED FERNISH, M.D.

RUSSELL HOENES, M.D.

JAMES HONGOLA, M.D.

DIXIE ROARK, Health Program Nurse
Sonora Community Hospital

GARY JOHNSON, M.D.

LAWRENCE LONG, Hospital Administrator
Tuscanne General Hospital

DEE MINNEY, Associate Program Nurse

JAMES MOSSON, M.D.

TERRI SPITZER, M.D.

CHARLES WALDMAN, M.D.

RICHARD MUNGER, M.D.

COMMUNITY EDUCATION

Galen Albertson
Carroll Lang

Consuelo Clinton
Mary Laveroni

Margorie Doe
Esther Rasmussen

Lorraine Killough
Donald Smiley

Hal Kyle
Lois Ann Smith

PHILLYS KYLE

COMPUTER SCIENCE

BOB BECK, Accountant

Binky Doths, Office Coordinator
Heron Manufacturing

PETER DOHTHS, Vice President
Condar Mining

ROGER ELSWORTH, Programming Analyst
County of Tuolumne

Dwayne McDonald, Assistant Superintendent
Tuolumne County Schools

Sherri Tucker, Data Processing Manager
The Paul Rampack Co.

Jim Wagner, Data Processing/Instructor

Shari Water, Data Entry Clerk
Columbia College

JERRY YOUNGSTROM, President
Seattle Corporation

DISABLED STUDENT SERVICES

DOUG BOWSER, Tri-County Consortium
Tuolumne County Schools

BEVERLEY BRITTS, Teacher, Hearing Impaired
Sonora Elementary School

HAL DAVIS, Vice, Rehab. Counselor
Department of Rehabilitation

WAYNE FRANCIS, Student
Columbia College

JIM KINDLE, Director, Learning Skills Center
Columbia College

SANDIE KLUFT, Director of Special Education
Foothill County Schools

DONNA LARSON, Representative
Social Security Administration

JANICE LUBECK, Case Manager
Valleymt. Regional Learning Center

DR. CHARLES MCBANE, Optometrist
Central Practice

EMERGENCY MEDICAL SERVICES

SANDI CARLIN, Registered Nurse/M.I.C.N.
Tuolumne General Hospital

JEAN MILLIS, Registered Nurse/Emergency Medical Service Coordinator/M.I.C.N.,
Tuolumne County Health Department

WILLIAM STIER, M.D., Head Emergency Room Physician
Sonora Community Hospital

VALERIE WHEELER, Registered Nurse/M.I.C.N.
Sonora Community Hospital

CHARLOTTE STEER, Emergency Medical Systems Coordinator for Calaveras County
Public Health Agency

FORST SERVICES

SANDY CARLIN, Registered Nurse/M.I.C.N.

JIM MADDOX, Wildlife Biologist
California Department of Fish & Game

STEVE WATERMAN, Public Information Officer
U.S. Forest Service

FORESTRY TECHNOLOGY/NATURAL RESOURCES TECHNOLOGY

MARK BEVAN, Forestry Consultant

CHRIS CONRAD, Forester
Louisiana Pacific Corporation

ANNE DELANEY, Forester
American Forests Co.

DONNA FOREST, Assistant Recreation Officer
Summit Ranger District

JOHN HILLERMAN, Area Superintendent
California & Railtown State Historic Parks

JIM MADDOX, Wildlife Biologist
California Department of Fish & Game

JIM OWEN, Unit Ranger
California Department of Forestry

RICHARD PLAND, Forester/Logging Superintendent
Louisiana Pacific Corporation

BRIAN QUELYOOG, Fisheries Biologist
California Department of Fish & Game

WILLIAM SUEHOWICZ, Chief Park Ranger
New Melones Lake

JUDY BOWEN, Registered Nurse

CLARK BURTON, D.D.S.

MARTHA COSTICK, Registered Nurse
Pioner West Point Community Health Center

MIKE GHIORSO, Chief Pharmacist
Sonora Community Hospital

GARY HINMANN, Pharmacist
Altaville Drugs

DIXIE HUKARI, Inservice Director
Sonora Community Hospital

PHILLYS MANFORD, Inservice Director
Tuolumne General Hospital

MARIYNS NISHI, Registered Physical Therapist

MAURICE ROLLINS, D.D.S.

LARRY WANNIC, Physical Therapist
Sonora General Hospital

RICHARD WING, Chief Administrator
Mark Twain Hospital

FOREST SERVICES

M.D.

M.D.

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M.D.

FIRE TECHNOLOGY

WILLIAM COTE, Training Officer
California Department of Forestry

MERRITT LOVEJOY, Forest Dispatcher/E.C.C. Chief
U.S. Forest Service

GUY C. MILLS, Fire Chief
Sonora Fire Department

DONALD GREEN, Battalion Chief
California Division of Forestry

JAMES ROBBROOK, Fire Chief
Effies Pass Fire Department

LEONARD SHEPPARD, Training Officer
California Division of Forestry

DON STOWELL, Training Officer
California Division of Forestry

PRESIDENT'S

ROBERT ALLEN, Instructor
Mark Twain Elementary School

JACK AMUNDSEN, Retired
State Forest Ranger

ROBERT BACH, Community Leader
Bret Harte Union High School District

MARIORIE COFFIL, Community Leader

BLAINE CORBET, Supervisor
U.S. Forest Service

CARLO DEFERRARI, Retired
County Clerk and Auditor, Hicorran
COLUMBIA COLLEGE

History

Columbia College and Modesto Junior College are the two community colleges located in the Yosemite Community College District. The former Modesto Junior College District was expanded into the larger Yosemite Community College District in 1964 by action of the district electorate. The district is geographically one of the largest in the State and transacts more than 100 miles of the fertile San Joaquin Valley from the Coast Range on the west to the Sierra Nevada on the east. The boundaries include nearly 4,000 square miles encompassing all of Tuolumne and Stanislaus Counties and parts of San Joaquin, Merced, Calaveras and Santa Clara Counties.

Because of an increase in student enrollment, the need for greater educational opportunities in the mountain counties, and the great distance involved in travel for students to attend Modesto Junior College, the Yosemite Community College District Board of Trustees authorized the formation of Columbia Junior College and scheduled an opening for September, 1968. The word "Junior" was dropped from the College name in 1978. Starting on the quarter system, Columbia College changed to the semester system on July 1, 1984.

Campus and Facilities

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. More than 200 acres of forest and land adjacent to Columbia State Historic Park in Tuolumne County were acquired by the U.S. Department of Interior, Bureau of Land Management, as the site for the Columbia College.

Accreditation

Columbia College is accredited by the Accrediting Commission for Junior Colleges, Western Association of Schools and Colleges.

The College is listed in directories of the United States office of Education, the American Council on Education, and the Western Association of Schools and Colleges.

Appropriate lower division courses completed at Columbia College will be accepted with full credit upon transfer to California State Universities and other four-year colleges.

College Functions

Implementation of the philosophy and guiding principles of this College shall be carried out through a variety of functions. These functions may be described as the actions the College will perform in meeting the defined needs of its students.

I. General Education Function

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

II. Transfer Education Function

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

III. Occupational Education Function

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

IV. Remedial Education Function

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

V. Occupational and Educational Planning Function

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

VI. Continuing Education Function

Provide continuing educational and vocational activities for adults.

ADULT AND CONTINUING EDUCATION

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

HIGH SCHOOL CREDIT COURSES

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

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

Inquiries concerning the application of the above Federal laws to programs or activities of the College may be directed to the following persons at Columbia College, P.O. Box 1449, Columbia, CA 95310:

Title IX: Candace Williamson
(209) 533-5216
Section 504: Mr. Paul Lockman, Director Handicapped Students Program
(209) 533-5132

COMMUNITY SERVICES

Community Services sponsors many programs including public lectures, forums, concerts, art exhibits, and film series; a speakers' bureau which offers speakers without charge; campus tours; short courses; community recreation; and a public information program. A citizen's committee advises the College of needs and evaluates proposals and programs.

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

NON-DISCRIMINATION

In compliance with Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, Columbia College does not discriminate on the basis of race, color, national origin, sex, handicap or age in its educational programs or employment.

Inquiries concerning the application of the above Federal laws to programs or activities of the College may be directed to the following persons at Columbia College, P.O. Box 1449, Columbia, CA 95310:

Title IX: Candace Williamson
(209) 533-5216

Section 504: Mr. Paul Lockman, Director Handicapped Students Program
(209) 533-5132

STATEMENT OF INTENT

The Yosemite Community College District and Columbia College have made every reasonable effort to determine that everything stated in this catalog is accurate. Courses and programs offered together with other matters contained herein, are subject to change without notice by the administration of the Yosemite Community College District or Columbia College for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the District and the College. The District and the College further reserve the right to add, amend, or repeal any of their rules, regulations, policies and procedures.

OPEN CLASS POLICY

Unless specifically exempted from statute, every course, course section, or class, the average daily attendance of which is to be reported for state aid, is open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established.

Exception to this policy will be made where health, safety, legal requirements or the facility is a limiting factor in the conduct of the course. Students denied enrollment by this policy may appeal to the Dean of Student Services.
ADMISSIONS

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

Residence Requirements
Persons 18 years of age and older have the legal right to establish their own residence for purposes of admission. A statement verifying legal residence is required to be filed with the college prior to initial registration. A student is qualified to attend Columbia College if he/she meets one of the following residence requirements:
1. Is a legal resident of the Yosemite Community College District with a local address.
2. Is a legal resident of a California high school district not affiliated with a community college district.
3. Is a student whose legal residence is in another state and pays the out-of-state fee.
4. Is an international student who complies with special admission requirements and pays the non-resident fee.

Admission of Non-resident Students
Columbia College accepts students who are residents of other states if they meet all admission requirements. A minor’s residence is the same as that of his/her parents or legal guardian. Residency determination dates for 1986-87 are August 18, 1986, for Fall Semester; January 7, 1987, for Spring Semester.

Nonresidents of California, including international students, are required to pay an out-of-state tuition fee of $85.00 per unit. The tuition refund policy can be found in the schedule of Classes. Any class in which the student has attended another college since last attending Columbia College.

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

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

Notice of Acceptance
New and former students will be notified officially of their acceptance and advisement appointment after all application forms and documents have been received. This notice is mailed approximately four weeks prior to the first day of the semester. 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 semester of the academic year. The schedule of Classes contains information regarding registration dates and special instructions for registering in classes. The college reserves the right to make additions or deletions to the Schedule of Classes. Any class in which the enrollment is too small to justify continuance may be cancelled.

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

The College may restrict the number of international students from a foreign country so that many nations of the world may be represented on the Columbia campus. Students are required to submit the following information in English by April 15 for admission to the following Fall Semester:
(1) Complete the COLUMBIA COLLEGE INTERNA-
TIONAL STUDENT SUPPLEMENTAL APPLICATION FOR ADMISSION.

(2) Submit the original or certified copy of all transcripts of previous schools attended that are equivalent to high school or college level.

(3) Submit official results of the Test of English as a Foreign Language (TOEFL) if your native language is other than English. (Citizens of Canada, Great Britain, Ireland, Australia and New Zealand whose native language is English are exempt from taking the TOEFL.)

(4) Furnish evidence of satisfactory financial support by completing the Columbia College Financial Information Form and providing a written guarantee from the bank of a parent, relative or sponsor in the United States.

(5) Furnish two letters of recommendation, one of which must be from a teacher with whom you have studied recently attesting to your ability to do college work.

(6) Have a physician complete the PHYSICIAN'S CERTIFICATE OF HEALTH. The certificate must be completed and show immunization clearance examination.

(7) Furnish evidence of a sickness and accident insurance policy (if proof is not provided, applicant if accepted must purchase Columbia College International Student Sickness and Accident Insurance prior to registration).

(8) Applicants selected for admission are responsible for making arrangements for their own housing and notifying the College of their local address. However, the College may be of assistance in providing information for housing upon arrival in the area.

Upon completion of all application requirements listed above by the deadline date, each applicant for admission will be given equal consideration along with all other qualified applicants. If selected, the I-20 form and information requesting travel plans will be mailed. The I-20 form must be presented to the appropriate officials in order to obtain an F-1 (Student) Visa and enter the United States.

A college counselor serves as advisor to international students. This college is authorized under federal law to enroll non-immigrant alien students.

Admission of High School Students
High school students in their junior or senior year, upon written authorization of their principal and approval of the College, or those holding a Certificate of Proficiency, may take community college courses.

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

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

Counseling Services
Counselors are available to all students during the day by appointment or drop-in basis. Counseling is available on selected evenings by appointment or drop-in basis. Professional counselors assist students with academic planning, determining vocational goals and resolving personal and social problems. Counselors also serve as academic advisors. When appropriate, testing services to evaluate occupationally interested aptitude or aptitude are provided by counselors. Counselors may refer students to other services provided by the College or other agencies.

Faculty Advisement Program
Advisement is an ongoing service whereby students meet with faculty to discuss educational objectives, plan an academic/vocational program, gain assistance in registration procedures, evaluate academic progress or gain referral to counselors and other sources concerning personal or academic problems related to the college experience. Counselors assign advisors on the basis of the student’s academic problems related to the college experience. Students are encouraged to confer with their advisor at any time.

FINALE SELECTION OF CLASSES AND COMPLETION OF PROGRAM REQUIREMENTS ARE THE RESPONSIBILITY OF THE STUDENT.

Financial Aid
The College Financial Aid Office administers the following Federal and State assistance programs: Pell Grant, Supplemental Educational Opportunity Grant, College Work Study Program, National Direct Student Loan, Cal Grant, Educational Opportunity Program and Service, California Board of Governors Grant, and California Guaranteed Student Loan.

Students who need assistance to defray college expenses may obtain applications from the Financial Aid Office. Eligibility is based on financial need and aid is distributed on a first-come, first-served basis, contingent upon availability of funds. In compliance with Federal regulations, a detailed financial aid publication is available in the College Financial Aid Office, Admissions and Records Office and College Library.

Extended Opportunity Programs and Services (EOP&S)
Extended Opportunity Programs and Services are provided at community colleges in order to encourage the enrollment and retention of students who are disadvantaged as a result of economic, social, and educational background. Services available include:

- Direct Financial Aid - grants, bookgrants, and work study.
- Admission Assistance
- Tutoring - academic and vocational subjects.
- Counseling - academic, vocational, and personal.
- Transferring - assistance in applying to four-year universities and colleges.

Apply for EOP&S through the EOP&S Center or the Financial Aid Office.

Student Records Regulations
A student’s records are open to the student, employees of the College acting in the course of their duties and State and Federal officials as defined in Section 54618 of the California Administrative Code. The College may grant access to individual student records for educational or emergency purposes and for court orders as permitted in Sections 54620 and 54622 of the California Administrative Code.

Student’s Rights and Procedures for Grievance
Information pertaining to students’ rights, conduct and grievance procedures is available in the Student Handbook. Student Handbooks are issued to each student at the time of registration.

Transcripts
Upon written request to the Admissions and Records Office, two transcripts will be issued without charge to each student in good standing. Additional transcripts are $2 each. Transcripts will not be issued to students who have outstanding financial obligations to the College. To comply with the Family Educational Rights and Privacy Act of 1974, transcripts cannot be sent in response to a telephone request. Transfer students to Columbia College from other colleges may not be released to students, other colleges, or agencies.

Privacy Rights of Students
All student records of Columbia College are kept in accordance with the provisions of the Family Educational Rights and Privacy Act of 1974. All students, including former students, have the right to review their records and the right to challenge the content of their records if, in their opinion, the records contain material that is incorrect, inaccurate or otherwise inappropriate. The Dean of Student Services is the official to be contacted by any student desiring to exercise his/her rights to access and challenge.

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


Learning Skills Center
The Learning Skills Center offers individual learning programs to enhance the background of any student wishing to improve vocabulary, reading, writing, spelling, or math skills. Flexible scheduling for students to use the Center in the time frame of any schedule permits. Peer tutoring is also available for students needing extra assistance.

Disabled Student Services
The Disabled Student Services Program is designed to provide access to educational programs and activities for students with disabilities. The College has made changes in campus design to allow the disabled student access to the College campus.

Services offered:

- Physical Disabilities
- Mobility assistance, academic tutoring, assistance in locating notetakers, readers, and test taking assistance.
- Communication Disabilities
- Sign language interpreters, speech therapy, notetakers, and academic tutoring.
- Learning Disabilities
- Individualized educational assessment; followed by the development of an Individual Education Plan designed to teach learning strategies and skills development appropriate to the student’s needs.
- Additional Services
- Personal and vocational counseling, academic advising, special equipment loan, and liaison with campus and community resources.
- Special Instruction
- Adaptive physical education, cardiac therapy, written language development, and diagnostic learning.

Scholarships and Awards Program
Columbia College has an extensive number of scholarships and awards provided by various organizations and individuals from the community and other sources. Scholarships and awards are generally based on one or more of the following considerations: grade point average; financial need; major; units completed; and/or participation in extracurricular activities including employment and/or homemaking. Awards are available for students pursuing studies in Art, Athletics, Biological Sciences, Business, Computer Science, Conservation, Education/Teaching, E.M.T., Fire Technology, Forestry, Forestry Technology, History, Hospitality Management, Human Services, Journalism, Law Enforcement/law related, Mathematics, Music, Natural Resources, Office Occupations, Physical Education, Physical Sciences, Political Science, Registered and Vocational Nursing and other medical related careers, Social Science, other vocational majors, and Sonora or Summerville High School graduates.

Scholarships and awards are available to Columbia College students who are new, continuing, returning and/or transferring to another college or university. When a student applies using the general scholarship application at the beginning of each semester, the application is considered for all local scholarships and awards for which the student qualifies that semester. Most awards are granted during the Spring Semester for the following academic year; others are awarded throughout the school year. The MONEYBOOK brochure, containing detailed information about the Scholarship Program, is available in the Student Services Office and the Admissions and Records Office. The MONEYBOARD bulletin board, located near the Office of Admissions and Records, lists the criteria for scholarships and awards as they become available throughout the year.

Veterans Affairs
Veterans and dependents of deceased, disabled, or retired veterans wishing to use their educational benefits should apply through the Financial Aid/Veterans Office as early as possible after they have decided to enroll in college. All applicants must file transcripts of any previous college work and original or certified copy of DD Form 214 in order to be eligible. If appropriate, a certified copy of a marriage certificate and birth certificate of dependent children may be required. Those veterans who are eligible and wish to apply for advance payments should contact the above office at least 60 to 120 days prior to the beginning of the term. Veteran students are required to notify the Veterans Affairs Office of any changes in their program during the semester.

Health Services
A variety of health services are available to students registered at the College. Students having chronic health problems, however, are advised to inform the College Nurse so that the best possible help may be rendered in case of an emergency. Illness or accidents should be reported immediately to the College Nurse or any administrator.

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

Student Identification Cards
Student Identification Cards are required for checking out library books and audio visual equipment and materials. Student Identification Cards are issued in the College Library at the beginning of each semester.
**Student Activities**

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

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

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

**Inter-Collegiate Athletics**

The College is a member of the Central Valley Conference. To be eligible to participate in intercollegiate athletics, a student must be enrolled in at least 12 units of credit and achieve a minimum of 2.0 G.P.A. to be eligible the second year.

**Career Center**

The Career Center, located adjacent to the Library, offers materials and services to assist students with career planning. The Center maintains a variety of resources including occupational publications, newsletters, college catalogs and Eureka, a computerized vocational/educational information system. A limited placement service is available to students for part-time and off-campus employment.

**Student Employment**

Students seeking employment should register with the Career Center and update their availability each semester. Employers are encouraged to list job openings, full or part-time, with the Center which maintains a referral service for off-campus employment.

**College Bookstore**

The Manzanita Bookstore, located in the Learning Resources Center, carries textbooks, materials and supplies required for classes. The bookstore also sells paperbacks, greeting cards, sundries, snacks, and many other items.

Costs of textbooks and educational supplies vary with the type of program the student is pursuing. Costs normally range from $100 to $150 each semester depending on the program.

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**Library**

The Columbia College Library is a center for study, class research, and leisure reading, and welcomes use by students, staff and community members. The Library's collections include nearly 30,000 books, current subscriptions to 300 magazines and six newspapers, pamphlets, maps and art prints. Available in the Audio-Visual Department are more than 5,000 cassette tapes of popular, folk, and classical music, local oral history, shorthand, and a wide variety of other topics as well as cassette players, slide-tape kits, and Polaroid cameras. A typing room with electric and manual typewriters is open for use during Library hours. Photocopying can be done on a coin-operated machine near the Library.

The Library can locate and borrow on Interlibrary Loan materials not in the College Library. As a member of the Central Association of Libraries, the Library has quick access to the collections of more than 50 libraries. This service is available to students, community residents, and college staff.

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

**Student Housing**

A new student housing complex is located on campus. The facility is designed as cluster apartments and will be partially furnished including a kitchenette. Four students will be housed in each apartment. Additional information is available by contacting the admissions and Records Office or the Career Center.

**Security/Parking**

Campus Security is available to assist students, staff and visitors as needed. Security may be contacted through the Dean of Student Services' Office or the Campus Fire Department.

The College maintains parking areas for students, staff, disabled persons and visitors. Parking regulations are strictly enforced by Campus Security. A fee is charged for parking.
Academic Policies And Procedures

Unit of Credit

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

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

Conversion of Units

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

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

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

Prerequisites

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

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

Prerequisites may be waived 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 a course who has not satisfied the course prerequisites as published in the College catalog.

Grading System

Evaluation of student achievement is made in relation to the attainment of specific course objectives. At the beginning of a course the instructor will explain the course objectives and the basis upon which grades will be determined by one of the following symbols:

- Excellent
- Good
- Satisfactory
- Passing, Less Than Satisfactory
- Failure
- Withdrawal From Course
- Incomplete
- Credit (At Least Satisfactory)
- No Credit (Less Than Satisfactory)

Grade Point Average

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

\[ \text{GPA} = \frac{\text{Total grade points earned}}{\text{Total semester units attempted}} \]

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 units

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

The result in this example is a GPA of 2.50.

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

Adding a Course

Adding a course or adding units to a course in which a student is already enrolled is permitted during the first five days of instruction each semester. Entrance into a class in days six through fifteen requires the instructor's written approval. After the tenth day, students may be admitted to certain classes with the written consent of the instructor. Refer to the Schedule of Classes for designation of those classes. Students who are not eligible for self-programming must obtain their advisor's written approval before adding a course.

Dropping A Course

A student may drop a course or reduce the number of units in a course during the first two weeks of instruction. The course or units will be removed from the student's program of attendance without a grade being recorded.

From the third week to the last day to drop without penalty, a student may drop a course and a grade of "W" will be recorded on the student's transcript of record providing the student has officially withdrawn from the course and paid the drop fee if appropriate.

The last day to withdraw without penalty for all full-time credit courses shall be the last day of 75 percent of the semester as noted in the College Calendar of Schedule of Classes. For courses less than full term, an equivalent withdrawal period will be in effect. WHEN DROPPING COURSES, IT IS THE STUDENT'S RESPONSIBILITY TO FILE ALL WITHDRAWALS FROM THE COURSES.

Repetition of Courses

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

When repeating a course in which a "D" grade was earned, the new grade and prior grade points will be recorded, but no additional units for the course will be allowed. When repeating a course in which "IP", "IP", or "NC" grades were earned, the new grade points, grade points, and units for the course will be recorded.

Incomplete Grades

An incomplete grade ("I") may be given for an unforeseeable emergency and justifiable reason if a student does not complete all course requirements. Responsibility for removal of incomplete grades within the time granted by the instructor rests with the student. Incomplete grades must be made up within one semester or will automatically revert to the alternate grade assigned by the instructor on the Incomplete Grade Removal Contract. Any course in which a substandard grade of D, F, or NC was earned at any accredited college or university may be repeated once at Columbia College. The higher grade will be used in computation of the G.P.A., and the permanent record will be annotated in such a way that work remains legible, ensuring a true and complete academic history.

Columbia College will honor similar policies of accredited colleges and universities, but other transfer institutions may reject academic renewal action.

99./199. Independent Study Courses

Independent study courses are intended to give students an opportunity to independently research specialized areas not available as regular course offerings of the College. Independent Study courses do not appear in the catalog as such since these courses are designed to meet specific student interests. Independent study courses may be made available in any subject matter area. Consult your advisor for specific procedures.

CONDITIONS

To be admitted to independent study, a student shall:

(1) have completed one semester (12 units) in residence and have a Grade Point Average of 2.5 or higher

(2) have written approval of the instructor directing the student's Independent Study, and written verification by the Admissions and Records Office that the maximum credit limit for Independent Study will not be exceeded. Maximum unit value for any Independent Study course for any one semester will be 3 units of credit.

LIMITATIONS

The following limitations apply to Independent Study courses:

(1) Registration is restricted to one Independent Study course per semester and registration must be completed prior to the fourth week of the semester.

(2) An overall maximum of 7 units of credit completed will be allowed for Independent Study.

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

Credit/No Credit

Each student may choose to take one course per semester grade point average at Columbia College:

(1) Since completion of the work will be alleviated, the student must have completed fifteen (15) semester units with at least a 3.0 G.P.A., thirty (30) semester units with at least a 2.5 G.P.A., or forty-five (45) semester units with at least a 2.0 G.P.A. at any accredited college or university.

(2) A minimum of two years must have elapsed since completion of the work to be alleviated.

(3) Any student not meeting all the requirements of items (1) and (2) may petition the Student Petition Committee/Dean of Students for special consideration.

(4) The student's permanent record will be annotated in such a way that all work remains legible, ensuring a true and complete academic history.

(5) Columbia College will honor similar policies of accredited colleges and universities, but other transfer institutions may reject academic renewal action.
for a grade of Credit or No Credit instead of the usual letter grades, subject to the following limitations: (1) Time of choice: Students have only the first 30 percent of the length of the term to choose Credit/No Credit evaluation, although the instructor may grant the student that option any time during the term if extenuating circumstances warrant it. (2) Limit of one per semester: Each student is limited to only one course per semester for Credit/No Credit evaluation. (3) Exceptions: Courses which are offered with only Credit/No Credit evaluation (such as Work-Study, SHCPE) are not subject to the above limitations, and may be taken in addition to the other course chosen for Credit/No Credit. (4) Total units: No more than 14 total units (including the credit-granting) may be counted toward graduation. CR/NC units are not computed in determining the student's grade point average, nor can they be applied toward the major required for graduation. Forms are available in the Admissions and Records Office to request this grade option.

Credit by Examination

A student may challenge certain specifically designated courses by examination and obtain credit. (A list of those courses which may be challenged is available in the Admissions Office.) 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,
2. recognize training or experience for which credit or advanced standing was not previously granted.

CONDITIONS

Only Columbia College courses may be challenged by examination. A maximum of 20 units may be earned by Credit by Examination. Credit granted by examination at accredited colleges will be accepted; such credit will be in addition to the student's grade point average. (A list of the courses which may be credited is available in the Admissions Office.) Credit will be granted to armed forces personnel and veterans by Columbia College before a student may receive credit. Credit granted to armed forces personnel and veterans by Columbia College is subject to the continuance in college would be of sufficient therapeutic benefit to the student to warrant the granting of an additional opportunity.

Credit for Military Service

Service schools where comparable units have been earned will be accepted if the institution was accredited by a Council on Education. Credit granted to armed forces personnel and veterans are subject to the following:

1. be registered in Columbia College and enrolled in the regular courses of instruction. The intent of this provision is to:
   a. make the student's grade point average available in the Admissions and Records Office.
   b. recognize training or experience for which credit or advanced standing was not previously granted.

Final Examinations

The student must make arrangements for credit by examination with the instructor. The exam is to be administered in a proctored environment. Credit for Military Service

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

1. (1) Two semester units and waive P.E. requirement for Military Science.

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

Credit for certain USAFS lower division college-level courses. Provisions for granting credit to armed forces personnel and veterans are subject to the following:

At least 13 semester units of work must be completed at Columbia College before a student may receive credit. Credit will be granted for military service or military service schools where comparable units have been earned in courses previously taken.

The maximum credit allowable is 20 ungraded units.

Credit granted to armed forces personnel and veterans by another institution is subject to re-evaluation by Columbia College.

Credit for Military Service

A student who desires to carry more than 18 units must secure approval from his/her advisor or the Dean of Students. Credit for Military Service may only be counted toward graduation.

Classification of Students

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

Full-time — registered for 12 or more units.
Freshman — fewer than 30 units completed.
Sophomore — 30 or more units completed.

Attendance

Students are responsible for making arrangements with their instructors to complete all course work missed. An instructor may be progressive to lower a student's grade because of excessive absence. Absence from the first class meeting may cancel registration in the course.

Final Examinations

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

Final grades are permanent and may be changed by the instructor only in case of error.
The following cost breakdown for 9 months is used as a guide for single students:

<table>
<thead>
<tr>
<th></th>
<th>Dependent</th>
<th>Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books/Supplies/Tuition</td>
<td>$460</td>
<td>$460</td>
</tr>
<tr>
<td>Meals/Housing</td>
<td>1,100</td>
<td>3,000</td>
</tr>
<tr>
<td>Personal</td>
<td>740</td>
<td>740</td>
</tr>
<tr>
<td>Transportation</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>$2,900</td>
<td>$4,800</td>
</tr>
</tbody>
</table>

The above costs are only approximate and are subject to change.

Enrollment Fee Refund Policy
A refund will be made, upon request, for any enrollment fee paid by a student in excess of that computed for program changes completed during the first two weeks of the class. After the second week of a class no refunds will be allowed. No refunds will be processed after the third week of instruction. Students eligible for refunds must obtain a Request for Refund from the Admissions and Records Office.

Parking Fee Refund Policy
Refunds will be made prior to the first class meeting only.

CERTIFICATES

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

For students entering Columbia College for the first time in Fall, 1986, the following certificate requirements are valid through the 1989-90 academic year. A student taking more than four (4) years to complete may only use certificate requirements in effect up to four (4) years prior to the date of completion.

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

Completion of certain certificate requirements in effect up to four (4) years prior to the 60 units required for an Associate degree.

Certificates of achievement are offered in the following disciplines:

Automotive Technology
- Engine Repair
- Front-end and Brake
- General Auto Repair
- Power Train
- Business Administration
- Management
- Retailing
- Computer Science
- Fire Technology
- Forestry Technology
- Hospitality Management
- Food Service Technology
- Hotel Management
- Human Services
- Disabled
- Gerontology
- Social Welfare
- Natural Resources
- Interpretation
- Natural Resources Technology
- Office Occupations
- Clerk Typist
- General Clerk
- Legal Secretarial
- Medical Receptionist
- Medical Transcription
- Secretarial
- Real Estate
- Search and Rescue
- Teacher Aide

Following are the specific requirements for the certificate programs listed above. Completion of certain certificate programs may necessitate attending classes during evening only or a combination of both day and evening classes.
## FIRE TECHNOLOGY
**REQUIRED COURSES:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Tech. 62</td>
<td>Equipment Operation</td>
</tr>
<tr>
<td>Fire Tech. 63</td>
<td>Extinguishers and Protective Equipment</td>
</tr>
<tr>
<td>Fire Tech. 64</td>
<td>Hose, Nozzles and Fittings</td>
</tr>
<tr>
<td>Fire Tech. 65</td>
<td>Hose Evolutions</td>
</tr>
<tr>
<td>Fire Tech. 66</td>
<td>Fire Service Ladders</td>
</tr>
<tr>
<td>Fire Tech. 67</td>
<td>Salvage and Overhaul Procedures</td>
</tr>
<tr>
<td>Fire Tech. 101</td>
<td>Introduction to Fire Technology</td>
</tr>
<tr>
<td>Fire Tech. 103</td>
<td>Fundamentals of Fire Protection</td>
</tr>
<tr>
<td>Fire Tech. 104</td>
<td>Fundamentals of Fire Behavior and Control</td>
</tr>
<tr>
<td>Fire Tech. 105</td>
<td>Fundamentals of Fire Prevention</td>
</tr>
<tr>
<td>Fire Tech. 130</td>
<td>Fire Protection Equipment and Systems</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS: 24**

## HOSPITALITY MANAGEMENT
**FOOD SERVICE TECHNOLOGY**
**REQUIRED COURSES:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hosp. Mgmt. 101</td>
<td>Introduction to Hospitality Industry</td>
</tr>
<tr>
<td>Hosp. Mgmt. 103</td>
<td>Marketing of Hospitality Services</td>
</tr>
<tr>
<td>Hosp. Mgmt. 130</td>
<td>Food Service Management</td>
</tr>
<tr>
<td>Hosp. Mgmt. 131</td>
<td>Dining Room Service</td>
</tr>
<tr>
<td>Hosp. Mgmt. 133a</td>
<td>Intro. to Commercial Food Preparation</td>
</tr>
<tr>
<td>Hosp. Mgmt. 135</td>
<td>Commercial Baking</td>
</tr>
<tr>
<td>Hosp. Mgmt. 139</td>
<td>Food Science and Nutrition</td>
</tr>
<tr>
<td>Hosp. Mgmt. 140a</td>
<td>Classical Cuisine: Intermediate</td>
</tr>
<tr>
<td>Hosp. Mgmt. 144</td>
<td>Meat Analysis</td>
</tr>
</tbody>
</table>

**HOSPITALITY MANAGEMENT**
**HOTEL MANAGEMENT**
**REQUIRED COURSES:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hosp. Mgmt. 101</td>
<td>Introduction to Hospitality Industry</td>
</tr>
<tr>
<td>Hosp. Mgmt. 103</td>
<td>Marketing of Hospitality Services</td>
</tr>
<tr>
<td>Hosp. Mgmt. 130</td>
<td>Food Service Management</td>
</tr>
<tr>
<td>Hosp. Mgmt. 140a</td>
<td>Classical Cuisine: Intermediate</td>
</tr>
<tr>
<td>Bus. Ad 63</td>
<td>Business Mathematics</td>
</tr>
</tbody>
</table>

**RECOMMENDED OPTIONAL COURSES:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus. Ad 60a</td>
<td>Bookkeeping</td>
</tr>
<tr>
<td>Bus. Ad 60b</td>
<td>Bookkeeping</td>
</tr>
<tr>
<td>Bus. Ad 10a</td>
<td>Accounting and</td>
</tr>
<tr>
<td>Bus. Ad 10b</td>
<td>Accounting</td>
</tr>
<tr>
<td>Off. Oc 116</td>
<td>Electronic Printing Calculations</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS: 16**

## HUMAN SERVICES
**DISABLED**
**REQUIRED COURSES:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Ed. 105</td>
<td>Personal Fitness Concepts/Evaluation</td>
</tr>
<tr>
<td>Physical Ed. 117a</td>
<td>Adult Fitness Program</td>
</tr>
<tr>
<td>Psychology 101</td>
<td>General Psychology</td>
</tr>
<tr>
<td>Psychology 103</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>Psychology 123</td>
<td>Psychological Development</td>
</tr>
<tr>
<td>Psychology 130</td>
<td>Personal and Social Adjustment</td>
</tr>
<tr>
<td>Sociology 101</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>Sociology 112</td>
<td>Family, Marriage, and the Individual</td>
</tr>
<tr>
<td>Sociology 127</td>
<td>Aging</td>
</tr>
<tr>
<td>Sociology 128</td>
<td>Death and Dying</td>
</tr>
<tr>
<td>Sociology 179</td>
<td>Work Experience</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS: 24.5-27**

## HUMAN SERVICES
**SOCIAL WELFARE**
**REQUIRED COURSES:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Ed. 101</td>
<td>Personal Fitness Concepts/Evaluation</td>
</tr>
<tr>
<td>Physical Ed. 117a</td>
<td>Adult Fitness</td>
</tr>
<tr>
<td>Psychology 101</td>
<td>General Psychology</td>
</tr>
<tr>
<td>Psychology 103</td>
<td>Personal and Social Adjustment</td>
</tr>
<tr>
<td>Psychology 145a</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>Psychology 145b</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>Sociology 101</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>Sociology 110</td>
<td>Deviance and Control</td>
</tr>
<tr>
<td>Sociology 112</td>
<td>Family, Marriage, and the Individual</td>
</tr>
<tr>
<td>Sociology 128</td>
<td>Death and Dying</td>
</tr>
<tr>
<td>Sociology 179</td>
<td>Work Experience</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS: 33.5-36**

## NATURAL RESOURCES TECHNOLOGY
**REQUIRED COURSES:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth Sci. 125</td>
<td>Geology of National Parks</td>
</tr>
<tr>
<td>Fire Sci. 117</td>
<td>Wildland Fire Control</td>
</tr>
<tr>
<td>Fore. Tech. 50</td>
<td>Intro. to Technical Forestry</td>
</tr>
<tr>
<td>Forestry 101</td>
<td>Introduction to Professional Forestry</td>
</tr>
<tr>
<td>Forestry 53</td>
<td>Forest Surveying Techniques</td>
</tr>
<tr>
<td>Forestry 56</td>
<td>Tree and Plant Identification</td>
</tr>
<tr>
<td>Forestry 110</td>
<td>Forestry</td>
</tr>
<tr>
<td>Nat. Res. Tech. 50</td>
<td>Natural History and Ecology</td>
</tr>
<tr>
<td>Nat. Res. Tech. 52</td>
<td>Applied Wildlands Management</td>
</tr>
<tr>
<td>Nat. Res. Tech. 55</td>
<td>Interpretive Guided Tours</td>
</tr>
<tr>
<td>Nat. Res. Tech. 60</td>
<td>Aerial Photog. &amp; Map Interpretation</td>
</tr>
<tr>
<td>Nat. Res. Tech. 65</td>
<td>Intro. to Technical Forestry</td>
</tr>
<tr>
<td>Nat. Res. Tech. 68</td>
<td>Intro. to Wildlands Management</td>
</tr>
<tr>
<td>Nat. Res. Tech. 69</td>
<td>Parks &amp; Forestry Law Enforcement</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS: 31-32**

## PROVEN COMPETENCY REQUIREMENTS:
**Mathematics Examination or Math 50 Basic Mathematics (or higher): 2**
**Reading Examination or English 51 or 101a: 2**
**Typing Examination or Off. Oc 101a Keyboarding or Off. Oc 101b Basic Typing Applications: 1-2**
**Writing Examination or English 51 or 101a: 2**

## OFFICE OCCUPATIONS
**CLERK TYPST**
**REQUIRED COURSES:**
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus. Ad. 43</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>Bus. Ad. 60a</td>
<td>Bookkeeping and</td>
</tr>
<tr>
<td>Bus. Ad. 60b</td>
<td>Bookkeeping</td>
</tr>
<tr>
<td>Bus. Ad 10a</td>
<td>Accounting and</td>
</tr>
<tr>
<td>Bus. Ad 10b</td>
<td>Accounting</td>
</tr>
<tr>
<td>Off. Oc 116</td>
<td>Electronic Printing Calculations</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS: 26-31**

## CERTIFICATES
### OFFICE OCCUPATIONS

#### GENERAL CLERK
- **Required Courses:**
  - Business Mathematics: BUS AD 63 (3 units)
  - Bookkeeping and Accounting: BUS AD 60a (3 units)
  - Business Correspondence: BUS AD 60b (3 units)
  - Small Business Accounting: BUS AD 61 (4 units)
  - Medical Insurance: BUS AD 64 (2 units)
  - Medical Transcription: BUS AD 103 (2 units)
  - Machine Transcription: BUS AD 104 (2 units)
  - Intermediate Typing: BUS AD 105 (3 units)
  - Business English: BUS AD 63 (3 units)

- **Total Required Units:** 20-24 units

*Must earn at least a letter grade of “B” in Office Oc. 132 before enrolling in Office Oc. 134.

### OFFICE OCCUPATIONS

#### LEGAL SECRETARY
- **Required Courses:**
  - Computer Operating Systems: BUS AD 103 (3 units)
  - Business English: BUS AD 63 (3 units)
  - Business Correspondence: BUS AD 60b (3 units)
  - Intermediate Typing: BUS AD 105 (3 units)
  - Word Processing: Electronic Typewriter: BUS AD 108 (2 units)
  - Accounting: BUS AD 130a (4 units)
  - Business English: BUS AD 108 (3 units)
  - Business Correspondence: BUS AD 104 (2 units)

- **Total Required Units:** 35 units

### OFFICE OCCUPATIONS

#### MEDICAL RECEIPTIONIST
- **Required Courses:**
  - Provider Payroll: BUS AD 58 (2 units)
  - Commercial Law: BUS AD 115a (3 units)
  - Medical Transcription: BUS AD 103 (2 units)
  - Machine Transcription: BUS AD 104 (2 units)
  - Machine Transcription: BUS AD 105 (3 units)
  - Electronic Printing Calculators: BUS AD 106 (2 units)
  - Medical Terminology: BUS AD 142a (2 units)
  - Medical Insurance: BUS AD 144 (2 units)

- **Total Required Units:** 30 units

### OFFICE OCCUPATIONS

#### MEDICAL TRANSCRIPTION
- **Required Courses:**
  - Computer Operating Systems: BUS AD 103 (1 unit)
  - Business English: BUS AD 63 (1 unit)
  - Business Correspondence: BUS AD 60b (1 unit)
  - Intermediate Typing: BUS AD 105 (1 unit)
  - Word Processing: Electronic Typewriter: BUS AD 108 (1 unit)
  - Accounting: BUS AD 130a (1 unit)
  - Business English: BUS AD 108 (1 unit)
  - Business Correspondence: BUS AD 104 (1 unit)

- **Total Required Units:** 19 units

### OFFICE OCCUPATIONS

#### SECRETARY
- **Required Courses:**
  - Computer Operating Systems: BUS AD 103 (3 units)
  - Business English: BUS AD 63 (3 units)
  - Business Correspondence: BUS AD 60b (3 units)
  - Intermediate Typing: BUS AD 105 (3 units)
  - Word Processing: Electronic Typewriter: BUS AD 108 (2 units)
  - Accounting: BUS AD 130a (4 units)
  - Business English: BUS AD 108 (3 units)

- **Total Required Units:** 28-32 units

### OFFICE OCCUPATIONS

#### TREASURER
- **Required Courses:**
  - Computer Operating Systems: BUS AD 103 (3 units)
  - Business English: BUS AD 63 (3 units)
  - Business Correspondence: BUS AD 60b (3 units)
  - Intermediate Typing: BUS AD 105 (3 units)
  - Word Processing: Electronic Typewriter: BUS AD 108 (2 units)
  - Accounting: BUS AD 130a (4 units)
  - Business English: BUS AD 108 (3 units)

- **Total Required Units:** 24 units

### SEARCH AND RESCUE

#### FIRE SERVICE
- **Required Courses:**
  - Emergency Med. Tech. Training: BUS AD 103 (6 units)
  - Swift Water Rescue: BUS AD 136 (5 units)
  - Rope Rescue: BUS AD 130 (1.5 units)
  - Repelling Safety/Tower Rescue: BUS AD 153 (1 unit)
  - Vehicle Extrication: BUS AD 154 (1 unit)
  - Fire Service Ladders to Rescue Tools: BUS AD 154 (1 unit)
  - Heavy Rescue Training: BUS AD 156 (1.5 units)

- **Total Required Units:** 13.5 units

*PLUS 2 UNITS FROM ANY OTHER COURSES IN THE SEARCH AND RESCUE CURRICULUM: 2 units

### SEARCH AND RESCUE

#### MEDICAL TRANSCRIPTION
- **Required Courses:**
  - Computer Operating Systems: BUS AD 103 (1 unit)
  - Business English: BUS AD 63 (1 unit)
  - Business Correspondence: BUS AD 60b (1 unit)
  - Intermediate Typing: BUS AD 105 (1 unit)
  - Word Processing: Electronic Typewriter: BUS AD 108 (1 unit)
  - Accounting: BUS AD 130a (1 unit)
  - Business English: BUS AD 108 (1 unit)

- **Total Required Units:** 15.5 units

**Students are advised that a number of Search and Rescue courses that make up the Certificate of Achievement are offered by the College only at off campus locations in other parts of the state. A student wishing to complete the Certificate Program should plan to travel considerable distances in order to take these courses.**
GRADUATION REQUIREMENTS AT COLUMBIA COLLEGE:
Columbia College will confer the Associate in Arts or the Associate in Science Degree upon completion of the following requirements. (The Associate in Science Degree is awarded for majors in physical or biological sciences or in occupational programs; the Associate in Arts Degree is awarded for all other majors.)

1. TOTAL UNITS: Satisfactory completion of 60 or more semester units, of which the last 12 required units must be taken in residence at Columbia College. Not more than six units of Learning Skills courses each semester may be used to meet graduation requirements.

2. SCHOLARSHIP: A cumulative Grade Point Average of not less than 2.0 ("C" average).

3. MAJOR: Satisfactory completion of any AA/AS Major listed in the Columbia College Catalog. (Course listing for each major is available in the Admissions and Records Office.) More than one Associate Degree may be awarded to a student who completes all applicable requirements plus 12 extra units in residence (72 or more total semester units). No courses of the first major may be counted in the major for the second degree. Each additional degree must meet the requirements in effect at the time the new degree major is declared.

GENERAL EDUCATION BREADTH REQUIREMENTS: Satisfactory completion of each Area of General Education "A" through "E" below, by choosing suitable courses from those listed under each Area. Students wishing to transfer to California State Universities should follow the requirements listed in the left-hand column. Students who do not expect to transfer, but wish to graduate from Columbia College with the AA or AS Degree, should follow the requirements listed in the right-hand column. The list of courses suitable to satisfy BOTH patterns are listed in the center column. Transfer students are encouraged to satisfy both patterns at the same time by careful selection of courses, in order to graduate with the AA/AS Degree as well as transferring to a C.S.U. campus.

TRANSFER REQUIREMENTS TO A CALIFORNIA STATE UNIVERSITY:
Columbia College will send certification of General Education Breadth Requirements to the California State University campus to which the student transfers. Full certification consists of not less than 39 semester units from Areas "A" through "E" below. In addition, the following transfer requirements apply:

1. TOTAL UNITS: Satisfactory completion of 56 to 70 transferrable semester units. If you wish to transfer with less than 56 transferrable units, you must submit satisfactory test scores from either the Scholastic Aptitude Test (SAT) or American College Testing Program (ACT). For possible exemption from ACT and SAT tests, see catalog of college to which student plans to transfer. (At San Luis Obispo, test scores are required of all transfer students.)

2. SCHOLARSHIP: A cumulative Grade Point Average of not less than 2.0 ("C" average).

3. MAJOR: Satisfactory completion of lower division prerequisites for the BA/BS Major listed in the catalog of the California State University transfer campus.

FOR AA/AS GRADUATION: SUITABLE COURSES FOR EACH AREA OF GENERAL EDUCATION:

<table>
<thead>
<tr>
<th>AREA A. COMMUNICATION AND CRITICAL THINKING:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.2 Written Communication</td>
</tr>
</tbody>
</table>

FOR TRANSFER:

Three Courses required: each from A.1, A.2, A.3.
FOR AA/AS GRADUATION:
Three courses required: one each from B.1, B.2, and B.3, including one laboratory course from either B.1 or B.2. Also acceptable in B.3: Business Administration 63, Business Mathematics (5), and Mathematics 66, Geometry (4).

SUITABLE COURSES FOR EACH AREA OF GENERAL EDUCATION:

area B. the physical universe, its life forms and mathematical concepts:

B.1 Physical Sciences:
Chemistry 100, Fundamentals of Chemistry (4), (lab course).
Chemistry 101a, General Chemistry (5), (lab course).
Earth Science 114, Physical Geology (4), (lab course).
Earth Science 133, Global Tectonic Geology (3).
Earth Science 142, Descriptive Astronomy (3).
Earth Science 144, General Astronomy (4), (lab course).
Earth Science 161, Fundamentals of Meteorology (3), (lab course).
Physics 100, Modern Physics (2).
Physics 120a, General Physics (3), (lab course).

B.2 Biological Sciences:
Biology 108, Fundamentals of Biology (3).
Biology 109, Fundamentals of Biology Laboratory (1).
Biology 111, Principles of Biology (4), (lab course).
Biology 120, Fundamentals of Plant Biology (2), (lab course).

FOR TRANSFER:
Three courses required: one each from B.1, B.2, and B.3, including one laboratory course from either B.1 or B.2, and not less than nine units total from Area B.

area C. arts, literature, philosophy, and foreign language:

C.1 Arts (Art, Dance, Drama, Music):
Art 111a, History of Art: Ancient and Medieval (3).
Art 111b, History of Art: Renaissance, Baroque, Modern (3).
Drama 102, Oral Expression and Interpretation (3).
Music 102, Introduction to Music (3).

C.2 Literature, Philosophy, Foreign Language:
English 117a, Literature of the United States (3).
English 117b, Literature of the United States (3).
English 146a, Survey of English Literature (3).
English 146b, Survey of English Literature (3).
Humanities 101, Old World Culture (3).
Humanities 102, Modern Culture (3).
Philosophy 101, Introduction to Philosophy (3).
Philosophy 125, Twentieth Century Philosophy (3).

FOR TRANSFER:
Three courses required, including one each from C.1 and C.2.

area D. social, political and economic institutions and behavior:

D.1 General Social Sciences:
Anthropology 101, Introduction to Anthropology: Physical (3).
Economics 101a, Principles of Economics: Macroeconomics (4).
Psychology 101, General Psychology (3).
Sociology 101, Introduction to Sociology (3).

FOR TRANSFER:
Four courses required: one each from D.1 and D.2, and two from D.3. Also acceptable in D.3: Anthropology 115, Indians of North America (3).
### Columbia College Majors

Students are required to complete an academic major to fulfill the Associate Degree requirements of Columbia College. Following are the course requirements for each major currently offered.

#### Art

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Art 101</td>
<td>Freehand Drawing</td>
<td>3</td>
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<tr>
<td>Art 102</td>
<td>Basic Color &amp; Design</td>
<td>3</td>
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<tr>
<td>Art 109a</td>
<td>Life Drawing: Beginning</td>
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<tr>
<td>Art 111a</td>
<td>History of Art: Ancient and Medieval</td>
<td>3</td>
</tr>
<tr>
<td>Art 111b</td>
<td>History of Art: Rev., Baroque, Modern</td>
<td>3</td>
</tr>
<tr>
<td>Art 121a</td>
<td>Painting: Beginning</td>
<td>3</td>
</tr>
<tr>
<td>Art 123a</td>
<td>Watercolor: Beginning</td>
<td>3</td>
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<tr>
<td>Art 131a</td>
<td>Ceramics: Introductory</td>
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**TOTAL REQUIRED UNITS 22.5**

#### Photography

<table>
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<td>Art 102</td>
<td>Basic Color &amp; Design</td>
<td>3</td>
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<tr>
<td>Art 141a</td>
<td>Photography: Beginning</td>
<td>3</td>
</tr>
<tr>
<td>Art 141b</td>
<td>Photography: Intermediate</td>
<td>3</td>
</tr>
<tr>
<td>Art 141c</td>
<td>Photography: Advanced</td>
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<tr>
<td>Art 142a</td>
<td>Color Photo: Slidemaking</td>
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<tr>
<td>Art 148</td>
<td>Special Topics in Photography</td>
<td>3</td>
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**TOTAL REQUIRED UNITS 18**

#### Automotive Technology

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Auto. Tech. 114</td>
<td>Machine Shop Procedures</td>
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</tr>
<tr>
<td>Auto. Tech. 116</td>
<td>Engine Rebuilding</td>
<td></td>
</tr>
<tr>
<td>Auto. Tech. 117a</td>
<td>Fuel Systems</td>
<td></td>
</tr>
<tr>
<td>Auto. Tech. 117b</td>
<td>Emission Control</td>
<td></td>
</tr>
<tr>
<td>Auto. Tech. 119a</td>
<td>Gasoline Engine Tune-up: Basic</td>
<td></td>
</tr>
<tr>
<td>Auto. Tech. 120</td>
<td>Manual Trans. Rebuilding</td>
<td></td>
</tr>
<tr>
<td>Auto. Tech. 124</td>
<td>Assemblies and Drive Lines</td>
<td></td>
</tr>
<tr>
<td>Auto. Tech. 136</td>
<td>Auto. Transmission (GM)</td>
<td></td>
</tr>
<tr>
<td>Auto. Tech. 140a</td>
<td>Brakes (Drum)</td>
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</tr>
<tr>
<td>Auto. Tech. 144a</td>
<td>From-end and Suspension</td>
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<tr>
<td>Auto. Tech. 150</td>
<td>Electrical Theory</td>
<td></td>
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<tr>
<td>Auto. Tech. 150b</td>
<td>Charging Systems</td>
<td></td>
</tr>
<tr>
<td>Auto. Tech. 150c</td>
<td>Starting &amp; Ignition Systems</td>
<td></td>
</tr>
<tr>
<td>Auto. Tech. 150d</td>
<td>Lighting &amp; Chassis Elec.</td>
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**TOTAL REQUIRED UNITS 21**

### Biology

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Bio 111</td>
<td>Principles of Biology</td>
<td>4</td>
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<tr>
<td>Bio 121</td>
<td>Principles of Plant Biology</td>
<td>4</td>
</tr>
<tr>
<td>Bio 131</td>
<td>Principles of Animal Biology</td>
<td>5</td>
</tr>
<tr>
<td>Bio 140</td>
<td>Introductory Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>Bio 160</td>
<td>Introduction to Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>Bio 165</td>
<td>Microbiology</td>
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**AND AT LEAST 8 UNITS FROM:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Bio 100</td>
<td>Environmental Conservation</td>
<td>3</td>
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<tr>
<td>Bio 120</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>Phys 100</td>
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**TOTAL REQUIRED UNITS 20**

### Business

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Bus. Ad. 60a</td>
<td>Bookkeeping and...</td>
<td>3</td>
</tr>
<tr>
<td>Bus. Ad. 60b</td>
<td>Bookkeeping and...</td>
<td>3</td>
</tr>
<tr>
<td>Bus. Ad. 61</td>
<td>Small Business Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Bus. Ad. 130a</td>
<td>Accounting and...</td>
<td>4</td>
</tr>
<tr>
<td>Bus. Ad. 130b</td>
<td>Accounting and...</td>
<td>4</td>
</tr>
<tr>
<td>Office Oc. 65</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>Office Oc. 103</td>
<td>Intermediate Typing</td>
<td>3</td>
</tr>
<tr>
<td>Office Oc. 105</td>
<td>Word Processing Electronic Typewriter</td>
<td>3</td>
</tr>
<tr>
<td>Office Oc. 130</td>
<td>Filing Systems &amp; Records Mgmt.</td>
<td>3</td>
</tr>
<tr>
<td>Office Oc. 132</td>
<td>Machine Transcription</td>
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**TOTAL REQUIRED UNITS 14**

### Earth Science

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>Earth Sci 139</td>
<td>Field Geology</td>
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<tr>
<td>Earth Sci 135</td>
<td>Earth Science</td>
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<td>Earth Sci 133</td>
<td>Earth Science</td>
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**TOTAL REQUIRED UNITS 15-19**

### Chemistry

<table>
<thead>
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<th>Course Title</th>
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<tr>
<td>Chem 100</td>
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<td>Chem 101</td>
<td>Chemistry</td>
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**TOTAL REQUIRED UNITS 12**

### Physics

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>Phys 100</td>
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**TOTAL REQUIRED UNITS 20**

### Biology Majors

#### Biology

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>Bio 111</td>
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<tr>
<td>Bio 100</td>
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<tr>
<td>Bio 120</td>
<td>Nutrition</td>
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</tr>
<tr>
<td>Phys 100</td>
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**TOTAL REQUIRED UNITS 20**

### Business Majors

#### Business

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Bus. Ad. 60a</td>
<td>Bookkeeping and...</td>
<td>3</td>
</tr>
<tr>
<td>Bus. Ad. 60b</td>
<td>Bookkeeping and...</td>
<td>3</td>
</tr>
<tr>
<td>Bus. Ad. 61</td>
<td>Small Business Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Bus. Ad. 130a</td>
<td>Accounting and...</td>
<td>4</td>
</tr>
<tr>
<td>Bus. Ad. 130b</td>
<td>Accounting and...</td>
<td>4</td>
</tr>
<tr>
<td>Office Oc. 65</td>
<td>Business English</td>
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<td>3</td>
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<tr>
<td>Office Oc. 130</td>
<td>Filing Systems &amp; Records Mgmt.</td>
<td>3</td>
</tr>
<tr>
<td>Office Oc. 132</td>
<td>Machine Transcription</td>
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**TOTAL REQUIRED UNITS 14**

### Earth Science Majors

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Earth Sci 139</td>
<td>Field Geology</td>
<td>1.5</td>
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<tr>
<td>Earth Sci 135</td>
<td>Earth Science</td>
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<tr>
<td>Earth Sci 133</td>
<td>Earth Science</td>
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**TOTAL REQUIRED UNITS 15-19**

### Chemistry Majors

<table>
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<th>Units</th>
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<tbody>
<tr>
<td>Chem 100</td>
<td>Chemistry</td>
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<tr>
<td>Chem 101</td>
<td>Chemistry</td>
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<tr>
<td>Chem 102</td>
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**TOTAL REQUIRED UNITS 12**

### Physics Majors

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Phys 100</td>
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**TOTAL REQUIRED UNITS 20**

### Economics

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>Econ 101</td>
<td>Principles of Macroeconomics</td>
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<tr>
<td>Econ 102</td>
<td>Principles of Microeconomics</td>
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**TOTAL REQUIRED UNITS 4**

### Computer Science

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<tbody>
<tr>
<td>CS 103</td>
<td>Computer Operating Systems</td>
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**TOTAL REQUIRED UNITS 1**
MAJORS

BUSINESS ADMINISTRATION (PROFESSIONAL)

REQUIRED COURSES: UNITS
Bus. Ad. 115b Business Law .................. 3
Bus. Ad. 116b Principles of Business ........ 3
Bus. Ad. 126 Accounting ....................... 4
Computer Sci. 103 Computer Operating Systems 1
Economics 101b Principles of Economics .... 4
Economics 101b Principles of Economics .... 4
TOTAL REQUIRED UNITS 23

BUSINESS ADMINISTRATION (OCCUPATIONAL)

REQUIRED COURSES: UNITS
Bus. Ad. 63 Business Mathematics .......... 3
Bus. Ad. 101 Principles of Business .......... 3
Bus. Ad. 60a Bookkeeping & Accounting ..... 3
Bus. Ad. 60b Bookkeeping & Accounting ..... 3
Bus. Ad. 61 Small Business Accounting ..... 4
Computer Sci. 103 Computer Operating Systems 1
Office Ct. 68 Business Correspondence .... 4
TOTAL 14-16
AND 6 UNITS FROM:
Bus. Ad. 104 Human Relations in Business .... 3
Bus. Ad. 115a Commercial Law ................ 3
Bus. Ad. 115b Commercial Law ................ 3
Bus. Ad. 120 Principles of Marketing ........ 3
Bus. Ad. 125 Sales ................................ 3
Bus. Ad. 127 Advertising ...................... 3
Bus. Ad. 140 Principles of Management ..... 3
Bus. Ad. 147 Retail Business Management ... 3
Bus. Ad. 150 Business Management .......... 3
TOTAL REQUIRED UNITS 20-22

COMPUTER SCIENCE

REQUIRED COURSES: UNITS
Computer Sci. 101 Intro. to Computer Concepts 2
Computer Sci. 103 Computer Operating Systems 2
Computer Sci. 125 Pascal Programming I .... 3
Computer Sci. 126 Pascal Programming II .... 3
Computer Sci. 120 BASIC Programming .... 3
Computer Sci. 127 FORTRAN Programming 3
Computer Sci. 129 COBOL Programming .... 3
Computer Sci. 132 RPG II Programming .... 3
Computer Sci. 140 Assembly Language Programming 3
Computer Sci. 155 Data Base Management .... 3
English 101a Reading and Composition .... 3
Mathematics 104 Logic or Philosophy 104 Logic 3
Mathematics 110 Finite Mathematics .......... 4
TOTAL REQUIRED UNITS 28

EARTH SCIENCE

REQUIRED COURSES: UNITS
Earth Science 114 Physical Geology .......... 4
Earth Science 133 Global Tectonic Geology 3
Earth Science 139 Field Geology .............. 3
Earth Science 142 Descriptive Astronomy ...... 3
Earth Science 144 General Astronomy .......... 4
Earth Science 161 Fundamentals of Meteorology 3
Earth Science 171 Fundamentals of Oceanography 3
TOTAL 14-17

FORESTRY TECHNOLOGY

REQUIRED COURSES: UNITS
Forestry Tech. 50 Intro. to Technical Forestry .... 2
Forestry Tech. 101 Intro. to Professional Forestry 3
Forestry Tech. 53 Forest Surveying Techniques 2
Forestry Tech. 56 Tree & Plant Identification 3
Forestry Tech. 110 Dendrology ................. 3
Nat. Res. Tech. 60 Aerial Photography and Map Interpretation 2
or
S.A.R. 120 Wilderness Navigation .......... 3
TOTAL 10-11
AND 10-11 UNITS FROM:
Fire Tech. 117 Wildland Fire Control .......... 2
Forestry Tech. 62 Applied Forestry Management 4
Nat. Res. Tech. 50 Natural History and Ecology 3
Nat. Res. Tech. 110 California Wildlife 1
Natural Res. 100 Environmental Conservation 3
Natural Res. 109 Parks and Forests Law Enforcement 2
TOTAL REQUIRED UNITS 20

HISTORY

REQUIRED COURSES: UNITS
History 104a World Civilization to 1650 ........ 3
History 104b World Civilization: 1650 to Present 4
History 117a United States: to 1865 ............ 3
History 117b United States: 1865 to Present .... 4
AND AT LEAST 15 UNITS FROM:
Any other History course or Any Political Science course 3
Anthro. 110 Intro. to Anthropology: Physical 3
Anthro. 112 Intro. to Anthropology: Cultural 3
Economics 101a Prin. of Econ.: Micro-Economics 4
Economics 101b Prin. of Econ.: Macro-Economics 4
Geography 102 Cultural Geography .......... 3
Sociology 101 Introduction to Sociology .......... 3
Sociology 102 American Social Patterns .......... 3
TOTAL REQUIRED UNITS 18

HOSPITALITY MANAGEMENT

FOOD SERVICE TECHNOLOGY

REQUIRED COURSES: UNITS
Hosp. Mgmt. 101 Introduction to Hospitality Industry 3
Hosp. Mgmt. 103 Marketing of Hospitality Services 3
Hosp. Mgmt. 130 Food Service Management .... 3
Hosp. Mgmt. 131 Dining Room Service .......... 3
Hosp. Mgmt. 133a Intro. to Commercial Food Preparation 3.5
Hosp. Mgmt. 133b Intro. to Commercial Food Preparation 3.5
Hosp. Mgmt. 139 Food Science and Nutrition .... 3
Hosp. Mgmt. 140a Classical Cuisine: Beginning .... 3
Hosp. Mgmt. 140b Classical Cuisine: Advanced .... 3
TOTAL REQUIRED UNITS 26

HOSPITALITY MANAGEMENT

HOTEL MANAGEMENT

REQUIRED COURSES: UNITS
Hosp. Mgmt. 101 Introduction to Hospitality Industry 3
Hosp. Mgmt. 112 Front Office/Customer Service 3
Hosp. Mgmt. 114 Intro. to Maintenance and Housekeeping 3
Hosp. Mgmt. 116 Laws of Innkeeping ............ 1
Hosp. Mgmt. 130 Food Service Management .... 3
Hosp. Mgmt. 160 Intro. to Travel-Tourism Industry/Tours .... 2
Bus. Ad. 179 Work Experience ................. 4
TOTAL REQUIRED UNITS 18

HUMANITIES

REQUIRED COURSES: UNITS
Humanities 101 Old World Culture .......... 3
Humanities 102 Modern Culture .............. 3
AND ONE COURSE IN ART HISTORY FROM:
Art 111a History of Art: Ancient and Medieval 3
Art 111b History of Art: Renaissance, Baroque, Modern 3
AND ONE COURSE IN MUSIC FROM:
Music 102 Introduction to Music ............... 3
Music 110a Survey of Music History and Literature 3
Music 110b Survey of Music History and Literature 3
AND ONE COURSE IN LITERATURE FROM:
English 111a Literature of the United States 3
English 111b Literature of the United States 3
English 146a Survey of English Literature .... 3
English 146b Survey of English Literature .... 3
AND ONE COURSE IN HISTORY OR PHILOSOPHY FROM:
History 104a World Civilization to 1650 3
History 104b World Civilization: 1650 to Present 4
History 111 Asian Civilizations ............... 3
Philosophy 111 Introduction to Philosophy .... 3
Philosophy 115 World Religions ............... 3
Philosophy 125 Twentieth Century Philosophy .... 3
TOTAL REQUIRED UNITS 18
A minimum of six (6) semester units must be completed in each of the three areas. A minimum of eighteen (18) semester units total must be completed from the three areas combined. (Courses used to fulfill the Liberal Studies Major requirements may not be used to fulfill the General Education requirements for the AA or AS Degree.)

HUMANITIES (Minimum of 6 Units):
Art 111a History of Art: Ancient and Medieval .. 3
Art 111b History of Art: Renaissance, Baroque, Modern. .. 3
Drama 102 Oral Expression and Interpretation .. 3
English 117a Literature of the United States .. 3
English 117b Literature of the United States .. 3
English 146a Survey of English Literature .. 3
English 146b Survey of English Literature .. 3
History 101 Old World Culture .. 3
History 102 Modern Culture .. 3
Music 110a Survey of Music History and Literature .. 3
Music 110b Survey of Music History and Literature .. 3
Philosophy 101 Introduction to Philosophy .. 3
Philosophy 115 World Religions .. 3

NATURAL SCIENCES AND MATHEMATICS
(Minimum of 4 Units):
Biology 108 Fundamentals of Biology .. 3
Biology 113 Principles of Biology .. 4
Chemistry 101 General Chemistry .. 4
Chemistry 101a General Chemistry .. 4
Comp. Sci. 101 Introduction to Computer concepts .. 2
Comp. Sci. 103 Computer Operating Systems .. 1
Comp. Sci. 120 BASIC Programming .. 3
Earth Sci. 114 Physical Geology .. 4
Earth Sci. 142 Descriptive Astronomy .. 3
Earth Sci. 161 Fundamentals of Meteorology .. 3
Earth Sci. 171 Fundamentals of Oceanography .. 3
Math 101 Intermediate Algebra (or higher) .. 4
Math 104 Introduction to Logic .. 3
Natural Res. 100 Environmental Conservation .. 3
Philosophy 104 Introduction to Logic .. 3
Physics 100 Conceptual Physics .. 3
Physics 120a General Physics .. 3
Physics 120b General Physics .. 3

SOCIAL SCIENCES (Minimum of 6 Units):
Anthro. 101 Intro. to Anthropology: Physical .. 3
Anthro. 102 Intro. to Anthropology: Cultural .. 3
Anthro. 115 Indians of North America .. 3
Bus. Ad. 101 Principles of Business .. 3
Economics 101a Principles of Economics .. 4
Economics 101b Principles of Economics .. 4
Geography 102 Intro. to Cultural Geography .. 3
History 104a World Civilization: 1650 to Present .. 3
History 104b World Civilization: 1650 to Present .. 3
History 117a United States History .. 3
History 117b United States History .. 3
Pol. Sci. 101 Constitutional Government .. 3
Pol. Sci. 125 Comparative Political Systems .. 3
Psychology 101 General Psychology .. 3
Psychology 103 Social Psychology .. 3
Sociology 101 Introduction to Sociology .. 3
Sociology 102 American Social Patterns .. 3
Sociology 112 Family, Marriage, Individual .. 3

MUSIC
REQUIRED COURSES: UNITS
Music 120a Music Theory .. 3
Music 120b Music Theory .. 3
Music 150 Applied Music (Major Instrument) .. 3

MINIMUM OF 4 UNITS FROM:
Music 131a Elementary Class Piano .. 2
Music 131b Elementary Class Piano .. 2
Music 141a Intermediate Class Piano .. 2
Music 141b Intermediate Class Piano .. 2
Music 165a Beginning Choir .. 3
Music 165b Choir .. 3
Music 166 Intro. to Fear Factors .. 3
Music 167a Madrigal Ensemble .. 3
Music 167b Wind Ensemble .. 3
Music 172a Jazz Ensemble .. 3
Music 176 Ensemble: Instrumental Ensemble .. 3
Music 179 Ensemble: Instrumental Ensemble .. 3

REQUIRED COURSES: UNITS
Music 102 Introduction to Music .. 3
Music 103 Introduction to Music .. 3
Music 110a Survey of Music History and Literature .. 3
Music 110b Survey of Music History and Literature .. 3
Music 112 Survey of Jazz and Popular Music .. 3

AND A MINIMUM OF 4 UNITS FROM:
Music 100 Choir .. 3
Music 164a Choir .. 3
Music 164b Choir .. 3
Music 165a Theatre Production: Music Emphasis .. 3
Music 166a Community Choir .. 3
Music 167a Madrigal Ensemble .. 3
Music 167b Wind Ensemble .. 3
Music 172a Jazz Ensemble .. 3
Music 176 Ensemble: Instrumental Ensemble .. 3
Music 179 Ensemble: Instrumental Ensemble .. 3

TOTAL REQUIRED UNITS 19

RECOMMENDED 3 UNITS FROM:
Music 102 Introduction to Music .. 3
Music 110a Survey of Music History and Literature .. 3
Music 110b Survey of Music History and Literature .. 3
Music 112 Survey of Jazz and Popular Music .. 3

NATURAL SCIENCES TECHNOLOGY
REQUIRED COURSES: UNITS
Nar. Res. Tech. 50 Natural History and Ecology .. 3
Nar. Res. Tech. 50 Applied Wildlife Management .. 3
Nar. Res. Tech. 55 Interp. Guided Tours .. 3
Nar. Res. Tech. 60 Aerial Photo. and Map Interp. .. 3
S.A.R. 122 Wilderness Navigation .. 3
Nar. Res. Environmental Conservation .. 3

TOTAL REQUIRED UNITS 20

PHILOSOPHY
REQUIRED COURSES: UNITS
Philosophy 101 Introduction to Philosophy .. 3
Philosophy 104 Introduction to Logic .. 3
Philosophy 115 World Religions .. 3
Philosophy 119 Twentieth Century Philosophy .. 3
History 104a World Civilizations: 1650 .. 3
History 104b World Civilizations: 1650 .. 3
Psychology 130 Personal and Social Adjustment .. 3
Psychology 160 Personality Theory .. 3
Sociology 140 Human Sexual Behavior .. 3
Sociology 112 Family, Marriage, and the Individual .. 3

TOTAL REQUIRED UNITS 20

PHYSICAL SCIENCE
REQUIRED COURSES: UNITS
Chemistry 101 General Chemistry .. 3
Chemistry 101b General Chemistry .. 3
Physics 120a General Physics .. 3
Physics 120b General Physics .. 3

TOTAL REQUIRED UNITS 20

Note: Students should be sure they have satisfied mathematics requirements for enrollment in these courses.

PSYCHOLOGY
REQUIRED COURSES: UNITS
Psychology 101 General Psychology .. 3
Psychology 102 Current Issues in Psychology .. 3
Psychology 145a Developmental Psychology .. 3
Psychology 145b Developmental Psychology .. 3
Psychology 160 Personality Theory .. 3

TOTAL REQUIRED UNITS 15

AND AT LEAST 6 UNITS FROM:
Psychology 125 Biofeedback and Self-Control .. 3
Psychology 130 Personal and Social Adjustment .. 3
Sociology 101 Introduction to Sociology .. 3
Philosophy 101 Introduction to Philosophy .. 3
Anthro. 102 Intro. to Anthropology: Cultural .. 3

TOTAL REQUIRED UNITS 21

SOCIOLOGY
REQUIRED COURSES: UNITS
Sociology 101 Introduction to Sociology .. 3
Sociology 102 American Social Patterns .. 3
Sociology 110 Deviance and Conflict .. 3
Sociology 112 Family, Marriage, Individual .. 3
Sociology 117 Aging .. 3
Sociology 128 Death and Dying .. 3

TOTAL REQUIRED UNITS 18
LOWER DIVISION REQUIREMENTS
CALIFORNIA FOUR-YEAR COLLEGES AND UNIVERSITIES

Students should consult the latest catalog of the institution to which they intend to transfer to ensure that all possible required lower division general education courses and prerequisites for the major are included in their Columbia College program of study. Columbia College advisors will help students select courses that fulfill both major and General Education Breadth Requirements. The responsibility for fulfilling requirements rests with the student.

CALIFORNIA STATE UNIVERSITY SYSTEM (C.S.U.) TRANSFER INFORMATION

The California State University system (C.S.U.) has established the following campuses:
- California State College, Bakersfield
- California State University, Chico
- California State University, Dominguez Hills
- California State University, Fullerton
- California State University, Fullerton
- California State University, Hayward
- Humboldt State University
- California State University, Long Beach
- California State University, Los Angeles
- California State University, Northridge
- California Polytechnic University, Pomona
- California State University, Sacramento
- California State University, San Bernardino
- California State College, San Bernardino
- San Diego State University
- San Francisco State University
- San Jose State University
- California Polytechnic State University, San Luis Obispo
- Sonoma State University

C.S.U. ADMISSION AS AN UNDERGRADUATE TRANSFER

Transfer Requirements — You will qualify for admission as a transfer student if you have a grade point average of 2.0 (C) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet one of the following standards:

(a) were eligible as a freshman, or
(b) were eligible as a freshman except for the college preparatory subjects in English and mathematics and have satisfied the subject deficiencies at Columbia College*, or
(c) have completed at least 56 transferable semester (84 quarter) units and have satisfied any deficiencies in college preparatory subjects in English and mathematics after they are admitted. These are not admission tests, but a way to determine if you are prepared for college work and, if not, to counsel you how to strengthen your preparation. You might be exempted from one or both of the tests if you have scored well on other specified tests or completed appropriate courses. Consult your Columbia College advisor for additional information.

Test Scores - Freshman and transfer applicants who have fewer than 56 semester or 84 quarter units of transferable college work must submit scores, unless exempt, from either the Scholastic Aptitude Test of the College Board (SAT) or the American College Test Program (ACT). At San Luis Obispo, test scores are required of all transfer applicants. You may get registration forms and the dates for either test from the Student Services Office or Admissions and Records Office at Columbia College.

Placement Tests Required of Most New Students - The CSU requires new students to be tested in English and mathematics after they are admitted. These are not admission tests, but a way to determine if you are prepared for college work and, if not, to counsel you how to strengthen your preparation. You might be exempted from one or both of the tests if you have scored well on other specified tests or completed appropriate courses. Consult your Columbia College advisor for additional information.

Placement Test Scores
- English Placement Test (EPT) - Required of all new undergraduate students.
- Entry Level Mathematics (ELM) Test - Required of all new undergraduate students.

See Page 37 for a list of General Education Breadth Requirements. Students who intend to transfer with junior status should complete these requirements. It is important that you consult the catalog or the college to which you plan to transfer for lower-division prerequisites for your major and that these requirements also be completed prior to transfer. Consult your advisor for assistance.

A maximum of 70 semester units of community college credit will be accepted by a state university. Units in excess of 70 may be applied toward fulfillment of requirements in General Education Breadth Requirements, the major, or the minor if deemed appropriate by the university.

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. A student who was not eligible for direct admission to the University from high school may become eligible after making up subject and/or grade deficiencies at Columbia College.

Requirements for students who have attended a community college and who wish to be admitted to the University in advanced standing differ according to high school record and year of high school graduation.

The University will not grant credit toward graduation for work completed in excess of 70 lower division semester units.

Graduation requirements may vary between the different campuses of the University. Prospective transfer students should obtain a catalog from the campus to which they plan to transfer, and in consultation with their advisor, determine courses needed to fulfill requirements. The Career Center maintains University catalogs for student reference.
ANTHROPOLOGY

2. Courses Not Listed in The Catalog

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

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

Courses Not Listed in The Catalog

1. Credit Free Course

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

2. 80/180 Courses: Special Topics

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

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

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

4. 90/199 Courses: Independent Study

Independent study courses are intended to give students an opportunity to independently research specialized areas not available as regular course offerings of the college. They are designed to meet specific student interests and may be made available in any subject matter area. Consult your advisor for specific procedures. (See page 25 for conditions. Limitation.)

Prerequisites

Prerequisites are intended to ensure that the student will have sufficient preparation before entering a course. Where no prerequisite is stated for a course, none is required.

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

Credit Value

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

Field Trips

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

ANTHROPOLOGY

101 INTRODUCTION TO ANTHROPOLOGY: Physical

Lecture: 3 hours

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

102 INTRODUCTION TO ANTHROPOLOGY: Cultural

Lecture: 3 hours

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

103 CURRENT ISSUES IN ANTHROPOLOGY

Prerequisite: Anthropology 101 or 102

Lecture: 3 hours

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

110 INTRODUCTION TO ARCHAEOLOGY

Lecture; 3 hours

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

112 ARCHAEOLOGICAL SURVEY AND SITE IDENTIFICATION

1 Unit

Prerequisite: Anthropology 110 with a grade of "C" or better or concurrent enrollment

Lecture: 3 hours

Field techniques in identifying, evaluating, and recording archaeological sites. Emphasis on California and Sierra prehistoric and historic period sites.

114 ARCHAEOLOGICAL EXCAVATION AND LABORATORY TECHNIQUES

1 Unit

Prerequisite: Anthropology 110 or concurrent enrollment

Laboratory: 3 hours

Archaeological field and laboratory techniques through participation in an excavation and the processing of recovered artifacts.

115 INDIANS OF NORTH AMERICA

3 Units

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

ART

101 BASIC FREEHAND DRAWING

1.5-3 Units

Study: 3-6 hours

Introduction to basic drawing techniques, rendering techniques, linear perspective, composition and various drawing media.

102 BASIC COLOR AND DESIGN

1.5-3 Units

Study: 3-6 hours

Introduction to elements and principles of visual design and color theory as applied in a studio setting.

109 LIFE DRAWING: Beginning

1.5-3 Units

Study: 3-6 hours

Problems in figure drawing working from the undraped model.

109F LIFE DRAWING: Intermediate

1.5-3 Units

Study: 3-6 hours

An extension of Art 109a emphasizing various media and compositional problems.

111b HISTORY OF ART:

3 Units

Study: 3-6 hours

Survey of art history from the 15th through the 20th centuries.

Field trips may be required.

121a PAINTING: Beginning

1.5-3 Units

Study: 3-6 hours

Basic principles, techniques, and materials of easel painting in a variety of media.

May be repeated one time.

121b PAINTING: Intermediate

1.5-3 Units

Study: 3-6 hours

Continuation of Art 121a with emphasis on personal expression.

May be repeated one time.

123a WATERCOLOR: Beginning

1.5-3 Units

Study: 3-6 hours

Introduction to the basic techniques and problems of transparent watercolors.

May be repeated one time.

123b WATERCOLOR: Intermediate

1.5-3 Units

Study: 3-6 hours

Continuation of Art 123a introducing opaque watercolors and various experimental techniques.

May be repeated one time.

125 MIXED MEDIA PAINTING

1 Unit

Study: 2 hours

Introduction to special techniques involving creative mixtures of traditional media: pen and ink over watercolor wash, oil and acrylic in combination.

131a CERAMICS: Introductory

1.5-3 Units

Study: 3-6 hours

Introduction to basic ceramic methods including hand-building and wheel-thrown forms, and introduction to glazes and decoration.

131b CERAMICS: Advanced

1.5-3 Units

Study: 3-6 hours

Continuation of Art 131a with emphasis on glazes, formulation and application with increased opportunity for personal expression and experimentation.

131c CERAMICS: Special Problems

1.5-3 Units

Study: 3-6 hours

An extension of Art 131a and Art 131b.

May be repeated one time.
ART/PHOTOGRAPHY

135 INTRODUCTION TO RAKU
Prerequisite: Art 154a recommended
Studio: 3-6 hours
Introduction to raku process, historic origins and contemporary uses. Practical experience in clay bodies, glazes, and raku firing.

137 INTRODUCTION TO PRINTMAKING
Studio: 3-6 hours
Introduction to basic intaglio and relief printmaking processes including etching, engraving, collagraph, linocut, and woodcut.

150a COMMERCIAL FREEHAND LETTERING: Beginning
Lecture: 1 hour
Studio: 2 hours
Introduction to freehand lettering and calligraphy, practice in the three major calligraphic styles of sign writing and commercial lettering: Roman, Gothic, and script technique emphasis.

150b COMMERCIAL FREEHAND LETTERING: Intermediate
Prerequisite: Art 150a with a grade of "C" or better
Lecture: 1 hour
Studio: 2 hours
Continuation of Art 150a with emphasis on calligraphy and creative design. Introduction to floor loom.

151a TEXTILE DESIGN: Introductory
Studio: 3 hours
Introduction to basic textile design. Problems and techniques of the fiber arts. May be repeated one time.

151b TEXTILE DESIGN: Advanced
Prerequisite: Art 151a with a grade of "C" or better or consent of instructor
Studio: 3 hours
Continuation of Art 167a with emphasis on creative design. Introduction to floor loom.

171a SCULPTURE: Introductory
Studio: 3-6 hours
Basic principles, techniques, and problems of sculpture.

171b SCULPTURE: Advanced
Prerequisite: Art 171a with emphasis on advanced problems and techniques in sculpture
Studio: 3-6 hours
Continuation of Art 171a emphasizing advanced techniques with stencils, color, marks, photography, and self-expression. Development and printing of color negatives. Course includes instruction in the procedures of most typical color negative printing processes as well as recent developments in the medium. Field trips may be required.

141a PHOTOGRAPHY: Beginning
Lecture: 2 hours
Laboratory: 3 hours
Introduction to history, development, and capabilities of the art/science of photography and elementary procedures with camera and in darkroom. Field trips may be required.

141b PHOTOGRAPHY: Intermediate
Prerequisite: Art 141a with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
Expansion of previous knowledge stressing creative expression through a variety of photographic techniques. Field trips may be required.

141c PHOTOGRAPHY: Advanced
Prerequisite: Art 141b with a grade of "C" or better, or Art 102 with equivalent with a grade of "C" or better
Lecture: 2 hours
Laboratory: 3 hours
Advanced photographic techniques. Practical attention will be paid to medium and large format photography. Emphasis on visual literacy, elements of design, composition, and aesthetics. Field trips may be required.

142a COLOR PHOTOGRAPHY: Slide Making and Positive Printing
Prerequisite: Art 141a with a grade of "C" or better
Lecture: 2 hours
Laboratory: 3 hours
Development and printing of color slides. Includes the history and theory of color photography, an analysis of color films, color balance, exposure latitude, film speed, pushed processing, positive to positive printing, print display and critique. Field trips may be required.

142b COLOR PHOTOGRAPHY: The Color Negative
Prerequisite: Art 142a with a grade of "C" or better
Lecture: 2 hours
Laboratory: 3 hours
Continued exercise of darkroom skills in the production of negatives, slides, and prints. Field trips may be required.

144 ADVANCED PHOTOGRAPHY LABORATORY
Prerequisite: Art 141b with a grade of "C" or better or Art 142b or equivalent, with a grade of "C" or better
Laboratory: 3 hours
Continued photography in darkroom skills. Emphasis on print critique sessions.

145 FIELD PHOTOGRAPHY
Lecture: 1.5-3 hours
Laboratory: 1.5-3 hours
Field trips may be required.

146 PHOTOGRAPHY: Field Trip
Lecture: 1 hour
Laboratory: 1.5 hours
Practical experience in head, block service, and common shop equipment as used in repair shops.

114 MACHINE SHOP PROCEDURES
Prerequisite: Auto. Tech. 117a with a grade of "C" or better
Lecture: 1 hour
Laboratory: 6 hours
Techniques involved in engine rebuilding.

115 ENGINE REBUILDING
Prerequisite: Auto. Tech. 117a with a grade of "C" or better
Lecture: 2 hours
Laboratory: 1.5 hours
Practical experience in head, block service, and common machine shop procedures used in repair shops.

117a CARBURATION AND EMISSION CONTROL: Fuel Systems
Prerequisite: Auto. Tech. 117a with a grade of "C" or better
Lecture: 1 hour
Laboratory: 1.5 hours
Techniques and procedures for overhaul and service of carburetor and accessories. Fuel injection service is also covered.

117b CARBURATION AND EMISSION CONTROL: Emission Control
Prerequisite: Auto. Tech. 117a with a grade of "C" or better
Lecture: 1 hour
Laboratory: 1.5 hours
Installation, operation and repair of automotive pollution control devices. State and federal regulations are also covered.

119a BASIC GASOLINE ENGINE TUNE-UP
Lecture: 5 hours
Laboratory: 1.5 hours
Operation and service of standard and electronic ignition systems. Emphasis on hand-held equipment.
ADVANCED GASOLINE ENGINE TUNE-UP 1 Unit
Prerequisite: Auto. Tech. 114 with a grade of "C" or better
Lecture: 3 hours
Laboratory: 1.5 hours
Diagnosis and trouble-shooting of ignition systems using the oscilloscope, infrared and other specialized tune-up equipment.

COMPUTERIZED ENGINE CONTROLS 1 Unit
Lecture: 3 hour
Laboratory: 1.5 hours
Operation and diagnosis of domestic computerized engine control systems.

MANUAL TRANSMISSION REBUILDING 1 Unit
Prerequisite: Auto. Tech. 144 with a grade of "C" or better
Lecture: 1 hour
Laboratory: 1.5 hours
Principles and operation of automatic power trains including diagnosis and overhaul of clutches, manual transmissions, overdrives, and transfer cases.

AXLES AND DRIVE LINES 1 Unit
Prerequisite: Auto. Tech. 118 with a grade of "C" or better
Lecture: 3 hours
Laboratory: 1.5 hours
Service, diagnosis, and repair of drivelines, rear axles and third members, front wheel drive hubs, and 4x4 front axles and hubs.

AUTOMATIC TRANSMISSION (G.M) 1 Unit
Lecture: 3 hour
Laboratory: 1.5 hours
Practical experience in disassembly and assembly, failure and analysis, trouble-shooting, pressure testing, and automatic transmission rebuilding.

AUTOMATIC TRANSMISSION (Ford) 1 Unit
Lecture: 3 hour
Laboratory: 1.5 hours
Practical experience in disassembly and assembly, failure and analysis, trouble-shooting, pressure testing, and automatic transmission rebuilding.

BRAKES: Drum 1 Unit
Lecture: 3 hour
Laboratory: 1.5 hours
Principles of operation of automotive drum brakes, including diagnosis and overhaul techniques.

BRAKES: Disc 1 Unit
Prerequisite: Auto. Tech. 144 with a grade of "C" or better
Lecture: 2 hours
Laboratory: 1.5 hours
Service procedures, including overhaul techniques of disc brakes.

FRONT-END AND SUSPENSION 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Fundamentals and theory of automotive suspensions and steering systems. Adjustment, diagnosis, inspection and repair of alignment problems, including wheel balancing and tire problems.

FRONT-END AND SUSPENSION 1 Unit
Prerequisite: Auto. Tech. 144 with a grade of "C" or better
Lecture: 3 hour
Laboratory: 1.5 hours
Front-end and suspension rebuilding and maintenance. Rear axle alignment is included.

VEHICLE ELECTRICITY: Electrical Theory 1 Unit
Prerequisite: Auto. Tech. 150 with a grade of "C" or better
Lecture: 1 hour
Laboratory: 1.5 hours
Fundamentals of electricity apply to all electrical systems.

VEHICLE ELECTRICITY: Charging Systems 2 Units
Prerequisite: Auto. Tech. 150 with a grade of "C" or better
Lecture: 1 hour
Laboratory: 1.5 hours
Diagnosis and repair of the battery and charging systems.

VEHICLE ELECTRICITY: Starting and Ignition Systems 2 Units
Prerequisite: Auto. Tech. 150 with a grade of "C" or better
Lecture: 1 hour
Laboratory: 1.5 hours
Diagnosis and repair of starting systems, magnets and battery ignition systems.

VEHICLE ELECTRICITY: Lighting and Chassis Electricals 1 Unit
Prerequisite: Auto. Tech. 150 with a grade of "C" or better
Lecture: 1 hour
Laboratory: 1.5 hours
Diagnosis and repair of headlamp, stoplight, turn signals, as well as fuse box, trailer wiring, gauges.

AIR CONDITIONING 1 Unit
Lecture: 3 hours
Laboratory: 1.5 hours
Understanding the principles and operation of air conditioning, as well as the techniques of recharging diagnosis and service.

PRACTICAL LABORATORY 1-2 Units
Prerequisite: Auto. Tech. 170 with a grade of "C" or better
Laboratory: 3 hours
Study of bird species inhabiting alpine meadows and forests of the Sierra Nevada through field observations and lectures.

WORK EXPERIENCE IN AUTO TECHNOLOGY 1-4 Units
Offered for Credit/No Credit only.
Lecture: 1-1.5 hours
Field trips may be required.

BIRDS OF THE SIERRA NEVADA 1.5 Unit
Lecture: 1 hour
Laboratory: 1.5 hours
A study of the birds of the Sierra Nevada area of California through field observations. Stresses recognition by plumage, song, and behavior patterns. Discusses ecological relationships, nesting habits, and economic importance.

WILDFLOWERS OF THE MOTHER LODE 1-1.5 Units
Lecture: 1-1.5 hours
Field trips may be required.

PLANTS OF THE SIERRA NEVADA 2 Units
Lecture: 1 hour
Laboratory: 3 hours
A study of the flora of the Sierra Nevada with emphasis on plant anatomy, morphology, physiology, and systematics. Field trips are required.

FUNDAMENTALS OF BIOLOGY 3 Units
Lecture: 3 hours
Field trips may be required.

PLANT TAXONOMY OF THE SIERRA NEVADA 2 Units
Lecture: 1 hour
Laboratory: 4 hours
A study of the flora of the Sierra Nevada with emphasis on the classification of local species of fungi, mosses, ferns, conifers, and flowering plants.
54

BIOLOGY / BUSINESS ADMINISTRATION

131 PRINCIPLES OF ANIMAL BIOLOGY 5 Units
Prerequisite: Biology 111 with a grade of "C" or better
Lecture: 3 hours
Laboratory: 6 hours
A general zoology course with emphasis on animal diversity, taxonomy, and physiology.
Field trips may be required.

139 FIELD BIOLOGY 1-2 Units
Prerequisite: A previous course in Biology recommended
Lecture: 1-2 hours.
A lecture course in biology to be held in natural surroundings. The size will vary with the seasons. Natural history, ecology, and biology of the locale will be studied.
May be repeated one time.

140 INTRODUCTORY HUMAN ANATOMY 4 Units
Prerequisite: One year of high school biology with a grade of "B" or better or Biology 108 or Biology 111 with a grade of "C" or better
Lecture: 3 hours
Laboratory: 3 hours
A survey course in human anatomy with special emphasis on skeletal, muscular, circulatory, respiratory, and nervous systems.

160 INTRODUCTION TO HUMAN PHYSIOLOGY 4 Units
Prerequisite: Biology 140 with a grade of "B" or better and one year of high school chemistry or Chemistry 100 with a grade of "C" or better
Lecture: 3 hours
Laboratory: 3 hours
A survey course in human physiology with special emphasis upon digestive, reproductive, muscular, nervous and endocrine systems.

165 MICROBIOLOGY 4 Units
Prerequisite: Biology 150 or Biology 111 with a grade of "C" or better and one year of high school chemistry with a grade of "B" or better or Chemistry 100 with a grade of "C" or better
Lecture: 3 hours
Laboratory: 3 hours
General characteristics of microbiic life, conditions influencing bacterial growth, bacteria in disease and aseptic procedures.
Field trips may be required.

Business Administration
See Page 31 for Certificate Requirements

58 PEGBOARD PAYROLL SYSTEM 1 Unit
Lecture: 1 hour
A business simulation designed to give realistic experience in keeping payroll records using a peg-board system.

60a BOOKKEEPING 3 Units
Lecture: 2.5 hours
Laboratory: 1.5 hours
Double entry bookkeeping; general and special journals, general and subsidiary ledgers, business forms, financial statements, and completion of the bookkeeping cycle.

60b BOOKKEEPING 3 Units
Prerequisite: Business Administration 60a with a grade of "C" or better
Lecture: 2.5 hours
Laboratory: 1.5 hours
Bookkeeping entries requiring analysis, interpretation and recording; promissory notes; adjustments for prepaid and accrued items; depreciation; payroll records; the development and use of specialized journals.

61 SMALL BUSINESS ACCOUNTING 4 Units
Lecture: 4 hours
Accounting procedures and analysis for most small businesses. Includes study of the accounting cycle, accounts receivable and payable, notes receivable and payable, merchandise inventory, depreciation, accruals and deferrals, the voucher system, payroll, financial statements, costs for decision-making, partnerships, and corporations.

62 COMPUTED ACCOUNTING SIMULATION 5 Units
Prerequisite: A grade of "C" or better in Bus. Ad. 60b or Bus. Ad. 61 or Bus. Ad. 112 or consent of instructor.
Lecture: 3 hours
Introduction into automated accounting using the microcomputer. Includes journalization of daily transactions and correcting, adjusting and closing entries. Students work with standard internal and external documents such as journals, general and subsidiary ledgers, tickler files, trial balances, schedule of accounts receivable and payable, and financial statement.

63 BUSINESS MATHEMATICS 3 Units
Lecture: 3 hours
Mathematical problems of buying, selling, interest, discounts, insurance, commissions, payrolls, depreciation, and taxes.

65 THE METRIC SYSTEM 1 Unit
Lecture: 1 hour
An entertaining presentation of the new language of the modernized metric system in areas of common, everyday application: volume, weight, linear, and cubic measures, temperature, and electricity.

101 PRINCIPLES OF BUSINESS 3 Units
Lecture: 3 hours
Survey of business principles, problems and procedures; ownership; recruitment and training of personnel; labor-management relations; production and distribution of goods; competition; profit; transportation; finance; managerial controls; government and business relations.

104 HUMAN RELATIONS IN BUSINESS 3 Units
Lecture: 3 hours
Influence of industrial development on employer and employee unions, management practices, methods of supervision, employer-employee relationships, mass production and the employee.

115a COMMERCIAL LAW 3 Units
Lecture: 3 hours
Historical development of common law; statutes of California; federal and state court decisions; legal aspects of business; law of contracts, agency, and employment.

115b COMMERCIAL LAW 3 Units
Lecture: 3 hours
Law of sales, negotiable instruments, personal property, real property, partnerships, corporations, insurance, suretyship.

120 PRINCIPLES OF MARKETING 3 Units
Lecture: 3 hours
Marketing principles, policies, and functions, price policies and controls, trade channels, merchandising, market research, advertising, and competitive practices.

123 SALES 3 Units
Lecture: 3 hours
Description of the fundamental principles and practices of sales. Critical look at the selling process and the practical aspects of effective sales techniques for both retail and direct applications.

125 ADVERTISING 3 Units
Lecture: 3 hours
Analysis of the social and economic impact of advertising on a local, state and national scope. Study of media, budgets, research, copy, layout and institutions.

130a ACCOUNTING 4 Units
Lecture: 4 hours
Accounting principles and procedures, owner's equity, closing books, revenue and expense accounts, merchandising operations, and statement and ledger forms of organization, cash and investments, receivables and inventories.

130b ACCOUNTING 4 Units
Prerequisite: Business Administration 130a
Lecture: 4 hours
Cost data and management needs, analysis of data, supplementary statement, uses of capital cash-flow statements, analysis of branch and operation cost, solidation, profit planning, and income tax considerations, fixed assets, liabilities, manufacturing operations.

140 PRINCIPLES OF MANAGEMENT 3 Units
Lecture: 3 hours
The functions of management, techniques of decision-making and problem solving, and methods used by the managers to achieve organizational goals, various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls.

150 SMALL BUSINESS MANAGEMENT 3 Units
Lecture: 3 hours
Small business operation with proper balance between business functions of purchasing, production, sales and finance, and the management functions of planning, organizing, acting, and controlling.

179 WORK EXPERIENCE IN BUSINESS AND COMMERCE 1-4 Units
Prerequisite: Employment must be approved by Work Experience Coordinator. Concurrent attendance at Work Experience orientation sessions during the first three weeks of the term is required. Must be enrolled in at least seven units including Work Experience. During Summer Session must be enrolled in at least one other course.
75 hours paid employment equals 1 unit of credit
60 hours unpaid employment equals 1 unit of credit
Provides students an opportunity to experience supervised employment in a variety of occupational settings within Business and Commerce (e.g., Business Administration, Hospitality Management, Computer Science). The student's employment must be related to educational or occupational goal.
May be repeated for no more than a total of 16 units of credit less any units earned in any other Work Experience course.

Office Occupations
See Page 33-34 for Certificate Requirements

56 TYPING SPEED AND ACCURACY BUILDING 1 Unit
Prerequisite: Beginning typing skill
Laboratory: 3 hours (Self-paced)
Speed building and accuracy on straight copy, rough draft and statistical writing, intensified drills, timed writings and remedial work.
May be repeated 3 times.

60 REVIEW SHORTHAND 4 Units
Prerequisite: Typing rate of 30 words per minute
Lecture: 4 hours
Review of either ABC or Gregg shorthand theory.
Development of transcription skills and speed-building activities.
OFFICE OCCUPATIONS

65 BUSINESS ENGLISH 3 Units
Lecture: 3 hours
The mechanics of English as applied to the field of business, including skills of written communication, sentence structure, punctuation, spelling, and use of the dictionary.

68 BUSINESS CORRESPONDENCE 3 Units
Lecture: 3 hours
Effective business practices in the construction of sentences, paragraphs, and letters; the writing of effective business letters such as sales, applications, orders, requests, adjustments, refusals, credit, and collection.

70 REPORT WRITING 2 Units
Lecture: 2 hours
Study and practice of the skills necessary to write well-organized reports.

101a KEYBOARDING 1 Unit
Laboratory: 3 hours (Self-paced)
Designed to prepare students to use the electronic typewriter by touch. Emphasizes keyboarding and speed development.

101b BASIC TYPING APPLICATIONS 2 Units
Prerequisite: Office Occupations 101a with a grade of "C" or better or previous typing course
Lecture: 1.5 hours
Self-paced
Emphasizing typing accuracy, speed building, and preparation of business letters, tables and reports.

103 INTERMEDIATE TYPING 3 Units
Prerequisite: Office Occupations 101b with a grade of "C" or better or previous typing course
Laboratory: 3 hours (Self-paced)
Development of speed and accuracy; preparation of advanced correspondence, tabulation, manuscripts, outlines, and business forms.

104 ADVANCED TYPING 3 Units
Prerequisite: Office Occupations 103 with a grade of "C" or better or typing rate of 40 words per minute
Lecture: 2 hours
Laboratory: 3 hours (Self-paced)
Further development of speed and accuracy; study of business forms, advanced tabulated material, legal forms, forms for reproduction, and special problems in letter placement.

106 MICROCOMPUTER WORD PROCESSING 1 Unit
Prerequisite: Ability to use typewriter keyboard by touch
Lecture: 1 hour
Laboratory: 1.5 hours
Using a microcomputer, students will receive hands-on instruction for operating word processing programs. Instruction will include keyboarding, storing, retrieving, editing and printing information.

108 MEMORY TYPewriter 1 Unit
Prerequisite: Office Occ. 103 with a grade of "C" or better or content of instructor
Laboratory: 3 hours (Self-paced)
Instruction on the electronic typewriter including document and phrase storage, revisions, storage procedures, tabulation, and repetitive documents.

109 WOMEN’S INFORMATION PROCESSING: ADVANCED APPLICATIONS 2 Units
Prerequisite: Office Occ. 106 with a grade of "C" or better or content of instructor
Lecture: 1 hour
Laboratory: 3 hours
Use of stand-alone word processor and microcomputer in advanced document production techniques including local and global search, merging, document assembly, and records processing.

110 ABC BEGINNING SHORTHAND 4 Units
Prerequisite: Typing rate of 50 words per minute
Lecture: 4 hours
Presentation of ABC shorthand theory. The system utilizes alphabetical abbreviations instead of Gregg symbols. Students should be able to take dictation from 60 to 80 words per minute upon completion.

112 INTERMEDIATE SHORTHAND 4 Units
Prerequisite: Dictation rate of 60 words per minute for three weeks and typing rate of 45 words per minute
Laboratory: 4 hours
Continued development of either Gregg or ABC shorthand skills. Training in the fundamentals of transcription and speed-building activities leading to a writing skill of up to 100 words a minute.

116 FILING SYSTEMS AND RECORDS MANAGEMENT 2 Units
Lecture: 2 hours
Study of alphabetic, numeric, geographic, and subject filing systems; management and control of business records including card and visible records, correspondence and non-correspondence records and micrographs.

132 MACHINE TRANSCRIPTION 2 Units
Prerequisite: Office Occupations 103 with a grade of "C" or better or equivalent experience
Laboratory: 1 hour
Lecture: 3 hours (Self-paced)
Study and use of various transcribing machines, emphasizing preparation of business documents.

136 ELECTRONIC PRINTING CALCULATORS 1 Unit
Laboratory: 3 hours (Self-paced)
Practical instruction in the operation of the electronic printing calculator, emphasizing business applications.

138 OFFICE PROCEDURES 3 Units
Prerequisite: A grade of "C" or better in Bus. Ad. 60a and Office Occ. 103 or content of instructor
Lecture: 2 hours
Laboratory: 3 hours
General office duties and procedures as well as office etiquette and dress. Designed to acquaint the student with the duties and responsibilities of an office worker from the intermediate typist to administrative assistant. Emphasis on human relations, handling mail, telephone techniques, travel arrangements, financial data, and job search skills and applications.

140 MEDICAL TERMINOLOGY 1 Unit
Lecture: 1 hour
Laboratory: 1 hour
An introduction to basic medical word structure including word roots, prefixes and suffixes used in medical vocabulary by allied health field members.

142a MEDICAL TRANSCRIPTION 2 Units
Prerequisite: A grade of "C" or better in Office Occ. 103 or equivalent, and Office Occ. 132 and Office Occ. 140, both with a grade of a "C" or better or content of instructor
Laboratory: 6 hours (Self-paced)
Development of skills for medical transcription in physicians' offices, clinics, hospitals and related allied health field positions. Students will type medical terminology and transcription skills.

142b MEDICAL TRANSCRIPTION 2 Units
Prerequisite: Office Occ. 142a with a grade of "C" or better
Laboratory: 6 hours (Self-paced)
Continuation of Office Occupations 142a; surgery reports and discharge summaries.

144 MEDICAL INSURANCE 2 Units
Prerequisite: Office Occ. 140, Office Occ. 143, both with a grade of "C" or better or content of instructor
Lecture: 2 hours
A fundamental course in medical insurance and insurance billing including instruction in coding, Blue Cross and Blue Shield forms, Medicaid and Medicare, Champus and Workers' Compensation.

154 LEGAL TRANSCRIPTION TERMINOLOGY 2 Units
Prerequisite: Office Occ. 103 and Office Occ. 132, both with a grade of "C" or better
Laboratory: 6 hours (Self-paced)
Training for the specialized area of the legal office. Development of legal terminology; transcription of legal documents and correspondence; use of legal reference materials.

157 LEGAL OFFICE PROCEDURES 3 Units
Prerequisite: Office Occ. 103 and Office Occ. 132 and Office Occ. 154, all with a grade of "C" or better
Lecture: 2 hours
Laboratory: 3 hours
Designed to train the student for employment as a secretary in a law office. Specialized training in knowledge and skills required of legal secretaries including preparation of legal papers and court documents, assistance in legal research, bookkeeping and filing in a law office.

179 WORK EXPERIENCE IN OFFICE OCCUPATIONS 1-4 Units
Prerequisite: Employment must be approved by Work Experience Coordinator. Concurrent attendance at Work Experience orientation sessions during the first three weeks of the term is required. Must be enrolled in at least seven units including Work Experience. During Summer Session must be enrolled in at least one other course.

75 hours paid employment equals 1 unit of credit
Provides students an opportunity to experience supervised on-the-job training in Office Occupations. The student's employment must be related to educational or occupational goals.

Oftered for Credit/Non Credit only.
May be repeated for no more than a total of 16 units of credit but any units earned in any other Work Experience course.

REAL ESTATE

See Page 34 for Certificate Requirements

101 PRINCIPLES OF REAL ESTATE 3 Units
Lecture: 3 hours
Real and personal acquisition, ownership, estates, joint tenancies, partnerships, sales, contracts, deeds, taxes, and financing real estate.

105 REAL ESTATE PRACTICE 3 Units
Prerequisite: Real Estate 103 with a grade of "C" or better or Real Estate License
Lecture: 3 hours
Customer relationship; general real estate operations and the industry; includes types and valuation of listings, selling and current marketing techniques, financing, taxes, leasing, appraisals, insurance, public sales, exchanges, trade-in programs and investments.

110 LEGAL ASPECTS OF REAL ESTATE 3 Units
Prerequisite: Real Estate 103 with a grade of "C" or better
Lecture: 3 hours
California real estate law; titles, encumbrances, recording, real property acquisition and transfer; Penal Code.
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115 REAL ESTATE FINANCE 3 Units
Prerequisite: Real Estate 101 with a grade of "C" or better
Lecture: 3 hours
Residential and commercial financing; lending institutions, money markets and interest rates.

120 REAL ESTATE APPRAISAL 3 Units
Prerequisite: Real Estate 105 and Real Estate 110, both with a grade of "C" or better
Lecture: 3 hours
Appraisal of residential and commercial properties; methods and techniques for determining market value; the appraisal report.

125 REAL ESTATE ECONOMICS 3 Units
Prerequisite: Real Estate 103 with a grade of "C" or better
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.

160 SPECIAL TOPICS IN REAL ESTATE 3 Units
Prerequisite: Real Estate 101 with a grade of "C" or better
Lecture: 3 hours
A variety of topics oriented toward consumer protection, consumer service and professional competency.

CHEMISTRY

60 CONSUMER CHEMISTRY: Food 5 Units
Lecture: 3 hours
A study of the chemicals found in our food: where they come from, what they are, and what happens to them when they are consumed.

71 CHEMICAL CALCULATIONS 5 Units
Prerequisite: Mathematics 55 or equivalent with a grade of "C" or better
Lecture: 3 hours
A basic math course designed to prepare the student for solving problems in Chemistry 100 and Chemistry 101ab.

100 FUNDAMENTALS OF CHEMISTRY 4 Units
Prerequisite: Mathematics 55 with a grade of "C" or better or one year of high school algebra
Lecture: 3 hours
Laboratory: 3 hours
Fundamental theories and principles of inorganic chemistry; atomic and molecular structure, chemical and physical changes, solutions, colloids, gases, nonmetals, metals, and nuclear chemistry.

101 GENERAL CHEMISTRY 5 Units
Prerequisite: One year of high school chemistry with a "B" average and Math 101 or equivalent with a grade of "C" or better or Chemistry 100 and Math 102, both with a grade of "C" or better or consent of instructor
Lecture: 4 hours
Laboratory: 4 hours
Survey of atoms, nuclear chemistry, molecules, ions, chemical bonding, gases, liquids, solids, solutions, acids, bases, and equilibria.

103 COMPUTER OPERATING SYSTEMS 1 Unit
Prerequisite: One year of high school algebra or Math 55 with a grade of "C" or better; and Computer Science 101 with a grade of "C" or better and consent of instructor
Lecture: 3 hours
Laboratory: 1.5 hours
An introduction to the use of computer operating systems, including hardware and software. Emphasis is on the use of menus, applications programs, storage management, operating system design, and problem solving with flow charts. Topics include concepts applicable to small business or home computers which use a popular type of operating system.

107 DATA FILE APPLICATIONS WITH MICROCOMPUTERS 1 Unit
Prerequisite: Computer Science 101 with a grade of "C" or better
Lecture: 4 hours
Laboratory: 4 hours
Survey of thermodynamics, electrochemistry, nonmetals, qualitative analysis and organic compounds.

CHILD DEVELOPMENT

130 CHILD CARE/NURSERY SCHOOL ADMINISTRATION 3 Units
Lecture: 1 hour
Administration of public and private child care and nursery school programs in California. Topics include budget development and management; staff selection and supervision; programs, facilities, and equipment; parent and community relationships; and licensing requirements.

132 COMPUTER SCIENCE FOR CHILDREN 3 Units
Prerequisite: Computer Science 101 with a grade of "C" or better
Lecture: 3 hours
Laboratory: 3 hours
Preparing children to learn other computer skills.

133 MICROCOMPUTERS FOR CHILDREN 3 Units
Prerequisite: Computer Science 101 with a grade of "C" or better
Lecture: 3 hours
Laboratory: 3 hours
Teaching children programming and computer skills.

160 SPECIAL TOPICS IN CHILD DEVELOPMENT 5 Units
Prerequisite: Child Development 101 with a grade of "C" or better
Lecture: 5 hours
A variety of topics oriented toward child care protection, child care service and professional competency.

COMPUTER SCIENCE

66 EDUCATIONAL APPLICATIONS OF MICROCOMPUTERS 1 Unit
Lecture: 1 hour
Laboratory: 1 hour
Provides hands-on experience using a microcomputer with an emphasis on educational applications. Will utilize a variety of software to explore the areas of computer assisted instruction, tutorials, drills, and simulation; will include software evaluation and learning theory as applied to computer-based instruction.

101 INTRODUCTION TO COMPUTER CONCEPTS 2 Units
Lecture: 1.5 hours
Laboratory: 1.5 hours
Concept of computers in business and industry and their implications for society. Computer equipment, applications, and software through actual practice with the IBM Personal Computer. Applications include spreadsheets, word processing, data base management, graphics, BASIC programming, and communications.

103 COMPUTER OPERATING SYSTEMS 1 Unit
Prerequisite: One year of high school algebra or Math 55 with a grade of "C" or better; and Computer Science 101 with a grade of "C" or better and consent of instructor
Lecture: 3 hours
Laboratory: 1.5 hours
An introduction to the use of computer operating systems, including hardware and software. Emphasis is on the use of menus, applications programs, storage management, operating system design, and problem solving with flow charts. Topics include concepts applicable to small business or home computers which use a popular type of operating system.

107 DATA FILE APPLICATIONS WITH MICROCOMPUTERS 1 Unit
Prerequisite: Computer Science 101 with a grade of "C" or better
Lecture: 4 hours
Laboratory: 4 hours
Survey of thermodynamics, electrochemistry, nonmetals, qualitative analysis and organic compounds.

110A BEGINNING COMPUTER SPREADSHEETS 1 Unit
Prerequisite: Computer Science 101 with a grade of "C" or better or Computer Science 103 with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Laboratory: 1 hour
A common spreadsheet such as SuperCalc, VisiCalc, or Lotus 1-2-3 will be used. Hands-on experience with the computer to manage and present data, maintain financial statements, and to learn other ledger type applications of a computer spreadsheet.

110B ADVANCED COMPUTER SPREADSHEETS 1 Unit
Prerequisite: Computer Science 101 with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Laboratory: 1 hour
Structured programming in the PASCAL language. Emphasis on writing, executing and modifying programs that conform to industry standards. Topics will include structured software development and maintenance utilizing PASCAL language techniques for logical operations, branching, and file management.

112 COMPUTER SCIENCE FOR CHILDREN 3 Units
Prerequisite: Computer Science 101 with a grade of "C" or better plus 2 years of high school algebra or Math 101 with a grade of "C" or better and consent of instructor
Lecture: 3 hours
Laboratory: 3 hours
Advanced techniques of programming in BASIC language, including disk operations and file management, optimization of core usage, algorithm efficiency, and advanced I/O commands.

113 PASCAL PROGRAMMING I 3 Units
Prerequisite: Two years high school algebra or Math 101; Computer Science 101 and Computer Science 103, both with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 1 hour
Structured programming in the PASCAL language. Emphasis on writing, executing and modifying programs that conform to industry standards. Topics will include structured software development and maintenance utilizing PASCAL language techniques for logical operations, branching, and file management.

114 PASCAL PROGRAMMING II 3 Units
Prerequisite: Computer Science 125 with a grade of "C" or better
Lecture: 2 hours
Laboratory: 3 hours
Continuation of Computer Science 125, Pascal Programming I, and program design. Topics include array and string processing, data structures, records, search/sort techniques, file pointers, linked lists, and advanced language syntax. Emphasis will be on structured and modular program design.

160 SPECIAL TOPICS IN CHILD DEVELOPMENT 3 Units
Prerequisite: Child Development 101 with a grade of "C" or better
Lecture: 3 hours
A variety of topics oriented toward child care protection, child care service and professional competency.

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### 127 FORTRAN PROGRAMMING
- **Units:** 3
- **Prerequisite:** Two years high school algebra or Math 101 with a grade of "C" or better; and Computer Science 101 and Computer Science 103, both with a grade of "C" or better or consent of instructor.
- **Lecture:** 2 hours
- **Laboratory:** 3 hours
- **Recommended:** For mathematics and science majors and business students expecting to program using the FORTRAN language. Emphasis is on program design, debugging, and documentation. Topics include input/output, calculations, loop, logic operators, arrays, algorithms, and structured design.

### 155 DATA BASE MANAGEMENT
- **Units:** 3
- **Prerequisite:** Computer Science 102, 120, 125, 127, 129, or 132 with a grade of "C" or better or consent of instructor.
- **Lecture:** 2 hours
- **Laboratory:** 3 hours
- **Study:** Data base information systems and applications on a computer. Topics include lists, tree structures, access methods, report generation, sorting, merging, searching, spooling, and queues.

### CONSTRUCTION
#### Technology

### 101 INTRODUCTION TO RESIDENTIAL CONSTRUCTION
- **Units:** 3
- **Prerequisite:** An introductory course designed to provide a basic understanding of residential construction. Topics include: the purchase of property, design, layout, foundations, framing, finish carpentry, relationships among sub-contractors. Field trips are required.

### 111 INTRODUCTION TO RESIDENTIAL WIRING
- **Units:** 3
- **Prerequisite:** Electrical theory, blueprint reading, service, circuits, conduits, and flexible wiring in residential construction. Remodeling and large appliance installation procedures; applicable local code ordinances.

### 121 INTRODUCTION TO RESIDENTIAL PLUMBING
- **Units:** 3
- **Prerequisite:** Types of pipes and common fittings, cold and hot water supply, soil pipe and drainage systems, fixture mounting, and natural gas plumbing; applicable local code ordinances.

### 140 ASSEMBLY LANGUAGE PROGRAMMING
- **Units:** 3
- **Prerequisite:** Completion of at least one programming course (Computer Science 120, 125, 127, 129, or 132 with a grade of "C" or better or consent of instructor.
- **Lecture:** 2 hours
- **Laboratory:** 3 hours
- **Techniques:** Writing machine language or assembly language instructions utilizing an editor to enter assembly language programs or sub-routines. Practical construction exercises will be assembled, linked, and executed. Preliminary study will include machine logic configuration and external number/character representation.

### DRIVING

### 1100 BASIC DRAFTING
- **Units:** 3
- **Prerequisite:** Drafting 110a with a grade of "C" or better.
- **Lecture:** 2 hours
- **Laboratory:** 3 hours
- **Continuation:** Drafting 110a; sectioning, auxiliary projections, pictorial, tolerances, and inking experiences.

### 1150 ADVANCED DRAFTING
- **Units:** 3
- **Prerequisite:** Drafting 110b with a grade of "C" or better.
- **Lecture:** 2 hours
- **Laboratory:** 3 hours
- **Specialized areas:** Mechanical drafting, technical illustrations, map making, sheet metal layouts, welding, cams and gears, template inking.

### 115b ADVANCED DRAFTING
- **Units:** 1
- **Prerequisite:** Drafting 110a with a grade of "C" or better.
- **Laboratory:** 3 hours
- **Practical laboratory:** in area of interest such as map drafting, electrical and electronic, aerospace, and technical illustration. Projects must involve current industrial practices.

### 130 ARCHITECTURAL DRAFTING
- **Units:** 3
- **Prerequisite:** Drafting 115a with a grade of "C" or better or Drafting 115b with a grade of "C" or better.
- **Lecture:** 2 hours
- **Laboratory:** 3 hours
- **Study and preparation:** of residential designs. Creative as well as technical aspects of design will be covered. Problems relating to finance and codes will be discussed.

### 143a ACTING: Fundamentals
- **Units:** 3
- **Prerequisite:** Either Drama 102, Drama 143b or Drama 145 with a grade of "C" or better or audition depending upon the focus of the course during the semester it is being offered.
- **Laboratory:** 3 hours equals 1 unit of credit
- **Lecture:** 1 hour; Laboratory: 3 hours equals 2 units of credit
- **Laboratory:** 6 hours equals 3 units of credit.
- **Advanced workshop:** activity for production of one-act plays, segments of longer plays or full length plays whose technical requirements are minimal; intensive workshop concentration designed for performances in the areas of improvisation or mime.

### 145 IMPROVISATION
- **Units:** 3
- **Prerequisite:** Either Drama 102, Drama 143b or Drama 145 with a grade of "C" or better or audition depending upon the focus of the course during the semester it is being offered.
- **Laboratory:** 3 hours equals 1 unit of credit
- **Lecture:** 1 hour; Laboratory: 3 hours equals 2 units of credit
- **Laboratory:** 6 hours equals 3 units of credit.

### 147 AUDITIONS
- **Units:** 3
- **Activity:** 2 hours
- **Theory:** techniques, and practice in auditioning for performance; development of audition materials, practical audition experience for theatre, film, and television.

### 156 TECHNICAL THEATRE LABORATORY
- **Units:** 1
- **Laboratory:** 2.5 hours
- **Applied laboratory:** in all phases of technical theatre related to mounting a production; practical projects in design and construction involving costumes, stage settings, stage properties, lighting, sound, and makeup for a specific theatre production.
158 THEATRE PRODUCTION 4 Units
Lecture: 1 hour
Laboratory: 9 hours
Directed activities in acting and technical theatre with participation in public performances and related production activities. May be repeated three times.

160 FALLON REPERTORY THEATRE 8 Units
Prerequisite: Drama 158A, Drama 158D or Drama 158b with a grade of "C" or better and/or audition and consent of instructor.
Lecture: 3 hours
Laboratory: 15 hours
Rehearsal and performance of six plays in rotating repertory during a nine-month professional season at Columbia's historic Fallon Theatre; acting in at least two out of three productions per semester in repertory during a nine-month professional season.

Drama/Earth Science

59 GEOLOGY OF THE MOTHER LODE 2 Units
Lecture: 2 hours
A synoptic view of the geologic history of the Sierra Nevada. Field trips may be required.

114 PHYSICAL GEOLOGY 4 Units
Lecture: 3 hours
Laboratory: 3 hours
Materials and structures of the earth, agents of erosion, forces of change, volcanoes and earthquakes. Field trips may be required.

125 GEOLOGY OF THE NATIONAL PARKS 3 Units
Lecture: 3 hours
Interpretation of the geologic features of our national parks and monuments with an introduction to the geologic processes responsible for their formation. Students may choose a particular park for in-depth study. Field trips may be required.

133 GLOBAL TECTONIC GEOLOGY 3 Units
Lecture: 3 hours
An introduction to the new global geology and how it has revolutionized man's understanding of the way the earth works. For all who wish to learn about the earth's wandering continents and spreading sea floors; what causes rising mountain ranges, volcanoes, and earthquakes.

139 FIELD GEOLOGY 1.3 Units
Prerequisite: A previous course in Earth Science is desirable.
Lecture: 5-3.5 hours
Laboratory: 1.5-4.5 hours
A field study of selected geologic features and related Earth Science topics. A one to seven day field trip will be taken with pre and post-classroom sessions. May be repeated two times.

142 DESCRIPTIVE ASTRONOMY 3 Units
Lecture: 3 hours
A nonmathematical survey course in astronomy for nonscience majors. Topics include history of astronomy, telescopes, solar system, stars, galaxies, origin of universe, and extra-terrestrial life. Field trips may be required.

144 GENERAL ASTRONOMY 4 Units
Prerequisite: A high school science and Mathematics 55 with a grade of "C" or better or consent of instructor.
Lecture: 3 hours
Laboratory: 3 hours
History of astronomy, modern astronomy, tools of astronomy, the solar system and its relationship to the galaxies; properties and evolution of stars; development of observatory skills; learning constellations, setting up and using telescopes; determining rising and setting times of the sun, moon, planets, and stars. Approximately one-half of the required labs will meet at night at the observatory. Field trips may be required.

161 FUNDAMENTALS OF METEOROLOGY 3 Units
Lecture: 2 hours
Laboratory: 3 hours
Origin of the world's atmosphere, its structure, composition, and circulation; the weather elements, weather instruments and their use, gas laws, air masses, frontal movements, cloud types, and laboratory techniques; meteorologic effects on modern society. Field trips may be required.

171 FUNDAMENTALS OF OCEANOGRAPHY 3 Units
Lecture: 2 hours
Laboratory: 3 hours
The origins of the world's oceans, its structure, composition, and circulation; tides, currents, salinity, density, oceanographic instruments and their use, life in the sea, the interaction of the ocean and the atmosphere, the ocean and modern society.

ECONOMICS/EMERGENCY MEDICAL SERVICES/ENGLISH

101a PRINCIPLES OF ECONOMICS 4 Units
Lecture: 4 hours
Micro-economics. Introduction to the U.S. economy and capitalism; national income and employment analysis, economic fluctuations, monetary and fiscal policies, economic instability, public finance, and special economic problems.

101b PRINCIPLES OF ECONOMICS 4 Units
Lecture: 4 hours
Micro-economics. The corporation, analysis of costs, theory of production, pricing factor inputs including wages, rent, and interest; the social implications of various market structures; special economic problems.

EMERGENCY MEDICAL SERVICES

103 EMERGENCY MEDICAL TECHNICIAN TRAINING 6 Units
Prerequisite: Completion of advanced first aid course within the last two years or consent of instructor.
Lecture: 6 hours
An intensive course to assist the student in developing skill in recognition of illnesses and injuries and proper procedures in administering emergency care.

107 EMERGENCY MEDICAL TECHNICIAN REFRESHER 1.5 Units
Prerequisite: E.M.T. Certificate
Lecture: 1.5 hours
Update of the existing E.M.T. certificates which are expiring. May be repeated three times.

108a EMERGENCY MEDICAL TECHNICIAN II 9 Units
Prerequisite: Health Occupations 108a with a grade of "C" or better.
Lecture: 8 hours
Laboratory: 9-10 hours
Designed to prepare students for the professional level of the Emergency Medical Technician II. Laboratory assignments will be conducted in hospitals.

110a EMERGENCY MEDICAL TECHNICIAN II 9 Units
Prerequisite: Health Occupations 108a with a grade of "C" or better.
Lecture: 8 hours
Laboratory: 9-10 hours
A continuation of Health Occupations 108a. Emphasis will be on the musculoskeletal system, obstetrics, pediatrics, multiple injury and casualty situations and psychiatric emergencies.

110b EMERGENCY MEDICAL TECHNICIAN II 9 Units
Prerequisite: Health Occupations 108a with a grade of "C" or better.
Lecture: 8 hours
Laboratory: 9-10 hours
A continuation of Health Occupations 108a. Emphasis will be on the musculoskeletal system, obstetrics, pediatrics, multiple injury and casualty situations and psychiatric emergencies.

51 COLLEGE COMPOSITION 3 Units
Lecture: 1 hour
Training in basic composition skills, reading, interpretation, and discussion of college-level materials; basic mechanics, sentence structure, paragraph development, essay and report organization.

75 WRITING FUNDAMENTALS 1 Unit
Lecture: 1 hour
Individual instruction in the fundamentals of writing. May be repeated one time.

101a READING AND COMPOSITION: Beginning 3 Units
Prerequisite: Satisfactory completion of placement test or English 51 with a grade of "C" or better.
Lecture: 3 hours
Development of reading and composition skills with emphases on applying techniques of logic in interpreting and writing the expository essay and reading and interpretation of the short story.

101b READING AND COMPOSITION: Advanced 3 Units
Prerequisite: English 101a with a grade of "C" or better.
Lecture: 3 hours
Further development of reading and composition skills with an emphasis on reading and interpreting one novel or secondary sources, poetry, and drama, with the composition of at least one longer, documented paper.

110 CREATIVITY WRITING 3 Units
Prerequisite: English 101a with a grade of "C" or better or consent of instructor.
Lecture: 3 hours
Instruction and practice in writing poetry, fiction, and drama. Analysis of contemporary works with respect to literary techniques. May be repeated one time.

111 FILM APPRECIATION 3 Units
Lecture: 2.5 hours
Laboratory: 1.5 hours
Development of technical awareness and critical judgment in individual response to cinema.

117a LITERATURE OF THE UNITED STATES 3 Units
Prerequisite: English 101a with a grade of "C" or better or consent of instructor.
Lecture: 3 hours
A study of the literature of the United States from the beginning of the English colonization through the transcendentalists, Romanticism, and discussion of the major literary trends and authors of the time.
115 PUBLIC FIRE EDUCATION 3 Units
Lecture: 3 hours
Concepts and processes in designing, implement-
ing, and evaluating fire education programs.
Includes specific instruction in establishing programs
through the media, use of appropriate audio-visual aids and use and selection of
household safety appliances and equipment.

117 WILDLAND FIRE CONTROL 2 Units
Lecture: 2 hours
Factors affecting wildland fire prevention, fire
behavior, and control techniques.

120 HEAVY EQUIPMENT IN 2 Units
FIRE CONTROL
Lecture: 2 hours
Theory of heavy equipment used by a coordinated
fire control team in fighting range fires.

123 FIRE HYDRAULICS 3 Units
Prerequisite: Mathematics 53 with a grade of "C" or better or
content of instructor
Review of basic mathematics; hydraulic laws and
formulas as applied to the fire service; application
of formulas and mental calculation to hydraulic
problems, water supply problems; underwriters'
requirements for pumps.
This course meets part of the requirement for Driver Operator, a
state certified class.

125 FIRE EQUIPMENT REPAIR 2 Units
AND MAINTENANCE
Prerequisite: Fire Technology 61 through 67 with a grade of
"C" or better or equivalent
Lecture: 2 hours
Laboratory: 3 hours
Repair of commonly used fire service equipment
including hand tools, small and auxiliary gas or
electric powered tools, hydraulic mechanisms and
personnel safety devices. Includes preventive
maintenance, inspection procedures and measuring
tolerances of calibrated equipment and devices.

127 FIRE INVESTIGATION 2 Units
Lecture: 3 hours
Determining causes and types of fires; possible
evidence at the scene; interviewing witnesses and
suspects; arrest, detention, and court procedures; giving
court testimony...

129 HAZARDOUS MATERIALS 2 Units
INCIDENT CONTROL
Prerequisite: Fire Technology 104 and Fire Technology 130,
both with a grade of "C" or better, or equivalent
Lecture: 2 hours
Laboratory: 3 hours
Hazards from handling and emergency practices with emphasis
on firefighting and incident control at the company officer
level. This course meets the requirements for Fire Prevention 12B, a state
certified class.

130 FIRE PROTECTION 2 Units
EQUIPMENT AND SYSTEMS
Prerequisite: Fire Technology 101 with a grade of "C" or better
Lecture: 2 hours
Laboratory: 3 hours
Portable fire extinguishing equipment, sprinkler
systems, protection systems for special hazards,
fire alarm and detection systems.

179 WORK EXPERIENCE IN 1-4 Units
FIRE SERVICE
Prerequisite: Employment must be approved by Work Ex-
pertise Coordinator. Concurrent attendance at
Work Experience orientation sessions during the
first three weeks of the term is required. Must be
enrolled in at least seven units including Work Ex-
pertise. During Summer Session must be enrol-
ed in at least one other course.
75 hours paid employment equals 1 unit of credit
60 hours unpaid employment equals 1 unit of credit
Provides students an opportunity to experience supervisory employment in Fire Technology. The
student's employment must be related to educa-
tional or occupational goal.
Offered for Credit/No Credit only. May be repeated for no more than a total of 16 units of credit
but any units earned in any other Work Experience course.

FOREIGN LANGUAGE
Spanish
100a CONVERSATIONAL SPANISH:
Beginning 3-4 Units
Lecture: 3 hours
or
Lecture: 3 hours
Laboratory: 3 hours
Practice in vocabulary, idioms, and grammatic
usage with emphasis on conversational use of the
language as spoken in Mexico.
May be repeated one time.

100b CONVERSATIONAL SPANISH:
Intermediate 3-4 Units
Prerequisite: Spanish 100a with a grade of "C" or better
Lecture: 3 hours
or
Lecture: 3 hours
Laboratory: 3 hours
A continuation of Spanish 100a with emphasis on idioms, culture and use of the total language.

FOREIGN LANGUAGE/FORESTRY/FORESTRY TECHNOLOGY/GEOGRAPHY
101a SPANISH: BEGINNING 4 Units
Prerequisite: Spanish 100a with a grade of "C" or better or two
years of high school Spanish
Lecture: 4 hours
Continuation of Spanish 100a.

FORESTRY
101 INTRODUCTION TO PROFESSIONAL FORESTRY 3 Units
Lecture: 4 hours
Laboratory: 3 hours
Survey of the major U.S. forest regions and signifi-
cant forest history events. Forestry practices,
wood utilization and applied techniques of private
tree farm/woodlot management for long-term
production of timber, fuelwood, Christmas trees
and other resources. Forestry education, career
opportunities, licensing and ethics.
Field trips will be required.

110 DENDROLOGY 3 Units
Lecture: 2 hours
Laboratory: 3 hours
Silvicultural and botanical characteristics, iden-
tification, classification, range, and uses of native
forest species of the United States; emphasis on
plants of economic importance to forest practices
in California and the western United States.
Field trips will be required.

FORESTRY TECHNOLOGY
See Page 32 for Certificate Requirements

50 INTRODUCTION TO TECHNICAL FORESTRY 2 Units
Lecture: 2 hours
Nature and scope of the forest technician's work,
knowledge and skills for employment, employ-
ment opportunities. Survey of major U.S. forest
regions, forest insects, diseases, and fire relation-
ships. Technical forestry skills needed for private
tree farm/woodlot management for long-term
production of timber, fuelwood, Christmas trees
and other resources.
Field trips will be required.

FORESTRY TECHNOLOGY
See Page 32 for Certificate Requirements

53 FOREST SURVEYING 3 Units
TECHNIQUES
Prerequisite: Forestry Technology 10, Forestry Technology 30
and Natural Resources Technology 60 recom-
manded
Lecture: 2 hours
Laboratory: 3 hours
Techniques of forest inventory including counting,
sizing and evaluation; field tabulation and com-
pilation methods; location and inventory of a
given forest property in the field; development of
property boundaries and inventory of timber and
other natural resources; topographic map and
road system design for property.
Field trips will be required.

FORESTRY TECHNOLOGY
See Page 32 for Certificate Requirements

56 TREE AND PLANT IDENTIFICATION 3 Units
Prerequisite: Forestry Technology 3, Forestry Technology 30
and Natural Resources Technology 60 recom-
manded
Lecture: 3 hours
Classification and identification of major United
States timber species with emphasis on western and
California plant cover. Description of botanical,
ecological and silvicultural characteristics of trees
and other plants as related to forest management
and utilization.
Field trips will be required.

62 APPLIED FOREST INVENTORY AND MANAGEMENT 4 Units
Prerequisite: Forestry Technology 3, Forestry Technology 30
and Natural Resources Technology 60 recom-
manded
Lecture: 3 hours
Laboratory: 4 hours
Field trips will be required.

FORESTRY TECHNOLOGY
See Page 32 for Certificate Requirements

102 INTRODUCTION TO CULTURAL GEOGRAPHY 3 Units
Lecture: 3 hours
The study of humankind's relationships with the
environment. The interdisciplinary nature of cultural
and political geography, anthropology,
environmental science, history, and sociology.

FOREIGN LANGUAGE/FOREST SURVEYING TECHNIQUES/GEOGRAPHY

CULTURAL GEOGRAPHY
See Page 32 for Certificate Requirements
GUIDANCE

101 CAREER PLANNING 2 Units
Lecture: 2 hours
Designed to clarify thinking regarding the selection and preparation for a career. Personal assessment of interests, aptitudes, and values; use of selected interest and aptitude inventories; relationship between education and occupations; occupational trends; and development of skills in resume writing and interviewing.
Offered for Credit/No Credit only.

105 JOB HUNTING STRATEGIES .5 Units
Lecture: 3 hour
Development of job hunting strategies. Effective use of tools necessary in the job search including: the application, resume, letter of application, and interview. Primarily for the student nearing graduation or currently looking for employment.
Offered for Credit/No Credit only.

HEALTH EDUCATION

50 CARDIOPULMONARY RESUSCITATION .5 Unit
Lecture: 9 hours total
Information necessary to develop the student's first aid knowledge, skills, and judgment to provide basic life support prior to the victim recovers or until advanced life support is available.
Offered for Credit/No Credit only.

60 COPING WITH STRESS 1 Unit
Lecture: 1 hour
The nature of stress and the coping strategies that can lead to effective stress management and self regulation; combined with relaxation exercises, visualizing techniques, and demonstrations.

101 HEALTH AND FITNESS EDUCATION 3 Units
Lecture: 3 hours
Personal and community health: an understanding of contemporary health issues and problems with an emphasis on personal fitness and adjustment.
An informative material survey contributing to a person's mental, physical, and social well being.

105 CONSUMER HEALTH 2 Units
Lecture: 2 hours
A survey of health fads, frauds, and fallacies most frequently encountered by today's health consumer in the marketplace; emphasis on developing individual awareness of questionable advertising and outright quackery.

SAFETY AND FIRST AID EDUCATION 2 Units
Lecture: 2 hours
Theory and skills involved in the immediate and temporary care given to the victims of accidents and sudden illnesses. Covers Red Cross Standard First Aid certificate available upon satisfactory completion of course. May be repeated one time.

113 ADVANCED FIRST AID AND EMERGENCY CARE 3 Units
(No previous course required.)
Lecture: 3 hours
To develop functional capabilities of individuals who as a part of everyday experiences may be required to provide emergency first aid care prior to care by qualified medical personnel. May be repeated one time.

115 ADVANCED FIRST AID AND EMERGENCY CARE REFRESHER 1 Unit
Prerequisite: A valid certificate in Advanced First Aid
Lecture: 1 hour
A refresher of emergency first aid care. Upon the successful completion of the course a certificate is issued for Advanced First Aid and Emergency Care. May be repeated 3 times.

120 NUTRITION 3 Units
Prerequisite: One year of high school chemistry with a "B" or better, or Chemistry 100 with a grade of "C" or better
Lecture: 3 hours
Introductory study of energy and nutrient requirements of the body in relation to growth, maintenance, and reproduction; factors influencing normal metabolism; construction of the adequate diet. Emphasis is placed upon the chemical aspects of nutrition.

HEALTH OCCUPATIONS

179 WORK EXPERIENCE IN FIRE SERVICE 1.4 Units
Prerequisite: Employment must be approved by Work Experience Coordinator. Concurrent attendance at Work Experience orientation sessions during the first three weeks of the term is required. Must be enrolled in at least seven units including Work Experience. During Summer Session must be enrolled in at least one other course.
75 hours paid employment equals 1 unit of credit
Provides students an opportunity to experience supervised employment in Fire Technology. The student's employment must be related to educational or occupational goal.
Offered for Credit/No Credit only.
May be repeated for a total of 16 units of credit.

HEAVY EQUIPMENT

50 BUS DRIVER TRAINING 1.5 Units
Prerequisite: Possession of a valid California driver's license
Lecture: 1 hour
Instruction in the driver's responsibility for pupils, care and operation of a school bus, and laws relating to pupil transportation.

104a WORLD CIVILIZATIONS: to 1650 3 Units
Lecture: 3 hours
Survey of civilizations to 1650: origins in Near East and Asia, development in Greece, Rome, medieval Europe, Africa, and the Americas to colonial empires.

104b WORLD CIVILIZATIONS: 1650 to Present 3 Units
Lecture: 3 hours
Survey of civilizations since 1650: emergence of strong national states, their struggle for world power, and their impact on the non-western world.

117a UNITED STATES: to 1865 3 Units
Lecture: 3 hours
Survey of United States history from Colonization to Reconstruction. Analysis of Imperialism, Revolution, Nationalism, Political Democracy, Secticism, and Civil War.

117b UNITED STATES: 1865 to Present 3 Units
Lecture: 3 hours

121 HISTORY OF CALIFORNIA 3 Units
Lecture: 3 hours
Survey of California history from pre-Columbian period to the present. Emphasis will include the Indians, Spaniards, Mexicans, Anglo-Americans and various minorities. Considerable attention will be devoted to California's influential role in national and world events.

133 ORAL HISTORY 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Fundamentals of the tape-recorded interview. Demonstrations and discussions of the interview as a method in historical research and writing.

149 THE MOTHER LODE 3 Units
Lecture: 3 hours
History and lore of the Gold Rush country with emphasis on the Central Sierra communities.

155 THE AMERICAN FRONTIER 3 Units
Lecture: 3 hours
Influence of successive frontier zones and hostile environments in reshaping imported customs and traits into uniquely "American" characteristics. Emphasis will be on the 19th Century.

HOSPITALITY MANAGEMENT

101 INTRODUCTION TO THE HOTEL INDUSTRY 3 Units
Lecture: 3 hours
Survey of the hotel-motel, food services, travel-tourism, club and recreation business. Analysis of the organizational structure of the hospitality industry, including historical development and examination of industry trends. Major emphasis will be placed on career planning and management in the hospitality industry.
Field trips may be required.

103 MARKETING OF HOSPITALITY SERVICES 3 Units
Lecture: 3 hours
A study of people, product, package, price, and promotion, and how they interrelate and constitute the ingredients in a marketing program.
Field trips may be required.

112 FRONT OFFICE MANAGEMENT/ HOTEL CATERING 1.5 Units
Lecture: 1.5 hour
Essential equipment, routines, and duties of the front desk clerk and relationship to other hotel departments; planning and preparation for special parties, dinners, meetings, and other special events that a hotel or restaurant may cater.

114 INTRODUCTION TO MAINTENANCE AND HOUSEKEEPING 1.5 Units
Lecture: 1.5 hours
Provides essential technical information on equipment and its servicing to establish a preventive maintenance routine. Provides broad scope of the housekeeping position, stressing employee responsibilities, record-keeping, and use of equipment and materials.

116 LAWS OF INKEEPING 1 Unit
Lecture: 1 hour
Legal relationships between California innkeepers and others, rights, duties, and liabilities of innkeepers and their personnel.
Field trips may be required.
Food Services

130 FOOD SERVICE MANAGEMENT 2 Units
Lecture: 2 hours
Introduction to culinary nomenclature, cost controls, kitchen equipment, planning, management reports, menu planning, food purchasing, nutrition and sanitation.
Field trips may be required.

131 DINING ROOM SERVICE 3.0 Units
Lecture 1.5 hours
Laboratory: 4.5 hours
Service techniques, table settings, and etiquette used in all aspects of dining room service. Emphasis on developing the finer points in skills and showmanship.
Field trips may be required.

132 DINING ROOM MANAGEMENT 1.5 Units
Laboratory: 4.5 hours
Management of service in the dining room; coordinating the dining room staff to ensure proper service techniques and procedures are being followed, acting as host to ensure customer satisfaction.

133a INTRODUCTION TO COMMERCIAL DINING ROOM MANAGEMENT 2 Units
Lecture: 1.5 hours
Laboratory: 3 hours
Scientific and sensory evaluation of food. Composition and functional properties of foods; study of food processing, additives, and legal control of food safety; how the host uses these foods.

133b INTRODUCTION TO COMMERCIAL DINING ROOM MANAGEMENT 3 Units
Laboratory: 3 hours
Scientific and sensory evaluation of food. Composition and functional properties of foods; study of food processing, additives, and legal control of food safety; how the host utilizes these foods.

134 FOOD SCIENCE AND NUTRITION 3 Units
Lecture: 1 hour
Laboratory: 4 hours
Introduction to the history, development, production, and uses of food products; study of food processing, additives, and legal control of food safety; how the host utilizes these foods.

140a CLASSICAL CUISINE: Beginning 3 Units
Prerequisite: Hospitality Management 133b with a grade of "C" or better
Lecture: 1 hour
Laboratory: 6 hours
Classical cuisine for the advanced food services students. Instruction in preparation, stocks, soups, sauces, and boiler stations.

140b CLASSICAL CUISINE: Advanced 3 Units
Prerequisite: Hospitality Management 140a with a grade of "C" or better
Lecture: 1.5 hour
Laboratory: 6 hours
A continuation of Hospitality Management 140a. Instruction in the sauce station with emphasis on taste, organization, speed, rhythm, and heat as factors associated with the line chef position.

144 MEAT ANALYSIS 2 Units
Lecture: 3 hours
Laboratory: 3 hours
Study of various grades and cuts of meat and their use in restaurants. Cost control and fabrication.
Field trips may be required.

147 BEVERAGE MANAGEMENT 3 Units
Prerequisite: At least 21 years of age
Lecture: 2 hours
Laboratory: 3 hours
Study of all aspects of beverage management including federal, state and local regulations, mixology, background, and future of the beverage industry.
Field trips may be required.

135 COMMERCIAL BAKING 3 Units
Prerequisite: Hospitality Management 130 with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Laboratory: 6 hours
Tools, terms and functions in preparation of baked goods, gourmet desserts and cake decorating.
Field trips may be required.

136 COMMERCIAL BAKING: ADVANCED 2 Units
Prerequisite: Hospitality Management 135 with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Formulas used in commercial pastry shop; design, sugar decoration and chocolate cake decorating.
Field trips may be required.

145 INTRODUCTION TO PARKS AND RECREATION 3 Units
Lecture: 2 hours
Laboratory: 3 hours
An introductory course for individuals interested in parks and recreation, with exposure to park management, design, maintenance and construction; recreational aspects, job opportunities and duties.

146 INTRODUCTION TO TRAVEL-TOURISM INDUSTRY/TOURS 2 Units
Lecture: 2 hours
Evolution of tourism as an industry. Survey of domestic and international travel, laws, services, communications systems, and interaction with other sectors of the hospitality industry; the principles and procedures of group tour management and planning.
Field trips may be required.

151 WORK EXPERIENCE 3 Units
Lecture: 2 hours
Field trips may be required.

154 HISTORY AND PRODUCTION OF CALIFORNIA WINES 2 Units
Lecture: 2 hours
Introduction to the history, development, production and types of wines.
Field trips are required.

Recreation Industry

140b ARSON INVESTIGATION: Advanced 2 Units
Prerequisite: Law Enforcement 146a with a grade of "C" or better or consent of instructor
Lecture: 2 hours
A continuation of the introductory course emphasizing preservation of evidence, explosive devices, testimony as an expert, insurance laws, and advanced fire problems.

160 ADVANCED OFFICERS' TRAINING - 1.5-3 Units
Prerequisite: 24 units in Law Enforcement or completion ofcrapplied academy or consent of instructor
Lecture: 1 hour
Field trips may be required.

101 INTRODUCTION TO LIBRARY RESOURCES 1 Unit
Lecture: 1 hour
Laboratory: 1 hour
Instruction in the effective use of a library, its resources and services. Provides training in using the card catalog, periodical indexes, major reference tools, and in developing an effective search strategy.

MATHEMATICS

101 INTRODUCTION TO HUMANITIES 3 Units
Lecture: 3 hours
Laboratory: 3 hours
An introductory course for individuals interested in history, philosophy, art, literature, and music.

102 MODERN CULTURE 3 Units
Lecture: 3 hours
An introductory survey of humanistic culture, historically structured from the Enlightenment to the present day, presenting enduring works of art, drama, literature, music, and philosophy.

140a ARSON INVESTIGATION: Beginning 2 Units
Lecture: 1 hour
Field trips may be required.

140b ARSON INVESTIGATION: Beginning 2 Units
Lecture: 2 hours
Field trips may be required.

LAW ENFORCEMENT

140a ARSON INVESTIGATION: Beginning 2 Units
Prerequisite: Law Enforcement 146a with a grade of "C" or better or consent of instructor
Lecture: 2 hours
A continuation of the introductory course emphasizing preservation of evidence, explosive devices, testimony as an expert, insurance laws, and advanced fire problems.

160 ADVANCED OFFICERS' TRAINING - 1.5-3 Units
Prerequisite: 24 units in Law Enforcement or completion ofcrapplied academy or consent of instructor
Lecture: 1 hour
Field trips may be required.

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Lecture: 1 hour
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Lecture: 3 hours
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An introductory course for individuals interested in history, philosophy, art, literature, and music.

102 MODERN CULTURE 3 Units
Lecture: 3 hours
An introductory survey of humanistic culture, historically structured from the Enlightenment to the present day, presenting enduring works of art, drama, literature, music, and philosophy.
101 INTERMEDIATE ALGEBRA 4 Units
Prerequisite: Mathematics 15 with a grade of "C" or better or one year high school algebra
Lecture: 4 hours or
Lecture: 3 hours
Laboratory: 3 hours
Extension of elementary algebra; includes complex numbers.

102 TRIGONOMETRY 4 Units
Prerequisite: A grade of "C" or better in Mathematics 60 or second year high school algebra and one year geometry
Lecture: 4 hours or
Lecture: 3 hours
Laboratory: 3 hours
Mathematics of angles, triangles, trigonometric functions, circular functions, identities, graphs, and logarithms.

103 COLLEGE ALGEBRA 4 Units
Prerequisite: Mathematics 101 with a grade of "C" or better or equivalent high school course
Lecture: 4 hours or
Lecture: 3 hours
Laboratory: 3 hours
Extension of algebraic concepts; includes quadratic equations, inequalities, systems of equations, complex numbers, matrices, determinants, and polynomial, exponential, and logarithmic functions.

104 INTRODUCTION TO LOGIC (See also Philosophy 104) 3 Units
Lecture: 3 hours
Fundamentals of logic: deduction, including syllogisms, truth functions, symbolic quantification, and fallacies; induction, including probability, analogy, hypothesis, and the scientific method; philosophy of logic.
(Credits for this course will be awarded for either Mathematics 104 or Philosophy 104, but not both.)

105 ELEMENTS OF STATISTICS 4 Units
Prerequisite: Mathematics 101 with a grade of "C" or better or second year high school algebra
Lecture: 4 hours or
Lecture: 3 hours
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.

110 FINITE MATHEMATICS 4 Units
Prerequisite: Mathematics 101 with a grade of "C" or better or two years of high school algebra
Lecture: 4 hours or
Lecture: 3 hours
Laboratory: 3 hours
Symbolic logic, sets, probability, vectors, matrices, and game theory.

120a CALCULUS WITH ANALYTIC GEOMETRY 4 Units
Prerequisite: Two years of high school algebra, one year of plane geometry, and one-half year of trigonometry or Mathematics 102 with a grade of "C" or better.
Mathematics 103 recommended
Lecture: 4 hours or
Lecture: 3 hours
Laboratory: 3 hours
Inequalities, relations, functions, graphs, limits, the derivative, continuity, lines, circles, and conics with geometric and physical interpretations of the derivative.

120b VIDEO PRODUCTION: BEGINNING 3 Units
Prerequisite: Media Technology 152a with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
The art and technique of beginning video production stressing the skills of camera, lighting, editing, and sound. Emphasis on production techniques for the local public access channel.

122a MUSIC THEORY 5 Units
Prerequisite: Music 120a with a grade of "C" or better
Lecture: 4 hours
Analysis of the essentials for understanding and writing music. Included are rhythm, scales, intervals, chords, notation, melody writing; study of diatonic 4-part harmony, figured bass, chord progressions, harmonic motion, ear training, and keyboard applications.

122b MUSIC THEORY 5 Units
Prerequisite: Music 120b with a grade of "C" or better
Lecture: 4 hours
Analysis of the essentials for understanding and writing music. Included are rhythm, scales, intervals, chords, notation, melody writing; study of diatonic 4-part harmony, figured bass, chord progressions, harmonic motion, ear training, and keyboard applications.

131a ELEMENTARY CLASS PIANO 2 Units
Prerequisite: Music 111a with a grade of "C" or better
Lecture: 1 hour
Activity: 2 hours
Continuation of Music 111a.

136a ELEMENTARY CLASS VOICE 2 Units
Lecture: 1 hour
Activity: 2 hours
Group instruction in basic singing technique, including breath support, tone production, diction, intonation, sight-reading, and stage presence.

136b ELEMENTARY CLASS VOICE 2 Units
Prerequisite: Music 116a with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Activity: 2 hours
Continuation of Music 116a.

141a INTERMEDIATE CLASS PIANO 2 Units
Prerequisite: Music 111a with a grade of "C" or better
Lecture: 1 hour
Activity: 2 hours
Study of playing techniques requiring the full range of the piano and covering piano literature from 1700 to the present, emphasizing style and interpretation.

141b INTERMEDIATE CLASS VOICE 2 Units
Prerequisite: Music 116a with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Activity: 2 hours
Continuation of Music 116a.

146a INTERMEDIATE CLASS VOICE 2 Units
Prerequisite: Music 116a with a grade of "C" or better
Activity: 2 hours
Group instruction in the refinement of singing technique, using classical and popular solo repertoire from 1600 to the present and emphasizing style and interpretation.

146b INTERMEDIATE CLASS VOICE 2 Units
Prerequisite: Music 116a with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Activity: 2 hours
Continuation of Music 116a.

150 SERIES — APPLIED MUSIC
Prerequisite: Audition. Concurrent enrollment in Music 100 recommended
Lecture: 1 hour
Study of performance techniques, interpretation, and repertoire related to private music instruction. Designated for music majors and minors.
May be repeated three times.

(continued)
### MUSIC/NATURAL RESOURCES

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Prerequisites</th>
<th>Units</th>
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<tbody>
<tr>
<td>150</td>
<td>APPLIED MUSIC: Guitar</td>
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<td>151</td>
<td>APPLIED MUSIC: Keyboard</td>
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<td>152</td>
<td>APPLIED MUSIC: Woodwinds</td>
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<td>153</td>
<td>APPLIED MUSIC: Brass</td>
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<td>154</td>
<td>APPLIED MUSIC: Strings</td>
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<td>155</td>
<td>APPLIED MUSIC: Percussion</td>
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<td>156</td>
<td>APPLIED MUSIC: Voice</td>
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<td>157</td>
<td>APPLIED MUSIC: Synthesizer</td>
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### COMMUNITY ORCHESTRA

- **Prerequisite**: Audition
- **Activity**: 2-6 hours
- Study and performance of concerted instrumental music. May be repeated three times.

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<tbody>
<tr>
<td>JAZZ CHOIR</td>
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<td>Audition</td>
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Study and performance of mixed choral works of various periods and styles. May be repeated three times.

### THEATRE PRODUCTION

- **Music Emphasis**: 1 Unit
- **Prerequisite**: Audition
- **Activity**: 2-6 hours
- Directed activities in theatre production for public performance with a concentration in vocal or instrumental music. May be repeated three times.

### COMMUNITY CHORUS

- **Activity**: 2-6 hours
- Study and performance of mixed choral works of various periods and styles. May be repeated three times.

### MADRIGAL ENSEMBLE

- **Prerequisite**: Audition
- **Activity**: 2-6 hours
- Study and performance of vocal chamber music with emphasis on the Renaissance and Contemporaneous periods.

### WIND ENSEMBLE

- **Prerequisite**: Audition
- **Activity**: 2-6 hours
- Study and performance of advanced wind ensemble literature. Attendance at all scheduled performances is required. May be repeated three times.

### JAZZ ENSEMBLE

- **Prerequisite**: Audition
- **Activity**: 2-6 hours
- Study and performance of instrumental jazz and improvisation; techniques of improvisation will be explored. May be repeated three times.

### COMMUNITY ORCHESTRA

- **Prerequisite**: Audition
- **Activity**: 2-6 hours
- Study and performance of concerted instrumental literature of various styles and media. May be repeated three times.

### ENSEMBLE

- **Prerequisite**: Audition
- **Activity**: 2-6 hours
- Study and performance of music for small ensembles, duets, and chamber groups. May be repeated three times.

### NATURAL RESOURCES TECHNOLOGY

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<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Prerequisites</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENVIRONMENTAL CONSERVATION</td>
<td>3</td>
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</tbody>
</table>

- **Lecture**: 3 hours
- Conservation of the biological and physical environment. History of the conservation movement. A case-study approach to land use practices of environmental conservation with current topics on endangered species, environmental pollution, wilderness management, energy, population, and the uniqueness of California and Alaska natural resources.Field trips may be required.

### ALTERNATIVE ENERGY SOURCES

- **Units**: 3
- **Lecture**: 2 hours
- **Laboratory**: 1 hour
- Home energy conservation and energy-efficient construction methods. Practical applications of solar, wind, and hydro-energy systems for heating, cooling, food drying, water pumping and electrical production.
- Field trips may be required.

### PARKS AND FORESTRY LAW ENFORCEMENT

- **Units**: 2
- **Lecture**: 2 hours
- A general understanding of the rights and responsibilities of both the visitor and the employee in a wildland recreation setting.
- Field trips may be required.

### WATER CONSERVATION

- **Units**: 3
- **Lecture**: 3 hours
- Study of present and future sources of community water supply with special attention to state standards for potable water. Analysis, processing, treatment, quality control, storage and distribution of community water.
- Field trips may be required.
PHILOSOPHY/PHYSICAL EDUCATION

125 TWENTIETH CENTURY PHILOSOPHY 3 Units
Lecture: 3 hours
A brief survey of twentieth century philosophy emphasizing the leading exponents of each school of thought and their contributions to our understanding of man, nature, society, history, science, technology, human values and the meaning of life.

PHYSICAL EDUCATION

101 INTRODUCTION TO PHYSICAL EDUCATION 2 Units
Lecture: 2 hours
The background and principles of physical education and sports. Study of the aims and objectives of modern physical education with a view toward development of basic philosophy and background for professional education.

103 BASKETBALL: ADVANCED THEORY AND PRACTICE 2 Units
Lecture: 2 hours
Activity: 3 hours
Advanced concepts, strategy, and practice necessary in the playing and understanding of collegiate basketball. May be repeated twice.

105 PERSONAL FITNESS CONCEPTS AND EVALUATIONS 2.5 Units
Lecture: 1.5 hours
Activity: 1 hour
A study of "how," "why," and "what" of physical activity and exercise. This course is intended to help students make important decisions about their own personal exercise program and their personal physical fitness directions for a lifetime.

112 THEATRE PRODUCTION: DANCE EMPHASIS 1-2 Units
Prerequisite: Audition Laboratory: 3-6 hours
Directed activities in theatre production for public performances with concentration in dance. May be repeated three times.

116 DANCE PRODUCTION 3 Units
Prerequisite: Audition and concurrent enrollment in Physical Education 117
Activity: 6 hours
Dance production for public performance; theory and practice in choreography, performance styles, and dance rehearsal combined with theatrical structure, non-verbal dramatic techniques, and technical staging designed for concert presentation. May be repeated three times.

117 CHOREOGRAPHY AND COMPOSITION 3 Units
Prerequisite: Previous or concurrent enrollment in P.E. 116 or consent of instructor and P.E. 123 or P.E. 127 or P.E. 29 or P.E. 136 all with a grade of "C" or better
Lecture: 2 hours
Activity: 2 hours
Exploration of choreography fundamentals through a problem solving approach. Studies deal with aspects of time, space, dynamics and design in movement with emphasis on extending communication skills of the body.

Activity Courses

120 AEROBIC EXERCISE I .5-2 Units
Activity: 1-4 hours
Designed to promote cardiovascular fitness, flexibility, muscle tone, and general overall conditioning.

121 AEROBIC EXERCISE II .5-2 Units
Prerequisite: P.E. 120 with a grade of "C" or better
Activity: 1-4 hours
A rigorous exercise class designed to increase cardiovascular fitness. Each workout will include exercises to build strength, flexibility and endurance. May be repeated twice.

123 BALLET I .5-2 Units
Activity: 1-4 hours
Introduction to fundamental classical ballet forms, including basic concepts, positions, and combinations designed to acquaint the student with the technical and expressive elements of ballet.

124 BALLET II .5-2 Units
Prerequisite: P.E. 123 with a grade of "C" or better or consent of instructor
Activity: 1-4 hours
Continuing study of techniques and principles of classical ballet including phrasing, combinations, and stylistic elements. May be repeated twice.

127 DANCE, JAZZ I .5-2 Units
Activity: 1-4 hours
Introduction to the fundamentals of jazz dance with emphasis on basic technique, rhythmical analysis, and various cultural and historical styles.

128 DANCE, JAZZ II .5-2 Units
Prerequisite: P.E. 127 with a grade of "C" or better
Activity: 1-4 hours
Continuing work in jazz dance with emphasis on developing stylistic elements and performance techniques. Specific attention given to learning extended movement combinations and compositional forms indigenous to American jazz. May be repeated twice.

129 DANCE, MODERN I .5-2 Units
Activity: 1-4 hours
Introduction to modern dance movement. Fundamentals, basic movement, and composition presented and practiced as an opportunity for creative self-expression.

130 DANCE, MODERN II .5-2 Units
Prerequisite: P.E. 129 with a grade of "C" or better
Activity: 1-4 hours
Continuing work in Modern Dance movement and elements of rhythm, space and dynamics, emphasis on contemporary dance techniques, individual and group choreography, and cultural influences on expressive dance forms. May be repeated twice.

132 FENCING .5-2 Units
Activity: 1-4 hours
Introduction to swordsmanship for men and women. Fencing with the French foil, with instruction in the basic skills, rules and officiating of the sport. Intra-class contests will be played. May be repeated three times.

134 GOLF I .5-2 Units
Activity and practice in fundamentals.

135 GOLF II .5-2 Units
Prerequisite: P.E. 134 with a grade of "C" or better or consent of instructor
Activity: 1-4 hours
Instruction and practice in skills, rules and strategy. May be repeated twice.

137 DISTANCE RUNNING .5-2 Units
Activity: 1-4 hours
Instruction and practice in the sport of distance running with emphasis on training techniques to enable students to safely negotiate distances of 2 or more miles. May be repeated three times.

138 SKIING CONDITIONING .5-2 Units
Activity: 1-4 hours
Instruction in progressive exercises and conditioning for snow skiing. May be repeated three times.

139 SKIING: ALPINE .5-2 Units
Activity: 1-4 hours
Instruction and practice in basic fundamentals of snow skiing on the slopes. Care and selection of equipment, terminology, and safety included.

140 SKIING: CROSS COUNTRY .5-2 Units
Activity: 1-4 hours
Instruction and practice for snow skiing in the open country. Care and selection of equipment, safety, and outdoor orientation emphasized. May be repeated one time.

142 RACQUET SPORTS .5-2 Units
Activity: 1-4 hours
An introductory level course with instruction and practice in badminton and paddle tennis. Each activity is taught for nine weeks and provides the student with an exposure to the fundamentals, rules, and strategy of each. May be repeated three times.

143 TENNIS I .5-2 Units
Activity: 1-4 hours
Instruction and practice in fundamentals of Eastern grip tennis. Emphasis on development of sound ground strokes, serve and volley. Includes rules, scoring, and game play in both singles and doubles tennis.

144 TENNIS II .5-2 Units
Prerequisite: P.E. 143 with a grade of "C" or better or consent of instructor
Activity: 1-4 hours
Introduction and practice in the advanced aspects of Eastern grip tennis. Emphasis on game play and development with individualized coaching and analysis for the more experienced player. Includes tactics and court coverage to encourage a more powerful game in both singles and doubles tennis.

146 VOLLEYBALL I .5-2 Units
Activity: 1-4 hours
Basic techniques with emphasis on offensive and defensive tactics of team play. Rules and intraclass competition included.

147 VOLLEYBALL II .5-2 Units
Prerequisite: P.E. 146 with a grade of "C" or better or consent of instructor
Activity: 1-4 hours
An intermediate level of skills and strategies for the experienced player; and introduction to power volleyball play. May be repeated three times.

149 WEIGHT TRAINING I .5-2 Units
Activity: 1-4 hours
Instruction in use of weights and body building equipment with emphasis upon individual program development. May be repeated two times.

150 WEIGHT TRAINING II .5-2 Units
Prerequisite: P.E. 148 with a grade of "C" or better or consent of instructor
Activity: 1-4 hours
Designed to help individuals accomplish a fine state of physical fitness through the use of "overload" equipment and progressive resistance exercises. Each person shall, with the counseling of the instructor, analyze his/her particular needs and establish a program that will help accomplish these goals. May be repeated two times.
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>PHYSICAL EDUCATION</strong></td>
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<tr>
<td>155 SOCCER</td>
<td>0.5-2</td>
<td>Units: 1-4 hours. Instruction, practice, and participation in gameplay. Emphasis on rules, individual skills, and strategy in the field. May be repeated three times.</td>
</tr>
<tr>
<td>158 ADAPTIVE PHYSICAL EDUCATION</td>
<td>0.5-3</td>
<td>Units: 1-6 hours. Designed to offer individually prescribed fitness direction to the physically limited with emphasis on the improvements of cardiovascular flexibility and strength components. May be repeated three times.</td>
</tr>
<tr>
<td><strong>Intercollegiate Athletics</strong></td>
<td></td>
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<tr>
<td>162 VARSITY BASKETBALL</td>
<td>2</td>
<td>Units: Preparation and training for intercollegiate varsity basketball competition. Participation in contests with other colleges will be scheduled. Field trips will be required. May be repeated three times.</td>
</tr>
<tr>
<td>164 VARSITY TENNIS</td>
<td>2</td>
<td>Units: Preparation and training for intercollegiate varsity tennis competition. Participation in contests with other colleges will be scheduled. Field trips will be required. May be repeated three times.</td>
</tr>
<tr>
<td>166 VARSITY VOLLEYBALL</td>
<td>2</td>
<td>Units: Preparation and training for intercollegiate varsity volleyball competition. Participation in contests with other colleges will be scheduled. Field trips will be required. May be repeated three times.</td>
</tr>
<tr>
<td><strong>Adult Fitness Program</strong></td>
<td></td>
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<tr>
<td>170a CARDIAC THERAPY: PHASE IV</td>
<td>2-4</td>
<td>Units: Prerequisite: Physical Education 170a with a grade of &quot;C&quot; or better. Lecture: 3-5 hours. Activity: 2-6 hours. Continuation of Physical Education 170a. May be repeated three times.</td>
</tr>
<tr>
<td>171 INTRODUCTION TO ADULT FITNESS</td>
<td>1</td>
<td>Unit: Lecture: 1 hour. An overview of the essential principles of physical fitness for adults. May be repeated two times.</td>
</tr>
<tr>
<td>173a ADULT FITNESS PROGRAM I</td>
<td>1-3.5</td>
<td>Units: Prerequisite: Physical Education 173a with a grade of &quot;C&quot; or better. Lecture: 0.5-1 hour. Activity: 1-5 hours. Continuation or Physical Education 170a. May be repeated three times.</td>
</tr>
<tr>
<td>173b ADULT FITNESS PROGRAM II</td>
<td>1-3</td>
<td>Units: Prerequisite: Physical Education 173a with a grade of &quot;C&quot; or better. Lecture: 1 hour. Activity: 2-6 hours. Individual evaluation of cardiovascular function and development of a personalized prescription program for aerobic fitness improvement; monitoring and supervision of exercise regimen and related fitness activities for continuing health and fitness. May be repeated three times.</td>
</tr>
<tr>
<td>175 HEALTH AND PHYSICAL FITNESS WORKSHOP</td>
<td>1</td>
<td>Unit: Lecture: 1 hour. Instruction in the relationship between the human body, health and physical fitness. Testing to establish individual fitness status involves exercise electrocardiogram, body composition analysis, flexibility and strength evaluations followed by the design of and participation in a personal fitness program with particular emphasis on aerobic type activities. May be repeated three times.</td>
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<tr>
<td><strong>PHYSICS</strong></td>
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<tr>
<td>100 CONCEPTUAL PHYSICS</td>
<td>3</td>
<td>Units: Prerequisite: Mathematics 55 with a grade of &quot;C&quot; or better. Lecture: 3 hours. A conceptual investigation of the physics of motion, energy, light and color, gravitation, vibrations and waves as well as an introduction to black holes and relativistic time travel.</td>
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<tr>
<td>Course Title</td>
<td>Units</td>
<td>Prerequisites</td>
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<tr>
<td><strong>PHYSICS</strong></td>
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<tr>
<td>120a <strong>GENERAL PHYSICS</strong></td>
<td>5</td>
<td>Prerequisite: Mathematics 120a with a grade of &quot;C&quot; or better</td>
</tr>
<tr>
<td><strong>POLITICAL SCIENCE</strong></td>
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<tr>
<td>101 <strong>CONSTITUTIONAL GOVERNMENT</strong></td>
<td>3</td>
<td>Lecture: 3 hours</td>
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<tr>
<td>110 <strong>AMERICAN POLITICAL THOUGHT</strong></td>
<td>3</td>
<td>Lecture: 3 hours</td>
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<tr>
<td><strong>PSYCHOLOGY</strong></td>
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<tr>
<td>101 <strong>GENERAL PSYCHOLOGY</strong></td>
<td>3</td>
<td>Lecture: 3 hours</td>
</tr>
<tr>
<td>202 <strong>CURRENT ISSUES IN PSYCHOLOGY</strong></td>
<td>3</td>
<td>Prerequisite: Psychology 101 with a grade of &quot;C&quot; or better</td>
</tr>
<tr>
<td>103 <strong>SOCIAL PSYCHOLOGY</strong></td>
<td>3</td>
<td>Prerequisite: Psychology 101 with a grade of &quot;C&quot; or better</td>
</tr>
<tr>
<td>125 <strong>BIOFEEDBACK AND STRESS MANAGEMENT</strong></td>
<td>3</td>
<td>Lecture: 3 hours</td>
</tr>
<tr>
<td>130 <strong>PERSONAL AND SOCIAL ADJUSTMENT</strong></td>
<td>3</td>
<td>Lecture: 3 hours</td>
</tr>
<tr>
<td>145a <strong>DEVELOPMENTAL PSYCHOLOGY</strong></td>
<td>3</td>
<td>Prerequisite: Psychology 101 with a grade of &quot;C&quot; or better</td>
</tr>
<tr>
<td>145b <strong>DEVELOPMENTAL PSYCHOLOGY</strong></td>
<td>3</td>
<td>Prerequisite: Psychology 101a, Psychology 125a recommended</td>
</tr>
<tr>
<td><strong>PSYCHOLOGY/SEARCH AND RESCUE</strong></td>
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<tr>
<td>160 <strong>PERSONALITY THEORY</strong></td>
<td>3</td>
<td>Prerequisite: Psychology 101 with a grade of &quot;C&quot; or better</td>
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<tr>
<td>168 <strong>SEARCH AND RESCUE</strong></td>
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<tr>
<td>169 <strong>ENVIRONMENTAL ISSUES</strong></td>
<td>3</td>
<td>Lecture: 3 hours</td>
</tr>
<tr>
<td>168 <strong>MOUNTAIN MEDICINE</strong></td>
<td>1</td>
<td>Lecture: 3 hours</td>
</tr>
<tr>
<td>169 <strong>ENVIRONMENTAL ISSUES</strong></td>
<td>1</td>
<td>Lecture: 3 hours</td>
</tr>
<tr>
<td>180 <strong>INTRODUCTION TO SEARCH THEORY</strong></td>
<td>2</td>
<td>Lecture: 2 hours</td>
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<tr>
<td><strong>PSYCHOLOGY/SEARCH AND RESCUE</strong></td>
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<tr>
<td>112 <strong>ORGANIZATION AND DIRECTION OF A SEARCH</strong></td>
<td>2</td>
<td>Lecture: 2 hours</td>
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<tr>
<td>114 <strong>TRACKING AND SIGN CUTTING</strong></td>
<td>1</td>
<td>Lecture: 1 hour</td>
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<tr>
<td>115 <strong>WILDERNESS NAVIGATION</strong></td>
<td>2</td>
<td>Lecture: 1.5 hours</td>
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<tr>
<td>116 <strong>GRID SEARCH TECHNIQUES</strong></td>
<td>1</td>
<td>Lecture: 1 hour</td>
</tr>
<tr>
<td>117 <strong>ASCENDING AND DESCENDING TECHNIQUES</strong></td>
<td>2</td>
<td>Lecture: 2 hours</td>
</tr>
</tbody>
</table>

Field trips may be required.
134 HELICOPTER OPERATIONS 1 Unit
Lecture: 1 hour
The role of the helicopter in rescue situations with emphasis on the role of ground rescue personnel. Helicopter safety rules, interagency helicopter request information and procedures, selecting a landing zone, evaluations, inserts, crash procedures, and communications.
Field trips may be required.

135 AVALANCHE RESCUE 1 Unit
Lecture: 3 hours Laboratory: 1.5 hours
This course will introduce the rescue student to the basic concept dealing with avalanche, mountain snowpack, avalanche phenomena, meteorology, stability evaluation, avalanche safety, search and rescue.

136 SWIFTWATER RESCUE .5 Unit
Prerequisite: Search and Rescue 150 with a grade of “C” or better
or consent of instructor
Lecture: 1.5 hours
Laboratory: 1.5 hours
Designed to develop a sense of confidence in rescue personnel dealing with swiftwater rescue situations. Topics include: swiftwater physiology, equipment, swimming, line tending, search techniques, and use of helicopters.

150 ROPE RESCUE 1.5 Units
Lecture: 1.5 hours
Instruction in techniques used to evacuate injured parties in various settings. Demonstration of the use of the stokes litter in conjunction with mechanical advantage rope systems in gentle and moderate terrain situations. Review of rope safety belaying and anchoring techniques.

151 RAPELLING SAFETY/TOWER RESCUE FOR THE FIRE SERVICE 1 Unit
Prerequisite: Search and Rescue 150 with a grade of “C” or better
or consent of instructor
Lecture: 1 hour
Designed to update rescue personnel in equipment and technical developments in rappelling. Emphasis on individual safety, rescue of the injured or trapped rappeller and safe management of the training tower and/or incident scene, review and discussion of documented rappelling accidents.

153 VEHICLE EXTRICATION 1 Unit
Lecture: 1 hour
Use of the Hurst Tool and Black Hawk Extrication kits; hands-on instruction on various extrication techniques with special emphasis given to patient management and handling at the accident scene. Field trips may be required.

154 FIRE SERVICE LADDER AS RESCUE TOOLS 1 Unit
Prerequisite: Search and Rescue 150 with a grade of “C” or better
or Search and Rescue 150 with a grade of “C” or better or consent of instructor
Lecture: 1 hour
Safe and effective use of fire service ladders in rescue applications, review of the uses and limitations of the ladder as a bridge, shore, derrick, slide, A-frame and jib.

155 EMERGENCY SHORING TECHNIQUES .5 Unit
Lecture: 3 hours
Safe and effective use of improvised building materials to shore unstable environments. Review of the uses and applications of emergency shoring relative to structural collapse, debris, tunneling and heavy objects.

156 EMERGENCY TRENCH SHORING 1 Unit
Lecture: 1 hour
Pre-planning, size-up and management of the trench rescue. Hands-on experience in emergency shoring techniques. (The course meets or exceeds current CAL-OSHA and California State Fire Training requirements in trench rescue procedures).

158 HEAVY RESCUE TRAINING FOR THE FIRE SERVICE 1.5 Units
Prerequisite: Search and Rescue 150 recommended
Lecture: 1 hour
Laboratory: 1.5 hours
Training in safe rescue techniques relating to disasters associated with building collapse, mass transportation, caves and mines, including organization, procedures, and resources.

159 HEAVY RESCUE INSTRUCTOR TRAINING 3 Units
Prerequisite: Search and Rescue 158 with a grade of “C” or better
Lecture: 3 hours
Review and update of heavy duty rescue skills and techniques designed to prepare qualified personnel to teach those skills and techniques to others.

170 SPECIAL TOPICS IN RESCUE FOR THE FIRE SERVICE .5-3 Units
Prerequisite: Will vary with topic
Lecture: 3-30 hours and/or
Laboratory: .5-3
Various topics in rescue will be covered to meet the individual firefighter or fire department needs. Emphasis on specialized development of skills and knowledge, area planning for rescue, development and implementation of training and rescue evaluations.
May be repeated three times.

SKILLS DEVELOPMENT

50A WRITTEN LANGUAGE DEVELOPMENT 3 Units
Prerequisite: Verified learning disability
Lecture: 3 hours
Designed for students with learning disabilities who have difficulty succeeding in a traditional classroom. Presents a precise, systematic approach to learning basic communication skills including instruction in phonics, vocabulary building, English speech patterns, reading and writing. The emphasis will be on the development of compensatory strategies for particular skills deficits.

50B WRITTEN LANGUAGE DEVELOPMENT 3 Units
Prerequisite: Verified learning disabilities and satisfactory completion of Skills Development 50a
Lecture: 3 hours
Continuation of Skills Development 50a with particular emphasis on reading comprehension and paragraph writing.

51 DIAGNOSTIC LEARNING LABORATORY 1 Unit
Prerequisite: Verified learning disability
Laboratory: 3 hours
Individualized assistance in analyzing study problems and selecting and applying suitable learning strategies necessary for academic success in college courses.
Offered for Credit/No Credit only.

53 DIAGNOSTIC SPEECH LABORATORY 1 Unit
Prerequisite: Speech and language evaluation by Speech Pathologist
Laboratory: 3 hours
Provides speech remediation for students with speech, language, and hearing disorders. Assistance is provided on an individual and small group basis in the following areas: articulation, voice, language and fluency (stuttering). Emphasis is on addressing student’s needs for effectiveness in academic or vocational settings.
Offered for Credit/No Credit only.

55 G.E.D. PREPARATION 1-2 Units
Lecture: 5-12 hours Laboratory: 1.5 hours
Designed to reach the general skills needed to pass the General Educational Development test. May be repeated two times.
Offered for Credit/No Credit only.

61 BASIC ARITHMETIC 1 Unit
Laboratory: 3.6 hours
Individualized instruction in fundamental operations. Students may start anywhere from whole numbers to formulas.
May be repeated three times.

75 COLLEGE SPEAKING 1 Unit
Laboratory: 3.6 hours
Designed to help students improve their speaking skills.
May be repeated one time.

87 VOCABULARY DEVELOPMENT 1 Unit
Laboratory: 3 hours
Designed to help readers improve their vocabulary skills.
May be repeated three times.

88 SPEED READING 1-2 Units
Laboratory: 3.6 hours
Designed to help competent readers improve their reading rate.
May be repeated one time.

90 STUDY SKILLS 1-2 Units
Laboratory: 3.6 hours
Improvement of the basic study skills.
May be repeated two times.

95 TEST-TAKING SKILLS .5-2 Units
Laboratory: 1-3 hours
Designed to help students develop skills in taking tests and examinations.
SKILLS DEVELOPMENT/SOCIAL SCIENCE/SOCIOLOGY/SPEECH

140 HUMAN SEXUAL BEHAVIOR 3 Units
Lecture: 3 hours
Exploration of issues in human sexuality from the perspective of the social sciences. Discussion of sexual behavior, feelings and attitudes as they affect one's self and others.

SOCIOLOGY
See Page 32-33 for Human Services Certificate Requirements

101 INTRODUCTION TO SOCIOLOGY 3 Units
Lecture: 3 hours
Introduction to the principal concepts, methods of sociology; survey of the institutions, interrelationships and processes of society: culture, socialization, stratification, minorities, primary and secondary groups, social change.

102 AMERICAN SOCIAL PATTERNS 3 Units
Lecture: 3 hours
The study of social organization focusing on the major components, such as family, religion, education, economics, politics, and technology; group networks and formal organizations; and social change.

110 DEVIANCE AND CONFLICT 3 Units
Lecture: 3 hours
The analysis of deviant behavior and social disorganization theories and trends in selected topics such as stigma, sexual deviance, aging, death, suicide, mental illness, drugs, medical care, population problems, crime, war, family disorganization.

112 FAMILY, MARRIAGE AND THE INDIVIDUAL 3 Units
Lecture: 3 hours
The family as a social unit of interacting personalities; historical and structural development of the family life in different cultures; functions, duties, and marital interaction of family life; influence of contemporary society on family and family disorganization.

127 AGING 3 Units
Lecture: 1 hour
Examination of the current social, economic, physiological and psychological theories and the aged; institutional, cultural, and environmental factors which influence the attitudes toward the aged will be emphasized. Field trips may be required.

128 DEATH AND DYING 3 Units
Lecture: 1 hour
Examination of the predominant attitudes and practices in regard to death, dying, and grief in the U.S.; included will be material relevant to suicide, the terminally ill, bereavement, and various viewpoints about the phenomenon of death. Field trips may be required.

179 WORK EXPERIENCE IN HUMAN SERVICES 1-4 Units
Prerequisite: Employment must be approved by Work Experience Coordinator. Concurrent attendance at Work Experience orientation sessions during the first three weeks of the term is required. Must be enrolled in at least seven units including Work Experience. During Summer Session must be enrolled in at least one other course.
75 hours paid employment equals 1 unit of credit
60 hours unpaid employment equals 1 unit of credit
Provides students an opportunity to experience supervised employment in Teacher Aide Training. The student's employment must be related to educational or occupational goal. Offered for Credit/No Credit only. May be repeated for no more than a total of 16 units of credit. Any units earned in any other Work Experience course.

185 INTERPERSONAL COMMUNICATION 3 Units
Lecture: 3 hours
Understanding and utilizing techniques of communication in an effective manner for better interaction between people in one-to-one and small group situations.

150a SIGN LANGUAGE 2 Units
Prerequisite: Speech 150a or consent of instructor
Lecture: 2 hours
Developing receptive and expressive skills in sign language, including skills in finger spelling. Receptive skills emphasized. The sign language system emphasized is American Sign Language.

150b SIGN LANGUAGE 2 Units
Prerequisite: Speech 150b or consent of instructor
Lecture: 2 hours
Developing advanced level receptive and expressive skills in conversational sign language and finger spelling. May be repeated one time.

55a TEACHER AIDE TRAINING: Beginning 3 Units
Prerequisite: Teacher Aide Training 55a with a grade of "C" or better or consent of instructor
Lecture: 3 hours
Laboratory: 1-2 hours
Preparation for teacher aide duties that assist teachers in the classroom learning process with emphasis on the school environment as the place for learning.

55b TEACHER AIDE TRAINING: Advanced 3 Units
Prerequisite: Teacher Aide Training 55a with a grade of "C" or better or consent of instructor
Lecture: 2.5 hours
Laboratory: 1.5 hours
The classroom environment focused on the personalities in the classroom: teachers, students, teacher aides, and interpersonal relationships. Students will be required to spend a minimum of 27 hours observing and assisting a certified teacher in a local elementary school.

103a READING FUNDAMENTALS FOR TEACHER AIDES 2 Units
Prerequisite: Concurrent enrollment in Teacher Aide Training 55a or consent of Instructor
Lecture: 2 hours
Principles of teaching reading and the role of a teacher's aide. Includes approaches to teaching; development of reading lessons; word analysis, including phonics and manipulative aids; and individualized skill development. Some field trips to local elementary schools in lieu of regular class meetings will be required.

179 WORK EXPERIENCE AS A TEACHER AIDE 1-4 Units
Prerequisite: Employment must be approved by Work Experience Coordinator. Concurrent attendance at Work Experience orientation sessions during the first three weeks of the term is required. Must be enrolled in at least seven units including Work Experience. During Summer Session must be enrolled in at least one other course.
75 hours paid employment equals 1 unit of credit
60 hours unpaid employment equals 1 unit of credit
Provides students an opportunity to experience supervised employment in Teacher Aide Training. The student's employment must be related to educational or occupational goal. Offered for Credit/No Credit only. May be repeated for no more than a total of 16 units of credit. Any units earned in any other Work Experience course.

SPEECH/TEACHER AIDE TRAINING/WELDING TECHNOLOGY

101 INTRODUCTION TO WELDING 3 Units
Lecture: 2 hours
Laboratory: 6 hours
Basic arc and oxygen-acylene welding as it applies to shop and field techniques.

103 ADVANCED ARC WELDING TECHNIQUES 3 Units
Prerequisite: Welding Technology 103 with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Laboratory: 6 hours
Advanced welding for all positions (flat, horizontal, and overhead). Special emphasis on control of heat and distortion.

160 PRACTICAL LABORATORY 1 Unit
Prerequisite: Welding Technology 103 with a grade of "C" or better
Laboratory: 3 hours
The student shall gain practical experience by working on an individual project (including certification projects). Emphasis on quality, appearance and function.

WORK EXPERIENCE
Columbia College offers Work Experience courses to provide students an opportunity to experience supervised employment in a variety of occupational settings. The student’s employment must be related to previous or concurrent course work and must be approved by the Work Experience Coordinator. Concurrent attendance at Work Experience orientation sessions during the first three weeks of the term is required, and the student must be enrolled in at least seven units including Work Experience. During Summer Session the student must be enrolled in at least one other course.

Work Experience is offered for Credit/No Credit units. Seventy-five hours of paid employment equals one unit of credit and 60 hours of unpaid employment equals one unit of credit.

(continued)
WORK EXPERIENCE

Work Experience is offered in the following areas:

Natural Resources Technology 379
Office Occupations 179
Automotive Technology 179
Health Occupations 179
Teacher Aide 179
Fire Technology 179
Sociology 179
Business Administration 179
Forestry, Natural Resources
Office Occupations
Automotive Technology
Health Occupations
Teacher Aide
Fire Technology
Human Services
Business and Commerce (includes Business Administration, Hospitality Management, Computer Science and Disciplines not otherwise listed)