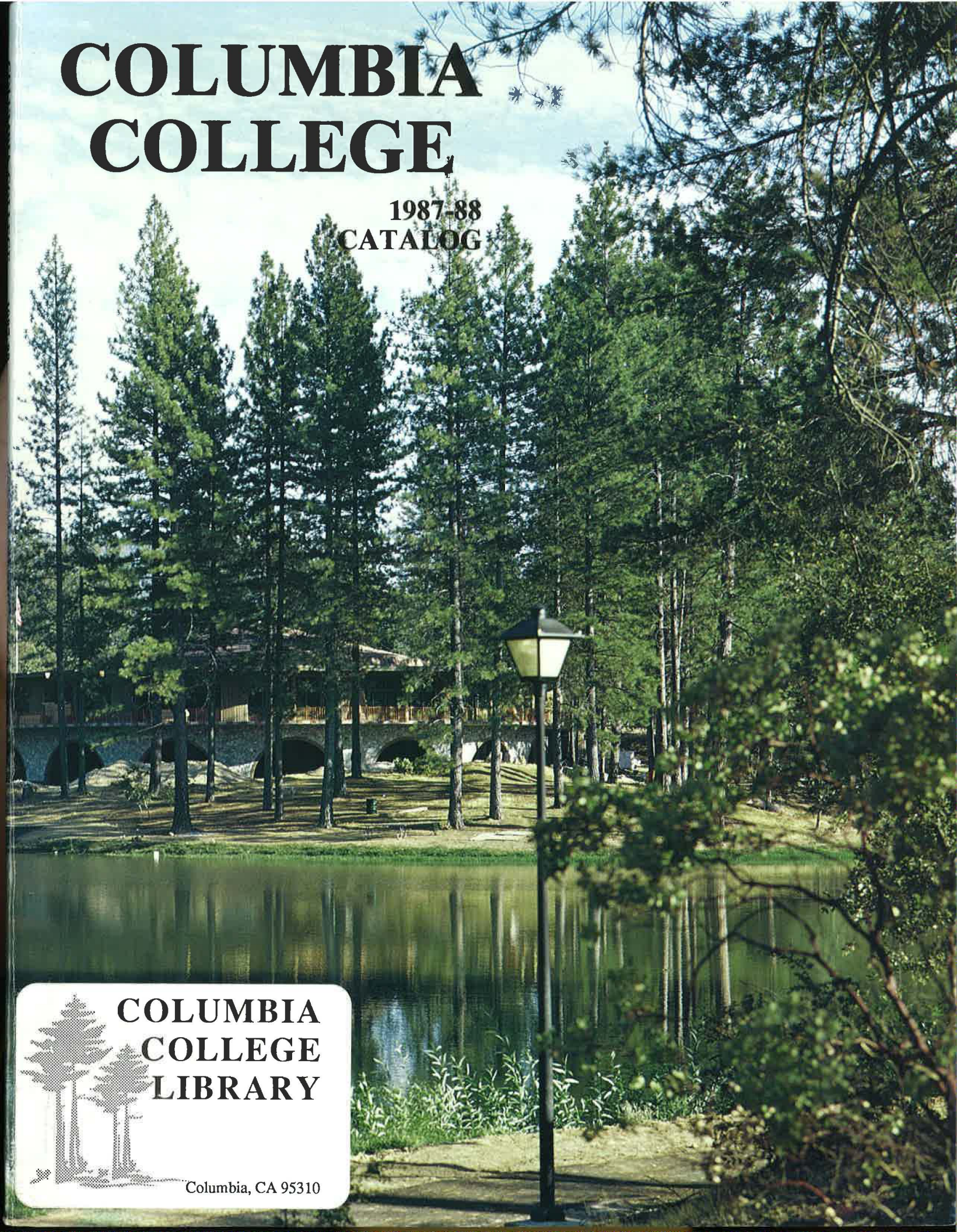
COLUMBIA COLLEGE

1987-88
CATALOG



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 through our institution. Community advisory committees are consulted to make certain our vocational subjects are training 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.

COLUMBIA COLLEGE

The College Handbook, 1984-85

COLUMBIA COLLEGE(S)

COLUMBIA CHRISTIAN COLLEGE (private/coed)
200 N.E. 91st Avenue
Portland, Oregon 97220 (503) 255-7060

COLUMBIA COLLEGE (private/liberal arts)
Columbia, South Carolina 29203 (803) 786-3871

COLUMBIA COLLEGE (private)
Tenth & Rodgers Streets
Columbia, Missouri 65216 (314) 875-7352

COLUMBIA COLLEGE - HOLLYWOOD (private/broadcast & motion pic
925 North La Brea Ave.
Los Angeles, CA 90038 (213) 851-0550

COLUMBIA STATE COMMUNITY COLLEGE (2 yr. state college)
Hampshire Pike, Box 1315
Columbia, Tennessee 38401 (615) 388-0120

COLUMBIA UNIVERSITY (private/extensive degrees)
116th Street and Broadway
New York, New York 10027 (212) 280-1754

Columbia Pacific University
1415 Third St.
San Rafael, CA 94901

THE COLLEGE COMMITMENT

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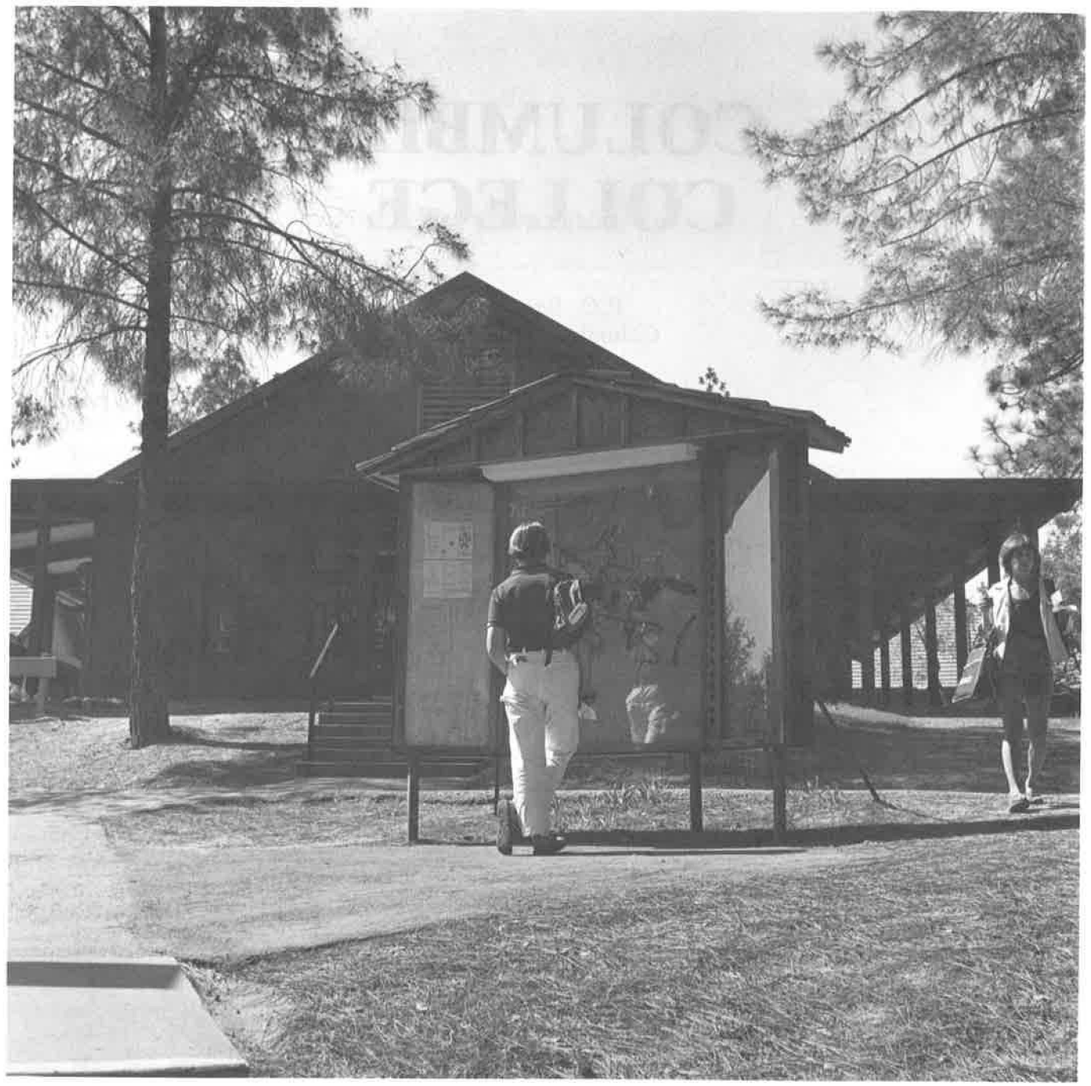
Finally, we believe that if the student recognizes the commitment that Columbia College has made and the student is willing to give to the college in return, the student's education will be positive, enjoyable and provide a lasting foundation for continued growth.

P.O. Box 1849
Columbia, California
95310
(209) 533-5100

1987-88

YOSEMITE COMMUNITY COLLEGE DISTRICT

PRICE $2.00



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FALL SEMESTER, 1987

May 5	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
July 31	Beginning advisement and registration for Fall Semester for new students
August 17	Instruction begins
August 28	Last day to enter a class
September 7	Labor Day Holiday
September 25	Last day to elect for CR/NC or letter grade
October 2	Deadline for filing for graduation or certificate for Fall Semester
November 9	Veterans Day Holiday
November 17	Last day to withdraw from course without penalty
November 26-27	Thanksgiving Holiday
December 15-18	Final examinations
December 18	Fall Semester ends
December 19-January 5	Winter Recess

SPRING SEMESTER, 1988

November 17	Beginning advisement and registration for Spring Semester for continuing students
November 23	Application for admission and transcripts for day students should be on file
November 24	Beginning advisement and registration for Spring Semester for former students
November 30	Beginning advisement and registration for Spring Semester for new student
January 6	Instruction begins
January 18	Martin Luther King Holiday
January 19	Last day to enter a class
February 12	Lincoln Day Holiday
February 15	Washington Day Holiday
February 16	Last day to elect for CR/NC or letter grade
March 18	Deadline for filing for graduation or certificate for Spring Semester
March 28-April 1	Spring Recess
April 20	Last day to withdraw from course without penalty
May 16-19	Final examinations
May 19	Spring Semester ends
May 20	Graduation

SUMMER SESSION, 1988

June 6	Instruction begins
July 4	Independence Day Holiday
July 15	Six Week Summer Session Ends

Additional information pertaining to advisement, registration, final examinations, as well as other dates will be listed in the Schedule of Classes.

1987

JULY

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AUGUST

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SEPTEMBER

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OCTOBER

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NOVEMBER

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DECEMBER

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1988

JANUARY

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31						

FEBRUARY

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MARCH

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APRIL

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MAY

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15	16	17	18	19	20	21
22	23	24	25	26	27	28
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JUNE

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5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

BOARD OF TRUSTEES
YOSEMITE COMMUNITY COLLEGE DISTRICT

* Allister A. Allen
Area 2, Patterson

* Glenda Alpers
Area 3, Riverbank

*† Grant E, Bare, M.D.
Area 3, Modesto

* Robert Cardoza
Area 3, Modesto

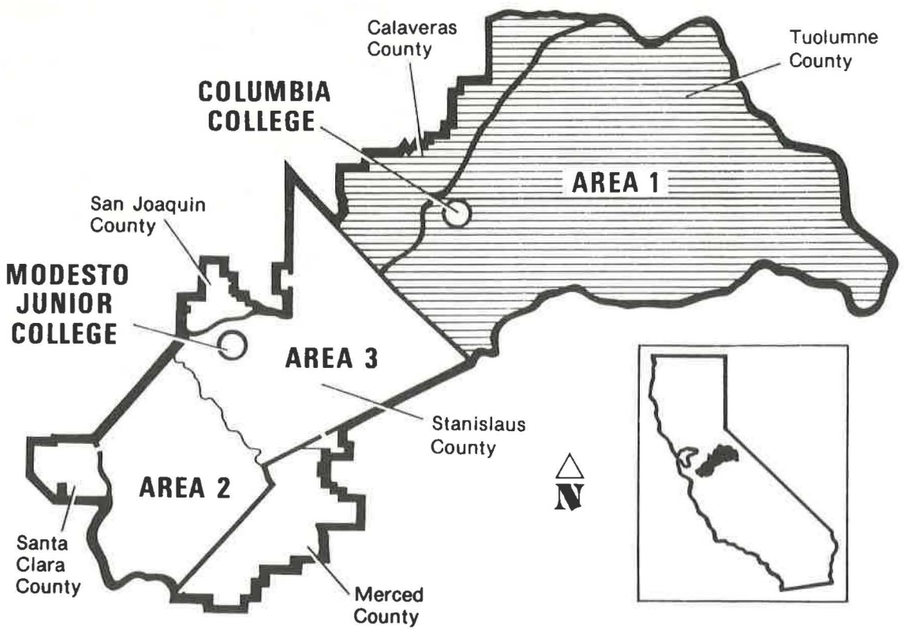
*† Ian Hardie
Area 3, Modesto

* Carmen Jackson
Area 3, Turlock

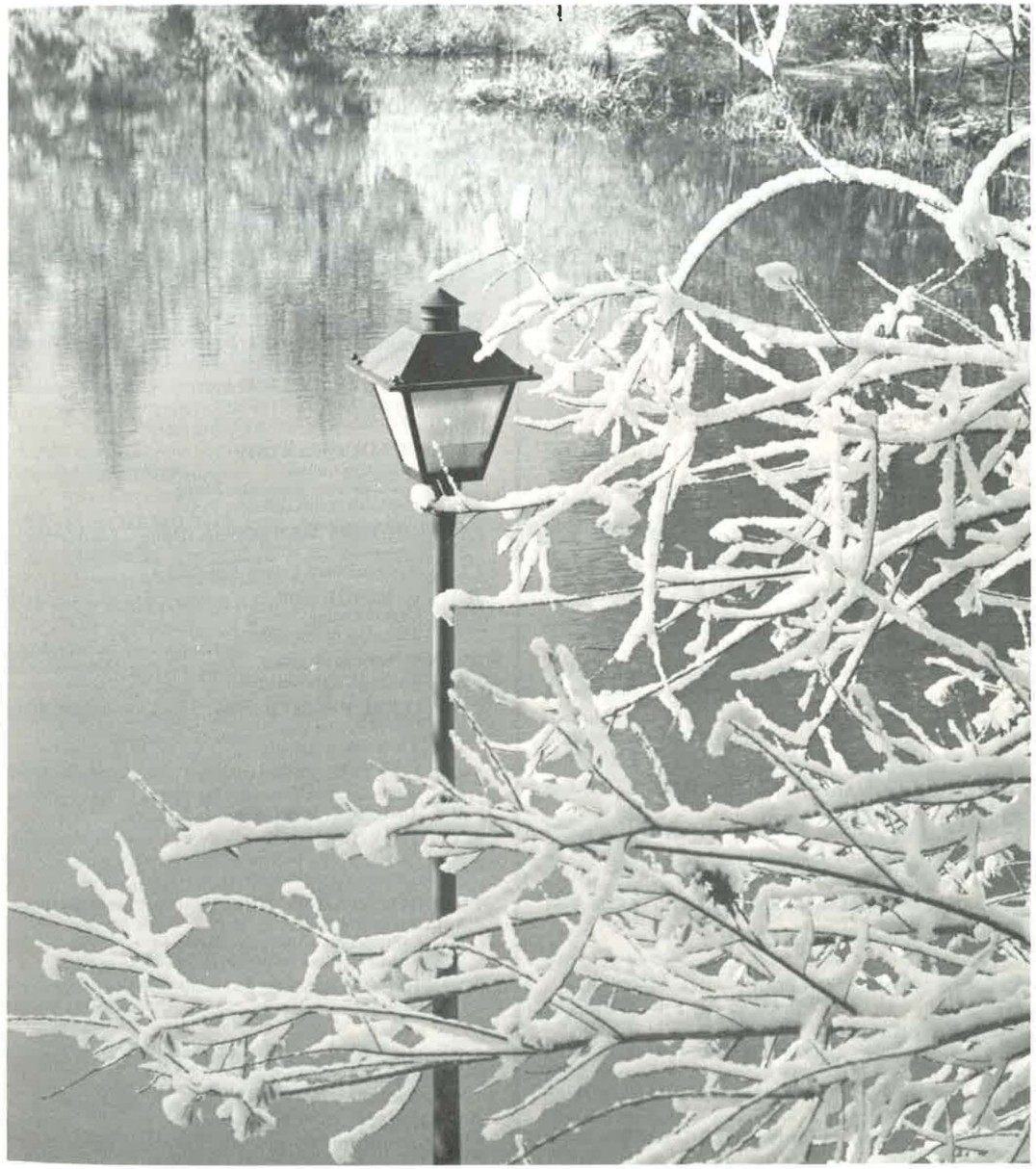
* Nancy Rosasco
Area 1, Sonora

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

*** Past President**
† Charter Board Member



COLLEGE STAFF



CERTIFICATED STAFF
(Date of District appointment follows name.)

DENNIS LEE ALBERS (1985) — **Mathematics/Physics**
B.S., University of Nebraska
M.S., University of Nebraska
Ph.D., University of Nebraska

DENNIS P. AYE (1985) — **Physical Education, Basketball Coach**
B.A., St. Ambrose College
M.A., University of Connecticut

JOEL C. BARBER (1967) — **Art**
B.A., Willamette University
M.A., University of Oregon

JOSHUA E. BIGELOW (1981) — **Physical Education**
A.A., Columbia College
A.B., University of California, Berkeley
M.A., University of California, Berkeley

ELSIE M. BRUNO (1980) — *Counselor*
B.S., University of California, Los Angeles
M.S., California State University, Los Angeles

DALE L. BUNSE (1975) — **Art**
B.A., Willamette University
M.F.A., Arizona State University

ROSS A. CARKEET, JR. (1968) — **Natural Resources**
A.A., Modesto Junior College
B.S., University of California, Berkeley
M.S., California State University, Humboldt

JOHN R. CARTER (1984) — **Music**
B.M., Chapman College
M.M., Westminster Choir College

W. DEAN CUNNINGHAM (1979) — *President*
B.A., Doane College
M.A., Illinois Wesleyan University
Ed.D., Arizona State University

EDWARD C. DOELL JR. (1973) — **English, Photography**
A.A., Foothill Junior College
B.A., California State University, San Francisco
M.A., California State University, San Francisco

RICHARD L. DYER (1969) — **History, Political Science**
A.A., Mount San Antonio College
B.A., LaVerne College
M.A., California State University, Los Angeles

RONALD L. ERICKSON (1981) — *Coordinator of Hospitality Management*

ROBERT H. GIBSON (1970) — **Physical Education,** *Coordinator of Adult Fitness Program*
A.A., Graceland College
B.A., Central College
M.A., California State University, San Jose
Ed.D, University of Central Arizona

ARLENE S. GIORDANO (1976) — **Psychology**
A.B., Hunter College
M.A., University of California, Berkeley
Ph.D., University of California, Berkeley

JON M. HAGSTROM (1962) — **English**
A.A., Shasta College
B.A., California State University, Chico
M.A., University of the Pacific

PATRICIA HARRELSON (1982) — *Learning Disabilities Specialist*
B.S., California State College, Stanislaus

ROD D. HARRIS (1979) — **Music**
A.A., Fort Steilacoom Community College
B.A.E., Pacific Lutheran University
M.M., Pacific Lutheran University

TERRY J. HOFF (1974) — **Physical Education (Sabbatical Leave 1987-88)**
B.A., University of California, Berkeley
M.A., Mills College

JAMES R. HASTINGS (1973) — **Anthropology, Psychology**
A.A., American River College
B.A., California State University, Sacramento
M.A., California State University, Sacramento

JOHN L. HOLLOWAY (1981) — **Business**
A.A., Orange Coast Junior College
B.A., California State University, San Francisco
M.B.A., California State University, San Francisco

TOM G. HOLST (1974) — **Earth Science, Computer Science**
A.B., Augustana College
M.N.S., University of South Dakota
Ed.D., University of Northern Colorado

FLOYD L. HOPPER (1976) — *Counselor*
B.A., University of Nevada
M.A., California State University, Long Beach

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

JAMES R. KINDLE (1974) — *Coordinator of Learning Skills*
B.S., Wisconsin State College
M.A., Rockford College
M.A., Colorado Springs College

DOUGLAS E. KOTAREK (1974) — **Business, Economics**
B.S., Northern Illinois University
M.B.A., Northern Illinois University

WALTER L. LEINEKE (1968) — *Assistant Dean, General Education*
B.A., California State University, Sacramento
M.A., California State University, San Francisco

RAYMOND D. LIEDLICH (1981) — *Dean of Instruction*
B.S., Bowling Green State University
M.A., California State University, Los Angeles

PAUL W. LOCKMAN (1981) — *Director of EOPS and Disabled Student Programs*
A.A., Fresno City College
B.A., California State University, Fresno
M.A., California State University, Fresno

JAMES ROBERT MENDONSA (1981) — *Assistant Dean, Vocational Education*
B.A., California State College, Stanislaus
M.A., California State College, Stanislaus

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

JOHN R. NELSON (1984) — **Fire Technology**
B.A., San Diego State University

CHESTER H. PALMER (1976) — **English, Speech**
B.A., University of Arizona
M.A., University of Arizona

FRED J. PETERSEN (1981) — **Computer Science**
B.A., California State University, San Jose
M.A., University of Washington

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

BLAINE D. ROGERS (1972) — **Biological Science**
A.A., Bakersfield College
B.A., California State University, Humboldt
M.A., California State University, Humboldt

JOHN R. ROSS (1970) — **Health Education, Health Occupations, Search and Rescue**
B.A., University of the Pacific

MELBORN N. SIMMONS (1969) — **Mathematics**
B.S.E., Henderson State College
M.S., University of Arkansas

RAYMOND L. STEUBEN (1976) — *Director of Library Services/ I.M.C.*
B.A., University of California, Santa Barbara
M.L.S., University of California, Los Angeles

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

JANET M. SWEENEY (1984) — **Business**
B.A., San Jose State University
M.A., California State College Stanislaus

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

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

WILLIAM H. WILSON, JR. (1974) — *Counselor*
A.A., Solano College
B.A., San Jose State College
M.S., California State University, Hayward

CLARENCE O. WOLGAMOTT, JR. (1971) — **Chemistry**
B.S., Tennessee Technological University
M.A., Tennessee Technological University

FACULTY EMERITI

PAUL K. BECKER (1971) — **Dean of Student Services (1971-1987)**
A.B., Western State College of Colorado
M.A., Stanford University

L. FRANCES CULLEN (1971) — **Psychology, Counselor, Student Activities (1971-1983)**
B.S., University of California, Los Angeles
M.S., University of Southern California
Ed.D., University of Southern California

MARION C. EVANS (1955) — **Health Occupations (1968-1983)**
R.N., St. Therese School of Nursing
B.V.E., California State University, Sacramento

McKINLEY FROST (1970) — **Welding Technology (1970-1985)**
A.A., Columbia College

ROBERT H. HAMILTON (1968) — **History, Political Science, Humanities Philosophy (1968-1985)**
A.B., University of California, Berkeley
Th.M., Dallas Theological Seminary
M.A., University of California, Berkeley

FRANCES V. HEGWEIN (1974) — **Health Occupations (1974-1985)**
R.N., South Shore Hospital

THELMA A. JENSEN (1968) — **Health Occupations (1968-1984)**
R.N., Highland School of Nursing
A.A., Columbia College

DONALD A. JONES (1968) — **Biological Science (1968-1985)**
A.A., San Francisco City College
A.B., California State University, San Francisco
M.A., California State University, San Francisco

MATILD M. KAMBER (1976) — **Philosophy (1976-1982)**
B.A., American College for Girls, Istanbul, Turkey
M.A., University of Istanbul

JERRY D. LYON (1971) — **Business (1971-1984)**
A.A., Edinburg Junior College
B.B.A., University of Texas
M.A., Abilene Christian College

BARBARA C. PAINTER (1969) — **Counselor (1969-1980)**
A.A., Modesto Junior College
A.B., California State University, San Jose
M.A., University of the Pacific
Ed.D., University of the Pacific

HARVEY B. RHODES (1947) — **President (1967-1979)**
A.B., California State University, San Jose
M.S., University of Southern California
Ed.D., University of California, Berkeley

RICHARD H. ROGERS (1968) — **Business (1968-1982)**
A.B., California State University, Fresno
M.A., California State University, Fresno

CLASSIFIED STAFF
(Date of District appointment follows name.)

KATHLEEN L. ABBOTT (1976) — Clerk, Business Services

ROSS L. ALDRICH (1975) — Performing Arts Production Technician

SIGRID A. ANDERSEN (1985) — Instructional Aide, Learning Skills

MERLIN BART (1974) — Instructional Aide, Auto Technology

DORYENE M. BENTLEY (1975) — Secretary, Instructional Materials Center

PATRICIA BERHANE (1986) — Clerk, Admissions and Records

ARTHUR BUSALACCHI (1982) — Lead Safety Patrolperson

D. LARUE BUSALACCHI (1969) — Business Office and Budget Manager

CLARENCE E. CLARK (1971) — Maintenance

PATRICIA COGGINS (1984) — Instructional Aide, Learning Disabilities Center

JOY D. COTTON (1985) — Clerk, Admissions and Records

L. C. CRAIN (1976) — Custodian

DOROTHY A. DANZ (1965) — Secretary, Dean of Student Services

DENISE F. DEATSCH (1978) — Secretary, Assistant Dean of Instruction

TERRILL O. DEATSCH (1975) — Bus Driver/ Groundskeeper

DANIEL DEVITT (1984) — Supervisor, Food Services

SALLY K. DIETSCHAK (1981) — Assistant, Financial Aids and Veterans' Affairs

STEVEN FROST (1979) — Custodian

WILLIAM J. GAISER (1970) — Equipment Mechanic

HAZEL GARAVENTA (1984) — Instructional Aide, Business

DORIS I. GOLDSON (1970) — Secretary/ Media Assistant, Library

LINNETT C. GREELEY (1975) — Media Assistant, Library

LAUREL M. GRINDY (1981) — Instructional Aide, Mathematics

RUTH O. HAGSTROM (1970) — College Nurse

DOLORES C. HALL (1971) — Manager, Bookstore

NORINE D. HOLMES (1978) — Evaluation Technician Admissions and Records

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

DOROTHY A. MAECHLER (1981) — Accompanist/ Instructional Aide, Music

TIMOTHY MANN (1983) — Athletic Equipment Attendant

ARDIS MARTINEZ (1984) — Typist Clerk, Student Services

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)	Supervising Custodian
RONALD R. ROACH (1970)	Printing Technician Instructional Materials Center
JACQUELINE J. SEYBOLT (1985)	Manager, Food Services
WILLIAM M. SHANKEY (1982)	Safety Patrolperson
KATHLEEN SMITH (1984)	Clerk, Admissions and Records
BARBARA SMITH (1986)	Food Services Worker
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
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 appropriateness 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*
Kelley Motors
BOB ELLIOTT, *Owner*
Elliott's Auto & Truck Service
TOM HAIDLEN, *Owner*
Haidlen Ford-Mercury
STEVE KOEHLER, *Auto Tech. Instructor*
Bret Harte 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 ETHIER, *Business Instructor*
Sonora Union High School
TOM FIRTH, *Manager*
Lucky Stores
CLAY MADDOX, *Accountant*
GEORGE PERRY, *R.O.P. Instructor*
Sonora Union High School
MELODY PERRY, *Administrative Assistant*
Sonora Medical Group
MARILYN 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 THORLAKSON-DORMAN
Employment Program Representative
Employment Development Dept.
JERRY YOUNGSTROM, *Data Processing*

CARDIAC REHABILITATION PROGRAM

PENNY ABLIN, *M.D.*
DANNY ANDERSON, *M.D.*
LYNN AUSTIN, *M.D.*
WARREN BORGQUIST, *M.D.*
JAMES COMAZZI, *M.D.*
ROBERT CRAVEIRO, *M.D.*
TED FERNISH, *M.D.*
RUSSELL HOENES, *M.D.*
JAMES HONGOLA, *M.D.*
DIXIE HUKARI, *Head Program Nurse*
Sonora Community Hospital
GARY JOHNSON, *M.D.*
LAWRENCE LONG, *Hospital Administrator*
Tuolumne General Hospital
DEE MINNEY, *Associate Program Nurse*
Tuolumne General Hospital
JAMES MOSSON, *M.D.*
TERRIL SPITZE, *M.D.*
CHARLES WALDMAN, *M.D.*
RICHARD MUNGER, *M.D.*

COMMUNITY EDUCATION

GALEN ALBERTSON
CONSUELO CLINTON
MARJORIE DOE
LORRAINE KILLOUGH
HAL KYLE
PHYLLIS KYLE
CARROLL LANG
MARY LAVERONI
ESTHER RASMUSSEN
DONALD SMILEY
LOIS ANN SMITH

COMPUTER SCIENCE

BOB BECK, *Accountant*
BINKY DOHMS, *Office Coordinator*
Heron Manufacturing
PETER DOHMS, *Vice President*
Condor Mining
ROGER ELSWORTH, *Programming Analyst*
County of Tuolumne
DWAYNE McDONALD, *Assistant Superintendent*
Tuolumne County Schools
SHERRI TUCKER, *Data Processing Manager*
The Paul Ranpack Co.
JIM WAGONER, *Data Processing/Instructor*
Mother Lode Data Service
SHARI WATER, *Data Entry Clerk*
County of Tuolumne
JERRY YOUNGSTROM, *President*
Seasoft Corporation

DISABLED STUDENT SERVICES

DOUG BOWSER, *Tri-County Consortium*
Tuolumne County Schools
BEVERLY BRITTS, *Teacher, Hearing Impaired*
Sonora Elementary School
HAL DAVIS, *Voc. Rehab. Counselor*
Department of Rehabilitation
WAYNE FRANCIS, *Student*
Columbia College
JIM KINDLE, *Director, Learning Skills Center*
Columbia College
SANDEE KLUDT, *Director of Special Education*
Tuolumne County Schools
DONNA LARSON, *Representative*
Social Security Administration
JANICE LUBECK, *Case Manager*
Valley-Mt. Regional Learning Center
DR. CHARLES McBANE, *Optometrist*
General Practice
FRANK McNALLY, *Retired Judge*
JEAN McNALLY, *Physical Therapist*

DRAFTING

NEIL BURCKART, *President*
Burckart Construction Company
DONALD GROVER, *Architect*
Donald Grover & Associates
GEORGE JACKSON, *Engineer*
Calaveras Asbestos Ltd.
MICHAEL PEREZ, *Engineering Technician*
U.S. Forest Service
JERRY SLINKARD, *Vice President*
Raymond Vail & Associates

EMERGENCY MEDICAL SERVICES

SANDI CARLIN, *Registered Nurse/M.I.C.N.*
Tuolumne General Hospital
JEANNE MILLS, *Registered Nurse/Emergency Medical services coordinator/M.I.C.N.,*
Tuolumne County Health Department
WILLIAM STIERS, *M.D., Head Emergency Rm. 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

EXTENDED OPPORTUNITY PROGRAMS AND SERVICES

PATRICIA BERHANE, *Admissions and Records Clerk*
Columbia College
ELSIE BRUNO, *Counselor*
Columbia College
WALLACE DAY, *Tuolumne/MiWuk Tribal Council Chairman*
SALLY DIETSCHAK, *Financial Aid*
Columbia College
JACKIE JACKMAN, *Teacher*
Vallecito High School
SHIRLEY PHILSON, *Employment Services*
Employment Development Department
VIOLA WESSELL, *Community Representative*

FIRE TECHNOLOGY

MERRITT LOVEJOY, *Forest Dispatcher/E.C.C. Chief*
U.S. Forest Service
GUY C. MILLS, Fire Chief
Sonora Fire Department
DONALD NEWMAN, Battalion Chief
California Division of Forestry
JAMES ROSBROOK, *Fire Chief*
Ebbetts Pass Fire Department
LEONARD SHEPHERD, *Training Officer*
California Division of Forestry
DON STOWELL, *Training Officer*
California Division of Forestry

Photo by Dirk Travis

FORESTRY TECHNOLOGY/NATURAL RESOURCES TECHNOLOGY

MARK BEVAN, *Forestry Consultant*
CHRIS CONRAD, *Forester*
Louisiana Pacific Corporation
ANNE DELANEY, *Forester*
American Forest Products Co.
DONNA FOREST, *Assistant Recreation Officer*
Summit Ranger District
JIM MADDOX, *Wildlife Biologist*
California Department of Fish & Game
TIM NEELEY, *Chief Ranger*
Columbia & Railtown State Historic Parks
JIM OWEN, *Unit Ranger*
California Department of Forestry
RICHARD PLAND, *Forester/Logging Superintendent*
Louisiana Pacific Corporation
BRIAN QUELVOG, *Fishery Biologist*
California Department of Fish & Game
WILLIAM SUEHOWICZ, *Chief Park Ranger*
New Melones Lake
DON WARD, *Forester*
California Department of Forestry
STEVE WATERMAN, *Public Information Officer*
U.S. Forest Service

HOSPITALITY MANAGEMENT

LEO BALDONADO, *Owner*
La Sierra Taqueria
KARL HAMMER, *Sales Representative*
Major Hoskings Co.
TOM MANTI, *Owner*
Cameo Restaurant, Arnold
TIM NEELEY, *Chief Ranger*
Columbia Railtown Historic State Parks
GLORIA STORMENT, *General Manager*
Sonora Oaks

MEDICAL PROFESSIONS

JUDY BOWEN, *Registered Nurse*
Lynn Austin, M.D.
CLARK BURTON, *D.D.S.*
MARTHA COSTICK, *Registered Nurse*
Pioneer-West Point Community Health Center
MIKE GHIORSO, *Chief Pharmacist*
Sonora Community Hospital
GARY HINMANN, *Pharmacist*
Altaville Drugs
DIXIE HUKARI, *Inservice Director*
Sonora Community Hospital
GLENNA JOHNSON, *Director of Nursing*
Mark Twain Hospital
LAWRENCE LONG, *Administrator*
Tuolumne General Hospital
PHYLLIS MANFORD, *Inservice Director*
Tuolumne General Hospital
MARILYN NISHI, *Registered Physical Therapist*
Self-Help Therapy Programs
MAURICE ROLLINS, *D.D.S.*
LARRY WARNICK, *Physical Therapist*
Tuolumne General Hospital
RICHARD WING, *Chief Administrator*
Mark Twain Hospital

PRESIDENT'S

JACK AMUNDSEN, *Retired*
State Forest Ranger
DR. ROBERT BACH, *Superintendent*
Bret Harte Union High School District
DICK BARGER, *Businessman*
SHARI CASSARO, *Realtor*
MARJORIE COFFILL, *Community Leader*
BLAINE CORNELL, *Supervisor*
U.S. Forest Service
CARLO DeFERRARI, *Retired*
County Clerk and Auditor, Historian
JACK EDDY, *Businessman*
MARJORIE GEISZLER, *Superintendent*
Calaveras County Schools
MARILYN HAMILTON, *Vice President*
Security Pacific Bank
JIM HILDRETH, *Realtor/*
Sonora City Councilman
MIKE Q. JONES, *General Contractor*
JAMES C. McCLUSKEY, *Pastor*
Church of the 49'ers
HARVEY C. McGEE, *Owner-Publisher*
Daily Union Democrat
DR. ORVILLE MILHOLLIN, *Superintendent*
Tuolumne County Schools
RICHARD ROGERS, *Retired*
Columbia College Instructor
MILTON SCHROEDER, *Retired Manager*
Pacific Gas & Electric Company
IRVING J. SYMONS, *Owner*
Hales & Symons
DR. ROGER WAHLMAN, *Dentist*
CARY WINGO, *Attorney*

REAL ESTATE

KEN CARPER, *Realtor/Owner*
Carper Realty
GWYN DURANDT, *Realtor/President*
Calaveras County Board of Realtors
BABE GIBSON, *Realtor*
Mother Lode Real Estate
JOHN GLEASON, *Realtor*
Wildwood Properties
JIM HILDRETH, *Real Estate Instructor/Owner*
Park Place Realty
SHARON NUTT, *Realtor*
Henrietta Realty
JOANNE RIGGS, *Real Estate Instructor/Branch Manager/Savings Supervisor*
Washington Savings and Loan
CLARK SEGERSTROM, *Realtor/Owner*
Segerstrom Real Estate

SEARCH AND RESCUE

MARIE BENNETT, *Coordinator*
Northern California Law Enforcement
HENRY GILLIAM, *Assistant Chief/Training Division*
U.C. Davis Fire Dept.
BENTON HEMBREE, *Firefighter*
Sonora City Fire Department
RICK KREPS, *Risk Manager*
Dodge Ridge Corporation
MANUEL NAVARRO, *Battalion Chief*
Oakland Fire Department
SCOTT NEWMAN, *District Ranger*
California Division of Forestry
NINA OSTARELLO, *Location Manager*
Mobil Life Support
JIM SCRUGGS, *Deputy Sheriff/S.A.R.. Officer*
Tuolumne County Sheriff's Office
DON STONE
Technical Team Leader

TEACHER AIDE

SHARON BENINCASA, *Teacher Aide*
Sonora Elementary School
PATRICE HENSON, *Special Ed. Substitute Aide*
Tuolumne County Schools
MARY JOHNSON, *Kindergarten Teacher*
Sonora Elementary School
SANDY KLUDT, *Director of Special Ed.*
Tri-County Schools
JACKIE LATTUADA, *Kindergarten Teacher*
Sonora Elementary School
JACKIE MIEROP, *Resource Teacher*
Tuolumne County Schools
MADELINE SHARP, *Principal*
Twain Harte Elementary School

GENERAL INFORMATION

COLUMBIA COLLEGE

History

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

Because of an increase in student enrollment, the need for greater educational opportunities in the mountain counties, and the great distance involved in travel for students to attend Modesto Junior College, the Yosemite Community College District Board of Trustees authorized the formation of Columbia Junior College and scheduled its 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 from 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

I. General Education Function
To provide a broad program of knowledge and skill acquisition in humanities, arts, and sciences for personal development.

II. Transfer Education Function
To provide a comprehensive program that meets the lower division requirements for acceptance at designated institutions.

III. Vocational Education Function
To provide specialized training programs needed to develop skills, knowledge, attitudes, and other occupational competencies.

IV. Remedial Education Function
To 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
To provide an opportunity for students to attain personal goals through a program of realistic planning and direction.

VI. Continuing Education Function
To provide continuing educational 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 Equivalency Diploma (G.E.D)
Columbia College serves as an official General Educational Development Testing Center and provides the opportunity to obtain the High School Equivalency (G.E.D.) Diploma.

COMMUNITY SERVICES

Community Services sponsors many programs including public lectures, forums, concerts, art exhibits, and film series; a speaker's 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 1849, Columbia, CA 95310:

Title IX: Candace Williamson, Coordinator
Gender Equity
(209) 533-5216

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

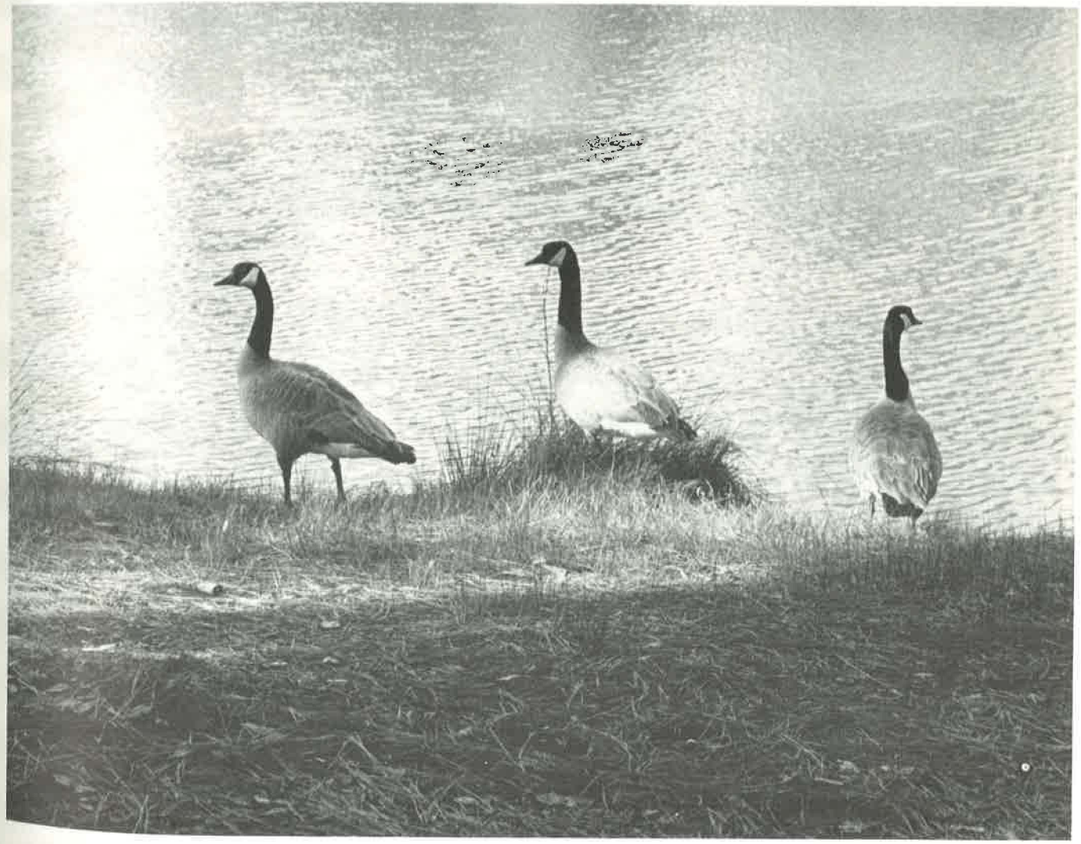
OPEN CLASS POLICY

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.

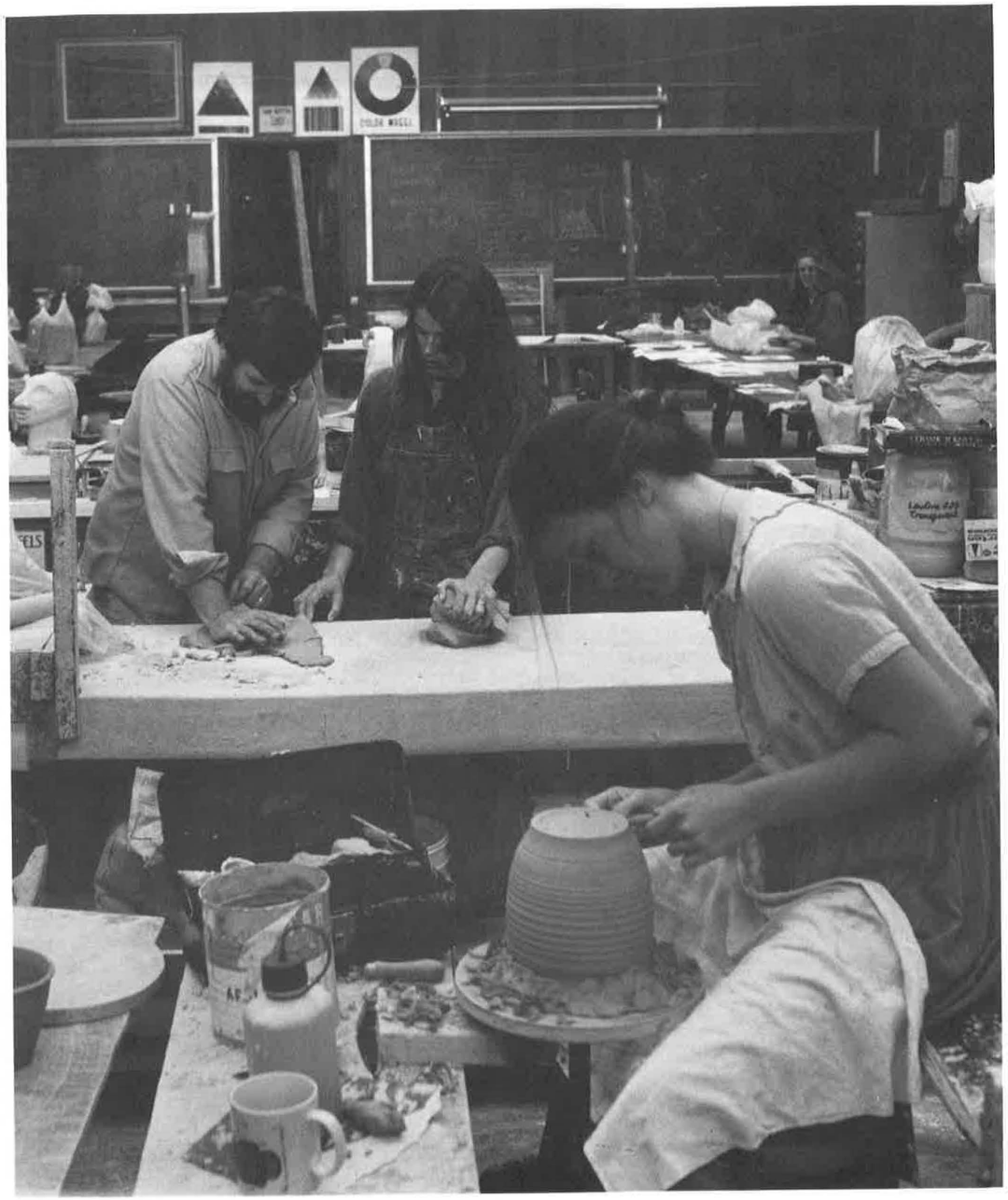
Exception to this policy will be made where health, safety, legal requirements or the facility is a limiting factor in the conduct of the course. Students denied enrollment by this policy may appeal to the Dean of Student Services.

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.



ADMISSIONS



ADMISSIONS

Eligibility

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

Residence Requirements

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

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

(1) Is a legal resident of the Yosemite Community College District with a local address.

(2) Is a legal resident of a California high school district not affiliated with a community college district.

(3) Is a 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 1987-88 are August 17, 1987, for Fall Semester; January 8, 1988, for Spring Semester.

Nonresidents of California, including international students, are required to pay an out-of-state tuition fee of $88.00 per unit. The tuition refund policy can be found in the Schedule of Classes. Questions regarding determination of residency should be referred to the Admissions and Records Office.

Interdistrict Attendance Permits

Yosemite Community College maintains a free exchange of students with all community college districts in the State of California. Interdistrict permits are not required. For further information contact the Admissions and Records Office.

Admission Procedures

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

Before admittance, official transcripts for all previous college work must be received by the College. If no transcript is available due to withdrawal, an official letter stating this fact is required. It would be in the best interest of the student to provide the College with high school transcripts.

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

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

Readmission

A student who plans to return to Columbia College after an absence of one academic year or more must file an application for readmission. Transcripts are required if the student has attended 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 May 1 for admission to the following Fall Semester:

(1) Complete the COLUMBIA COLLEGE INTERNATIONAL 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. Columbia College has on-campus housing available on a first-come, first-served 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 enroll in Columbia College classes.

Students other than juniors and seniors must also present written approval from their parents or legal guardian.

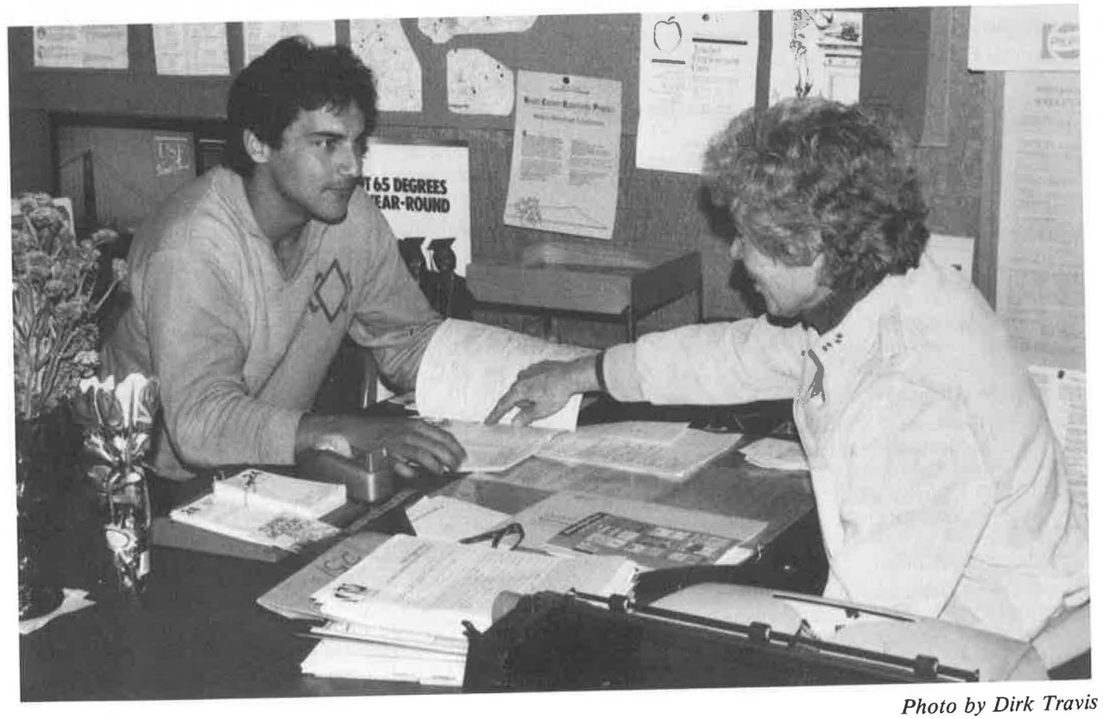
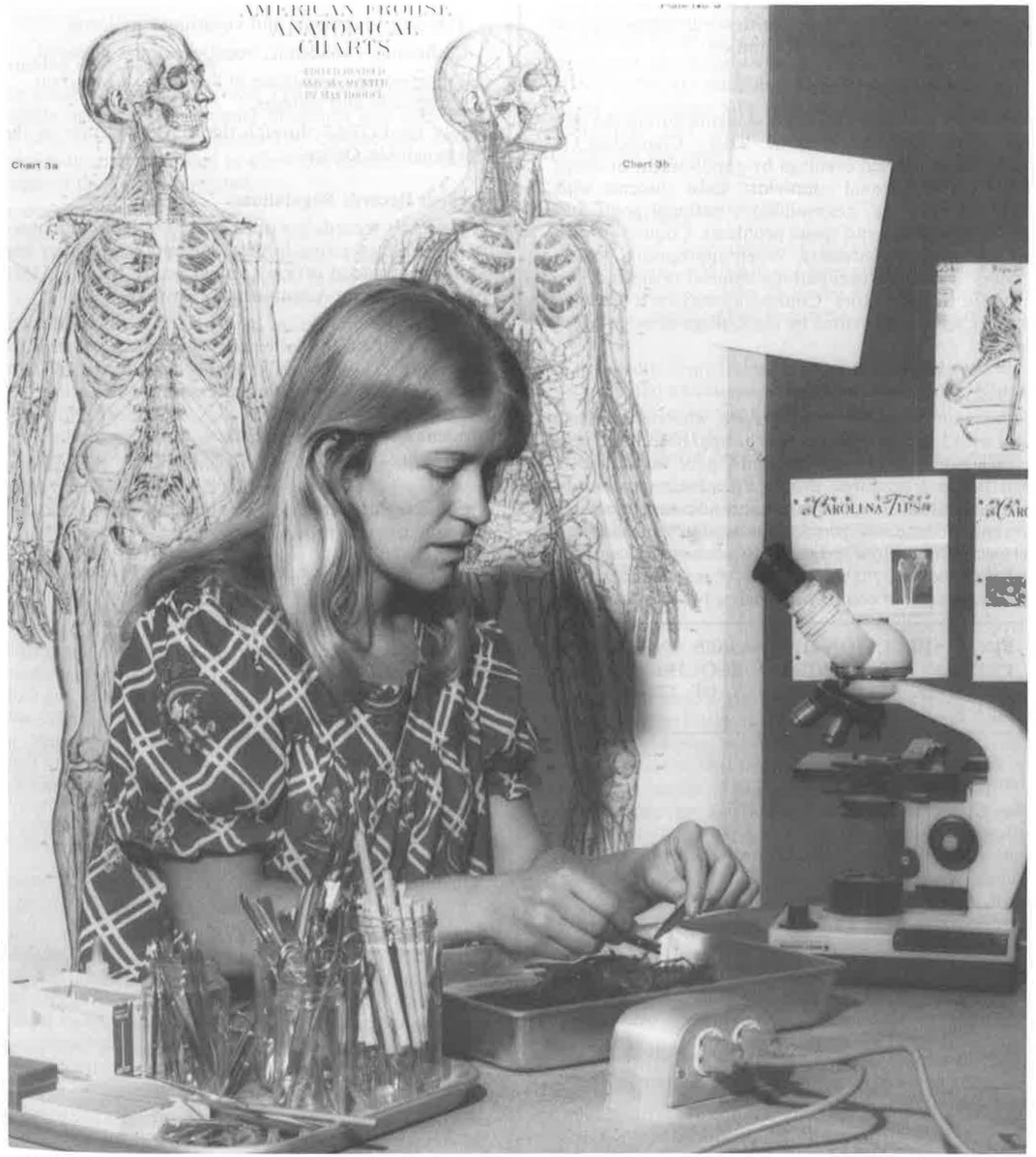


Photo by Dirk Travis

STUDENT SERVICES



STUDENT SERVICES

Student Orientation

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

Counseling Services

Counselors are available to all students during the day 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 occupational interest 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 on-going 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 educational/vocational objectives. Students are encouraged to confer with their advisor at any time.

FINAL 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-serve 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 procedure 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 for 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. Transcripts sent 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.

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

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 allows students to use the Center anytime their schedules permit. 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
: Disabled parking, on-campus transportation, 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 an original or certified copy of DD Form 214 in order to be eligible for veteran benefits. If appropriate, a certified copy of a marriage certificate and birth certificates 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 Veteran 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. Students may obtain Identification Cards 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, microfiche, and Eureka, a computerized vocational/educational information system.

Limited off-campus housing information is available in the Career Center.

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.

A limited placement service is available to students for part-time on campus and 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.

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 am. to 4:30 p.m. It is closed weekends and school holidays.

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.

Student Housing

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

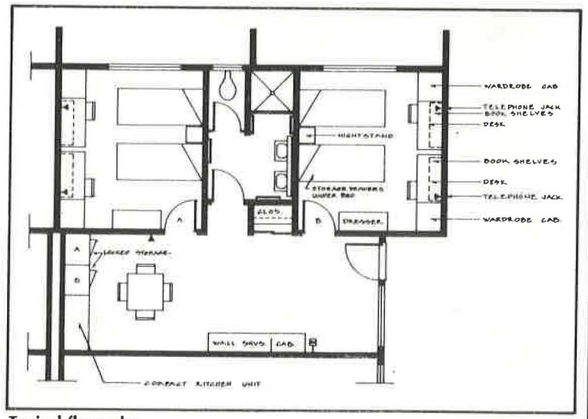
Photo by Dirk Travis

Housing ...

Designed For The Student

Columbia College Student Housing provides modern affordable housing for students. These residences are on the campus within easy walking distance of all the college buildings. Situated among the natural wooded beauty of the campus, the housing offers each student:

- ★ Ample parking lots adjoining the buildings. Parking fees are minimal.
- ★ Furnished rooms which include desk, chairs, wardrobe, bookcase, bed and dresser. (Soft furniture such as couches are not provided.) The resident need only to bring linens, towels, dishes and personal articles.
- ★ Kitchenette with stove and refrigerator and dinette set.
- ★ T.V. and telephone outlets pre-wired to each suite. Student must provide sets.
- ★ Coin operated washer/dryer facilities on the premises.
- ★ Utilities (except telephone) are included with the rent.



Typical floor plan.

Suites for the disabled are provided in the manager's building allowing wheelchair access to rooms.

Outdoor volleyball, basketball and lighted tennis courts are available to residents. A picturesque jogging (PAR) course through the campus is maintained.

ACADEMIC POLICIES AND PROCEDURES

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 class who has not satisfied the course prerequisites as published in the College catalog.

Grading System

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

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

Grading Scale

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

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

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

Grade Point Average

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

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

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		40 grade points

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

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

Incomplete Grades

An incomplete grade ("I") may be given for an unforeseeable emergency and justifiable reason if a student does not complete all requirements. Responsibility for removal of incomplete grades within the time granted by the instructor rests with the students. 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 all work remains legible, ensuring a true and complete academic history.

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

Academic Renewal

Subject to the following conditions, up to 24 units of substandard work (D's and F's) from two semesters or 36 units from three quarters, taken at any accredited college or university, may be alleviated from computation of the grade point average at Columbia College:

(1) Since completion of the work to 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 a 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 number one and number two 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.

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 either cumulative or for the previous semester as a full-time student.

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

(2) recognize; training or experience for which credit or advanced standing was not previously granted.

CONDITIONS

Only Columbia College courses may be challenged by examination. A maximum of 20 units may be earned by Credit by Examination. Credit granted by examination at accredited colleges will be accepted; such credit will be included in the maximum allowed by examination.

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

(1) be registered in Columbia College and enrolled in the course which is being challenged.

(2) have completed at least 12 units of work in residence.

(3) have a cumulative Grade Point Average of 2.0 ("C" average).

PROCEDURE

The student must make arrangements for credit by examination with the individual instructor, who, on approval, will outline the challenge requirements and schedule the examination. Whatever grade the student earns will be entered on his/her record at the end of the term.

PREVIOUSLY EARNED CREDIT

College Credit

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

Credit for Military Service

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

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

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

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

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

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

The maximum credit allowable is 20 ungraded units.

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

Student Load

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

Classification of Students

While the minimum full-time program that will qualify a student for graduation in two years is 15 units per 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 has the prerogative 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 considered permanent and may be changed by the instructor only in case of error.

Scholastic Honors

Graduating students who have earned a cumulative Grade Point Average of 3.75 or better in all college work are awarded the Associate Degree With Distinction.

Students whose cumulative Grade Point Average is between 3.50 and 3.74 are awarded the Associate Degree With Honors.

Each semester a list of student names is published to recognize scholarship in at least 12 attempted units of work. **Classes taken for CR/NC are not included in attempted units.** Students whose Grade Point Average is between 3.5 and 4.0 with no grade lower than C are acknowleged on the Deans list.

Not more than three units of Learning Skills courses a semester may be counted to qualify for the Deans' List.

Grade Reports

Final grade reports are compiled after the end of each semester. Students may request a current progress report prior to the end of the term by completing a form which is available in the Admissions and Records Office.

Satisfactory Scholarships

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

All units and grade points are counted on a cumulative basis. The method of computing the Grade Point Average is illustrated on page 25.

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

Academic Probation and Dismissal

The purpose of academic probation at Columbia College is to ensure that students who are deficient in scholastic achievement will receive special advisement. Self-programmed students who are on probation will be assigned an advisor by a counselor.

A student will be placed on probation for the following semester when the cumulative grade point average falls below 2.0 on a minimum of 12 units attempted. Computation of the GPA (grade point average) is based on all units attempted excluding those taken on a Credit-No Credit basis.

A student is dismissed for one year from attending any class offered by Columbia College if in any term of attendance on academic probation after having attempted 12 units:

(1) The term grade point average is less than 1.5, or

(2) The cumulative grade point average is below 1.75.

Dismissed students admitted by special petition will be notified to make an appointment with a counselor for program review and possible adjustment.

Progress Probation and Dismissal

A student who has enrolled in a total of at least 12 semester units shall be placed on Progress Probation for the following semester when the percentage of all units in which the student has enrolled and for which, "W", "I", and "NC" are recorded reaches or exceeds fifty percent (50%).

Disqualification

A disqualified student may not be reinstated under the admissions provision until one semester from the date of disqualification. If the Grade Point Average of a student readmitted after disqualification falls below 2.0 for the following semester, the student may be permanently disqualified.

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

(a) Evidence of consistent improvement in the student's record.

(b) A change from one major to a field of study more appropriate to the student.

(c) Circumstances in the personal life of the student which the advisor of the student believes may have been of sufficient gravity to affect adversely the performance of the student.

(d) The recommendation of the student's physician that the continuance in college would be of sufficient therapeutic benefit to the student to warrant the granting of an additional opportunity.

If a student has been disqualified and feels he/she has extenuating circumstances worthy of consideration, he/she may request in writing to the Dean of Student Services that the one semester period of disqualification be waived.

Conduct

A Code of Student Conduct has been adopted by the Yosemite Community College District Board of Trustees.

Withdrawal From College

If a student wishes to withdraw from the College, it is his/her responsibility to notify the Admissions and Records Office.

Educational Expenses

Students enrolling in six or more units must pay a $50 semester fee. Students enrolling in less than six units may pay a $5 per unit per semester fee. California residents who have low income or who are receiving AFDC, SSI, or GA may have their enrollment fee waived. Qualified students should contact the Admissions and Records Office or the Financial Aid Office.

The College may require students in some classes to provide certain instructional materials including, but not limited to, textbooks, tools, equipment, and clothing.

Parking permits may be purchased each semester from the Business Office. Students who do not wish to purchase a permit may pay on a per-entry basis. These fees are indicated in the class schedule for each semester.

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

	In Parents' Home	On-Campus	Off-Campus
Books/Supplies/ Tuition	$ 460	$ 460	$ 460
Meals/Housing	1,100	3,180	3,200
Personal	740	740	740
Transportation	600	320	600
	$2,900	$4,700	$5,000

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 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 first class meeting only.

CERTIFICATES

CERTIFICATES

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, 1987, the following certificate requirements are valid through the 1990-91 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.

Units earned in obtaining a certificate may be applied toward 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

Child Development
Computer Science
Emergency Medical Services
Fire Technology
Forestry Technology
Hospitality Management
- Culinary Arts
- 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.**

COMPLETION OF CERTIFICATE

Students must complete a certificate application in the Admissions and Records Office during the semester in which they are fulfilling the certificate requirements.

AUTOMOTIVE TECHNOLOGY
GENERAL AUTO REPAIR

REQUIRED COURSES:		UNITS
Auto. Tech. 101	Intro. to Auto Technology	1
Auto. Tech. 103	Preventive Maintenance	1
Auto. Tech. 112	Pulling and Installing Engines	1
Auto. Tech. 114	Machine Shop Procedures	2
Auto. Tech. 116	Engine Rebuilding	4
Auto Tech. 117a	Fuel Systems	2
Auto. Tech. 117b	Electro Mechanical Carburetors	1
Auto. Tech. 118	Emission Control	1
Auto. Tech. 119a	Gasoline Engine Tune-up: Basic	2
Auto. Tech. 119b	Gasoline Engine Tune-up: Advanced	2
Auto. Tech. 130	Manual Transmission Rebuilding	1
Auto. Tech. 134	Axles and Drive Lines	1
Auto. Tech. 136	Automatic Transmission - GM	2
Auto. Tech. 138	Automatic Transmission - Ford	1
Auto. Tech. 140a	Brakes - Drum	2
Auto. Tech. 140b	Brakes - Disc	1
Auto. Tech. 144a	Front End and Suspension	2
Auto. Tech. 144b	Front End and Suspension	2
Auto. Tech. 150a	Electrical Theory	2
Auto. Tech. 150b	Charging Systems	2
Auto. Tech. 150c	Starting and Ignition Systems	2
Auto. Tech. 150d	Lighting and Chassis Electrics	2
Auto. Tech. 170a	Practical Laboratory	2
Auto. Tech. 170b	Practical Laboratory	2

TOTAL REQUIRED UNITS 41

AUTOMOTIVE TECHNOLOGY
ENGINE REPAIR & ENGINE PERFORMANCE

REQUIRED COURSES:		UNITS
Auto. Tech. 101	Intro. to Auto Technology	1
Auto. Tech. 112	Pulling and Installing Engines	1
Auto. Tech. 114	Machine Shop Procedures	2
Auto. Tech. 116	Engine Rebuilding	4
Auto. Tech. 117a	Fuel Systems	2
Auto. Tech. 117b	Electro Mechanical Carburetors	1
Auto. Tech. 118	Emission Control	1
Auto. Tech. 119a	Gasoline Engine Tune-up: Basic	2
Auto. Tech. 119b	Gasoline Engine Tune-up: Advanced	2
Auto. Tech. 120	Computerized Engine Control (G.M.)	1
Auto. Tech. 121	Electronic Fuel Injection	1
Auto. Tech. 123	Computerized Engine Control	1
Auto. Tech. 125	Electronic Fuel Injection	1
Auto. Tech. 170a or 170b or 170c or 170d	Practical Laboratory	2

TOTAL REQUIRED UNITS 22

AUTOMOTIVE TECHNOLOGY
FRONT-END AND BRAKE

REQUIRED COURSES:		UNITS
Auto. Tech. 101	Intro. to Auto Technology	1
Auto Tech. 140a	Brakes - Drum	2
Auto Tech. 140b	Brakes - Disc	1
Auto Tech. 144a	Front End and Suspension	2
Auto Tech. 144b	Front End and Suspension	2
Auto Tech. 170a or 170b or 170c or 170d	Practical Laboratory	2

TOTAL REQUIRED UNITS 10

AUTOMOTIVE TECHNOLOGY
POWER TRAIN

REQUIRED COURSES:		UNITS
Auto. Tech. 101	Intro. to Auto Technology	1
Auto. Tech. 130	Manual Transmission Rebuilding	1
Auto. Tech. 134	Axles and Drive Lines	1
Auto. Tech. 136	Automatic Transmission - GM	2
Auto. Tech. 138	Automatic Transmission - Ford	1
Auto. Tech. 170a or 170b or 170c or 170d	Practical Laboratory	2

TOTAL REQUIRED UNITS 8

BUSINESS ADMINISTRATION
MANAGEMENT

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

TOTAL REQUIRED UNITS 33-37

PROVEN COMPETENCY REQUIREMENT:
Business Mathematics Examination or
Bus. Ad. 63 Business Mathematics 3
RECOMMENDED OPTIONAL COURSES:

Bus. Ad. 145	Retail Business Management	3
Work Exp. 179	Occupational Work Experience	Min. 4

Photo by Dirk Travis

BUISNESS ADMINISTRATION
RETAILING

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

TOTAL REQUIRED UNITS 33-35

PROVEN COMPETENCY REQUIREMENT:
Business Mathematics Examination or
Bus. Ad. 63 Business Mathematics 3
RECOMMENDED OPTIONAL COURSES:

Bus. Ad. 140	Principles of Management	3
Work Exp. 179	Occupational Work Experience	Min. 4

CHILD DEVELOPMENT

REQUIRED COURSES:		UNITS
Child Dev. 101	Principles of Child Dev.	3
Child Dev. 103	Practices in Child Dev.	3
Child Dev. 105	Child Nutrition	2
Child Dev. 107	Child Health & Safety	1
Child Dev. 110	Creative Activities I	1.5
Child Dev. 111	Creative Activities II	1.5
Child Dev. 115	Observation & Participation	3
Child Dev. 122	Child, Family, Community	3
Child Dev. 125	Infant/Toddler Care	3
	or	
Child Dev. 127	School Age Children	3
Child Dev. 130	Child Care/Nursery School Administration	3

TOTAL REQUIRED UNITS 24

COMPUTER SCIENCE

REQUIRED COURSES:		UNITS
Computer Sc. 101	Intro. to Computer Concepts	2
Computer Sc. 103	Computer Operating Systems	1
Computer Sc. 125	Pascal Programming I	3
Computer Sc. 126	Pascal Programming II	3
Computer Sc. 120	BASIC Programming	3
	or	
Computer Sc. 127	FORTRAN Programming	3
	or	
Computer Sc. 129	COBOL Programming	3
	or	
Computer Sc. 132	RPG II Programming	3
Computer Sc. 140	Assembly Language Programming	3
Computer Sc. 155	Data Base Management	3
English 101a	Reading and Composition	3
Mathematics 104	Logic	3
	or	
Philosophy 104	Logic	3
Mathematics 110	Finite Mathematics	4

TOTAL REQUIRED UNITS 28

COMPUTER SCIENCE
APPLIED COMPUTER STUDIES

REQUIRED COURSES:		UNITS
Computer Sc. 101	Intro. to Computer Concepts	2
Computer Sc. 103	Computer Operating Systems	1
Computer Sc. 107	Microcomp. Data File Mgmt.	1
Computer Sc. 110a	Beginning Spreadsheets	1
Computer Sc. 110b	Advanced Spreadsheets	1
Computer Sc. 125	PASCAL Programming I	3
Computer Sc. 155	Data Base Management	3
Bus. Ad. 130a	Accounting	4
Bus. Ad. 130b	Accounting	4
Bus. Ad. 140	Principles of Management	3
English 101a	Reading and Composition	3
Office Oc. 106	Microcomputer Word Processing	1

TOTAL REQUIRED UNITS 27

PROVEN COMPETENCY REQUIREMENT:
Business mathematics examination or
Bus. Ad. 63 Business Mathematics 3
RECOMMENDED OPTIONAL COURSES:
One or more of the following programming courses:

Computer Sc. 120	BASIC Programming	3
Computer Sc. 126	PASCAL Programming II	3
Computer Sc. 127	FORTRAN Programming I	3
Computer Sc. 129	COBOL Programming II	3
Computer Sc. 132	RPG II Programming	3

EMERGENCY MEDICAL SERVICES

REQUIRED COURSES:		UNITS
E.M.S. 103	Emergency Medical Technician Training	6
S.A.R. 103	Environmental Injuries	1
S.A.R. 134	Helicopter Operations	1
S.A.R. 153	Vehicle Extrication	1

TOTAL REQUIRED UNITS 9

FIRE TECHNOLOGY

REQUIRED COURSES		UNITS
E.M.S. 103	Emergency Medical Technician Training	6
Fire Tech. 50	Fire Service Organization and Responsibility	1
Fire Tech. 51	Combust. & Exting. Theory	1
Fire Tech. 52	Protect. Equip. & Safety	1
Fire Tech. 53	Self-contained Breathing Apparatus	1.5
Fire Tech. 54	Ropes, Knots, Hitches	1
Fire Tech. 56	Forcible Entry	1
Fire Tech. 58	Hose, Nozzles, Fittings	3
Fire Tech. 60	Hose Loads and Uses	2
Fire Tech. 61	Ground Ladders	2.5
Fire Tech. 68	Rescue	1.5
Fire Tech. 69	Ventilation	.5
Fire Tech. 71	Fire Control	.5
Fire Tech. 72	Fire Streams	.5
Fire Tech. 73	Fire Extinguishers	.5
Fire Tech. 74	Overhaul	.5
Fire Tech. 76	Property Conservation	2
Fire Tech. 77	Fire Protection Systems	.5
Fire Tech. 78	Size-up	.5
Fire Tech. 79	Wildland Fire Fighting	.5
Fire Tech. 81	Hazardous Materials	.5
Fire Tech. 82	Fire Investigation	.5
Fire Tech. 83	Communications	.5
Fire Tech. 84	Vehicle Extrication	.5

TOTAL REQUIRED UNITS 29.5

FORESTRY TECHNOLOGY

REQUIRED COURSES:		UNITS
Computer Sc. 101	Intro. to Comp. Concepts	2
Fire Tech. 117	Wildland Fire Control	2
Forest Tech. 50	Intro. to Technical Forestry	2
	or	
Forestry 101	Introduction to Professional Forestry	3
Forestry Tech. 53	Forest Surveying Techniques	3
Forestry Tech. 56	Tree & Plant Identification	3
	or	
Forestry 110	Dendrology	3
Forestry Tech. 62	Applied Forest Inventory and Management	4
Nat. Res. Tech. 50	Natural History and Ecology	2
Nat. Res. Tech. 52	Applied Wildlands Management	3
Nat. Res. Tech. 60	Aerial Photog. & Map Interpretation	2
	or	
S.A.R. 122	Wilderness Navigation	2
Nat. Res. Tech. 81	California Wildlife	4
Nat. Res. 100	Environmental Conservation	3
Nat. Res. 109	Parks & Forests Law Enforcement	2

TOTAL REQUIRED UNITS 32-33

PROVEN COMPETENCY REQUIREMENT:
Mathematics Examination **or**
Mathematics 50 Basic Mathematics (or higher) 2
Reading Examination **or**
English 51 or 101a 3
Typing Examination **or**
Off. Oc. 101a Keyboarding **or**
Off. Oc. 101b Basic Typing Applications 1-2
Writing Examination **or**
English 51 or 101a 3
ADDITIONAL REQUIREMENT:
Appropriate Summer Employment Approved by Forestry Staff.

HOSPITALITY MANAGEMENT
CULINARY ARTS

REQUIRED COURSES:		UNITS
Hosp. Mgmt. 103	Marketing of Hospitality Services	3
Hosp. Mgmt. 131	Dining Room Service	3
Hosp. Mgmt. 136	Commercial Baking: Adv.	2
Hosp. Mgmt. 140a	Classical Cuisine: Beg.	3
Hosp. Mgmt. 140b	Classical Cuisine: Inter.	3
Hosp. Mgmt. 142	Garde Manger	2
Hosp. Mgmt. 147	Beverage Management	3

TOTAL REQUIRED UNITS 19

HOSPITALITY MANAGEMENT
FOOD SERVICE TECHNOLOGY

REQUIRED COURSES:		UNITS
Hosp. Mgmt. 101	Introduction to Hospitality Industry	3
Hosp. Mgmt. 130	Food Service Management	2
Hosp. Mgmt. 132	Dining Room Management	1.5
Hosp. Mgmt. 133a	Intro. to Commercial Food Preparation	3.5
Hosp. Mgmt. 133b	Intro. to Commercial Food Preparation	3.5
Hosp. Mgmt. 135	Commercial Baking	3
Hosp. Mgmt. 139	Food Science and Nutrition	3
Hosp. Mgmt. 144	Meat Analysis	2

TOTAL REQUIRED UNITS 21.5

HOSPITALITY MANAGEMENT
HOTEL MANAGEMENT

REQUIRED COURSES:		UNITS
Hosp. Mgmt. 101	Introduction to Hospitality Industry	3
Hosp. Mgmt. 103	Marketing of Hospitality Services	3
Hosp. Mgmt. 112	Front Office Management/Hotel Catering	1.5
Hosp. Mgmt. 114	Intro. to Maintenance and Housekeeping	1.5
Hosp. Mgmt. 130	Food Service Management	2
Hosp. Mgmt. 160	Intro. to Travel-Tourism Industry/Tours	2
Bus. Ad. 63	Business Mathematics	3

TOTAL REQUIRED UNITS 16

RECOMMENDED OPTIONAL COURSES:

Bus. Ad. 60a	Bookkeeping and	3
Bus. Ad. 60b	Bookkeeping	3
	or	
Bus. Ad. 130a	Accounting and	4
Bus. Ad. 130b	Accounting	4
Off. Oc. 136	Electronic Printing Calculators	1

HUMAN SERVICES
DISABLED

REQUIRED COURSES:		UNITS
Physical Ed. 105	Personal Fitness Concepts/Evaluation	3
Physical Ed. 173a	Adult Fitness Program I	1-3.5
Psychology 101	General Psychology	3
Psychology 103	Social Psychology	3
Psychology 125	Biofeedback and Stress Management	3
Psychology 130	Personal and Social Adjustment	3
Sociology 101	Introduction to Sociology	3
Sociology 110	Deviance and Conflict	3
Sociology 179	Work Experience	3

TOTAL REQUIRED UNITS 25-27.5

HUMAN SERVICES
GERONTOLOGY

REQUIRED COURSES:		UNIT
Health Ed. 50	Cardiopulmonary Resuscitation	5
Health Ed. 105	Consumer Health	2
Physical Ed. 173a	Adult Fitness Program I	1-3.5
Psychology 101	General Psychology	3
Psychology 130	Personal and Social Adjustment	3
Sociology 101	Introduction to Sociology	3
Sociology 112	Family, Marriage, and the Individual	3
Sociology 127	Aging	3
Sociology 128	Death and Dying	3
Sociology 179	Work Experience	3

TOTAL REQUIRED UNITS 24.5-27

HUMAN SERVICES
SOCIAL WELFARE

REQUIRED COURSES:		UNITS
Physical Ed. 105	Personal Fitness Concepts/Evaluation	3
Physical Ed. 173a	Adult Fitness I	1-3.5
Psychology 101	General Psychology	3
Psychology 130	Personal and Social Adjustment	3
Psychology 145a	Developmental Psychology	3
Psychology 145b	Developmental Psychology	3
Sociology 101	Introduction to Sociology	3
Sociology 110	Deviance and Conflict	3
Sociology 112	Family, Marriage and the Individual	3
Sociology 128	Death and Dying	3
Sociology 179	Work Experience	3
Speech 135	Interpersonal Communication	3

TOTAL REQUIRED UNITS 34-36.5

NATURAL RESOURCES
INTERPRETATION

REQUIRED COURSES:		UNITS
Art 145	Field Photography	2
Biology 58	Birds of the Mother Lode	1
Biology 59	Wildflowers of the Mother Lode	1-1.5
Earth Sci. 59	Geology of the Mother Lode	2
Earth Sci. 125	Geology of the National Parks	3
For. Tech. 56	Tree and Plant Identification	3
	or	
Forestry 110	Dendrology	3
Health Ed. 113	Adv. First Aid and Emergency Care	3
History 149	The Mother Lode	3
	or	
History 155	The American Frontier	3
Nat. Res. 100	Environmental Conservation	3
Nat. Res. 109	Parks and Forests Law Enforcement	2
Nat. Res. 130	Wild Edible and Useful Plants	3
Nat. Res. Tech. 50	Natural History and Ecology	2
Nat. Res. Tech. 52	Applied Wildlands Management	3
Nat. Res. Tech. 55	Interpretive Guided Tours	2
Nat. Res. Tech. 81	California Wildlife	4

TOTAL REQUIRED UNITS 37-37.5

NATURAL RESOURCES TECHNOLOGY

REQUIRED COURSES:		UNITS
Earth Sci. 125	Geology of National Parks	3
Fire Sci. 117	Wildland Fire Control	2
For. Tech. 50	Intro. to Technical Forestry	2
	or	
Forestry 101	Introduction to Professional Forestry	3
For. Tech. 53	Forest Surveying Techniques	3
For. Tech. 56	Tree & Plant Identification	3
	or	
Forestry 110	Dendrology	3
Nat. Res. Tech. 50	Natural History and Ecology	2
Nat. Res. Tech. 52	Applied Wildlands Management	3
Nat. Res. Tech. 55	Interpretive Guided Tours	2
Nat. Res. Tech. 60	Aerial Photog. & Map Interpretation	2
	or	
S.A.R. 122	Wilderness Navigation	2
Nat. Res, Tech. 81	California Wildlife	4
Nat. Res. 100	Environmental Conservation	3
Nat. Rex. 109	Parks & Forests Law Inforcement	2

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	3
Typing Examination **or**	
Off. Oc. 101a Keyboarding **or**	
Off. Oc. 101b Basic Typing Applications	1-2
Writing Examination **or**	
English 51 or 101a	3

OFFICE OCCUPATIONS
CLERK TYPIST

REQUIRED COURSES:		UNITS
Bus. Ad. 63	Business Mathematics	3
Bus. Ad. 60a	Bookkeeping and	3
Bus. Ad. 60b	Bookkeeping	3
	or	
Bus. Ad. 61	Small Business Accounting	4
	or	
Bus. Ad. 130a	Accounting and	4
Bus. Ad. 130b	Accounting	4
Comp. Sci. 101	Intro. to Computer Concepts	2
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	3
Office Oc. 108	Word Processing: Electronic Typewriter	1
	or	
Office Oc. 109	Word Processing: Display System	2
Office Oc. 130	Filing Systems and Records Management	2
Office Oc. 132	Machine Transcription	2
Office Oc. 136	Electronic Printing Calculators	1
Office Oc. 138	Office Procedures	3

TOTAL REQUIRED UNITS 27-32

OFFICE OCCUPATIONS
GENERAL CLERK

REQUIRED COURSES:		UNITS
Bus. Ad. 63	Business Mathematics	3
Bus. Ad. 60a	Bookkeeping and	3
Bus. Ad. 60b	Bookkeeping	3
	or	
Bus. Ad. 61	Small Business Accounting	4
	or	
Bus. Ad. 130a	Accounting and	4
Bus. Ad. 130b	Accounting	4
Comp. Sci. 101	Intro. to Computer Concepts	2
Comp. Sci. 103	Computer Operating Systems	1
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	3
Office Oc. 130	Filing Systems and Records Management	2
Office Oc. 136	Electronic Printing Calculators	1

TOTAL REQUIRED UNITS 22-26

Photo by Dirk Travis

OFFICE OCCUPATIONS
LEGAL SECRETARIAL

REQUIRED COURSES:		UNITS
Bus. Ad. 58	Pegboard Payroll	1
Bus. Ad. 115a	Commercial Law	3
Bus. Ad. 115b	Commercial Law	3
Comp. Sci. 101	Intro. to Computer Concepts	2
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	3
Office Oc. 108	Word Processing: Electronic Typewriter	1
Office Oc. 109	Word/Information Processing	2
Office Oc. 112	Intermediate Shorthand	4
Office Oc. 130	Filing Systems/Records Management	2
*Office Oc. 132	Machine Transcription	2
*Office Oc. 154	Legal Transcription/Terminology	2
Office Oc. 157	Legal Office Procedures	3

TOTAL REQUIRED UNITS 34

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

OFFICE OCCUPATIONS
MEDICAL RECEPTIONIST

REQUIRED COURSES:		UNITS
Bus. Ad. 58	Pegboard Payroll	1
Bus. Ad. 63	Business Math	3
Comp. Sci. 101	Intro. to Computer Concepts	2
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	3
Office Oc. 108	Word Processing: Electronic Typewriter	1
Office Oc. 109	Word/Information Processing	2
Office Oc. 132	Machine Transcription	2
Office Oc. 136	Electronic Printing Calculators	1
Office Oc. 138	Office Procedures	3
Office Oc. 140	Medical Terminology	3
Office Oc. 142a	Medical Transcription	2
Office Oc. 144	Medical Insurance	2

TOTAL REQUIRED UNITS 31

OFFICE OCCUPATIONS
MEDICAL TRANSCRIPTION

REQUIRED COURSES:		UNITS
Comp. Sci. 101	Intro. to Computer Concepts	2
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	3
Office Oc. 106	Beginning Word Processing	2
*Office Oc. 132	Machine Transcription	2
Office Oc. 140	Medical Terminology	3
*Office Oc. 142a	Medical Transcription	2
*Office Oc. 142b	Medical Transcription	2

TOTAL REQUIRED UNITS 22

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

OFFICE OCCUPATIONS

SECRETARIAL

REQUIRED COURSES:		UNITS
Bus. Ad. 63	Business Mathematics	3
Bus. Ad. 60a	Bookkeeping	3
Comp. Sci. 101	Intro. to Computer Concepts	2
Office Oc. 65	Business English	3
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	3
Office Oc. 108	Word Processing: Electronic Typewriter	1
Office Oc. 109	Word/Information Processing	2
Office Oc. 110	ABC Beginning Shorthand	4
Office Oc. 130	Filing Systems and Records Management	2
Office Oc. 132	Machine Transcription	2
Office Oc. 136	Electronic Printing Calculators	1
Office Oc. 138	Office Procedures	3

TOTAL REQUIRED UNITS 32

REAL ESTATE

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

TOTAL REQUIRED UNITS 24

SEARCH AND RESCUE

FIRE SERVICE

REQUIRED COURSES:		UNITS
Health Oc. 103	Emergency Med. Tech. Training	6
S.A.R. 136	Swift Water Rescue	.5
S.A.R. 150	Rope Rescue	1.5
S.A.R. 151	Rapelling Safety/Tower Rescue	1
S.A.R. 153	Vehicle Extrication	1
S.A.R. 154	Fire Service Ladders as Rescue Tools	1
S.A.R. 156	Emergency Trench Shoring	1
S.A.R. 158	Heavy Rescue Training	1.5

TOTAL 13.5

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

TOTAL REQUIRED UNITS 15.5

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.

TEACHER AIDE

REQUIRED COURSES:		UNITS
Teacher Aide 55a	Teacher Aide Training: Beg.	3
Teacher Aide 55b	Teacher Aide Training: Adv.	3
Teacher Aide 65	.. Reading Fundamentals for Teacher Aides..	2

TOTAL REQUIRED UNITS 8

GRADUATION AND TRANSFER REQUIREMENTS

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. 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.

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.

COMPETENCY REQUIREMENTS: State Law mandates that students earning the Associate degree must meet competency requirements in reading, composition, and math. These requirements may be met by completing the following courses with a grade of "C" or better:

English 101a, Reading and Composition
Bus. Ad. 63, Business Math or Mathematics 101 or any higher level mathematics course

They may also be met through completion of a challenge examination with a grade of "C" or better.

INSTITUTIONAL REQUIREMENTS: Two Physical Education activity courses. (Student must petition for this requirement to be waived.)

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. All courses must be completed with a grade of "C" or better. Students wishing to transfer to California State Universities should follow the requirements listed in the right-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 left-hand column. The 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.

FOR AA/AS GRADUATION:	SUITABLE COURSES FOR EACH AREA OF GENERAL EDUCATION:	FOR TRANSFER:
Three courses required: one each from A.1, A.2, A.3.	AREA A. COMMUNICATION AND CRITICAL THINKING: **A.1 Oral Communication** Speech 101, Fundamentals of Speech (3). **A.2 Written Communication** English 101a, Reading and Composition: Beginning (3). English 101b, Reading and Composition: Advanced (3).	Three Courses required: one each from A.1, A.2, A.3.

	Area A continued **A.3 Critical Thinking** Mathematics 104, Introduction to Logic (3). Philosophy 104, Introduction to Logic (3). Computer Science 120, BASIC Programming (3). Computer Science 125, PASCAL Programming (3). Computer Science 127, FORTRAN Programming (3). Computer Science 129, COBOL Programming (3). Computer Science 132, RPG II Programming (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 (3), and **Mathematics 60,** Geometry (4).	**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 143, Astronomy Laboratory (1), (lab course). Earth Science 161, Fundamentals of Meterorology (3), (lab course). Earth Science 171, Fundamentals of Oceanography (3), (lab course). Physics 100, Conceptual Physics (3). Physics 120a, General Physics (5), (lab course). **B.2 Biological Sciences:** Biology 108, Fundamentals of Biology (3). Biology 109, Fundamentals of Biology Laboratory (1), (lab course). Biology 111, Principles of Biology (4), (lab course). Biology 120, Fundamentals of Plant Biology (2), (lab course). Biology 121, Principles of Plant Biology (4), (lab course). Biology 131, Principles of Animal Biology (5), (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 B continued

B.3 Quantitative Reasoning and Mathematics:
Math. 101, Intermediate Algebra (4).
Math. 102, Trigonometry (4).
Math. 103, College Algebra (4).
Math. 105, Elements of Statistics (4).
Math. 110, Finite Mathematics (4).
Math. 120a, Calculus with Analytic Geometry (4).

FOR AA/AS GRADUATION:

Two courses required: one each from C.1 and C.2

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 100, Music Fundamentals (2).
Music 102, Introduction to Music (2).
Music 110a, Survey of Music History (3).
Music 110b, Survey of Music History (3).
Physical Education 117, Choreography and Composition (3).

C.2 Literature, Philosophy, Foreign Language:
English 101b, Reading and Composition (3).
English 111, Film Appreciation (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).
Humanities 101, Old World Culture (3).
Humanities 102, Modern Culture (3).
Philosophy 101, Introduction to Philosophy (3).
Philosophy 115, World Religions (3).
Philosophy 125, Twentieth Century Philosophy (3).
Spanish 101a, Spanish: Beginning (4).
Spanish 101b, Spanish: Beginning (4).

FOR TRANSFER:

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

FOR AA/AS GRADUATION:

Two courses required: one from either D.1 or D.2, and one from D.3, **Also acceptable in D.2:** History 155, The American Frontier (3).

AREA D. SOCIAL POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR:

D.1 General Sciences:
Anthropology 101, Introduction to Anthropology: Physical (3).
Economics 101a, Principles of Economics: Macro-Economics (4).
Economics 101b, Principles of Economics: Micro-Economics (4).
Political Science 110, American Political Thought (3).
Political Science 115, International Relations (3).
Political Science 125, Comparative Political Systems (3).
Psychology 101, General Psychology (3).
Sociology 101, Introduction to Sociology (3).
Sociology 102, American Social Patterns (3).

D.2 Civilization and Cultures:
Anthropology 102, Introduction to Anthropology: Cultural (3).
Anthropology 115, Indians of North America (3).
Geography 102, Introduction to Cultural Geography (3).
Geography 105, Physical Geography (3).
History 104a, World Civilizations: to 1650 (3).
History 104b, World Civilizations: 1650 to Present (3).

D.3 United States History and Government:
History 117a, United States: to 1865 (3).
History 117b, United States: 1865 to Present (3).
Political Science 101, Constitutional Government (3).

FOR TRANSFER:

Four courses required: one each from D.1 and D.2, and two from D.3. (Refer to Note 2 below for more information about D.3.)

FOR AA/AS GRADUATION:

Required: One course in E.

SUITABLE COURSES FOR EACH AREA OF GENERAL EDUCATION:

AREA E. LIFELONG UNDERSTANDING AND SELF-DEVELOPMENT:
Health Education 101, Health and Fitness Education (3).
Physical Education 105, Personal Fitness Concepts & Evaluation (3).
Psychology 130, Personal & Social Adjustment (3).
Social Sciences 140, Human Sexual Behavior (3).

FOR TRANSFER:

Required: One course in E. Also acceptable in E: Physical Education 173a, Adult Fitness Program (3).

tion requirement, while others include it within. Consult the catalog of the California State University campus to which you will transfer, or see your advisor for clarification.

3. **Double-counting units:** Courses used to satisfy General Education Breadth Requirements may also be used to satisfy major requirements in both patterns above, except for the Columbia College Liberal Studies major. For the A.A. Liberal Studies major, the same courses may not be used for both the Major and the General Education Breadth Requirements.

4. Students transferring to other than the C.S.U. system are advised to follow the requirements listed in the catalog of the transfer institution.

SUPPLEMENTARY NOTES:

1. These requirements for graduation and General Education apply to Associate Degree and transfer students entering Columbia College for the first time in Fall semester 1987, and are valid through the 1990-91 academic year. Students previously enrolled may continue to follow their older catalog, but those taking more than four years to graduate must use graduation requirements not older than four years.

2. California law includes a requirement in U.S. History and Government for the BA/BS Degree. Completion of two courses from D.3 will meet the requirement, but only three units will be credited toward the 39 certified General Education units. (Units above 39 will count instead for elective credit.) Some California State University campuses place the U.S. History and Government requirement outside the General Education requirements and may be completed during any college term, but degrees are conferred only at graduation exercises at the close of the Spring Semester.

NOTICE OF INTENT TO GRADUATE: The student must file a Notice of Intent to Graduate from Columbia College in the Admissions and Records Office no later than the seventh week of the semester in which completion of the graduation requirements is expected. Gradua-

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

REQUIRED COURSES:		UNITS
Art 101	Freehand Drawing	3
Art 102	Basic Color & Design	3
Art 109a	Life Drawing: Beginning	1.5
Art 111a	History of Art: Ancient and Medieval	3
Art 111b	History of Art: Ren., Baroque, Modern	3
Art 121a	Painting, Beginning	3
Art 123a	Watercolor: Beginning	3
Art 131a	Ceramics: Introductory	3
	TOTAL REQUIRED UNITS	22.5

ART
PHOTOGRAPHY

REQUIRED COURSES:		UNITS
Art 102	Basic Color & Design	3
Art 141a	Photography: Beginning	3
Art 141b	Photography: Intermediate	3
Art 141c	Photography: Advanced	3
Art 142a	Color Photo.: Slidemaking	3
Art 148	Special Topics in Photography	3
	TOTAL REQUIRED UNITS	18

AUTOMOTIVE TECHNOLOGY

REQUIRED COURSES:		UNITS
Auto. Tech. 101	Intro. to Auto. Tech	1
Auto. Tech. 114	Machine Shop Procedures	2
Auto. Tech. 116	Engine Rebuilding	4
Auto. Tech. 117a	Fuel Systems	2
Auto. Tech. 119a	Gasoline Engine Tune-up: Basic	2
Auto. Tech. 134	Axles and Drive Lines	1
Auto. Tech. 136	Auto. Transmission (GM)	2
Auto. Tech. 140a	Brakes (Drum)	2
Auto. Tech. 144a	Front-end and Suspension	2
Auto. Tech. 150a	Electrical Theory	2
Auto. Tech. 150b	Charging Systems	2
Auto. Tech. 150c	Starting & Ignition Systems	2
	TOTAL REQUIRED UNITS	24

BIOLOGY

REQUIRED COURSES:		UNITS
AT LEAST 12 UNITS FROM:		
Biology 111	Principles of Biology	4
Biology 121	Principles of Plant Biology	4
Biology 131	Principles of Animal Biology	5
Biology 140	Introductory Human Anatomy	4
Biology 160	Introduction to Human Physiology	4
Biology 165	Microbiology	4
	TOTAL	12
AND AT LEAST 8 UNITS FROM:		
Any Biology course 100 or above not counted in the above list		1-4
Chemistry 100 or higher		4-5
Earth Science 139	Field Geology	1-3
Health Ed. 120	Nutrition	3
Natural Res. 100	Environmental Conservation	3
Physics 100 or higher		2-5
	TOTAL REQUIRED UNITS	20

BUSINESS
CLERICAL

REQUIRED COURSES:		UNITS
Bus. Ad. 60a	Bookkeeping and	3
Bus. Ad. 60b	Bookkeeping	3
	or	
Bus. Ad. 61	Small Business Acctng.	4
	or	
Bus. Ad. 130a	Accounting and	4
Bus. Ad. 130b	Accounting	4
Office Oc. 65	Business English	3
Office Oc. 103	Intermediate Typing	3
Office Oc. 106	Beginning Word Processing	2
Office Oc. 108	Word Process: Electronic Typewriter	1
Office Oc. 130	Filing Systems & Records Mgmt.	2
Office Oc. 132	Machine Transcription	2
	TOTAL	17-21
AND 1-5 UNITS FROM:		
Bus. Ad. 63	Business Mathematics	3
Computer Sci. 101	Intro. to Computer Concepts	2
Office Oc. 68	Business Correspondence	3
Office Oc. 136	Electronic Printing Calculators	1
	TOTAL REQUIRED UNITS	22

BUSINESS
SECRETARIAL

REQUIRED COURSES:		UNITS
Office Oc. 68	Business Correspondence	3
Office Oc. 103	Intermediate Typing	3
Office Oc. 106	Beginning Word Processing	2
Office Oc. 112	Intermediate Shorthand	4
Office Oc. 130	Filing Systems & Records Mgmt.	2
Office Oc. 132	Machine Transcription	2
	TOTAL	14
AND AT LEAST 4 UNITS FROM:		
Office Oc. 65	Business English	3
Bus. Ad. 60a	Bookkeeping and	3
Bus. Ad. 60b	Bookkeeping	3
	or	
Bus. Ad. 61	Small Business Accounting	4
	or	
Bus. Ad. 130a	Accounting and	4
Bus. Ad. 130b	Accounting	4
Computer Sci. 101	Intro. to Computer Concepts	2
	TOTAL REQUIRED UNITS	20

BUSINESS
BUSINESS ADMINISTRATION (PROFESSIONAL)

REQUIRED COURSES:		UNITS
Bus. Ad. 115a	Commercial Law	3
Bus. Ad. 115b	Commercial Law	3
Bus. Ad. 130a	Accounting	4
Bus. Ad. 130b	Accounting	4
Computer Sci. 103	Computer Operating Systems	1
Economics 101a	Principles of Economics	4
Economics 101b	Principles of Economics	4
	TOTAL REQUIRED UNITS	16

BUSINESS

BUSINESS ADMINISTRATION (OCCUPATIONAL)

REQUIRED COURSES:		UNITS
Bus. Ad. 63	Business Mathematics	3
Bus. Ad. 101	Principles of Business	3
Bus. Ad. 60a	Bookkeeping and	3
Bus. Ad. 60b	Bookkeeping	3
	or	
Bus. Ad. 61	Small Business Accounting	4
Computer Sci. 103	Computer Operating Systems	1
Office Oc. 68	Business Correspondence	3
		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. 123	Sales	3
Bus. Ad. 125	Advertising	3
Bus. Ad. 140	Principles of Management	3
Bus. Ad. 145	Retail Business Management	3
Bus. Ad. 150	Small Business Management	3

TOTAL REQUIRED UNITS 20-22

CHILD DEVELOPMENT

REQUIRED COURSES:		UNITS
Child Dev. 101	Principles of Child Dev.	3
Child Dev. 103	Practices in Child Dev.	3
Child Dev. 105	Child Nutrition	2
Child Dev. 107	Child Health & Safety	1
Child Dev. 110	Creative Activities I	1.5
Child Dev. 111	Creative Activities II	1.5
Child Dev. 115	Observation & Participation	1-3
Child Dev. 122	Child, Family, Community	3
Child Dev. 125	Infant/Toddler Care	3
	or	
Child Dev. 127	School Age Children	3
Child Dev. 130	Child Care/Nursery School Administration	3

TOTAL REQUIRED UNITS 22-24

COMPUTER SCIENCE

REQUIRED COURSES:		UNITS
Computer Sc. 101	Intro. to Computer Concepts	2
Computer Sc. 103	Computer operating systems	1
Computer Sc. 125	Pascal Programming I	3
Computer Sc. 126	Pascal Programming II	3
Computer Sc. 120	BASIC Programming	3
	or	
Computer Sc. 127	FORTRAN Programming	3
	or	
Computer Sc. 129	COBOL Programming	3
	or	
Computer Sc. 132	RPG II Programming	3
Computer Sc. 140	Assembly Language Programming	3
Computer Sc. 155	Data Base Management	3
English 101a	Reading and Composition	3
Mathematics 104	Logic	3
	or	
Philosophy 104	Logic	3
Mathematics 110	Finite Mathematics	4

TOTAL REQUIRED UNITS 28

Photo by Dirk Travis

ENGLISH

REQUIRED COURSES:		UNITS
English 101a	Reading and Composition: Beginning	3
English 101b	Reading and Composition: Advanced	3
		TOTAL 6

AND AT LEAST 15 UNITS FROM:

English 110	Creative Writing	3
English 117a	Literature of the U.S.	3
English 117b	Literature of the U.S.	3
English 146a	Survey of English Literature	3
English 146b	Survey of English Literature	3
English 149	California Literature	3
English 150	Introduction to Shakespeare	3

TOTAL REQUIRED UNITS 21

FIRE TECHNOLOGY

REQUIRED COURSES:		UNITS
Fire Tech. 101	Intro. to Fire Technology	3
Fire Tech. 104	Fund. of Fire Behavior & Control	3
Fire Tech. 106a	Fire Prevention 1A	3
Fire Tech. 106b	Fire Prevention 1B	3
Fire Tech. 108	Firefighting, Strategy, Tactics	2
Fire Tech. 114	Fire Apparatus & Equipment	2
Fire Tech. 117	Wildland Fire Control	3
Fire Tech. 123	Fire Hydraulics	3

TOTAL REQUIRED UNITS 22

FORESTRY TECHNOLOGY

REQUIRED COURSES:		UNITS
For. Tech. 50	Intro. to Technical Forestry	2
	or	
Forestry 101	Intro. To Professional Forestry	3
For. Tech. 53	Forest Surveying Techniques	3
For Tech. 56	Tree & Plant Identification	3
	or	
Forestry 110	Dendrology	3
Nat. Res. Tech. 60	Aerial Photography and Map Interpretation	2
	or	
S.A.R. 122	Wilderness Navigation	2
		TOTAL 10-11

AND 9-10 UNITS FROM:

Fire Tech. 117	Wildland Fire Control	2
Forestry Tech 62.	Applied Forest Inventory and Management	4
Nat. Res. Tech. 50	Natural History and Ecology	2
Nat. Res. Tech. 52	Applied Wildlands Management	3
Nat. Res. Tech. 81	California Wildlife	4
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	4
History 104b	World Civilization: 1650 to Present	4
History 117a	United States: to 1865	3
History 117b	United States: 1865 to Present	3
		TOTAL 14

AND AT LEAST 6 UNITS FROM:
Any other History course or
Any Political Science course or

Anthro. 101	Intro. Anthro: Physical	3
	or	
Anthro. 102	Intro. to Anthro: Cultural	3
Economics 101a	Prin. of Econ.: Macro-Economics	4
	or	
Economics 101b	Prin. of Econ.: Micro-Economics	4
Geography 102	Cultural Geography	3
Sociology 101	Introduction to Sociology	3
	or	
Sociology 102	American Social Patterns	3

TOTAL REQUIRED UNITS 18

HOSPITALITY MANAGEMENT

CULINARY ARTS

REQUIRED COURSES:		
Hosp. Mgmt. 103	Marketing of Hospitality Services	3
Hosp. Mgmt. 131	Dining Room Service	3
Hosp. Mgmt. 136	Commercial Baking: Adv.	2
Hosp. Mgmt. 140a	Classical Cuisine: Beg.	3
Hosp. Mgmt. 140b	Classical Cuisine: Inter.	3
Hosp. Mgmt. 142	Garde Manager	2
Hosp. Mgmt. 147	Beverage Management	3

TOTAL REQUIRED UNITS 19

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	2
Hosp. Mgmt. 131	Dining Room Service	2
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

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HOSPITALITY MANAGEMENT

HOTEL MANAGEMENT

REQUIRED COURSES:		UNITS
Hosp. Mgmt. 101	Introduction to Hospitality Industry	3
Hosp. Mgmt. 103	Marketing of Hospitality Services	3
Hosp. Mgmt. 112	Front Office/Hotel Catering	1.5
Hosp. Mgmt. 114	Intro. to Maintenance and Housekeeping	1.5
Hosp. Mgmt. 116	Laws of Innkeeping	1
Hosp. Mgmt. 130	Food Service Management	2
Hosp. Mgmt. 160	Intro. to Travel-Tourism Industry/Tours	2
Bus. Ad. 179	Work Experience	4
		TOTAL REQUIRED UNITS 18

RECOMMENDED OPTIONAL COURSES:

Bus. Ad. 60a	Bookkeeping	3
Bus. Ad. 60b	Bookeeping	3
Bus. Ad. 63	Business Mathematics	3
Bus. Ad. 130a	Accounting	4
Bus. Ad. 130b	Accounting	4
Off. Oc. 136	Electronic Printing Calculators	1

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: Ren., 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 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

AND ONE COURSE IN HISTORY OR PHILOSOPHY FROM:

History 104a	World Civilizations: to 1650	3
History 104b	World Civilizations: 1650 to Present	3
History 111	Asian Civilizations	3
Philosophy 101	Introduction to Philosophy	3
Philosophy 115	World Religions	3
Philosophy 125	Twentieth Century Philosophy	3

TOTAL REQUIRED UNITS 18

LIBERAL STUDIES

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: Ren., 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
Humanities 101	Old World Culture	3
Humanities 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 6 Units):		
Biology 108	Fundamentals of Biology	3
Biology 111	Principles of Biology	4
Chemistry 100	Fundamentals of Chemistry	4
Chemistry 101a	General Chemistry	5
Comp. Sci. 101	Introduction to Computer Concepts and	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	5

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: to 1650	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

MATHEMATICS

REQUIRED COURSES:		UNITS
Math. 103	College Algebra	4
	or	
Math. 105	Elements of Statistics	4
Math. 120a	Calculus w/Analytic Geometry	4
Math. 120b	Calculus w/Analytic Geometry	4
	TOTAL	12

AND 10 UNITS FROM:		
Comp. Sci. 120	BASIC Programming	3
Comp. Sci. 121	Data File Programming with BASIC	3
Math 103	College Algebra	4
Math 105	Elements of Statistics	4
Math 110	Finite Mathematics	4
Physics 120a	General Physics	5
Physics 120b	General Physics	5

TOTAL REQUIRED UNITS 22

MUSIC

REQUIRED COURSES:		UNITS
Music 120a	Music Theory	5
Music 120b	Music Theory	5
Music 150	Applied Music (Major Instrument)	1
	TOTAL	11

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
Piano majors may substitute additional units from courses in Music 150 - 179 series.		
	TOTAL	15

AND A MINIMUM OF 4 UNITS FROM:		
Music 160	Choir	1
Music 164	Jazz Choir	1
Music 165	Theatre Production: Music Emphasis	1
Music 166	Community Chorus	1
Music 169	Madrigal Ensemble	1
Music 170	Wind Ensemble	1
Music 172	Jazz Ensemble	1
Music 176	Orchestra	1
Music 179	Ensemble: Instrumental Emphasis	1

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

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NATURAL RESOURCES TECHNOLOGY

REQUIRED COURSES:		UNITS
Nat. Res. Tech. 50	Natural History and Ecology	2
Nat. Res. Tech. 52	Applied Wildlands Management	3
Nat. Res. Tech. 55	Interp. Guided Tours	2
Nat. Res. Tech. 60	Aerial Photo. and Map Interp	2
	or	
S.A.R. 122	Wilderness Navigation	2
Nat. Res. 100	Environmental Conservation	3
	TOTAL	12

AND 8 UNITS FROM:		
Fire Sci. 117	Wildland Fire Control	2
For. Tech. 50	Introduction to Technical Forestry	2
	or	
Forestry 101	Introduction to Professional Forestry	3
For Tech. 53	Forest Surveying Techniques	3
For Tech. 56	Tree and Plant Identification	3
	or	
Forestry 110	Dendrology	3
For. Tech. 62	Applied Forest Inventory and Management	4
Nat. Res. Tech. 81	California Wildlife	4
Nat. Res. 109	Parks and Forests Law Enforcement	2
Nat. Res. 130	Wild Edible and Useful Plants	3

TOTAL REQUIRED UNITS 20

PHILOSOPHY

REQUIRED COURSES:		UNITS
Philosophy 101	Introduction to Philosophy	3
Philosophy 104	Introduction to Logic	3
	or	
Math 104	Introduction to Logic	3
Philosophy 115	World Religions	3
Philosophy 125	Twentieth Century Philosophy	3
History 104a	World Civilizations: to 1650	4
	or	
History 104b	World Civilizations: 1650 to Present	4
Psychology 130	Personal and Social Adjustment	3
	or	
Psychology 160	Personality Theory	3
	or	
Social Science 140	Human Sexual Behavior	3
	or	
Sociology 112	Family, Marriage, and the Individual	3

TOTAL REQUIRED UNITS 18

PHYSICAL EDUCATION

REQUIRED COURSES:		UNITS
P.E. 101	Introduction to Physical Education	2
P.E. 105	Personal Fitness Concepts and Evaluation	2.5
Biology 108	Fundamentals of Biology	3
Chemistry 100	Fundamentals of Chemistry	4
Health Ed. 101	Health and Fitness Education	3
Health Ed. 110	Safety and First Aid Education	2
	TOTAL	16.5

MINIMUM OF 4 UNITS FROM:		
P.E. 112	Theatre Production: Dance Emphasis	1-2
P.E. 116	Dance Production	3
P.E. 117	Choreography and Composition	3
P.E. 177	Introduction to Exercise Stress Testing	2.5
Biology 140	Introductory Human Anatomy	4
Biology 160	Introduction to Human Physiology	4
Health Ed. 105	Consumer Health	2
Health Ed. 113	Advanced First Aid and Emergency Care	3

TOTAL REQUIRED UNITS 20.5

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	15

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

TOTAL REQUIRED UNITS 21

SCIENCE MAJOR

EMPHASIS IN CHEMISTRY

REQUIRED COURSES:		UNITS
Chemistry 101a	General Chemistry	5
Chemistry 101b	General Chemistry	5
Biology 108	Fundamentals of Biology	3
	or	
Biology 111	Principles of Biology	4
Earth Science 114	Physical Geology	4
	or	
Earth Science 142	Descriptive Astronomy	3
	and	
Earth Science 143	Astronomy Laboratory	1
Physics 100	Conceptual Physics	3
	or	
Physics 120a	General Physics	5

TOTAL REQUIRED UNITS 20

Students planning to become Chemistry majors upon transfer to a four-year school should also take Mathematics 120ab and Physics 120ab while at Columbia College.

SCIENCE MAJOR

EMPHASIS IN EARTH SCIENCE

REQUIRED COURSES:		UNITS
At least 10 units from:		
Earth Science 114	Physical Geology	4
Earth Science 139	Field Geology	1-3
Earth Science 142	Descriptive Astronomy	3
	and	
Earth Science 143	Astronomy Laboratory	1
Earth Science 161	Fund. of Meteorology	3
Plus:		
Biology 108	Fund. of Biology	3
	or	
Biology 111	Principles of Biology	4
Chemistry 100	Fund. of Chemistry	4
	or	
Chemistry 101a	General Chemistry	5
Physics 100	Conceptual Physics	3
	or	
Physics 120a	General Physics	5

TOTAL REQUIRED UNITS 20

Students planning to become Earth Science majors upon transfer to a four-year school should also take Chemistry 101ab, Mathematics 120ab, and Physics 120ab while at Columbia College.

Photo by Dirk Travis

SCIENCE MAJOR
EMPHASIS IN ENVIRONMENTAL SCIENCE

REQUIRED COURSES:		UNITS
Natural Res. 100	Environmental Cons.	3
Earth Sciences 114	Physical Geology	4
Physics 100	Conceptual Physics	3
Biology 111	Principles of Biology	4
	or	
Biology 121	Principles of Plant Biology	4
	or	
Biology 131	Principles of Animal Biology	5
Chemistry 100	Fundamentals of Chemistry	4
	or	
Chemistry 101a	General Chemistry	5
Earth Science 139	Field Geology	2
	or	
Earth Science 161	Fund. of Meteorology	3
	or	
Forestry 110	Dendrology	3

TOTAL REQUIRED UNITS 20

SCIENCE MAJOR
EMPHASIS IN PHYSICS

REQUIRED COURSES:		UNITS
Physics 120a	General Physics	5
Physics 120b	General Physics	5
Biology 108	Fundamentals of Biology	3
	or	
Biology 111	Principles of Biology	4
Chemistry 100	Fund. of Chemistry	4
	or	
Chemistry 101a	General Chemistry	5
Earth Science 114	Physical Geology	4
	or	
Earth Science 142	Descriptive Astronomy	3
	and	
Earth Science 143	Astronomy Laboratory	1

TOTAL REQUIRED UNITS 21

Students planning to become Physics majors upon transfer to a four-year school should also take Chemistry 101ab while at Columbia College.

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 127	Aging	3
Sociology 128	Death and Dying	3

TOTAL REQUIRED UNITS 18

Photo by Dirk Travis

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, Fresno
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 State Polytechnic University, Pomona
California State University, Sacramento
California State University, Stanislaus
California State University, 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 completed appropriate college courses in the missing subjects, or

(c) have completed at least 56 transferable semester (84 quarter) units and have completed appropriate college courses to make up any missing subjects in college preparatory English and Mathematics. (Nonresidents must have a 2.4 grade point average or better.)

* Consult your Columbia College advisor for requirements related to make-up of English and Mathematics deficiencies with Columbia College coursework.

For this requirement, transferable courses are those designated for that purpose by the college or university offering the courses.

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 as soon as possible 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 prior to beginning university studies. You might be exempted from one or both of the tests if you have scored well on other specified tests or completed appropriate courses. Detailed information will be mailed to you.

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 of 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 maximun 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.

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COURSE DESCRIPTIONS

COURSE INFORMATION

Numbering of Courses

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

Courses numbered 100 and above are designated baccalaureate level courses.

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

Course Description

A course description is given for each 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 Courses*
   In an effort to meet some of the special interest needs of the populations served by the College, Credit Free courses are usually offered each 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 with in-depth study. The topic, the number of units and hours, and prerequisites (if any), will be determined in advance and published in the 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. *99/199 Courses: Independent Study*
   Independent study courses are intended to give students an opportunity to independently research specialized areas not available as regular course offerings of the college. They are designed to meet specific student interests and may be made available in any subject matter area. Consult your advisor for specific procedures. (See page 26 for conditions, limitations).

Prerequisites

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

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

A prerequisite may be waived 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 — 3 Units
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 — 3 Units
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 — 3 Units
Prerequisite: Anthropology 101 or Anthropology 102 with a grade of "C" or better or consent of instructor.
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 — 3 Units
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 or consent of instructor.
Laboratory: 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 with a grade of "C" or better or concurrent enrollment or consent of instructor.
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
Lecture: 3 hours
A survey of the origins, cultures, and customs of peoples indigenous to the North American Continent with a primary emphasis upon folkways dominant prior to interference by foreign cultures; and a secondary emphasis upon the status of the Indians in the USA today.

ART

101 BASIC FREEHAND DRAWING — 1.5-3 Units
Studio: 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
Studio: 3-6 hours
Introduction to elements and principles of visual design and color theory as applied in a studio setting.

109a LIFE DRAWING: Beginning — 1.5-3 Units
Studio: 3-6 hours
Problems in figure drawing working from the undraped model.
May be repeated one time.

109b LIFE DRAWING: Intermediate — 1.5-3 Units
Studio: 3-6 hours
An extension of Art 109a emphasizing various media and compositional problems.
May be repeated one time.

111a HISTORY OF ART: Ancient and Medieval — 3 Units
Lecture: 3 hours
Survey of art history from the Paleolithic Age through the Late Gothic Era.
Field trips may be required.

111b HISTORY OF ART: Renaissance, Baroque, and Modern — 3 Units
Lecture: 3 hours
Survey of art history from the 15th through the 20th centuries.
Field trips may be required.

121a PAINTING: Beginning — 1.5-3 Units
Studio: 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
Studio: 3-6 hours
Continuation of Art 121a with emphasis on personal expression.
May be repeated one time.

123a WATERCOLOR: Beginning — 1.5-3 Units
Studio: 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
Studio: 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
Studio: 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
Studio: 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
Studio: 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
Studio: 3-6 hours
An extension of Art 131a and Art 131b.
May be repeated one time.

135 INTRODUCTION TO RAKU 1.5-3 Units

Prerequisite: Art 131a 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 1.5-3 Units

Studio: 3-6 hours
Introduction to basic intaglio and relief printmaking procedures, including etching, engraving, collograph, linocut, and woodcut.

150a COMMERCIAL FREEHAND LETTERING: Beginning 2 Units

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 2 Units

Prerequisite: Art 150a with a grade of "C" or better or consent of instructor.
Lecture: 1 hour
Studio: 2 hours
Continuation of Art 150a with emphasis on various sign writing media such as banner writing, real estate signs, truck lettering, show cards, billboards, illustrations, wood routing signs, and concrete signs.

153a SILKSCREEN PRINTMAKING: Beginning 1.5-3 Units

Studio 3-6 hours
Introduction to basic silkscreen printmaking using various stencil techniques.

153b SILKSCREEN PRINTMAKING: Advanced 1.5-3 Units

Prerequisite: Art 153a with a grade of "C" or better or consent of instructor
Studio: 3-6 hours
An extension of Art 153a with emphasis on experimentation and self-expression. Advanced techniques with stencils, color, inks, photographic materials and special problems.

167a TEXTILE DESIGN Introductory 1.5 Units

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

167b TEXTILE DESIGN: Advanced 1.5 Units

Prerequisite: Art 167a 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.
May be repeated two times.

171a CERAMIC SCULPTURE: Introductory 1.5-3 Units

Studio: 3-6 hours
Basic principles, techniques, and problems of sculpture.

171b CERAMIC SCULPTURE: Advanced 1.5-3 Units

Studio: 3-6 hours
Continuation of Art 171a emphasizing advanced problems and techniques in sculpture.

171c CERAMIC SCULPTURE: Special Problems 1.5-3 Units

Studio: 3-6 hours
Continuation of Art 171b with emphasis on experimentation and development of personal expression.
May be repeated one time.

172 METAL SCULPTURE 1-3 Units

Studio: 3-6 hours
Introduction to various metal-working techniques with an emphasis on aesthetic design.
(Credit for this course will be awarded for either Art 172 or Welding 172, but not both.)
May be repeated three times.

Photography

141a PHOTOGRAPHY: Beginning 3 Units

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 3 Units

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 3 Units

Prerequisite: Art 141b with a grade of "C" or better, Art 102 or equivalent with a grade of "C" or better.
Lecture: 2 hours
Laboratory: 3 hours
Continuation of Art 141b with further attention to practical and aesthetic zone system techniques and advanced negative and printmaking methods. Particular attention will be paid to medium and large format photography. Emphasis on visual literacy, element of design, composition, and semeiology.
Field trips may be required.

142 COLOR PHOTOGRAPHY: Slide Making and Positive Printing 3 Units

Prerequisite: Art 141a with a grade of "C" or better or consent of instructor
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 3 Units

Prerequisite: Art 142 with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
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.

144 ADVANCED PHOTOGRAPHY LABORATORY 1 Unit

Prerequisite: Art 141b with a grade of "C" or better or Art 142b or equivalent, with a grade of "C" or better or consent of instructor
Laboratory: 3 hours
Continued exercise of darkroom skills in the production of negatives, slides, and prints.
May be repeated one time.

145 FIELD PHOTOGRAPHY 1-2 Units

Lecture: .5-1 hour
Laboratory: 1.5-3 hours
The art of producing professional quality nature photographs. Field instruction in locations of natural beauty. Lectures, demonstrations, and critique sessions.

148 SPECIAL TOPICS IN PHOTOGRAPHY 1-4 Units

Prerequisite: Will vary according to topic scheduled
Lecture: .5-2 hours and/or
Laboratory: 1.5-6 hours
Various field and studio-oriented courses limited to particular photographic topics such as slide-tape presentations, landscape, architecture, portraiture, nude, product and still-life photography, photojournalism, alternative processes, and guest lecture forum.
Field trips may be required.
May be repeated with different topics only for a maximum of three times.

AUTOMOTIVE TECHNOLOGY

See Page 31-32 for Certificate Requirements

55 AUTOMOTIVE SERVICE EXCELLENCE TEST PREPARATION 1 Unit

Lecture: 1 hour
Review for A.S.E. test series - Automobile. All eight subject areas (engine performance, engine repair, suspension and steering, brake, electrical systems, automatic transmissions, manual transmissions, drive train and axles, heating and air conditioning) may be covered depending upon the students' interest. Pretests will be given to determine students' readiness for taking the examination.

101 INTRODUCTION TO AUTOMOTIVE TECHNOLOGY 1 Unit

Lecture: 1 hour
Theory of operation of automobile systems. Fundamentals of math, micrometers, fasteners, shop safety and tools will be covered.
Offered for Credit/No Credit only

103 PREVENTIVE MAINTENANCE 1 Unit

Lecture: .5 hour
Laboratory: 1.5 hours
Preventive maintenance procedures, emphasis on lubrication and safety inspection as well as record keeping.

112 PULLING AND INSTALLING ENGINES 1 Unit

Lecture: .5 hour
Laboratory: 1.5 hours
Practical experience in pulling and installing engines.

114 MACHINE SHOP PROCEDURES 2 Units

Lecture: 1 hour
Laboratory: 3 hours
Practical experience in head, block service, and common machine shop procedures used in repair shops.

116 ENGINE REBUILDING 4 Units
Prerequisite: Auto. Tech. 101 with trade of "CR" and Auto. Tech. 114 with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 6 hours
Techniques involved in engine rebuilding.

117a CARBURETION SYSTEMS 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Techniques and procedures for overhaul and service of carburetor and accessories. Fuel injection service is also covered.

117b ELECTRO MECHANICAL CARBURETORS 1 Unit
Prerequisite: Auto. Technology 117a with a grade of "C" or better or consent of instructor.
Lecture: .5 hour
Laboratory: 1.5 hours
Principles and operations of carburetors used with General Motors and Ford computerized fuel systems including diagnosis, rebuilding and on-and-off car adjustments.

118 EMISSION CONTROL 1 Unit
Lecture: .5 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 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Operation and service of standard and electronic ignition systems. Emphasis on hand-held equipment.

119b ADVANCED GASOLINE ENGINE TUNE-UP 2 Units
Prerequisite: Auto Technology 119a with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Laboratory: 3 hours
Diagnosis and trouble-shooting of ignition systems using the oscilloscope, infared and other specialized tune-up equipment.

120 COMPUTERIZED ENGINE CONTROLS (GENERAL MOTORS) (1 Unit
Lecture: .5 hour
Laboratory: 1.5 hours
Operation and diagnosis of domestic computerized engine control systems.

121 ELECTRONIC FUEL INJECTION (FORD) 1 Unit
Lecture: .5 hour
Laboratory: 1.5 hours
Operation and diagnosis of electronic fuel injected engines. Emphasis on Ford systems.

123 COMPUTERIZED ENGINE CONTROL (FORD) 1 Unit
Lecture: .5 hour
Laboratory: 1.5 hours
Operation and diagnosis of Ford computerized engine control systems.

125 ELECTRONIC FUEL INJECTION (GENERAL MOTORS) 1 Unit
Lecture: .5 hour
Laboratory: 1.5 hours
Operation and diagnosis of General Motors fuel injected engines.

130 MANUAL TRANSMISSION REBUILDING 1 Unit
Lecture: .5 hour
Laboratory: 1.5 hours
Principles and operation of automotive power trains including diagnosis and overhaul of clutches, manual transmission, overdrives, and transfer cases.

134 AXLES AND DRIVE LINES 1 Unit
Prerequisite: Auto. Tech. 130 with a grade of "C" or better or consent of instructor
Lecture: .5 hour
Laboratory: 1.5 hours
Service, diagnosis, and repair of drivelines, rear axles and third members, front wheel drive hubs, and 4 x 4 front axles and hubs.

136 AUTOMATIC TRANSMISSION (G.M.) 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Practical experience in disassembly and assembly, failure and analysis, trouble-shooting, pressure testing, and automatic transmission rebuilding.

138 AUTOMATIC TRANSMISSION (Ford) 1 Unit
Lecture: . 5 hour
Laboratory: 1.5 hours
Practical experience in disassembly and assembly, failure and analysis, trouble-shooting, pressure testing, and automatic transmission rebuilding.

140a BRAKES: Drum 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Principles of operation of automotive drum brakes, including diagnosis and overhaul techniques.

140b BRAKES: Disc 1 Unit
Prerequisite: Auto. Tech. 140a with a grade of "C" or better or consent of instructor
Lecture: 5 hours
Laboratory: 1.5 hours
Service procedures, including overhaul techniques of disc brakes.

144a FRONT-END AND SUSPENSION 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Fundamentals and theory of automotive suspensions and steering systems. Adjustments, diagnosis, inspection and repair of alignment problems, including wheel balancing and tire problems.

144b FRONT-END AND SUSPENSION 2 Units
Prerequisite: Auto. Tech. 144a with a grade of "C; or better or consent of instructor
Lecture: 1 hour
Laboratory: 3 hours
Front-end and suspension rebuilding and maintenance. Rear axle alignment is included.

150a VEHICLE ELECTRICITY: Electrical Theory 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Fundamentals of electricity that apply to all electrical systems.

150b VEHICLE ELECTRICITY: Charging Sytems 2 Units
Prerequisite: Auto. Tech. 150a with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Laboratory: 3 hours
Diagnosis and repair of the battery and charging systems.

150c VEHICLE ELECTRICITY: Starting and Ignition Systems 2 Units
Prerequisite: Auto. Tech. 150a with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Laboratory: 3 hours
Diagnosis and repair of starting systems, magnetos and battery ignition systems.

150d VEHICLE ELECTRICITY: Lighting and Chassis Electrics 2 Units
Prerequisite: Auto. Tech. 150a with a grade of "C" or better or consent of instuctor
Lecture: 1 hour
Laboratory: 3 hours
Diagnosis and repair of headlamp, stoplight, turn signals, as well as fuse box, trailer wiring, gauges.

162 AIR CONDITIONING 1 Unit
Lecture: .5 hour
Laboratory: 1.5 hours
Understanding the principles and operation of air conditioning, as well as the techniques of recharging, diagnosis and service.

170a PRACTICAL LABORATORY 1-2 Units
Prerequisite: 8 units of Auto. Tech. courses with not more than 2 of the 8 units taken concurrently with Auto. Tech. 170a or consent of instructor.
Laboratory: 3-6 hours
Special repair projects are assigned to advanced students with emphasis on speed, accuracy, and work habits.

170b PRACTICAL LABORATORY 1-2 Units
Prerequisite: Auto. Tech. 170a with a grade of "C" or better or consent of instructor
Laboratory: 3-6 hours
Continuation of Automotive Technology 170a.

170c PRACTICAL LABORATORY 1-2 Units
Prerequisite: Auto. Tech. 170b with a grade of "C" or better or consent of instructor
Laboratory: 3-6 hours
Continuation of Automotive Technology 170b.

170d PRACTICAL LABORATORY 1-2 Units
Prerequisite: Auto. Tech. 170c with a grade of "C" or better or consent of instructor
Laboratory: 3-6 hours
Continuation of Automotive Technology 170c.

172 SPECIAL TOPICS IN AUTOMOTIVE TECHNOLOGY .5-3 Units
Lecture: .5-3 hours and/or
Laboratory: 1.5-3 hours
Various topics in auto repair will be covered to meet specific mechanic's needs for inservice training. Emphasis will be placed on special skills pertaining to late model cars.
May be repeated three times.

179 WORK EXPERIENCE IN AUTO TECHNOLOGY 1-4 UNITS
Prerequisite: Employment must be approved by Work Experience instructor. 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 Auto Technology. The student's employment must be related to educational or occupational goals.
Offered for Credit/No Credit only.
May be repeated for no more than a total of 16 units of credit less any units earned in any other Work Experience course.

BIOLOGY

58 BIRDS OF THE MOTHER LODE 1.5 Units
Lecture: 1 hour
Laboratory: 1.5 hours
A survey of the birds of the Mother Lode area of California through field observations. Stresses recognition by plumage, song, and behavior patterns. Discusses ecological relationships, nesting habits, and economic importance.
Offered for Credit/No Credit only
Field trips may be required.
May be repeated one time.

59 WILDFLOWERS OF THE MOTHER LODE 1-1.5 Units

Lecture: 1-1.5 hours

An introduction to the Mother Lode flora. A non-technical approach to botanical traits will be used to learn common and scientific names of local wildflowers.

Offered for Credit/No Credit only
Field trips are required.

68 BIRDS OF THE SIERRA NEVADA 1 Unit

Laboratory: 3 hours

Study of bird species inhabiting alpine meadows and forests of the Sierra Nevada through field observations and lectures.

Offered for Credit/No Credit only
Field trips required.
May be repeated one time.

108 FUNDAMENTALS OF BIOLOGY 3 Units

Lecture: 3 hours

An introductory course for non-Science majors emphasizing the fundamental principles common to all forms of life. These include cell structure and function, reproduction, genetics, ecology, and evolution. (Biology 108 with Biology 109 fulfills the laboratory requirements for transfer and Associate Degree students.)

109 FUNDAMENTALS OF BIOLOGY LABORATORY 1 Unit

Prerequisite: Concurrent enrollment in Biology 108
Laboratory: 3 hours

An optional laboratory to be taken concurrently with Biology 108; designed to complement and amplify Biology 108 which is the lecture portion of the course.

Field trips are required.

111 PRINCIPLES OF BIOLOGY 4 Units

Prerequisite: One year of high school chemistry with a "B" average or Chemistry 100 recommended.
Lecture: 3 hours
Laboratory: 3 hours

A principles course emphasizing certain molecular and cellular biology. Special reference given to the chemical composition of life, cellular structure, photosynthesis, respiration, heredity, and interaction of life with the physical environment. Designed for Life Science and related majors.

Field trips may be required.

120 FUNDAMENTALS OF PLANT BIOLOGY 2 Units

Lecture: 1 hour
Laboratory: 3 hours

A survey course in botany. Topics discussed include anatomy, physiology, ecology, horticulture, and relationships of plants to human history.

Field trips may be required.

121 PRINCIPLES OF PLANT BIOLOGY 4 Units

Prerequisite: Biology 111 with a grade of "C" or better or consent of instructor
Lecture: 3 hours
Laboratory: 3 hours

A general botany course with an emphasis on plant anatomy, morphology, physiology, and systematics of fungi, vascular, and vascular plants are studied.

Field trips may be required.

125 PLANT TAXONOMY OF THE SIERRA NEVADA 2 Units

Lecture: 1 hour
Laboratory: 3 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. Standard taxonomic references are used with an emphasis on scientific nomenclature.

Field trips are required.

131 PRINCIPLES OF ANIMAL BIOLOGY 5 Units

Prerequisite: Biology 111 with a grade of "C" or better or consent of instructor
Lecture: 3 hours
Laboratory: 6 hours

A general zoology course for students majoring in related biological sciences. A survey of the animal kingdom including embryological, morphological, anatomical and evolutionary relationships of the group studied. Animal dissection is required.

Field trips are required.

139 FIELD BIOLOGY 1-2 Units

Prerequisite: A previous course in Biology recommended
Lecture: 1-2 hours.

A lecture field course in biology to be held in natural surroundings. The site will vary with the seasons. Natural history, ecology, and biology of the locale will be studied.

May be repeated two times.

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 or consent of instructor
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 or consent of instructor.
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 108 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 or consent of instructor.
Lecture: 3 hours
Laboratory: 3 hours

General characteristics of microbic life, conditions, influencing bacterial growth, bacteria in disease and aseptic procedures.

Field trips may be required.

BUSINESS

Business Administration

See Page 32 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 pegboard 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 or consent of instructor
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 bad debts, notes receivable and payable, merchandise inventory, depreciation, accruals and deferrals, the voucher system, payroll, financial statements, costs for decision-making partnerships, and corporations.

62 COMPUTERIZED ACCOUNTING SIMULATION .5 Units

Prerequisite: A grade of "C" or better in Bus. Ad. 60b or Bus. Ad. 61 or Bus. Ad. 130a or consent of instructor
Lecture: .5 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 control; 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.

103a ACCOUNTING 4 Units
Lecture: 4 hours
Accounting principles and procedures, owner's equity, closing books, revenue and expense adjustments, merchandising operations, statement and ledger organization, forms of organization, cash and investments, receivables and inventories.

130b ACCOUNTING 4 Units
Prerequisite: Business Administration 130a with a grade of "C" or better or consent of instructor
Lecture: 4 hours
Cost data and management needs, analysis of data, supplementary statement, uses of capital cash-flow statements, department and branch operation, consolidation, 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, actuating, and controlling.

179 WORK EXPERIENCE IN BUSINESS AND COMMERCE 1-4 Units
Prerequisite: Employment must be approved by a Work Experience instructor. 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.
Offered for Credit/No Credit only.
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 35-36 for Certificate Requirements

52 COMPUTER KEYBOARDING/ TYPEWRITING 1 Unit
Lecture: 1 hour
Designed for students wishing to master the touch method of keyboarding on computers or electric typewriters. IBM personal computers will be utilized, but no computer experience is required. Students may receive credit for either Office Occupations 102 or Office Occupations 101a, but not both.

53 WORD PROCESSING FOR PERSONAL USE 1 Unit
Prerequisite: Ability to type by touch
Lecture: 1 hour
Instruction in typing, storing, revising, and printing documents of a personal nature including a resume, a personal business letter and a report. IBM personal computers will be utilized, but no previous computer experience is required.

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.

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 electric typewriter by touch. Emphasizes keyboard instruction and speed development.

101b BASIC TYPING APPLICATIONS 2 Units
Prerequisite: Office Occupations 101a with a grade of "C" or better or previous typing course or consent of instructor
Lecture: 1.5 hours
Laboratory: 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 typing rate of 40 words per minute or consent of instructor
Lecture: 2 hours
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 45 words per minute or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours (Self-paced)
Further development of speed and accuracy; study of business forms, advanced tabulated material, legal forms, typing for reproduction, and special problems in letter placement.

160 BEGINNING WORD PROCESSING 2 Units
Prerequisite: Ability to use typewriter keyboard by touch
Lecture: 2 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 Oc. 101b with a grade of "C" or better or consent of instructor
Laboratory: 3 hours (Self-paced)
Instruction on the electronic typewriter including document and phrase storage, revisions, storage procedures, tabulations, and repetitive documents.

109 INTERMEDIATE WORD PROCESSING 2 Units
Prerequisite: Office Oc. 106 with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Laboratory: 3 hours
Use a stand-alone word processor and microcomputer in advanced document production techniques including local and global search, merging, document assembly, and records processing.
May be repeated two times.

110 ABC BEGINNING SHORTHAND 4 Units
Prerequisite: Typing rate of 30 words per minute
Lecture: 4 hours
Presentation of ABC shorthand theory. The system utilizes alphabetical abreviations 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 minutes and typing rate of 45 words per minute
Lecture: 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.

130 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 micrographics.

132 MACHINE TRANSCRIPTION 2 Units
Prerequisite: Office Occupations 103 with a grade of "C" or better or equivalent experience
Lecture: 1 hour
Laboratory: 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 Office Oc. 103 or Office Oc. 106 or consent of instructor
Lecture: 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 3 Units
Lecture 3 hours
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 Oc. 103 or equivalent, and Office Oc. 132 and Office Oc. 140, both with a grade of "C" or better or consent 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 history, physical, and surgical reports, using medical terminology and transcription skills.

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

144 MEDICAL INSURANCE 2 Units
Prerequisite: Office Oc. 103, Office Oc. 140, both with a grade of "C" or better or consent 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 Medi-Cal, Medicare, Champus and Workers' Compensation.

154 LEGAL TRANSCRIPTION/ TERMINOLOGY 2 Units
Prerequisite: Off. Oc. 103 and Off. Oc. 132, both with a grade of "C" or better or consent of instructor
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 Oc. 103 and Office Oc. 132 and Office Oc. 154, all with a grade of "C" or better or consent of instructor
Lecture: 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 instructor. 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 Office Occupations. The student's employment must be related to educational or occupational goals.
Offered for Credit/No Credit only.
May be repeated for no more than a total of 16 units of credit less any units earned in any other Work Experience course.

Real Estate

See Page 36 for Certificate Requirements

60 REAL ESTATE EXAM PREPARATION 1 Unit
Lecture: 1 hour
An intense course designed as preparation for taking the state examination for a Real Estate Salesperson license.

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 101 with a grade of "C" or better or Real Estate License or consent of instructor
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 101 with a grade of "C" or better or consent of instructor
Lecture: 3 hours
California real estate law, titles, encumbrances, recording, real property acquisition and transfer; Penal Code.

115 REAL ESTATE FINANCE 3 Units
Prerequisite: Real Estate 101 with a grade of "C" or better or consent of instructor
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 or consent of instructor
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 101 with a grade of "C" or better or consent of instructor
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 .5-3 Units
Prerequisite: Real Estate 101 with a grade of "C" or better or possession of a valid real estate license or consent of instructor
Lecture: .5-3 hours
A variety of topics oriented toward consumer protection, consumer service and professional competency.

CHEMISTRY

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

71 CHEMICAL CALCULATIONS .5 Unit
Prerequisite: Mathematic 55 or equivalent with a grade of "C" or better or consent of instructor
Lecture: .5 hour
A basic math course designed to prepare the student for solving problems in Chemistry 100 and Chemistry 101ab.
Offered for Credit/No Credit only

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

101a GENERAL CHEMISTRY 5 Units
Prerequisite: One year of high school chemistry with a "B" average and Math 103 or equivalent with a grade of "C" or better; or Chemistry 100 and Math 103, both with a grade of "C" or better or consent of instructor
Lecture: 4 hours
Laboratory: 3 hours
Survey of atoms, nuclear chemistry, molecules, ions, chemical bonding, gases, liquids, solids, solutions, kinetics, and equilibria.

101b GENERAL CHEMISTRY 5 Units
Prerequisite: Chem. 101a or equivalent with a grade of "C" or better or consent of instructor
Lecture: 4 hours
Laboratory: 3 hours
Survey of thermodynamics, electrochemistry, nonmetals, qualitative analysis and organic compounds.

CHILD DEVELOPMENT

101 PRINCIPLES OF CHILD DEVELOPMENT 3 Units
Lecture: 3 hours
Growth and development patterns of children from infancy through early school years. Basic concepts related to their physical, motor, intellectual, creative, social, and emotional development and the implications of these concepts for organizing and implementing early childhood education programs.

103 PRACTICES IN CHILD DEVELOPMENT 3 Units
Prerequisite: Child Development 101 recommended
Lecture: 3 hours
The planning and carrying out of learning experiences and educational materials appropriate for young children, young children's behavior, and appropriate guidance techniques. Child Development 115 provides a supervised practicum for this course.

105 CHILD NUTRITION 2 Units
Lecture: 2 hours
Basic nutritional needs of children from the prenatal period through adolescence, study of the nutrients in foods, nutrition analysis, assessment of nutritional needs, program requirements/planning, and cooking activities for children in Early Childhood Education programs.

107 CHILD HEALTH AND SAFETY 1 Unit
Lecture: 1 hour
Overview of health and safety issues for children, birth to seven years of age. Study of basic health needs, medical care, outdoor and indoor safety procedures, and "child safe" programs to prevent molestation and abuse.

110 CREATIVE ACTIVITIES I 1.5 Units
Lecture: 1.5 hours
Survey of a variety of educational activities suitable for young children in art, music, movement, language, and literature; for pre-school teachers, family day care providers, parents, teacher aides, and anyone who is interested in creative expression for children.

111 CREATIVE ACTIVITIES II 1.5 Units
Lecture: 1.5 hours
Survey of educational activities suitable for young children in math and science, cooking and nutrition, woodworking, and the outdoor environment; for pre-school teachers, family day care providers, parents, teacher aides, and anyone who is interested in creative expression for children.

115 OBSERVATION AND PARTICIPATION 1-3 Units

Prerequisite: Concurrent enrollment in Child Development 103
Lecture: 3 to 9 hours
Supervised observation and participation in nursery schools and development of guidance techniques with opportunity for staff-child-student interaction. Students may be placed in parent participation programs, child care centers, Head Start programs, or private/church sponsored centers for experience.

118 SPECIAL NEEDS CHILDREN, PART I 1 Unit

Lecture: 1 hour
Overview of children who have special needs, birth to seven years of age, with special emphasis on the learning handicapped, severely disabled and communicatively handicapped categories. Includes the study of the special education process, laws and parent involvement requirements.

119 SPECIAL NEEDS CHILDREN, PART II 2 Units

Lecture: 2 hours
Specific educational techniques to use with handicapped children, birth to seven years of age. Includes the study of the assessment process, I.E.P. development, mainstreaming, multidisciplinary teamwork, and active parent involvement. Observations within special education settings required.

122 CHILD, FAMILY, COMMUNITY 3 Units

Lecture: 3 hours
Study of the impact of family interrelationships and community factors on a child's development. Field trips to programs and agencies that serve young children and their families will be required.

125 INFANT/TODDLER CARE 3 Units

Lecture: 3 hours
Principles and philosophy of infant care for children up to two years of age including growth and development, health and nutritional needs, social-emotional needs, cognitive development, language development, development of a positive self-image, parent education, community resources, and cultural and ethnic differences.

127 SCHOOL AGE CHILDREN 3 Units

Prerequisite: Child Development 101
Lecture: 3 hours
Overview of cognitive and personality development of children seven to seventeen years of age. Stages and critical periods will be studied. Current issues emphasized include: peer influence, sexual development, value clarification, self-esteem, substance abuse, sexual abuse and eating disorders. Appropriate for parents as well as child development majors, and providers of Latch-key programs.

130 CHILD CARE/NURSERY SCHOOL ADMINISTRATION 3 Units

Lecture: 3 hours
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.

179 WORK EXPERIENCE IN CHILD DEVELOPMENT 1-4 Units

Prerequisite: Employment must be approved by Work Experience Coordinator. 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 Child Development. The student's employment must be related to educational or occupational goals.
Offered for Credit/No Credit only.
May be repeated for no more than a total of 16 units of credit less any units earned in any other Work Experience course.

COMPUTER SCIENCE

See Page 32-33 for Certificate Requirements

66 EDUCATIONAL APPLICATIONS OF MICROCOMPUTERS 1 Unit

Lecture: .5 hour
Laboratory: 1.5 hours
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
Concepts of computers in business and industry and their implications for society. Computer equipment, applications, and software through actual practice on the IBM Personal Computer. Applications include spreadsheets, word processing, data base management, graphics, BASIC programming, and communications.

Photo by Dirk Travis

103 COMPUTER OPERATING SYSTEMS 1 Unit

Prerequisite: One year of high school algebra or Mathematics 55 or consent of instructor
Lecture: .5 hour
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 general machine familiarity. Topics include concepts applicable to small business or home computers which use a popular type of operating system.

107 DATE FILE APPLICATIONS WITH MICROCOMPUTERS 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: .5 hour
Laboratory: 1.5 hours
Instruction on the use of a data management program such as DBase III Visifile, or Data Base Manager II. Hands-on experience will include defining, creating, and accessing data files on microcomputers. File management activities will include entering data file data, changing data, and developing printed reports of file information.

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: .5 hour
Laboratory: 1.5 hours
A common spreadsheet such as Supercalc, Visicalc, or Lotus 1-2-3 will be used. Hands-on experience with the computer to manage and project cash flow, maintain financial statements, and to learn other ledger type applications of a computer spreadsheet.

110b ADVANCED COMPUTER SPREADSHEETS 1 Unit

Prerequisite: Computer Science 110a with a grade of "C" or better or consent of instructor
Lecture: .5 hour
Laboratory: 1.5 hours
Instruction and practice in using advanced features of a common spreadsheet such as Supercalc, Visicalc, or Lotus 1-2-3. Simple applications will be reviewed. Advanced topics include programmed execution, rearranging data, and the use of special features which simplify business and mathematical accounting processes. A personalized project will be required. Students will experience use of the spreadsheet program on the computer.

120 BASIC PROGRAMMING 3 Units

Prerequisite: One year high school algebra or Math. 55 with a grade of "C" or better; and Computer Science 101 with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
BASIC language syntax is used to study programming logic, includes concepts of hierarchy, flowcharting, interactive input, analytic approaches to processing data and creating reports, valid and invalid logic structures, logical operators, comparisons, arithmetic operations, loop structures, arrays, search logic, sorting techniques, sub-routines, modular and top-down program design, and string processing.

121 DATA FILE PROGRAMMING WITH BASIC 3 Units

Prerequisite: Computer Science 120 with a grade of "C" or better plus 2 years of high school algebra or Math. 101 with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
Advanced techniques of programming in BASIC language, including disc operation and file management, optimization of core usage, algorithm efficiency, and advanced I/O commands.

125 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: 3 hours
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.

126 PASCAL PROGRAMMING II 3 Units

Prerequisite: Computer Science 125 with a grade of "C" or better or consent of instructor
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.

127 FORTRAN PROGRAMMING 3 Units

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, looping, logical operators, arrays, algorithms, and structured design.

129 COBOL PROGRAMMING 3 Units

Prerequisite: 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
Programming in the business-oriented computer language, COBOL. Programming assignments emphasize business applications. Topics include language structure, data representation, file manipulation, report generation, input/output, and arithmetic.

132 RPG II PROGRAMMING 3 Units

Prerequisite: 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
A language specifically designed for generating reports in a business-oriented environment. Topics include language structure, data representation, file manipulation, report generation, input/output, and arithmetic.

140 ASSEMBLY LANGUAGE PROGRAMMING 3 Units

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 of writing machine language or assembly language instructions utilizing an editor to enter assembly language programs or subroutines. Programs will be assembled, linked and executed. Preliminary study will include machine logic configuration and external number/character representation.

145 COMPUTER PROGRAMMING: APPLICATIONS 3 Units

Prerequisite: One programming language course or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
Individualized course emphasizing program development for a business or home. Computer lab projects will emphasize strings, functions, arrays, files, procedures, or graphics. IBM PC, C64, HP150 and HP3000 computers will be utilized.
May be repeated one time.

155 DATA BASE MANAGEMENT 3 Units

Prerequisite: Computer Science 107, 120, 125, 127, 129 or 132 with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
Study of 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

Construction Technology

101 INTRODUCTION TO RESIDENTIAL CONSTRUCTION 3 Units

Lecture: 3 hours
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 subcontractors.
Field trips are required.

111 INTRODUCTION TO RESIDENTIAL WIRING 3 Units

Lecture: 3 hours
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 3 Units

Lecture: 3 hours
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.

DRAFTING

110a BASIC DRAFTING 3 Units

Lecture: 2 hours
Laboratory: 3 hours
An introductory course for beginners or a refresher course for those with a limited drafting background. Basic instruction on the use of tools, lettering form and balance stressed, geometric figures, orthgraphic projections, dimensioning.

110b BASIC DRAFTING 3 Units

Prerequisite: Drafting 110a with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
Continuation of Drafting 110a; sectioning, auxiliary projections, pictorial, tolerances, and inking experiences.

115a ADVANCED DRAFTING 3 Units

Prerequisite: Drafting 110b with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
Specialized areas of mechanical drafting, technical illustrations, map making, sheet metal layouts, welding, cams and gears, template inking.

115b ADVANCED DRAFTING 1 Unit

Prerequisite: Drafting 115a with a grade of "C" or better or consent of instructor
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 3 Units

Prerequisite: Drafting 115a with a grade of "C" or better or Drafting 115b with a grade of "C" or better or consent of instructor
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.

DRAMA

102 ORAL EXPRESSION & INTERPRETATION 3 Units

Lecture: 2 hours
Activity: 2 hours
Techniques in reading literature aloud; understanding and interpreting prose, poetry, and dramatic selections; oral presentation, and expression of thought.

122 INTRODUCTION TO READERS' THEATRE 3 Units

Lecture: 2 hours
Activity: 2 hours
Theory and practice of Readers' Theatre as an art form. Directed experiences in selecting, cutting, arranging and performing the Readers' Theatre script.

136 PLAYWRITING 3 Units

Lecture: 3 hours
Theory and practice of writing for the theatre; analysis of relevant literature and productions; investigation of dramatic methods appropriate to the playwright.
May be repeated one time.

143a ACTING: Fundamentals 3 Units

Lecture: 2 hours
Activity: 2 hours
Investigation of techniques and theories prerequisite to theatrical performances; psychological, philosophical, and practical preparation for the actor's art.

143b ACTING: Acting-Directing 3 Units

Prerequisite: Drama 143a with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Activity: 2 hours
A workshop in techniques of both acting and directing with specific focus upon the production of short scenes from a variety of theatrical genre.

143c ACTING: Advanced Projects 1-3 Units

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
Lecture: 1 hour, 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 public performances in the areas of improvisation or mime.
May be repeated 3 times.

145 IMPROVISATION 3 Units

Lecture: 2 hours
Activity: 2 hours
Intensive study of the basic techniques of improvisational acting with specific concentration on improvisational theatre production formats as well as development of group inspired and created scenarios and one-act plays.

147 AUDITIONS 3 Units

Lecture: 2 hours
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 1-3 Units

Laboratory: 3-9 hours
Applied laboratory experience in all phases of technical theatre related to mounting a production; practical projects in design and construction involving costumes, stage settings, stage properties, lighting, sound, and make-up for a specific theatre production.

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 143a, Drama 143b or Drama 158 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 with related participation in all production activities as assigned.

EARTH SCIENCE

59 GEOLOGY OF THE MOTHER LODE .5-2 Units

Lecture: .5-2 hours
Geology of the Mother Lode from its astronomical beginnings to the present; including rocks and minerals, rivers, glaciers, mountains, earthquakes, and volcanoes.
Field trips may be required.

114 PHYSICAL GEOLOGY 4 Units

Lecture: 3 hours
Laboratory: 3 hours
The study of the earth; its materials, structures, and processes. Erosion and deposition by streams, wind, waves, and glaciers. Mountain building and volcanoes at subduction zones and rifting of the earth's plates at mid-ocean ridges. Tracing the energy from the sun and earth's interior as it drives all of the processes of change on earth; the study of life on earth, past and present. The search for valuable minerals and building materials from the earth.
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 their 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; and the role that magnetism has played in the revelation of the new geology.

139 FIELD GEOLOGY 1-3 Units

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

143 ASTRONOMY LABORATORY 1 Unit

Prerequisite: Previous or concurrent enrollment in Earth Science 142 or consent of instructor
Laboratory: 3 hours
Development of observatory skills identifying major stars and 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 the observatory at night. Some may be predawn meetings.

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; meterorological 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

101a PRINCIPLES OF ECONOMICS 4 Units

Lecture: 4 hours
Macro-economics. Introduction to the U.S. economy and capitalism; national income and employment analysis, economic fluctuations, monetary and fiscal policies, economic stability-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

See Page 33 for Certificate Requirements

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 illness 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: E.M.T. certification, one year E.M.T. practice, CPR certification
Lecture: 8 hours
Laboratory: 4 hours
Designed to provide students with the knowledge and skills necessary to be certified as an Emergency Medical Technician II in California. Laboratory assignments will be conducted in hospitals.

108b EMERGENCY MEDICAL TECHNICIAN II 9 Units

Prerequisite: Health Occupations 108a with a grade of "C" or better or consent of instructor
Lecture: 8 hours
Laboratory: 4 hours
A continuation of Health Occupations 108a, Emphasis will be on the musculoskeletal system, obstetrics, pediatrics, multiple injury and casualty situations and psychiatric emergencies.

170 WORK EXPERIENCE IN EMERGENCY MEDICAL SERVICE 1-4 Units

Prerequisite: Employment must be approved by Work Experience instructor. 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 Fire Technology. 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 less any units earned in any other Work Experience course.

ENGLISH

51 COLLEGE COMPOSITION 3 Units

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

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 and writing sample 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 or consent of instructor
Lecture: 3 hours
Further development of reading and composition skills with an emphasis on reading and interpreting one novel with secondary sources, poetry, and drama, with the composition of at least one longer, documented paper.

110 CREATIVE 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. Reading, analysis, and discussion of the major literary trends and authors of the time.

117b 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 realism to the present.

146a SURVEY OF ENGLISH LITERATURE 3 Units
Prerequisite: English 101a with a grade of "C" or better or consent of instructor
Lecture: 3 hours
English literature from the Anglo-Saxons through the 18th Century.

146b SURVEY OF ENGLISH LITERATURE 3 Units
Prerequisite: English 101a with a grade of "C" or better or consent of instructor
Lecture: 3 hours
English literature of the 19th and 20th Centuries.

149 CALIFORNIA LITERATURE 3 Units
Prerequisite: English 101a with a grade of "C" or better or consent of instructor
Lecture: 3 hours
A chronological survey of California literature in the 19th and 20th Centuries with emphasis on selected works of major American authors living and writing in California.

150 INTRODUCTION TO SHAKESPEARE 3 Units
Prerequisite: English 101a with a grade of "C" or better or consent of instructor
Lecture: 3 hours
An introduction to the representative works by Shakespeare including the characteristics of the different genres—comedy, history, and tragedy, and a study of a number of the sonnets. In addition, students will study the literary, social, and historical backgrounds of Shakespeare's time as they affect the meaning of the works studied.

FIRE TECHNOLOGY

See Page 33 for Certificate Requirements

50 FIRE SERVICE ORGANIZATION AND RESPONSIBILITY 1 Unit
Lecture: 1 hour
Technical training in the makeup of fire departments, their responsibilities, rules, and interaction with other programs, organizations, and laws. Meets Firefighter I certification requirements for Unit A.

51 COMBUSTION AND EXTINGUISHMENT THEORY 1 Unit
Lecture: 1 hour
Technical training in the study of the combustion process, extinguishing agents, and their interactions. Meets Firefighter I certification requirements for Unit B.

52 PROTECTIVE EQUIPMENT AND SAFETY 1 Unit
Lecture: 1 hour
Technical and hands-on instruction in the use of protective clothing, devices and their limitations, hazards encountered at structure and vehicle fires, accident prevention and methods of traffic control at emergency scenes. Meets Firefighter I certification requirements for Unit C.

53 SELF-CONTAINED BREATHING APPARATUS 1.5 Units
Lecture: 1.5 hours
Technical and manipulative training in the operation of self-contained breathing apparatus, including testing, maintenance and the effects of stress due to its use. Safety considerations and how to avoid injury. Meets Firefighter I certification requirements for Unit D.

54 ROPES, KNOTS, AND HITCHES 1 Unit
Lecture: 1 hour
Technical and manipulative training in the construction, care and use of ropes. How to tie and use various fire department knots, and safety considerations. Meets Firefighter I certification requirements for Unit E.

55 VOLUNTEER FIREFIGHTING TRAINING 2.5 Units
Lecture: 2 hours
Laboratory: 1.5 hours
Basic concepts, techniques, skills, and theories for volunteer firefighters.
Offered for Credit/No Credit only.

56 FORCIBLE ENTRY 1 Unit
Lecture: 1 hour
Technical and manipulative training in the identification and operation of fire service tools and equipment used in forcible entry, basic consideration of building construction and safety considerations in gaining entry through roofs, doors, walls, and windows. Meets Firefighter I certification requirements for Unit F.

57 FIRST RESPONDER AND CPR 1.5 Units
Lecture: 1.5 hours
or
Lecture: 1 hour
Laboratory: 1.5 hours
A basic course for the volunteer firefighter who is on a first-responder unit assigned medical responses in the rural setting. Stresses continuity of care through the approach to the patients and prioritization of their injuries/illnesses where advanced life support response is delayed.

58 HOSE, NOZZLES AND FITTINGS 3 Units
Lecture: 3 hours
Technical and manipulative training in basic hose evolutions, hose, tool and appliance handling; hose rolls and uses, and the care and maintenance of hose. Meets Firefighter I certification requirements for Unit G.

59 FIRE COMMAND/ICS FOR THE VOLUNTEER FIREFIGHTER 1 Unit
Lecture: 1 hour
Command and control techniques used at the scene of an emergency by the volunteer fire company officer. Emphasizes decision making, the act of commanding, personnel and organization structures and pre-planning for effective command performance. Includes a review of the Incident Command System instituted by the State of California Fire Services.
Offered for Credit/No Credit only.

60 HOSE LOADS AND USES 2 Units
Lecture: 2 hours
Technical and manipulative training in engine hose loads, hose layouts, hooking to hydrants, stand pipes, and sprinkler connections, fire hydrant terminology, advancing various sizes of hose above, below, at ground level and on ladders. Meets Firefighter I certification requirements for Unit H.

61 GROUND LADDERS 2.5 Units
Lecture: 2.5 hours
Technical and manipulative training in fire service ladder evolutions, ladder types, construction tests, maintenance, and operations. Methods of raising, lowering, carrying and removing ladders from apparatus. Meets Firefighter I certification requirements for Unit I.

68 RESCUE 1.5 Units
Lecture: 1.5 hours
Technical and manipulative training in rescue operations in burning and smoke filled buildings. Methods of victim removal and care; tool use and care. Meets Firefighter I certification requirements for Unit J.

69 VENTILATION .5 Unit
Lecture: .5 hours
Technical and manipulative training in ventilation procedures, equipment, safety, and opening buildings for vertical or horizontal ventilation. Meets Firefighter I certification requirements for Unit K.

70 CERTIFIED FIREFIGHTER I: SUPPLEMENTAL REQUIREMENTS 2 Units
Prerequisite: Certified Volunteer Firefighter or equivalent
Lecture: 2 hours
Laboratory: .5 hours
Designed to provide the Certified Volunteer Firefighter with the advanced and supplemental training requirements necessary to upgrade their competence and certification to Certified Firefighter I.

71 FIRE CONTROL .5 Unit
Lecture: .5 hour
Technical instruction in methods of basic fire control including protective exposures, how fire spreads, methods of extinguishing and safety precautions on fires. Meets Firefighter I certification requirements for Unit L.

72 FIRE STREAMS .5 Unit
Lecture: .5
Technical instruction in the basic selection of hose streams, how they react, different nozzles that are used; safety precautions in use and operations. Meets Firefighter I certification requirements for Unit M.

73 FIRE EXTINGUISHERS .5 Unit
Lecture: .5 hour
Technical and manipulative instruction in the characteristics, operation, and selection of the proper fire extinguisher, and safety precautions in their use. Meets Firefighter I certification requirements for Unit N.

74 OVERHAUL **.5 Unit**
Lecture: .5 hour
Technical and manipulative training in purposes and value of overhaul procedures, how hidden fires are detected, uses of carryall to remove debris and methods to restore premises. Meets Firefighter I certification requirements for Unit O.

75 CERTIFIED FIREFIGHTER II 1.5 Units
Prerequisite: Possession of Certified Firefighter I certificate
Lecture: 1 hour
Laboratory: 1.5 hours
Designed for agency-specific training. Includes maintenance, local codes, local fire prevention practices, local water supply features and other requirements of the assigned station.

76 PROPERTY CONSERVATION 2 Units
Lecture: 2 hours
Technical and manipulative training in basic salvage operations, including objectives, salvage cover operations and maintenance, protection of property, and removal of water. Meets Firefighter I certification requirements for Unit P.

77 FIRE PROTECTION SYSTEMS .5 Unit
Lecture: .5 hour
Technical instruction in the operating principles of common fire protection systems, various smoke and fire doctors, sprinkler components, stand pipe systems and support measures for them. Meets Firefighter I certification requirements for Unit Q.

78 SIZE UP .5 Unit
Lecture: .5 hour
Technical training in the basic considerations of size up, priorities at emergencies and an introduction to the incident command system. Meets Firefighter I certification requirements for Unit R.

79 WILDLAND FIRE FIGHTING .5 Unit
Lecture: .5 hour
Technical and manipulative instruction in the basics of wildland fire fighting, including progressive hose lays, terminology apparatus, spread factors, and major safety considerations. Meets Firefighter I certification requirements for Unit S.

81 HAZARDOUS MATERIALS .5 Unit
Lecture: .5 hour
Technical training in the basic study of hazardous materials, including definitions, label identification, placard identification, and the purpose of the D.O.T. Emergency Response Guidebook. Meets Firefighter I certification requirements for Unit T.

82 FIRE INVESTIGATION .5 Unit
Lecture: .5 hour
Technical instruction in the basic factors in fire cause investigation including observations, enroute, on arrival, and during a fire. Operations for investigation, recognition of and preservation of evidence, indications of arson intent, materials used, and indicators of arson. Meets Firefighter I certification requirements for Unit U.

83 COMMUNICATIONS .5 Unit
Lecture: .5 hour
Technical training in the basics of communications including command center operations, how alarms are received and transmitted, clear text, and radio licensing and procedures. Meets Firefighter I certification requirements for Unit V.

84 VEHICLE EXTRICATION .5 Unit
Lecture: .5 hour
Technical training in the basics of vehicle extrication using light rescue tools. Meets Firefighter I certification requirements for Unit W.

101 INTRODUCTION TO FIRE TECHNOLOGY 3 Units
Lecture: 3 hours
Introduction to fire protection; career opportunities in fire protection and related fields, history of fire protection, fire loss analysis, public, quasi-public and private fire protection services, specified fire protection functions, basic fire chemistry and physics. Designed to give the learner an overview of fire technology, the fire service, and the fire protection field as career potential.

104 FUNDAMENTALS OF FIRE BEHAVIOR AND CONTROL 3 Units
Lecture: 3 hours
Theory and fundamentals of how fires start, spread and are controlled. An in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents and fire control techniques. Designed to give the learner a comprehensive exposure to basic fundamentals of fire behavior and control in preparation for more advanced study in the field of fire protection.

106a FIRE PREVENTION 1a 3 Units
Lecture: 3 hours
History and organization of fire prevention agencies, inspection procedures and practices, special hazards, and protection systems, portable fire extinguishers, and public fire prevention education.

106b FIRE PREVENTION 1b 3 Units
Lecture: 3 hours
Recognition of fire and life safety factors, sprinkler and stand pipe systems, water supply systems, electrical hazards, fire alarm, and detection systems, public safety considerations, and special problems in fire prevention.

108 FIRE FIGHTING STRATEGY AND TACTICS 2 Units
Prerequisite: Fire Technology 101 with a grade of "C" or better or consent of instructor.
Lecture: 2 hours
Fire chemistry; equipment and manpower, fire fighting tactics and strategy, methods of attack, pre-planning fire problems.
This course meets the requirement for Fire Command IA, a state certified officer class.

110 RURAL FIRE COMPANY OPERATIONS 1 Unit
Lecture: .5 hour
Laboratory: 1.5 hours
Emphasis on utilization of resources at maximum potential, where conditions peculiar to small and remote fire service operations exist. Includes manipulative and technical training in preplanning, and incident control in the rural setting.

114 FIRE APPARATUS AND EQUIPMENT 2 Units
Prerequisite: Fire Technology 101 with a grade of "C" or better or consent of instructor.
Lecture: 1.5 hours
Laboratory: 1.5 hours
Driving laws and techniques, construction and operation of pumping engines, tank trucks and trailers.
This class meets part of the requirements for Driver Operator, a state certified class.

115 PUBLIC FIRE EDUCATION 3 Units
Lecture: 3 hours
Concepts and processes in designing, implementing, 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 3 Units
Lecture: 3 hours
Factors affecting wildland fire prevention, fire behavior, and control techniques.

120 HEAVY EQUIPMENT IN FIRE CONTROL 2 Units
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 55 with a grade of "C" or better or consent of instructor
Lecture: 3 hours
Review of basic mathematics, hydraulic laws and formulas as applied to the fire service, application of formulas and mental calculation to hydraulic problems, water supply problems; underwriters' requirements for pumps.
This class meets part of the requirements for Driver Operator, a state certified class.

125 FIRE EQUIPMENT REPAIR AND MAINTENANCE 2 Units
Prerequisite: Fire Technology 61 through 67 with a grade of "C" or better or equivalent or consent of instructor
Lecture: 1 hour
Laboratory: 3 hours
Repair of commonly used fire service equipment including hand tools, small and auxiliary gas or electric powered tools, hyraulic mechanisms and personnel safety devices. Includes preventive maintenance, inspection procedures and measuring tolerances of calibrated equipment and devices.

127 FIRE INVESTIGATION 2 Units
Lecture: 2 hours
Determining causes and types of fires; possible evidence at the scene; interviewing witnesses and suspects; arrest, detention, and court procedures; giving court testimony.
(Students may not receive credit for both Fire Science 127 and Law Enforcement 140ab.)

129 HAZARDOUS MATERIALS INCIDENT CONTROL 2 Units
Prerequisite: Fire Technology 104 and Fire Technology 130, both with a grade of "C" or better, or equivalent
Lecture: 2 hours
Hazardous materials storage, handling laws, standards and emergency practices with emphasis on firefighting and incident control at the company officer level.
This class meets the requirement for Fire Prevention 1B, a state certified class.

170 SPECIAL TOPICS IN FIRE TECHNOLOGY .5-3 Units
Prerequisite: Will vary with topic
Lecture: .5-3 hours
and/or
Laboratory: 1.5-3 hours
Various topics in Fire Technology will be covered to meet individual or agency needs. Emphasis on specialized development of skills and knowledge, district planning, development and implementation of training and fire ground evolutions.

179 WORK EXPERIENCE IN FIRE SERVICE 1-4 Units
Prerequisite: Employment must be approved by Work Experience Coordinator. 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 Fire Technology. 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 less any units earned in any other Work Experience course.

FOREIGN LANGUAGE

French

50 CONVERSATIONAL FRENCH 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Practice in vocabulary, idioms, and grammatic usage.
May be repeated three times.

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 or consent of instructor
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.

101a SPANISH: BEGINNING 4 Units
Lecture: 3 hours
Laboratory: 3 hours
Audio-lingual approach to comprehension of spoken and written Spanish. Vocabulary, idioms and patterns based on the language as spoken in Hispanic America.

101b SPANISH: BEGINNING 4 Units
Prerequisite: Spanish 101a with a grade of "C" or better or two years of high school Spanish or consent of instructor
Lecture: 3 hours
Laboratory: 3 hours
Continuation of Spanish 101a.

FORESTRY

101 INTRODUCTION TO PROFESSIONAL FORESTRY 3 Units
Lecture: 3 hours
Survey of the major U.S. forest regions and significant 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 are required.

110 DENDROLOGY 3 Units
Lecture: 2 hours
Laboratory: 3 hours
Silvicultural and botanical characteristics, identification, 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.

WORK EXPERIENCE
See NATURAL RESOURCES 179

FORESTRY TECHNOLOGY

See Page 33 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, employment opportunities. Survey of major U.S. forest regions, forest insects, diseases, and fire relationships. 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.

53 FOREST SURVEYING TECHNIQUES 3 Units
Lecture: 2 hours
Laboratory: 3 hours
Use of basic forest surveying instruments. Application of hand and staff compass, topographic and engineer's chain, abney and dumpy level, plane table and alidade, engineer's transit and redy mapper. Field recording techniques, laboratory computations and map drafting.
Field trips will be required.

56 TREE AND PLANT IDENTIFICATION 3 Units
Lecture: 2 hours
Laboratory: 3 hours
Classification and identification of major United States timber species with emphasis on western and California plant cover. Description of botanical, economic 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 53, Forestry Technology 56 and Natural Resources Technology 60 recommended or consent of instructor
Lecture: 2 hours
Laboratory: 6 hours
Techniques of forest inventory including cruising, scaling and evaluation; field tabulation and computation 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.

WORK EXPERIENCE
See NATURAL RESOURCES 179

GEOGRAPHY

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

105 PHYSICAL GEOGRAPHY 3 Units
Lecture: 3 hours
An introduction to selected aspects of the earth's physical environment (landforms, weather, climate, soils, and vegetation) and the processes and conditions giving rise to their worldwide distribution. The study of the earth as the home of man.

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 (May include use of selected interest and aptitude inventories.); relationship between education and occupations; occupational trends; resources useful in career planning; and development of skills in resume writing and interviewing.
Offered for Credit/No Credit only.

105 JOB HUNTING STRATEGIES .5 Units
Lecture: .5 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 until the victim recovers or until advanced life support is available.
Offered for Credit/No Credit only.

55 BASIC FIRST AID .5 Unit
Lecture: .5 hour
Designed as a basic course for coaches and school personnel; stresses the continuity of care through prioritization of injuries and patient assessment.

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.

110 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 with 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 review 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 three times.

120 NUTRITION 3 Units

Prerequisite: One year of high school chemistry with a grade of "B" or better or Chemistry 100 with a grade of "C" or better or consent of instructor
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 HEALTH OCCUPATIONS 1-4 Units

Prerequisite: Employment must be approved by Work Experience Coordinator. 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 Health Occupations. 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 less any units earned in any other Work Experience course.

HEAVY EQUIPMENT

50 BUS DRIVER TRAINING 1.5 Units

Prerequisite: Possession of a valid California driver's license
Lecture: 1.5 hours
Instruction in the driver's responsibility for pupils, care and operation of a school bus, and laws relating to pupil transportation.

HISTORY

59 LOCAL HISTORY THE MOTHER LODE .5 Unit

Lecture: .5 hour
History and folklore of California's historic Gold Rush Country. Topics will include Indians, miners, immigrants, loggers, cowboys, railroaders, and entertainers. Lectures and visual aids will feature America's Gold Rush heritage.

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 English Imperialism, Revolution, Nationalism, Political Democracy, Sectionalism, and Civil War.

117b UNITED STATES: 1865 to Present 3 Units

Lecture: 3 hours
Survey of United States history from Reconstruction to the present. Analysis of Industrialism, Progressivism, New Deal, Internationalism, and Contemporary America.

121 HISTORY OF CALIFORNIA 3 Units

Lecture: 3 hours
Survey of California history from pre-Columbia 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

See Page 33-34 for Certificate Requirements

101 INTRODUCTION TO THE HOSPITALITY 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 private 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 INNKEEPING 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 Units

Lecture: 1.5 hour
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

Lecture: .5 hours
Laboratory: 3 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 FOOD PREPARATION 3.5 Units

Lecture: 1.5 hours
Laboratory: 6 hours
General introduction to safety, sanitation, culinary nomenclature, cook's tools, recipe conversion and food costs, preparation of beverages, breakfasts and salads; commissary control and ordering of supplies.

133b INTRODUCTION TO COMMERCIAL FOOD PREPARATION 3.5 Units

Prerequisite: Hospitality Management 133a with a grade of "C" or better or consent of instructor
Lecture: 1.5 hours
Laboratory: 6 hours
Continuation of Hospitality Management 133a with emphasis on preparation of vegetables, sauces, rice, and farinaceous products; basic techniques of broiling, roasting, sauteing, and deep fat frying.

135 COMMERCIAL BAKING 3 Units

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 chou paste cake decorating.
Field trips may be required.

139 FOOD SCIENCE AND NUTRITION 3 Units

Lecture: 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 body utilizes these foods.

140a CLASSICAL CUISINE: Beginning — 3 Units

Prerequisite: Hospitality Management 133b with a grade of "C" or better or consent of instructor
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 or consent of instructor
Lecture: 1 hour
Laboratory: 6 hours
A continuation of Hospitality Management 140a. Instruction in the saute station with emphasis on taste, organization, speed, rhythm, and heat as factors associated with the line chef position.

142 GARDE MANAGER — 2 Units

Prerequisite: Hospitality Management Food Service Technology certificate or satisfactory completion of equivalent test
Lecture: 2 hours
Study of the various meats, fruits, vegetables, sauces, and their uses in cold buffet work. Introduction to fancy culinary work; use of the tools necessary to this art.
Field trips may be required.

144 MEAT ANALYSIS — 2 Units

Lecture: 1 hour
Laboratory: 3 hours
Study of various grades and cuts of meat and their use in restaurant sales. Cost control and fabrication.
Field trips may be required.

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.

148 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

151 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.

160 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 are required.

179 WORK EXPERIENCE IN HOSPITALITY MANAGEMENT — 1-4 Units

Prerequisite: Employment must be approved by Work Experience Coordinator. 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 Hospitality Management. 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 less any units earned in any other Work Experience course.

HUMANITIES

101 OLD WORLD CULTURE — 3 Units

Lecture: 3 hours
An introductory survey of humanistic culture, historically structured from classical Greece to the Renaissance, presenting enduring works of art, drama, literature, music, and philosophy.

102 MODERN CULTURE — 3 Units

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

LAW ENFORCEMENT

140a ARSON INVESTIGATION Beginning — 2 Units

Lecture: 2 hours
Designed to prepare fire suppression officers and police patrol officers to carry out the responsibility of arson detection and establish the foundation for an in-depth arson investigation.
(Students may not receive credit for both Fire Science 127 and Law Enforcement 140ab.)

140b ARSON INVESTIGATION: Advanced — 2 Units

Prerequisite: Law Enforcement 140a 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 — .5-3 Units

Prerequisite: 24 Units in Law Enforcement or completion of recognized academy or consent of instructor
Lecture: .5-3 hours
Designed to upgrade officers currently working in any phase of law enforcement. Studies include administration of justice, patrol procedures, criminal law, and criminal investigation.
May be repeated three times.

LIBRARY

101 INTRODUCTION TO LIBRARY RESOURCES — 1 Unit

Lecture: .5 hour
Laboratory: 1.5 hours
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

50 BASIC MATHEMATICS — 2 Units

Lecture: 2 hours
or
Lecture: 1 hour
Laboratory: 3 hours
A basic course in arithmetic.

Photo by Dirk Travis

55 BEGINNING ALGEBRA — 4 Units

Lecture: 4 hours
or
Lecture: 3 hours
Laboratory: 3 hours
Algebraic structures of real numbers, development of algebraic techniques, rational operations, radicals, polynomials, factoring, linear equations, inequalities, and quadratic equations.

58 ENTRY LEVEL GEOMETRY — 1 Unit

Prerequisite: One year of high school algebra or Mathematics 55 recommended
Laboratory: 3 hours
Points, lines, angles, polygons, area, circles, volume, and the Pythagorean Theorem.
Offered for Credit/No Credit only.

60 GEOMETRY — 3 Units

Prerequisite: Mathematics 55 or one year high school algebra recommended
Lecture: 3 hours
or
Lecture: 2 hours
Laboratory: 3 hour
Rectilinear figures, circles, parallels, perpendiculars, areas, similarity, constructions, logic, and proofs.

101 INTERMEDIATE ALGEBRA — 4 Units

Prerequisite: Mathematics 55 with a grade of "C" or better or one year high school algebra or consent of instructor
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 Mathematics 101 or second year high school algebra and one year geometry or consent of instructor
Lecture: 4 hours
or
Lecture: 3 hours
Laboratory: 3 hours
Mathematics of angles, triangles, trigometric 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 or consent of instructor
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 3 Units
(See also Philosophy 104)
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.
(Credit 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 or consent of instructor
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, distributions, 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 or consent of instructor
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 CALCULUS WITH ANALYTIC GEOMETRY 4 Units
Prerequisite: Mathematics 120a with a grade of "C" or better or consent of instructor
Lecture: 4 hours
or
Lecture: 3 hours
Laboratory: 3 hours
Polar coordinates, vectors in the plane, techniques in integration, and applications of the integral.

MEDIA TECHNOLOGY

152a VIDEO PRODUCTION: BEGINNING 3 Units
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.

152b VIDEO PRODUCTION: ADVANCED 3 Units
Prerequisite: Media Technology 152a with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
To utilize the skills learned in Media Technology 152a and apply them to production of programs on the local public access channel.

MUSIC

100 MUSIC FUNDAMENTALS 2 Units
Lecture: 2 hours
Introduction to traditional musical notation, key signatures, scales, intervals and chords, sight singing and ear training.

102 INTRODUCTION TO MUSIC 3 Units
Lecture: 3 hours
Study and analysis of music, including instrumentation, form, basic elements, and general background of styles and composers.

109 PERFORMANCE PRACTICUM .5 Units
Activity: 1 hour
A series of concerts and recital demonstrations involving students, staff and visiting artists for the development of performance methodology and critical listening skills.

110a SURVEY OF MUSIC HISTORY AND LITERATURE: Ancient to 1750 3 Units
Lecture: 3 hours
A survey of elements of style, major composers, and masterpieces of music from the Greek era through the Medieval, Renaissance, Baroque, and Early Classic periods, from 1000 B.C. through 1750 A.D.

110b SURVEY OF MUSIC HISTORY AND LITERATURE: 1750 to Present 3 Units
Lecture: 3 hours
A survey of elements of style, major composers, and masterpieces of music during the Classic, Romantic, and 20th Century periods, from 1750 to the present. Study will include significant developments in American music from its origins to the present.

120a MUSIC THEORY 5 Units
Lecture: 4 hours
Activity: 2 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.

120b MUSIC THEORY 5 Units
Prerequisite: Music 120a with a grade of "C" or better or consent of instructor
Lecture: 4 hours
Activity: 2 hours
Continuing study in harmony and analysis. Included are secondary dominants, modulation, altered chords, non-harmonic notes, extended chords, harmonic ear training, and keyboard harmony.

126 COMPOSITION 3 Units
Prerequisite: Music 120b with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Laboratory: 3 hours
Composing in various musical styles as well as synthesis of student's own style. Study and analysis of different methods of composition of music in relation to project chosen by student.
May be repeated one time.

131a ELEMENTARY CLASS PIANO 2 Units
Lecture: 1 hour
Activity: 2 hours
Study of basic techniques of piano playing, fundamentals of music theory, sight-reading, improvisation, and harmonization.

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

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 136a with a grade of "C" or better or consent of instructor.
Lecture: 1 hour
Activity: 2 hours
Continuation of Music 136a.

141a INTERMEDIATE CLASS PIANO 2 Units
Prerequisite: Music 131b with a grade of "C" or better or consent of instructor.
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 PIANO 2 Units
Prerequisite: Music 141a with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Activity: 2 hours
Continuation of Music 141a.

146a INTERMEDIATE CLASS VOICE 2 Units
Prerequisite: Music 136b with a grade of "C" or better or consent of instructor.
Lecture: 1 hour
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 146a with a grade of "C" or better or consent of instructor.
Lecture: 1 hour
Activity: 2 hours
Continuation of Music 146a.

150 SERIES — APPLIED MUSIC
Prerequisite: Audition, Concurrent enrollment in Music 109 recommended
Lecture: 1 hour
Study of performance techniques, interpretation, and repertoire related to private music instruction. Designated for music majors and minor.
May be repeated three times.

150 APPLIED MUSIC: Guitar	1 Unit
151 APPLIED MUSIC: Keyboard	1 Unit
152 APPLIED MUSIC: Woodwinds	1 Unit
153 APPLIED MUSIC: Brass	1 Unit
154 APPLIED MUSIC: Strings	1 Unit
155 APPLIED MUSIC: Percussion	1 Unit
156 APPLIED MUSIC: Voice	1 Unit
157 APPLIED MUSIC: Synthesizer	1 Unit

160 CHOIR 1 Unit
Activity: 2-6 hours
Study and performance of mixed choral works of various periods and styles.
May be repeated three times.

164 JAZZ CHOIR 1 Unit
Prerequisite: Audition
Activity: 2-6 hours
Study and performance of vocal jazz and improvisation in an ensemble of limited size.
May be repeated three times.

165 THEATER 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.

166 COMMUNITY CHORUS 1 Unit
Activity: 2-6 hours
Study and performance of mixed choral works of various periods and styles.
May be repeated three times.

169 MADRIGAL ENSEMBLE 1 Unit
Prerequisite: Audition
Activity: 2-6 hours
Study and performance of vocal chamber music with emphasis on the Renaissance and Contemporary periods.

170 COLLEGE BAND 1 Unit
Activity: 2-6 hours
Study and performance of band repertoire of all styles.
May be repeated three times.

173 JAZZ ENSEMBLE 1 Unit
Prerequisite: Audition. Concurrent enrollment in Music 109 recommended
Activity: 2-6 hours
Study and performance of instrumental jazz and improvisation; techniques of improvisation will be explored.
May be repeated three times.

176 COMMUNITY ORCHESTRA 1 Unit
Prerequisite: Audition for wind, brass, and percussion players as needed
Activity: 2-6 hours
Study and performance of orchestral literature of various styles and media.
May be repeated three times.

178 ENSEMBLE: Instrumental Emphasis 1 Unit
Prerequisite: Audition. Concurrent enrollment in Music 109 recommended
Activity: 2-6 hours
Study and performance of music for small ensembles, duets, and chamber groups.
May be repeated three times.

NATURAL RESOURCES

See Page 34 for Certificate Requirements

100 ENVIRONMENTAL CONSERVATION 3 Units
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.

105 ALTERNATIVE ENERGY SOURCES 3 Units
Lecture: 2 hours
Laboratory: 3 hours
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 will be required.

109 PARKS AND FORESTS LAW ENFORCEMENT 2 Units
Lecture: 2 hours
Knowledge and skills required in areas of constitutional, criminal, and civil law as related to law enforcement activities conducted by resource agencies.
Field trips may be required.

130 WILD EDIBLE AND USEFUL PLANTS 3 Units
Lecture: 2 hours
Laboratory: 3 hours
Survey of wild edible and useful plants with particular emphasis on the Sierra Nevada. Methods of collection, preserving and preparing wild plants with an emphasis on acorn preparation. Use of plant identification keys. Exposure to the nutritional content of plants, poisonous plants, basketry, dyeing, wild herbs and maple sugaring.
Field trips will be required.

NATURAL RESOURCES TECHNOLOGY

See Page 34 for Certificate Requirements

50 NATURAL HISTORY AND ECOLOGY 2 Units
Lecture: 2 hours
Natural history and ecology with emphasis on the interrelationships among plants, animals, soils, geology and climate of California. Selected topics on plant succession, terrestrial and aquatic ecosystems, organism adaptation and diversity, evolution, California's physical/biological environment, California biomes, and Sierra Nevada Life Zones.
Field trips will be required.

52 APPLIED WILDLANDS MANAGEMENT 3 Units
Prerequisite: Natural Resources Technology 60 recommended
Lecture: 2 hours
Laboratory: 3 hours
Techniques of managing wildlands for maximum forage, soil, water, wildlife and recreation quality. Field observations and applications for restoration and protection of watershed, range, wildlife and recreation values.
Field trips will be required.

55 INTERPRETIVE GUIDED TOURS 2 Units
Lecture: 2 hours
Methods of meeting and serving diverse public groups in their social, cultural and recreational use of wildland recreation sites.
Field trips will be required.

60 AERIAL PHOTOGRAPHY AND MAP INTERPRETATION 2 Units
Lecture: 1 hour
Laboratory: 3 hours
Use of basic photogrammetric instruments and equipment. Techniques of delineating soil vegetation and timber types and distinguishing physical features on aerial photographs. Techniques of interpretation of planimetric, topographic, orthophoto topographic and geologic maps. Principles of remote sensing.
Field trips may be required.

63 WATER FOR CONSUMPTION 3 Units
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.
Offered for Credit/No Credit only.
Meets Water Treatment Plant Operator state certification prerequisite for examination at Grade 2 level.
Field trips may be required.

81 CALIFORNIA WILDLIFE 4 Units
Lecture: 4 hours
Study of the field identification characteristics, habitat requirements, life history, management and population dynamics of selected California mammals, birds and fish. Methods and problems of appraising and manipulating game mammals, furbearers, upland game and fisheries to improve populations. Techniques of habitat appraisal and manipulation to improve wildlife populations.
Field trips are required.

179 WORK EXPERIENCE IN FORESTRY AND NATURAL RESOURCES 1-4 Units
Prerequisite: Employment must be approved by Work Experience Coordinator. 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 Forestry and Natural Resources. 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 less any units earned in any Work Experience course.

PHILOSOPHY

101 INTRODUCTION TO PHILOSOPHY 3 Units
Lecture: 3 hours
Survey of the field of philosophy, including human nature, meaning in life, values in ethics, in social justice, and in art; knowledge, truth, logic, and the scientific method; ultimate reality and philosophy of religion.

104 INTRODUCTION TO LOGIC (See also Mathematics 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.
(Credit for this course will be awarded in either Philosophy 104 or Mathematics 104, but not both.)

115 WORLD RELIGIONS 3 Units
Lecture: 3 hours
Development of religious consciousness from primitive beliefs in ancient times to the living religions of the world: tribal religions of Native American and Africans, Hinduism, Buddhism, Taoism, Shinto, Judaism, Christianity, Islam, and new religions and cults in America.

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: .5 hour
Activity: 3 hours
Advanced concepts, strategy, and practice necessary in the playing and understanding of collegiate basketball.
May be repeated two times.

105 PERSONAL FITNESS CONCEPTS AND EVALUATIONS 3 Units
Lecture: 2 hours
Activity: 2 hours
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 performance with a 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 choregraphy, 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. 129 or P.E. 130 all with a grade of "C" or better or consent of instructor
Lecture: 2 hours
Activity: 2 hours
Exploration of choreography fundamentals through a problem solving approach. Studies deal with aspects of time, space, dynamic 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 or consent of instructor
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 two times.

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 two times.

125 BASKETBALL .5-2 Units
Activity: 1-4 hours
Instruction, practice, and participation in game play. Emphasis on rules, individual and team skills, and team strategy.
May be repeated three times.

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 or consent of instructor
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 two times.

129 DANCE, MODERN I .5-2 Units
Activity: 1-4 hours
Introdution 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 or consent of instructor
Activity: 1-4 hours
Continuing work on modern dance movement and elements of rhythm, space and dynamics, emphasis on contemporary dance techniques, individual and group choreography, and cultural influences on expressive dance forms.
May be repeated two times.

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: 1-4 hours
Instruction 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 two times.

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.
Offered for Credit/No Credit only.

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.
Offered for Credit/No Credit only.
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 students 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
Instruction 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.
May be repeated two times.

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

150 WEIGHT TRAINING II .5-2 Units
Prerequisite: P.E. 149 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.

155 SOCCER .5-2 Units
Activity: 1-4 hours
Instruction, practice, and participation in game play. Emphasis on rules, individual skills, and strategy in the field.
May be repeated three times.

158 ADAPTIVE PHYSICAL EDUCATION .5-3 Units
Activity: 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.

Intercollegiate Athletics

162 VARSITY BASKETBALL 2 Units
Prerequisite: Must be enrolled as full-time student
Activity: 10 hours
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.

164 VARSITY TENNIS 2 Units
Prerequisite: Must be enrolled as full-time student
Activity: 10 hours
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.

166 VARSITY VOLLEYBALL 2 Units
Prerequisite: Must be enrolled as full-time student
Activity: 10 hours
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.

Adult Fitness Program

170 CARDIAC THERAPY: PHASE IV 2-4 Units
Prerequisite: Primary Physician Referral
Lecture: .5-1 hour
Activity: 2-6 hours
A secondary prevention program designed for patients with angina pectoris, healed myocardial infarctions, or post-cardiac surgical referrals whose functional capacity is relatively uncompromised.
(Primary physician referral is mandatory.)

171 INTRODUCTION TO ADULT FITNESS .5-1.5 Units
Lecture: .5-1.5 hours
An overview of the essential principles of physical fitness for adults.

173a ADULT FITNESS PROGRAM I 1-3.5 Units
Lecture: .5-1.5 hours
Activity: 1.5-5 hours
An overview of the essential principles of physical fitness for adults. Individual evaluation of aerobic, flexibility, strength, and body composition components with the ensuing development of a personalized exercise prescription.

173b ADULT FITNESS PROGRAM II 1-3 Units
Prerequisite: Physical Education 173a with a grade of "C" or better
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 two times.

175 HEALTH AND PHYSICAL FITNESS WORKSHOP 1 Unit
Lecture: .5 hour
Activity: 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.

PHYSICS

100 CONCEPTUAL PHYSICS 3 Units
Prerequisite: Mathematics 55 with a grade of "C" or better or consent of instructor
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.

120a GENERAL PHYSICS 5 Units
Prerequisite: Mathematics 120ab with a grade of "C" or better or Mathematics 102 with a grade of "C" or better and concurrent enrollment in Mathematics 120a or consent of instructor
Lecture: 4 hours
Laboratory: 3 hours
A general calculus level investigation of Newtonian mechanics and wave motion.

120b GENERAL PHYSICS 5 Units
Prerequisite: Physics 120a with a grade of "C" or better or consent of instructor
Lecture: 4 hours
Laboratory: 3 hours
A general calculus level investigation of the physics of temperature and heat, thermodynamics, electricity and magnetism.

POLITICAL SCIENCE

101 CONSTITUTIONAL GOVERNMENT 3 Units
Lecture: 3 hours
Basic principles of United States and California constitutional governments with emphasis on dynamics of the American federal system, governmental powers and sources of power at the national, state, and local levels, and the rights and responsibilities of democratic citizenship.

110 AMERICAN POLITICAL THOUGHT 3 Units
Lecture: 3 hours
Historical survey of American political doctrines and issues; and influence of political traditions on American politics. Emphasis will be on contemporary political issues.

115 INTERNATIONAL RELATIONS 3 Units
Lecture: 3 hours
Dynamics of interstate power relations; diplomacy and international law; international, regional and supranational organizations; war and peace; foreign policy.

125 COMPARATIVE POLITICAL SYSTEMS 3 Units
Lecture: 3 hours
Comparative analysis of major political cultures and systems in the Western and non-Western world.

PSYCHOLOGY

101 GENERAL PSYCHOLOGY 3 Units
Lecture: 3 hours
An introductory survey course of the general field of psychology. Topics to be covered include conditioning, personality development, aggression, emotions, stress, anxiety, therapy, sexuality, motivation, consciousness, biology and behavior, and abnormal psychology.

102 CURRENT ISSUES IN PSYCHOLOGY 3 Units
Prerequisite: Psychology 101 with a grade of "C" or better or consent of instructor
Lecture: 3 hours
A look at the more advanced areas of study in psychology, concentrating on current theoretical approaches and research findings regarding areas of controversy.

103 SOCIAL PSYCHOLOGY 3 Units
Prerequisite: Psychology 101 with a grade of "C" or better or consent of instructor
Lecture: 3 hours
Interrelationship between the individual and his social environment. Social influence upon motivation, perception, group pressure, conformity, attraction, prejudice, behavior. Development of changes of attitudes and opinions. Psychological analysis of small groups, social stratification and mass phenomena.

125 BIOFEEDBACK AND STRESS MANAGEMENT 3 Units
Lecture: 3 hours
Lifestyles, psychological coping strategies, communication techniques, and the philosophical context which underlie and promote self-control, optimal well-being, and potential of the student; use of biofeedback equipment to enhance self-awareness and to learn the "relaxation response."

130 PERSONAL AND SOCIAL ADJUSTMENT 3 Units
Lecture: 3 hours
The study of personal growth and adjustment to help prepare the individual for lifelong understanding of self. Discussion of personality development, interpersonal relations, sexuality, stress management, family dynamics, dealing with losses and other concerns of the individual in our society.
Field trips may be required.
May be repeated one time.

145a DEVELOPMENTAL PSYCHOLOGY 3 Units
Prenatal Through Early Childhood
Prerequisite: Psychology 101 with a grade of "C" or better or consent of instructor
Lecture: 3 hours
Research and theories in developmental psychology from prenatal life through early childhood, covering physical, social, emotional, cognitive, language, and personality development. Issue of heredity and environment considered.

145b DEVELOPMENTAL PSYCHOLOGY 3 Units
Later Childhood Through Adulthood
Prerequisite: Psychology 101a, Psychology 145a recommended
Lecture: 3 hours
Research and theories in developmental psychology from later childhood through adulthood, covering continuing developmental changes and special concerns of these years, e.g., peer acceptance, sexuality, sex roles, drug usage, parent-child relations, career choices, mid-life crisis, etc.

160 PERSONALITY THEORY 3 Units
Prerequisite: Psychology 101 with a grade of "C" or better or consent of instructor
Lecture: 3 hours
A survey course of the various theories of personality development.

SEARCH AND RESCUE

See Page 36 for Certificate Requirements

103 ENVIRONMENTAL INJURIES 1 Unit
Prerequisite: Previous enrollment in Health Education 113 or Health Occupations 103 is recommended
Lecture: 1 hour
A review of injuries caused by recreational and vocational activities in the outdoors, including heat, cold, water, altitude, and animal-caused injuries.

105 MOUNTAIN MEDICINE 1 Unit
Prerequisite: Health Education 113 or Health Occupations 103 recommended
Lecture: 1 hour
Review of common injuries and illnesses encountered in the outdoors. Emphasis on improvised treatment of trauma with a minimum of manpower, equipment and mobility, includes discussion of psychological aspects, proper nutrition, diseases arising from travel in rural areas and recommended first aid supplies.

107 BASIC SURVIVAL 1 Unit
Lecture: 1 hour
An intensive seminar in short-term wilderness survival with emphasis on preventing survival emergencies by psychological and skills preparedness. Human energy and water balance will be stressed as well as correct emergency responses to survival in arid and cold climates. Also included will be instruction regarding proper clothing and makeup of a simple, inexpensive survival kit.

109 COLD WEATHER SURVIVAL 1 Unit
Lecture: 1 hour
An intensive seminar in short-term survival in cold and wet wilderness environments. Psychological skills, equipment preparedness and emergency prevention will be emphasized. Adaptation of basic skills to the factors of snow, rain, and high winds will be stressed. Illnesses caused by cold/wet environment will be reviewed.

110 INTRODUCTION TO SEARCH THEORY 2 Units
Lecture: 2 hours
An overview of current search theories as developed by the National Park Service and the National Association for Search and Rescue.

112 ORGANIZATION AND DIRECTION OF A SEARCH 2 Units
Lecture: 2 hours
Comprehensive review of Search and Rescue 110 expanding into multi-agency considerations. Designed for the inservice professional or volunteer. National association of Search and Rescue certification available to the student upon successful completion of the course.

114 TRACKING AND SIGN CUTTING 1 Unit
Lecture: 1 hour
An overview of current tracking theories and techniques as developed by the U.S. Border Patrol.
Offered for Credit/No Credit only.
Field trips may be required.

116 THE USE OF SEARCH AND RESCUE DOGS 1 Unit
Lecture: 1 hour
Designed to familiarize search and rescue personnel with the uses and limitations of Search and Rescue dogs; availability of dog units, call-out procedures, OES transportation availability, weather, terrain factors, avalanche dogs and night searching.
Offered for Credit/No Credit only.
Field trips may be required.

122 WILDERNESS NAVIGATION 2 Units
Lecture: 1.5 hours
Laboratory: 1.5 hours
Review of useful maps, compass and navigation techniques for outdoor activities; wilderness route-finding and orientation using terrain clues, map and compass, reduction of error via multi-person techniques and concise communication of location.

126 GRID SEARCH TECHNIQUES 1 Unit
Lecture: 1 hour
An overview of current non-winter grid search techniques as developed by William G. Syrotuck and the National Association of Search and Rescue.
Offered for Credit/No Credit only.

130 INTRODUCTION TO RESCUE TECHNIQUES 2 Units
Lecture: 2 hours
A survey course covering the following three specialized areas critical to an effective and field safe search and rescue person: rescue carries, rope management and communication.

132 ASCENDING AND DESCENDING TECHNIQUES 1 Unit
Prerequisite: Search and Rescue 130 with grade of "C" or better or consent of instructor
Lecture: .5 hours
Laboratory: 1.5 hours
Review of rope safety techniques for rescue personnel with emphasis on methods of ascent and descent for rescuer and ambulatory victims in various rescue environments. Instruction and demonstration of safe techniques for the ascent and descent of slopes, buildings and cliffs. Emphasis on rope-safety techniques; knots, belaying and anchors; basic four-point climbing techniques and use of friction knots and mechanical ascenders. Handling and safe use of fire-service ladders reviewed.
Offered for Credit/No Credit only.
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.
Offered for Credit/No Credit only.

135 AVALANCHE RESCUE 1 Unit
Lecture: .5 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
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.
Offered for Credit/No Credit only.

150 ROPE RESCUE 1.5 Units
Lecture: 1.5 hours
Instruction in techniques used to evacuate injured parties in various settings. Demonstrations of the use of the stokes litter in conjunction with mechnical advantage rope systems in gentle and moderate terrain situations. Review of rope safety belaying and anchoring techniques.
Offered for Credit/No Credit only.

151 RAPELLING SAFETY/TOWER RESCUE FOR THE FIRE SERVICE 1 Unit
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.
Offered for Credit/No Credit only.

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.
Offered for Credit/No Credit only
Field trips may be required.

154 FIRE SERVICE LADDERS AS RESCUE TOOLS 1 Unit
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.
Offered for Credit/No Credit only.

155 EMERGENCY SHORING TECHNIQUES .5 Unit
Lecture: .5 hour
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.
Offered for Credit/No Credit only.

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.)
Offered for Credit/No Credit only.

158 HEAVY RESCUE TRAINING FOR THE FIRE SERVICE 1.5 Units
Prerequisite: Search and Rescue 130 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.
Offered for Credit/No Credit only.

159 HEAVY RESCUE INSTRUCTOR TRAINING 3 Units

Prerequisite: Search and Rescue 158 or consent of instructor
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.
Offered for Credit/No Credit only.

170 SPECIAL TOPICS IN RESCUE FOR THE FIRE SERVICE .5-3 Units

Prerequisite: Will vary with topic
Lecture: .5-3 hours and/or
Laboratory: 1.5-3 hours
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 evolutions.
Offered for Credit/No Credit only.

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 disability 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: .5-1.5 hours
Laboratory: 1.5 hours
Designed to teach 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 1-2 Units

Laboratory: 3-6 hours
Individualized instruction in fundamental operations. Students may start anywhere from whole numbers to formula.
May be repeated three times.

62 REVIEW ALGEBRA 1 Unit

Prerequisite: High school algebra
Laboratory: 3 hours
Individualized instruction in review of high school algebra.

75 COLLEGE SPELLING 1-2 Units

Laboratory: 3-6 hours
Designed to help students improve their spelling skills.
May be repeated one time.

78 READING DEVELOPMENT 1-2 Units

Laboratory: 3-6 hours
Individualized instruction and self-instructional materials in specific reading skills units.
May be repeated three times.

87 VOCABULARY DEVELOPMENT 1 Unit

Laboratory: 3 hours
Designed to help readers improve their vocabulary skills.
May be repeated one time.

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

Lecture: .5 hour
Laboratory: 1.5 hours
or
Laboratory: 1.5-6 hours
Designed to help students develop skills in taking tests and examinations.

96 APPLIED TEST-TAKING SKILLS .5-1 Unit

Lecture: .5-1 hour
Basics of successful test-taking, with emphasis on the skills necessary to improve performance on a specific exam such as SAT, CBEST, or Civil Service.
May be repeated two times.
Offered for Credit/No Credit only.

98 PEER TUTORING .5-2 Units

Lecture: .5 equals .5 unit
Laboratory: 1.5-6 hours equal .5-2 units
Provides students with an opporunity to give academic assistance to other students.
Required for any student interested in tutoring for the college.
Offered for Credit/No Credit only.

SOCIAL SCIENCE

140 HUMAN SEXUAL BEHAVIOR 3 Units

Lecture: 3 hours
Exploration of issues in human sexuality from the perspective of the behavioral and social sciences. Study and discussion of sexual behavior, feelings and attitudes as they affect one's self and others.

SOCIOLOGY

See Page 34 for Human Services Certificate Requirements

101 INTRODUCTION TO SOCIOLOGY 3 Units

Lecture: 3 hours
Introduction to the principal concepts and methods of sociology; survey of the interactions, interrelationships and processes of society such as 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; science, sports; 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, street crime, family disorganization, white collar, organized and industrial crime.
Field trips may be required.

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: 3 hours
Examination of the current social, economic, physiological and psychological theories about 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: 3 hours
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. 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 employemnt equals 1 unit of credit
60 hours unpaid employment equals 1 unit of credit
Provides students an opportunity to experience supervised employment in Human Services. 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 less any units earned in any other Work Experience course.

SPEECH

101 FUNDAMENTALS OF SPEECH 3 Units

Lecture: 3 hours
Principles of oral communication; speech composition and techniques of presenting informal and formal speeches. Emphasis given to organization, ideas, critical thinking, and evaluative listening.

135 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

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 150a or consent of instructor
Lecture: 2 hours

Developing advanced level receptive and expressive skills in conversational sign language and finger spelling.

May be repeated one time.

TEACHER AIDE TRAINING

See Page 36 for Certificate Requirements

55a TEACHER AIDE TRAINING: Beginning 3 Units

Lecture: 3 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.

65 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 reading; development of reading lessons; word analysis, including phonics; use of 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. 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 less any units earned in any other Work Experience course.

WELDING TECHNOLOGY

101 INTRODUCTION TO WELDING 3 Units

Lecture: 1 hour
Laboratory: 6 hours

Basic arc and oxygen-acetylene welding as it applies to shop and field techniques.

103 ADVANCED ARC WELDING TECHNIQUES 3 Units

Prerequisite: Welding Technology 101 with a grade of "C" or better or consent of instructor
Lecture: 1 hour
Laboratory: 6 hours

Arc welding in 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 or consent of instructor
Laboratory: 3 hours

The student shall gain practical experience by working on an individual project (including certification projects). Emphasis on quality, appearance and function.

May be repeated one time.

172 METAL SCULPTURE 1.5-3 Units

Studio: 3-6 hours

Introduction to various metal-working techniques with an emphasis on aesthetic design.

(Credit for this course will be awarded for either Welding 172 or Art 172, but not both.)
May be repeated three times.

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. 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 only. Seventy-five hours of paid employment equals one unit of credit and 60 hours of unpaid employment equals one unit of credit.

Work Experience is offered in the following areas:

Automotive Technology 179	Automotive Technology
Business Administration 179	Business and Commerce (Includes Business Administration, Computer Science and Disciplines not otherwise listed.)
Child Development 179	Child Development
Emergency Medical Services 179	Emergency Medical Services
Fire Technology 179	Fire Technology
Health Occupations 179	Health Occupations
Hospitality Management 179	Hospitality Management
Nat. Resources Technology 179	Forestry, Natural Resources
Office Occupations 179	Office Occupations
Sociology 179	Human Services
Teacher Aide 179	Teacher Aide

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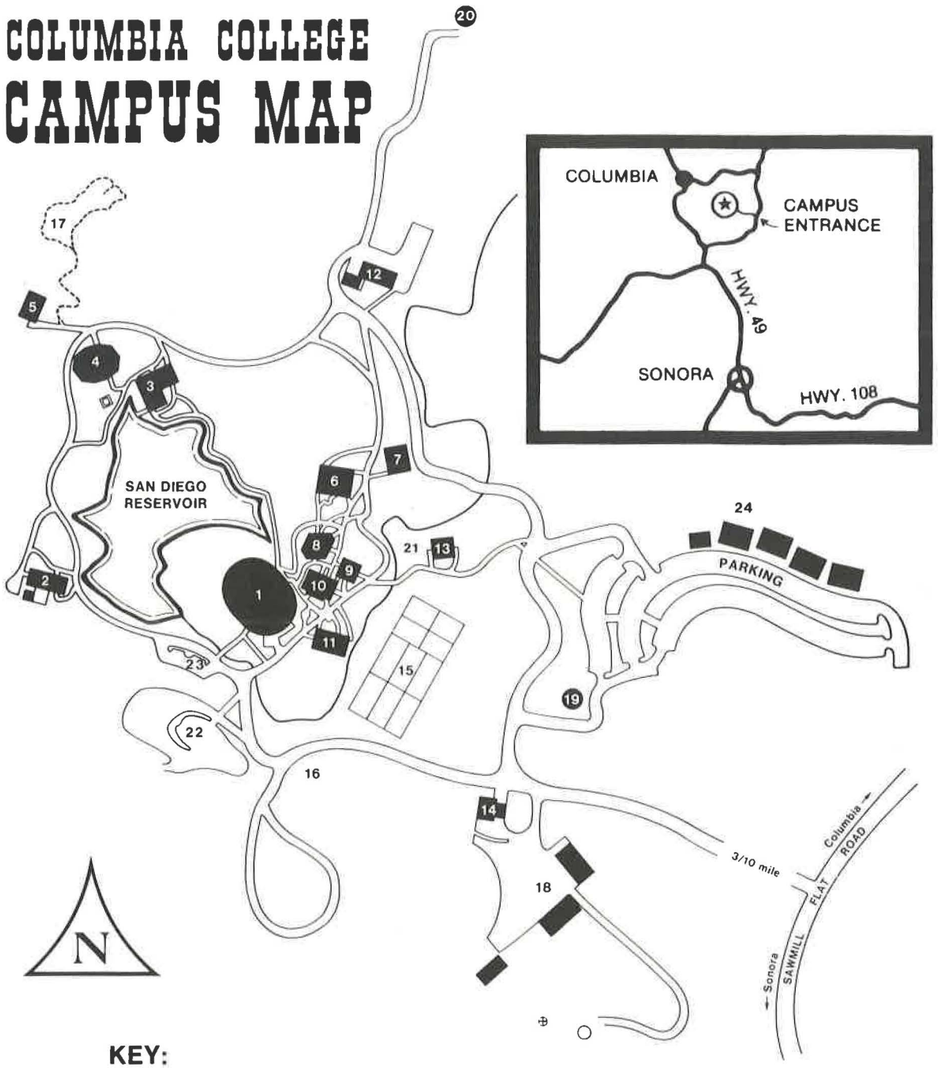
COLUMBIA COLLEGE
CAMPUS MAP



KEY:

1 Administrative Services & Learning Resources Center, Rms. 22-110**
2 Creative Arts Center, Rms. 200-201*
3 Physical Science Center, Rms. 300-302*
4 Biological Science Center, Rms. 350-364**
5 Forestry and Natural Resources Center, Rms. 310-313
6 Interdisciplinary Center, Rms. 400-405**
7 Health Occupations Center, Rms. 500-501* College Nurse
8 Forum, Rm. 600
9 Seminar Building, Rms. 610-611
10 General Education, Rms. 620-622
11 Business Education Center, Rms. 700-702*
12 Auto Technology/Welding, Rms. 800-802*
13 Physical Education Center, Rm. 900*
14 Fire Science Center, Rms. 1000-1001*
15 Tennis Courts
16 Judge Ross Carkeet Community Park
17 Nature Trail
18 Warehouse, Shipping, Receiving, Transportation, and Maintenance
19 Mi-Wok Cultural Center
20 Astronomy Dome
21 Fitness Jogging Trail
22 Staff Parking
23 Handicapped Parking
24 Student Housing

* Restrooms in building
** Handicapped restrooms

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