

College of San Mateo

1979-1980

Catalog



COLLEGE OF SAN MATEO 1979-80 CATALOG AMENDMENT NO. 1
May 23, 1979

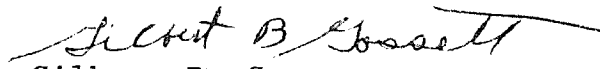
Reference: Page 61 GRADUATION REQUIREMENTS

D. General Education

1. American History and Institutions,
California State and Local Government

Group 2--California State and Local
Government

Addition: g. Ethnic Studies 101 and 102


Gilbert B. Gossett
Acting Dean of Instruction

Distribution:
Registrar (20)
Counselors
Administrative Offices
Division Directors (2)
Bulletin Boards
CSM Daily Bulletin



COLLEGE OF SAN MATEO 1979-80 CATALOG AMENDMENT NO. 1A
August 7, 1979

Reference: Page 61 GRADUATION REQUIREMENTS

D. General Education

1. American History and Institutions,
California State and Local Government

Group 2--California State and Local
Government

Addition: g. Ethnic Studies 101 and 102

Reference Page 86 DENTAL ASSISTING--A.S. Degree

Revision: Semester units should be 29 (not 33).

Reference: Page 88 ELECTRONICS TECHNOLOGY--A.S. Degree Program

Revision: Requirements Semester Units

Electronics Technology 200, 230*, 250, 252, 260, 280,
300, 302, 310, 330 32

Reference: Page 90 FIRE SCIENCE--Certificate Program

Revision: Requirements Semester Units

Fire Science 700, 705, 715*, 720, 755, 731
(50, 51a, 55, 56, 66, 62a) and 6 units of Fire Science
electives 24

Reference: Page 99 TELECOMMUNICATIONS--RADIO BROADCASTING--A.A. Degree Program

Revision: Requirements Semester Units

Telecommunications 115, 131, 132, 190, 231, (66, 52a, 52b, 65, 60a)
and 6 units from 110, 135, 194, 195 (51, 53, 68, 67, 71); Art 463,
464, (FA 17a, 17b); Data Processing 110 (50); Speech 100 (1a). . 27

Reference: Page 126 ART COURSES

Art 461 and Art 462

Revision: Units should be 4.00 for each course.

A corresponding change should be made on Page 90 under the FILMMAKING
Major--semester units of required courses should be 20.

Reference: Page 136 COSMETOLOGY COURSE

Revision: 722 (50) FUNDAMENTALS OF COSMETOLOGY II

Reference: Page 148 ENGINEERING COURSES

Additions: ENGINEERING 260 (38) CIRCUITS AND DEVICES (3)

Three lecture hours per week. Prerequisite: Math. 262 (32), Physics 260 (4b) or equivalent.

Introduction to circuits, natural and forced response, network theorems; characteristics and circuit models of electronic devices and transistor amplifiers.

ENGINEERING 270 (45) MATERIALS SCIENCE (3)

Two lecture and three lab hours per week. Prerequisites: Math. 261 (31) or Math. 241 (23a) and Chem. 210 (1a) or Chem. 224 (11a). Recommended: Physics 250 (4a).

Introduction to mechanics of solids, atomic and crystal structure, chemical and physical properties, phases of microstructures, solid state transformations, mechanical and thermal treatment of alloys. Structure and properties of semiconductors, aggregate materials and polymers.

Reference: Page 187 NURSING COURSES (numbers changes)

Revision Nursing 241 SHOULD BE NURSING 232, ADVANCED MEDICAL/SURGICAL NURSING I (5)

Nursing 242 SHOULD BE NURSING 240, ADVANCED MEDICAL/SURGICAL NURSING II (10)

Reference: Page 201 PSYCHOLOGY COURSE

Revision: Psychology 210, Child Development--Prerequisite: Psych. 100 (1a)

Reference: Page 69 COLLEGE OF SAN MATEO COURSES TRANSFERABLE TOWARD
BACCALAUREATE DEGREE CREDIT AT CALIFORNIA STATE
UNIVERSITIES AND COLLEGES, 1979-80

REVISION: AERONAUTICS--Delete courses 141, 142, 143, 144, 145, 156

EDUCATION--Delete courses 647, 680, 690

Gilbert B. Gossett
Dean of Instruction

Distribution: Registrar (20)
Counselors
Administrative Offices

Division Directors (2)
Bulletin Boards
CSM Daily Bulletin

College of San Mateo Catalog 1979-80

A community college
Accredited by the Western Association
of Schools and Colleges

1700 West Hillside Boulevard — San Mateo, California 94402 — (415) 574-6161



College of San Mateo has a long and proud history of distinguished service to its community and to the countless students who have availed themselves of the outstanding programs offered here. The demonstrated success of many former students attests to the high quality of instruction received from the master teachers at the College.

Adjusting over the years to the differing and changing needs of students, the College consistently has offered opportunities for career choices, preparation and entry into the world of work. At the same time, lower division programs at the College have enabled students who have transferred to four-year institutions to compete favorably with the native students at the State's universities and colleges.

Diversified and professionally planned special programs and services have provided access to higher education for the handicapped, disadvantaged and a wide variety of students with otherwise unmet educational needs.

The Board of Trustees shares with the College pride in the academic achievements of its students.

Eleanore D. Nettle, President
Board of Trustees
San Mateo County Community College District

Note: President Nettle is a College of San Mateo alumna. This year's catalog pays tribute to outstanding graduates of College of San Mateo.

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Calendar for 1979-80

Summer Intersession 1979

Test Dates

See "Application for Admission" for dates, times and places.

Registration

See Schedule of Classes

Classes Begin

June 25

Independence Day Holiday

July 4

Last Day to Petition for Summer AA/AS Degree

July 28

Summer Intersession Six-week Classes Close

August 3

Summer Intersession Eight-week Classes Close

August 17

Fall Semester 1979

Applications Available

April 16

Test Dates for Fall Semester

See "Application for Admission" for dates, times, and places

Counseling-Registration by Appointment, New and Returning Students

August 21-29

Day and Evening Classes Begin

September 5

Last Day to Add Semester-length Classes

September 18

Last Day to Drop Classes without Appearing on Student Record

September 21

Veterans' Day Holiday

November 12

Last Day to Apply for Fall AA/AS Degree or Certificate

November 2

Last Day to Drop a Semester-length Class in which a Student is Failing without possible "F" Grade

November 16

Thanksgiving Recess

November 22-24

Registration for Continuing Students

December 4-14

Winter Recess

December 17-January 1

Final Examinations, Evening Classes

January 16-22

Final Examinations, Day Classes

January 18-25

Inter-Semester Recess

January 26-February 2

Spring Semester 1980

Applications Available

November 13

Test Dates for Spring Semester

See "Application for Admission" for dates, times and places.

Counseling-Registration by Appointment, New and Returning Students

January 21-25

Day and Evening Classes Begin

February 4

Last Day to Add Semester-length New Classes

February 19

Lincoln Day Holiday

February 15

Washington Day Holiday

February 18

Last Day to Drop Classes without Appearing on Student Record

February 22

Spring Recess

March 31-April 5

Last Day to Apply for AA/AS Degree or Certificate

April 11

Last Day to Drop a Semester-length Class in which a Student is Failing without possible "F" Grade

April 18

Test Dates for Fall Semester 1890

See "Application for Admission" for dates, times and places.

Registration for Continuing Students

May 19-23

Memorial Day Holiday

May 26

Final Exams—Day Classes

June 6-13

Final Exams—Evening Classes

June 5-11

Commencement

June 12

Summer Intersession 1980

Test Dates

See "Application for Admission" for dates, times and places.

Registration

See Schedule of Classes

Classes Begin

June 23

Independence Day Holiday

July 4

Last Day to Petition for Summer AA/AS Degree

July 20

Summer Intersession Six-week Classes Close

August 1

Summer Intersession Eight-week Classes Close

August 15

Board of Trustees San Mateo County Community College District

College of San Mateo is part of the San Mateo County Community College District, which also operates Cañada College in Redwood City and Skyline College in San Bruno. The District and its Colleges are governed by a five-member Board of Trustees elected at large for four-year terms by county voters.

*Eleanore D. Nettle, President
James G. Rudolph, Clerk
Robert A. Tarver
James R. Tormey, Jr.
Carl E. Ward*

*Glenn P. Smith
District Chancellor-Superintendent*

College of San Mateo Administration

Lois A. Callahan
President (Acting)

Gertrude M. Steele
Administrative Assistant to the President

INSTRUCTIONAL SERVICES

Gilbert B. Gossett
Dean of Instruction (Acting)

(Vacant)
Director of Career and
Occupational Education

Michael B. Kimball
Director of Extended Educational
Programs

Stewart Cheifet
Director of Educational
Broadcasting and Services

ACADEMIC DIRECTORS

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Director, Fine and Performing Arts

Michael J. Clemens
Director, Social Science

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Director, Physical Education/Athletics

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Director, Mathematics and
Science (Acting)

Cecilia A. Hopkins
Director, Business

Paul Y. Lin
Director, Technology

Wilson G. Pinney
Director, Language Arts

John C. Williams
Director, Health and Service Careers

STUDENT SERVICES

Allan R. Brown
Dean of Student Services

Philip D. Morse
Director of Special Programs
and Services

Herbert R. Warne
Director of Admissions
and Records

Aline Fountain
Director of Counseling Services

Jackman L. LeBlanc
Director of College
Readiness Program

OPERATIONS

(Vacant)
Director of Operations

Chester R. Williams
Supervisor of Buildings and Grounds

Lynn Pontacq
Supervisor, Fiscal and Personal
Services

College Faculty 1979-1980

(Date of original appointment follows name.)

- Acena, Albert A.** (1966)
History
B.A., Seattle University
M.A., Ph.D., University of Washington
- Alexandre, Alvin A.** (1961)
English, Journalism,
B.A., M.A., New York University
- Allende, David H.** (1967)
Art, Counselor
B.A., M.A., University of Tulsa
- Anderson, Robert D.** (1959)
Physics
A.B., University of Calif., Berkeley
M.S., Purdue University
- Andrews, Edgar H.** (1958)
History
A.B., M.A., University of Calif., Berkeley
- Anenson, Marian R.** (1964)
Nursing
B.S., R.N., University of Minnesota
- Angerbauer, George** (1963)
Electronics Technology, Counselor
- Angier, W. Jeanne** (1965)
English
B.A., M.A., Washington University, St. Louis
- Appleton, Alanson** (1961)
Art
A.B., California College of Arts and Crafts
M.A., University of Calif., Berkeley
- Arnold, Marlene C.** (1965)
Nursing
B.S., R.N., College of St. Scholastica
M.S., University of Calif., San Francisco
- Atkins, Gregg T.** (1975)
Librarian
A.A., College of San Mateo
B.A., M.L.S., University of California, Berkeley
- Baker, Mary J.** (1967)
Biology, Counselor
B.A., University of Calif., Berkeley
M.A., San Francisco State University
- Balsley, Raymond I.** (1946)
Physical Education
A.B., University of Calif., Berkeley
A.M., Stanford University
- Bardes, Leo N.** (1965)
Director, Fine Arts Division
B.A., M.A., San Francisco State University
- Beale, Paul L.** (1963)
Business
B.S., M.B.A., Stanford University
- Beaty, Donald E.** (1967)
Physics
B.A., M.A., Whittier College
M.A., Colorado College
- Bell, James K.** (1963)
English
B.A., University of Calif., Santa Barbara
M.A., University of Calif., Berkeley
- Berensmeier, Barbara Jean** (1956)
Physical Education
A.B., San Francisco State University
- Berglund, John J.** (1965)
Aeronautics
B.V.E., M.A., San Francisco State University
- Bernasque, Jean A.** (1973)
Dental Assisting
A.A., College of San Mateo
- Berry, Daniel A.** (1958)
Business Administration, Counselor
B.S., Armstrong College
A.B., M.A., University of Calif., Berkeley
- Berry, Fredrick J.** (1968)
Music
B.M., M.M., Southern Illinois University
- Beuttler, Rose Marie P.** (1965)
French, Women's Re-entry Program
B.A., University of Calif., Berkeley
A.M., Stanford University
- Bierce, Ralph H.** (1964)
English
A.B., M.A., University of Calif., Berkeley
- Billeter, William J.** (1961)
Business Administration, Data Processing
B.S., Golden Gate University
M.A., San Francisco State University
Ed.D., Nova University
- Blitz, George A.** (1974)
Botany
B.S., A.B., M.A., University of Calif., Berkeley
- Blust, Dale W.** (1965)
Aeronautics, Counselor
A.A., College of San Mateo
- Blust, Kenneth E.** (1966)
Aeronautics
A.A., Everett Junior College, Wash.

Bogan, Harold S. (1974)
Security
A.A., College of San Mateo

Bramlett, George E. (1969)
Electronics Technology
B.A., Calif. State Univ., Fresno
M.A., San Jose State University

Brown, Allan R. (1959)
Dean of Student Services
A.B., A.M., Stanford University
Ph.D., Stanford University

Brown, Francesca (1965)
English
A.B., M.A., University of Calif.,
Berkeley

Brown, Kathryn (1977)
Learning Skills
A.A., College of San Mateo
B.A., San Francisco State University
M.S., San Diego State University

Brusin, Michael J. (1964)
History, Economics
B.A., M.A., San Jose State University

Bucher, Michael C. (1964)
Biology
B.A., M.A., University of
California, Los Angeles

Burdash, Elizabeth A. (1965)
Psychology
B.A., Boston University
M.S., Mass. Institute of Technology

Burke, Michael C. (1976)
Mathematics
B.A., University of Calif.,
Santa Barbara
M.A., Stanford University
M.A., University of Oregon

Burton, Kathleen M. (1968)
Business
B.S., University of Wyoming
M.A., San Jose State University

Burton, Virginia (1950)
Physical Education
A.B., MacMurray College
A.M., Teachers College, Columbia
University

Cadol, Raymonde M. (1961)
French
B.S., Utah State University
M.A., University of Calif., Berkeley

Cafferata, John (1968)
English
B.A., M.A., San Francisco State
University

Callahan, Lois A. (1967)
President (Acting)
B.S., Southwest Missouri State
University
M.A., California State University,
Chico
Ed.D., University of Southern
California

Cameron, D. Bruce (1968)
English
A.A., Santa Rosa Junior College
B.A., Hunter College
M.A., Columbia University

Camps, Albert (1967)
Electronics Technology
A.A., City College of San Francisco

Carter, Stuart R. (1964)
Physical Education
A.B., M.A., San Jose State University

Casstevens, Jewell (1963)
Cosmetology
A.A., College of San Mateo

Castillo, Richard P. (1969)
Spanish
B.A., University of Calif., Berkeley
M.A., Middlebury College, Vermont

Cate, Donald F. (1964)
Political Science
B.A., Pacific University
M.A., Oregon State University
Ph.D., Stanford University

Chaw, Gladys (1973)
Librarian
A.A., City College of San Francisco
B.A., Calif. State Univ., Sacramento
M.L.S., University of California
Berkeley

Cheifet, Stewart D. (1978)
Director of Educational Broadcasting
A.B., University of Southern California
J.D., Harvard University

Chowenhill, Dean F. (1967)
Drafting Technology, Counselor
A.A., Los Angeles Harbor College
B.A., M.A., San Jose State University

Chriss, Michael (1966)
Astronomy, Counselor
B.S., M.S., University of Arizona

Chroman, Peter (1969)
Sociology, Anthropology
A.B., University of Illinois
M.A., San Francisco State University

Clemens, Michael J. (1967)
Director, Social Science Division
A.B., M.A., Columbia University

Clemens, Roger W.C. (1957)
Life Science
B.S., M.S., University of Calif.,
Berkeley

Clinkscales, J. Kyle (1957)
Chemistry, Counselor
B.S., University of Calif., Berkeley
M.S., University of Pacific
M.A., San Jose State University
(Education, Counseling)

Cohn, Adrian A. (1963)
English
B.S., M.S., Ph.D., University of
Wisconsin

Cons, Jean M. (1976)
Anatomy, Physiology
A.A., Oakland Community College
B.A., San Francisco State University
M.A., Ph.D., University of California,
San Francisco

Cooke, Stuart T. (1964)
History
A.B., Lafayette College
M.A., University of Pennsylvania

Cooper, Barton C. (1965)
Philosophy
B.A., Ph.D., University of Calif.,
Berkeley

Cordes, Henry M. (1964)
German
B.A., M.A., State University of New
York, Buffalo
Ph.D., Stanford University

Coulson, Robert N. (1965)
Machine Tool Technology
A.B., M.A., San Francisco State
University

Coyne, Robert J. (1963)
Art, Photography
B.A., M.A., San Francisco State
University

Crawford, Douglas B. (1960)
Mathematics, Counselor
A.B., A.M., Stanford University

Crawford, Zelte (1969)
Ethnic Studies
B.S., M.A., Western Michigan
University

Crest, Richard L. (1958)
Music
B.A., San Jose State University

Cron, John A. (1968)
Business
A.B., M.A., San Francisco State
University

Crouch, Dorothy J. (1968)
Biology
A.B., University of Calif., Berkeley
M.A., Ph.D., Stanford University

Curren, Terence B. (1962)
Zoology, Physical Anthropology
B.A., University of Calif., Berkeley
M.A., San Francisco State University

Daniels, Jack (1946)
Art, Counselor
A.B., San Jose State University
A.M., Stanford University

Davis, Gregory (1966)
Political Science
A.B., A.M., Stanford University

De Freitas, Louis (1966)
Welding Technology
B.V.E., M.A., San Francisco State
University

De Gregorio, Michael L. (1957)
Chemistry, Physics
A.B., A.M., San Francisco State
University

Dehnel, George S. (1962)
Biology, Botany
B.A., San Diego State University
Ph.D., University of Calif., Berkeley

Denison, Frank G. (1964)
Mathematics
S.B., Mass. Institute of Technology
M.S., A.E., California Institute of
Technology

Denney, Clifford O. (1975)
Chemistry
B.S., Portland State University
M.Ed., M.S., Ph.D., Oregon State
University

Devonshire, Charles M. (1958)
Psychology
B.S., M.A., University of Texas

Dickey, William J. (1975)
Physical Education, Football Coach
B.S., Utah State

Dittes, Marilyn D. (1974)
Nursing
B.S., San Francisco State University

Donner, Richard C. (1963)
Physical Education
B.A., M.A., San Jose State University

Duncan, David L. (1974)
Technical Art/Graphics
A.A., College of San Mateo
B.A., M.A., San Jose State University

Edmundson, James S. (1964)
French
B.A., University of Washington
B.S., Georgetown University
M.A., University of Washington
Ph.D., Columbia University

Fark, Roland H. (1969)
Biology, Counselor
B.S., M.A., Bowling Green State
University

Faure, Emile L. (1970)
Mathematics
B.A., San Diego State University
M.A., Claremont Graduate School

Fellows, Ward J. (1966)
Philosophy
A.B., Cornell University
B.D., S.T.M., Union Theological
Seminary
M.A., University of Calif., Berkeley

Fisher, Anita (1969)
Psychology
B.A., University of Southern Calif.
Ph.D., Stanford University

Fitzgerald, Maurice J. (1964)
English
B.S., University of San Francisco
A.M., Stanford University
Ed.D., University of Southern
California

Fountain, Aline (1965)
Director of Counseling Services
B.S., Florida State University
M.A., San Francisco State University
(Education)
M.A., San Francisco State University
(Counseling and Psychology)

Foye, James F. (1971)
Aeronautics
A.A., Sacramento City College
B.V.E., San Francisco State University

Fraker, Wilson P. (1968)
Business
A.B., Harvard
M.B.A., University of Calif., Berkeley

Frassetti, Gerald J. (1967)
English, Foreign Student Advisor
B.A., St. Mary's College
M.A., San Francisco State University

Galindo, Donald V. (1956)
Art
A.B., University of Calif., Berkeley
B.A.E., M.F.A., California College of
Arts and Crafts

Gattmann, Eric (1964)
Education; Counselor
A.B., University of Calif., Berkeley
M.A., San Francisco State University

George, Thomas W. (1966)
Business
B.A., M.A., Texas Technological
College
Ph.D., University of Washington

Gibson, Ellen Ross (1970)
Photography, Art
B.F.A., Virginia Commonwealth
University
M.A., San Francisco State University

Giffin, Cliff G. (1958)
Director, Physical Education/Athletics
Division
B.S., M.S., University of Oregon

Gill, John M. (1969)
English
B.A., M.A., University of Washington
Ph.D., New York University

Glen, William (1957)
Geology, Paleontology, Counselor
B.S., Brooklyn College
M.A., University of Calif., Berkeley

Goehler, John H. (1970)
Political Science
A.A., College of San Mateo
B.A., M.A., San Francisco State
University

Gossett, Gilbert B. (1955)
Dean of Instruction (Acting)
B.A., M.A., University of Pacific

Goth, George W. (1975)
Chemistry
B.A., Columbia College
Ph.D., University of Calif., Berkeley

Graham, Alexander (1966)
Horticulture
Scottish Diploma Horticulture, West
Scotland, College of Agriculture
Diploma Horticulture, Royal Botanic
Garden, Edinburgh, Scotland
Natural Diploma Horticulture, Royal
Horticulture Society

Griffin, Irene F. (1964)
Drama
A.B., Barnard College
A.M., Stanford University

Gum, H. Sanford (1963)
Drafting, Coop Ed., Counselor
B.A., San Jose State University
A.M., Stanford University
Ed.D., Oregon State University

Gustavson, Charles F. (1966)
Music
A.B., M.A., San Francisco State
University

Hagerty, Joe C. (1977)
Coordinator of Nursing Programs
A.S., R.N., Henry Ford Community
College
B.A., Wayne State University
B.S., M.S., University of California
Medical Center, San Francisco

Halualani, Jennie (1963)
Nursing
R.N., St. Francis Hospital School of
Nursing, Hawaii
B.S.N.E., St. Mary's College, Kansas
M.S., Univ. of Calif., San Francisco

Hancock, John C. (1965)
Music
A.B., San Francisco State University
M.A., San Jose State University

Hanigan, Jane E. (1958)
English, Women's Re-entry Program
A.B., University of Calif., Berkeley
M.A., San Francisco State University

Hansen, Merrill C. (1957)
Speech
B.A., University of Utah
A.M., Ph.D., Stanford University

Harriman, William (1963)
English
B.A., M.A., J.D., University of Calif.,
Berkeley

Harrington, Joyce M. (1969)
Nursing
R.N., Providence School of Nursing
B.S.N.E., Seattle University
M.S., Univ. of Calif.,
San Francisco

Harris, Edward M. (1968)
Mathematics
B.S., University of Colorado
M.A., San Francisco State University

Harris, Richard V. (1965)
Physical Education
A.B., M.A., Humboldt State College

Harrison, Kenneth W. (1969)
Music
B.M., University of Southern Calif.
M.A., San Francisco State University

Hazelton, Louise B. (1960)
History, English
B.A., University of Calif.,
Los Angeles
M.A., Calif. State Univ., Fresno

Heitz, Carol Rhodabarger (1964)
Guidance, Counselor
A.B., University of Calif.,
Santa Barbara
M.A., San Francisco State University

Henderson, Frances C. (1967)
Nursing
B.S., R.N., Dillard University
M.S., University of Calif., San
Francisco
Ed.D., Nova University

Herman, Mary M. (1978)
Speech Pathologist
B.A., M.A., San Francisco State Univ.

Heyeck, Robin R. (1965)
English
A.B., A.M., Stanford University

- Hills, Dorothy** (1968)
Early Childhood Education
B.S., University of Oregon
M.A., San Francisco State University
- Holmes, Paul C.** (1964)
English
B.A., University of Calif., Berkeley
M.A., San Francisco State University
- Holmgren, Roy H.** (1957)
Mathematics
A.B., M.A., University of Calif., Berkeley
- Hopkins, Cecilia Ann** (1958)
Director, Business Division
B.S., Montana State College
M.A., San Francisco State University (Business Education)
M.A., San Francisco State University (Counseling and Administration)
Ph.D., Calif. Western University
- Howe, Robert S.** (1965)
Guidance, Counselor
A.B., San Jose State University
A.M., Stanford University
- Hudson, Angela S.** (1964)
Physical Education, Dance
B.A., Miami University
M.A., San Francisco State University
- Hynding, Alan A.** (1967)
History
B.S., University of Oregon
M.A., Stanford University
Ph.D., University of Washington
- Ingraham, Joann** (1962)
Physical Education
A.B., San Jose State University
- Innis, James E.** (1967)
Health Science
A.B., M.A., University of Northern Colorado
- Ireson, Mamie G.** (1963)
Consumer Arts & Sciences, Counselor
B.S., Mary Washington State University
M.S., Virginia Polytechnic Institute-State University
- Jackson, James L.** (1959)
Mathematics
B.A., Beloit College
M.A., University of Calif., Berkeley
- Jacques, James J.** (1969)
Physical Education
B.A., M.A., San Jose State University
- Jaffy, Florence I.** (1958)
Economics
A.B., Pennsylvania State College
M.A., University of Chicago
- Janssen, William A.** (1965)
Business
A.B., M.A., San Jose State University
- Jeffers, Mary L.** (1963)
Political Science
A.B., M.A., Tennessee State Univ.
- Jorgenson, Wallace H.** (1969)
Aeronautics
B.V.E., San Francisco State University
- Joslin, Rex J.** (1964)
Biology
B.S., Wisconsin State College
M.S., University of Illinois
- Karl, John E., Jr.** (1962)
Anatomy, Physiology
B.A., Allegheny College
M.S., University of Kentucky
Ph.D., Louisiana State University
- Kaufmann, Walter M.** (1966)
Sociology, Psychology
B.A., University of Calif., Berkeley
M.A., San Francisco State University
J.D., University of Calif., Berkeley
- Kellejian, Robert** (1962)
Electronics Technology
A.B., M.A., San Francisco State University
- Keller, Robert M.** (1958)
Chemistry
A.B., M.A., San Jose State University
- Kennedy, Vance A.** (1976)
Business
A.A., San Jose City College
B.S., M.B.A., San Jose State University
- Kennelly, Maureen E.** (1970)
Nursing
R.N., Poplar Hospital, London
B.S.N., DePaul University
M.P.H., University of Michigan
- Keys, Noel W.** (1966)
Psychology, Psychological Services
B.S., Denison University
M.A., Duke University
Ph.D., University of North Carolina
- Kimball, Michael B.** (1968)
Director, Continuing Education
B.A., Stanford University
M.A., San Francisco State University
- Lamont, Stephen S.** (1974)
Aeronautics
B.A., University of Calif., Berkeley
- Landmann, Eva M.** (1975)
Nursing
R.N., Central Middlesex Hosp., London
B.S.N., University of Alberta
M.S.N., San Jose State University
- Lapp, Rudolph M.** (1955)
History
A.B., Roosevelt University
M.A., Ph.D., University of Calif., Berkeley
- Leach, Walter J., Jr.** (1956)
Psychology, Sociology
B.A., University of Calif., Los Angeles
M.A., University of Calif., Santa Barbara
- Le Blanc, Jackman L.** (1974)
Director, College Readiness Program
B.A., United States International University
M.Ed., University of Calif., Santa Barbara
- Lee, Priscilla T.** (1967)
Anthropology
A.B., A.M., Ph.D., Stanford University
- Lehman, Anita J.** (1963)
English
B.A., M.A., University of Calif., Los Angeles

Leroi, Frank B. (1968)
Economics
B.A., University of Calif.,
Los Angeles
M.A., San Jose State University

Lin, Paul Y. (1973)
Director, Technology Division
B.S.E.E., University of Calif., Berkeley
M.S.E.E., University of Calif.,
Berkeley

Linder, Doris H. (1967)
History
B.A., M.A., Stanford University
Ph.D., University of Minnesota

Lokken, Arlys K. (1963)
Nursing
R.N., University of North Dakota
School of Nursing
B.S., University of North Dakota
M.S., University of Calif.,
San Francisco

Lorenzato, Raymond (1965)
Art
B.A., Humboldt State University
M.F.A., Calif. College of Arts and
Crafts

MacDonald, Lorne (1968)
Electronics Technology
B.S., Pacific State University

Mahood, Marcia (1960)
Business, Counselor
B.A., M.A., Michigan State University
M.S., Calif. State Univ., Hayward

Mantabe, Musonda D. (1969)
History, Counselor
B.A., Syracuse University
M.A., Lone Mountain College

Marshall, R. Galen (1964)
Music, Counselor
A.B., M.A., San Francisco State
University

Martinez, Thomas A. (1976)
Physical Education/Athletics
B.A., San Francisco State University
M.A., Azusa Pacific College, California

McClure, Clois A. (1963)
Technical Drafting, Counselor
A.B., Calif. State Univ., Fresno
M.A., San Francisco State University
Ed.D., Utah State University

McCue, Mary J. (1955)
English
B.A., Marygrove College
M.A., University of Michigan

McDonough, Joseph M. (1966)
Psychology
A.B., Princeton University
M.S., University of Miami
Ph.D., Michigan State University

McMillin, Virginia A. (1963)
Nursing
R.N., St. Elizabeth's Hospital, Ohio
B.S., M.S., University of Dayton, Ohio

Mellor, Sandra L. (1974)
Business
B.A., M.A., San Jose State University

Mendenhall, Valdemer A., Jr. (1967)
Aeronautics
A.A., College of San Mateo

Michael, Robert E. (1965)
Business Administration
B.S., M.S., San Jose State University
B.F.T., American Institute for Foreign
Trade

Miller, William H. (1961)
History
A.B., College of Wooster
M.A., Ph.D., University of Calif.,
Berkeley

Monroe, Howard C. (1961)
Ecology, Marine Biology
B.S., University of Toledo
M.A., University of Calif.,
Los Angeles

Montgomery, Douglas B. (1963)
Telecommunications
B.S., M.A., San Diego State University

Morehouse, Steven N. (1977)
Coordinator of Veterans Affairs
A.A., College of San Mateo
B.A., San Francisco State University
M.S., Calif. State Univ., Hayward

Morse, Philip D. (1940)
Director, Special Services
A.B., Occidental College
M.A., University of Calif., Berkeley

Mullen, Edward C. (1955)
English
A.B., M.A., San Jose State University

Multhaup, Ernest L. (1964)
Engineering, Counselor
B.S., M.S., University of North
Dakota

Murashige, Kate H. (1968)
Chemistry
B.A., Washington University
Ph.D., University of Calif.,
Los Angeles
J.D., Univ. of Santa Clara

Musgrave, Diane W. (1970)
German
A.B., M.A., Stanford University

Nakagawa, Libby T. (1973)
Counselor
B.A., M.S., San Francisco State
University

Noce, John L. (1961)
Physical Education
A.B., University of Pacific
M.A., San Francisco State University

Norman, Colette J. (1974)
Librarian
B.A., Southern Univ., Baton Rouge
M.A., San Jose State University

Odum, Daniel C. (1964)
Telecommunications, Counselor
A.B., San Diego State University

Olson, Robert A. (1956)
Speech
B.S., Wisconsin State College
M.A., San Jose State University

O'Mahony, Rosalie M. (1965)
Mathematics
B.S., Loyola University
M.S., University of Notre Dame
Ph.D., Univ. of Southern Calif.

- Orozco, Adrian** (1969)
Counselor
S.T.B., St. Alexis College, Rome, Italy
M.Ed., Loyola University, Chicago
- Owen, William H.** (1963)
Machine Tool Technology
A.B., M.A., San Francisco State University
- Owens, Peter H.** (1971)
Chemistry
B.S., Massachusetts Institute of Technology
M.S., Oregon State University
Ph.D., University of Calif., Berkeley
- Peña, June W.** (1969)
Nursing
R.N., Good Samaritan School of Nursing
A.B., San Francisco State University
M.S., University of Calif, San Francisco
- Petit, Susan Y.** (1968)
English
B.A., Knox College
M.A., Purdue University
- Petromilli, James** (1973)
Electronics
A.A., College of San Mateo
B.A., San Francisco State University
- Pex, Betty C.** (1960)
English
Ph.B., A.M., University of Chicago
- Pflug, Raymond J.** (1956)
English
A.B., A.M., Stanford University
- Phipps, Richard S.** (1962)
Political Science, Guidance, Counselor
A.B., M.A., University of Calif., Berkeley
- Pinney, Wilson G.** (1961)
Director, Language Arts Division
A.B., Trinity College
Ed.M., Harvard University
- Pisercchio, Rosemary** (1973)
Business, Counselor
B.A., M.A., San Francisco State University
- Polansky, Stephen H.** (1968)
Political Science
B.A., Princeton University
J.D., Harvard Law School
- Porter, Donald T.** (1963)
Philosophy
B.S., M.A., University of Calif., Berkeley
- Pounds, Robert D.** (1970)
Physical Education
B.S., University of Calif., Los Angeles
- Price, Dolores** (1967)
Physical Education
B.S., M.Ed., Oregon State University
- Price, Joe A.** (1970)
Art
B.S., Northwestern University
M.A., Stanford University
- Prindle, Philip G.** (1958)
Speech, Telecommunications
B.A., Concordia College, Minnesota
M.A., Washington State University
Ph.D., Stanford University
- Pumphrey, Jean** (1967)
English
B.A., Denison University
M.A., San Francisco State University
- Ramsey, Carolyn Ogletree** (1974)
Guidance, Counselor
B.A., M.S., San Francisco State University
- Rankin, Theodore L.** (1971)
Administration of Justice
B.S., University of Southern California
M.P.A., Golden Gate University
- Rascon, Vincent P.** (1963)
Art
B.A., University of Texas
M.F.A., Los Angeles County Art Institute
- Rategan, Edward H.** (1968)
Data Processing
B.A., J.D., Marquette University
- Rawlings, Betty R.** (1973)
Cosmetology
- Richmond, Kern** (1955)
Political Science, Counselor
A.B., M.A., University of Calif., Berkeley
- Roach, T. James** (1970)
Sociology, Psychology
B.A., M.A., San Francisco State University
- Rock, Jo Ann C.** (1964)
Cooperative Education, Counselor, Physical Education
B.S., Pacific University
M.A., San Francisco State University
- Rohrbacher, Richard W.** (1968)
Drama
A.B., University of the Pacific
M.A., Washington State University
- Rose, Jacquelyn** (1977)
College Specialist
A.A., College of San Mateo
B.A., San Francisco State University
- Ross, Hugh** (1961)
History
B.A., M.A., University of Virginia
Ph.D., Stanford University
- Rubler, Selma** (1964)
Nursing
R.N., Beth Israel Hospital
B.S., M.S., University of Calif., San Francisco
- Rundberg, William B.** (1967)
Mathematics
B.A., San Jose State University
M.A., Bowdoin College
- Rush, Robert D.** (1969)
Physical Education
B.A., M.A., San Jose State University
- Sachen, George** (1967)
Aeronautics
B.V.E., B.A., San Francisco State University

Sandler, Marie H. (1974)
Early Childhood Education
B.S., M.S., Florida State University

Sausjord, Rosa I. (1963)
Spanish
M.A., Smith College
Ph.D., State University of Iowa

Savidge, David (1955)
English
A.B., DePauw University
M.A., University of Calif., Berkeley

Saxton, Lloyd O. (1955)
Psychology
A.B., University of Calif., Berkeley
M.A., San Francisco State University
Ph.D., University of Pacific

Schoenky, Mary A. (1963)
Nursing
R.N., College of Saint Scholastica
B.S., University of Minnesota
M.N., University of Washington

Schoenstein, Edward G. (1967)
Technical Art/Graphics
B.A., M.A., Calif. State Univ., Chico

Schwartz, Edwin A. (1957)
Psychology
B.A., New York University
M.A., New Mexico Highlands Univ.

Scott, Stanley R. (1964)
Technical Drafting
B.S., Iowa State College
M.A., San Jose State University

Searle, John B. (1973)
Chemistry
B.S., Ph.D., Bristol University

Shapiro, Robert L. (1963)
Electronics Technology
A.B., University of Michigan
M.A., University of Calif.,
Los Angeles
Ed.D., Utah State University

Silva, Caroline R. (1962)
Physical Education
A.B., M.A., San Francisco State
University

Singh, Balbir (1964)
Mathematics
B.S., St. John's College, Agra
University, India
A.M., Stanford University
Ph.D., University of Southern
California

Smith, Win (1973)
Coordinator, Instructional Services
B.A., M.A., University of Calif.,
Los Angeles

Smith, Robert W. (1965)
Director, Math/Science Division
(Acting)
B.C.E., Clarkson College of
Technology
M.E., University of Calif., Berkeley

Sonner, Grace Y. (1970)
Home Economics
B.A., San Jose State University
M.S., Texas Woman's University

Speer, Lee W. (1965)
English
B.S., University of Scranton
M.A., San Francisco State University

Stack, Dennis M. (1968)
Technical Drafting
B.S., Calif. State Polytechnic College
M.A., San Jose State University

Statler, Richard G. (1972)
Physical Education, Health Education
B.S., M.S., Calif. State Univ.,
Hayward

Steele, Gertrude M. (1953)
Administrative Assistant to the
President
A.A., College of San Mateo
B.A., College of Notre Dame
M.A., San Francisco State University

Stewart, Lawrence W. (1968)
English
B.A., University of Utah
M.A., San Francisco State University

Stock, Nancy J. (1974)
Cosmetology
A.A., Santa Monica City College

Stringari, Lawrence T. (1969)
Psychological Services
B.A., M.A., San Francisco State
University

Sullivan, Daniel J. (1969)
Business
A.B., Xavier University
M.A., DePaul University
M.B.A., University of Santa Clara

Tarleton, Leah (1977)
School Nurse
B.S., University of Iowa

Tippey, James (1969)
Music
B.M., M.M., Indiana University

Tracy, Allen (1946)
Chemistry
B.A., San Jose State University

Trouse, Ronald R. (1963)
English
B.A., University of Calif., Berkeley
M.A., San Francisco State University

Trugman, Ronald F. (1973)
Telecommunications
B.A., Calif. State Univ.,
Long Beach
M.S., M.S.Ed., Ph.D., University of
Southern California

Turner, John (1968)
English
B.A., University of Calif., Berkeley

Upshaw, Debbie (1975)
Counselor, CRP
B.S., Central State University
M.Ed., University of Cincinnati

Wagner, Carl A. (1964)
History, Political Science
Permanent Resident (Immigrant)
Student Advisor
A.B., Roosevelt University
M.A., University of Illinois

Wakeham, Duane A. (1965)
Art
B.A., Michigan State University
A.M., Stanford University

- Wallace, George E.** (1954)
Mathematics
A.A., College of San Mateo
B.S., A.M., Stanford University
- Walsh, John D.** (1974)
Administration of Justice
B.S., University of San Francisco
- Walters, Bruce E.** (1966)
Aeronautics
B.S., Oklahoma State University
- Wang, Peter C.** (1975)
Electronics
B.S.E.E., Nat. Taiwan University
M.S.E.E., University of Missouri
Ph.D., University of Pennsylvania
- Warne, Herbert R.** (1955)
Director of Admissions and
Records
A.B., M.A., University of
Pacific
- Weaver, Barlow A.** (1968)
Librarian
B.A., University of Texas
M.S. in L.S., Columbia University
- Weintraub, Alan L.** (1962)
Geography
B.S., De Paul University, Ill.
M.S., University of Chicago
Ph.D., Michigan State University
- West, David** (1973)
B.A., San Francisco State Univ.
M.S.W., University of Calif.,
Berkeley
M.A., Ph.D., Stanford University
- Whifler, William A.** (1966)
Architecture
B.A., Stanford University
A.I.A.
- White, David D.** (1948)
English
A.B., M.A., University of Calif.,
Berkeley
- Williams, John C.** (1963)
Director, Health & Service
Careers Division
A.B., M.A., San Francisco State
University
- Williams, Myrtle T.** (1960)
Cosmetology
- Williamson, Richard A.** (1963)
English
B.A., M.A., San Francisco State
University
- Williamson, Stuart** (1965)
Biology
A.B., Harvard University
M.A., San Francisco State University
- Willis, Janice M.** (1977)
Business
B.S., Pennsylvania State University
M.A., San Francisco State University
- Witt, Irving M.** (1963)
Sociology
B.A., University of Calif., Berkeley
M.A., University of Chicago
Ph.D., University of Calif., Berkeley
- Wittwer, Betty J.** (1965)
Business, Counselor
B.A., M.A., San Jose State University
- Witzel, Elizabeth L.** (1966)
Dental Assisting
A.A., City College of San Francisco
B.A., San Francisco State University
- Woolery, Jeanne K.** (1970)
Data Processing
B.A., Abilene Christian College
B.S.E., Abilene Christian College
M.B.A., George Washington
University
- Young, Frank H.** (1969)
Mathematics
A.B., M.A., San Francisco State
University
- Yutzy, Jan C.** (1972)
Astronomy, Physics
B.S., Boston College
M.A., University of Calif., Berkeley
- Zempel, William H.** (1964)
Meteorology, Physics
B.A., San Jose State University
M.N.S., Arizona State University
- Zimmerman, Paul C.** (1967)
Architecture
B.Arch., University of Calif., Berkeley
A.I.A.
- Zones, Christe P.** (1968)
Geology
A.B., University of Pennsylvania
M.S., University of Nevada

Emeriti

Dr. Elizabeth G. Balderston
English, Dean of Women

Dr. Francis M. Stanger
History

Dr. Harry E. Redeker
Chemistry

Leslie Wilson
Geology, Engineering

E. H. Bashor
History

Edla R. Walter
Librarian

Leonora Y. Brem
Health Education

Martha E. Burrill
Coordinator of Admissions and
Registration

Gladys L. White
Business

Harry T. Mercer
English

Erford A. McAllister
Journalism

Dorothy F. Herrington
French

Roland K. Abercrombie
Business

Dr. William L. Roach
Psychology

Carol E. Boyd
Home Economics

Dr. David G. Rempel
History, Political Science

John G. Ames
Mathematics

Marjorie L. Hoffman
Mathematics

Francis M. Coe
Agriculture

Maurine Marsh
Spanish

Alice W. Danielson
Home Economics

Ainslie Harris
English

Mildred H. Stickney
Business

Fredric Roehr
Music

Dr. Stanley L. Sharp
German, English, Speech

Ralph W. Likens
Data Processing

Margaret Cornahrens
Business, Counselor

Alan P. Tory
Social Science

Mildred S. Justesen Corcoran
Political Science

Woodson F. Hocker
Spanish

Dell M. Fishback
Health Education, Counselor

John P. Nystrom
Aeronautics, Counselor

Dr. Claude M. Anderson
Astronomy

Helen M. Foley
Coordinator, Community Programs

Ruth H. Weston
Assistant Dean of Students

Dr. Jacob H. Wiens
Director, College of the Air

Fred J. Clark
Physics

William R. DeHart
Technical Illustration

William A. Goss
History, Counselor

Anne M. Grubbs
Chairperson, Health Occupations
Division

Dr. Charles H. Haight
History

James A. Ice
Chemistry

Claire Langston
Dental Assisting, Counselor

Zoia V. Petelin
Cosmetology

Marjorie M. Wheeler
Early Childhood Education

Marvin Alexander
Chairperson, Social Sciences Division

Lorraine Bush
Cosmetology

Amerigo T. Ciani
Librarian

John Hecomovich
Telecommunications

Dr. William J. Justice
Business Administration, Counselor

Dr. Francis A. Smart
Business Administration

Ruth R. Teel
English

Dr. Karl Grossenbacher
Biology

Clifford V. Horn
Business

Margreta S. Husted
Chemistry

Alexander J. Murphy
English, Counselor

Edmond O. Shinn
Guidance, Testing, Counselor

Dr. Rex J. Bartges
Biology

Jeanne Blanchette
Nursing

Harry F. Clinton
Business

Yolande S. Hilpisch
College Nurse

Marvin A. Kolber
Biology, Zoology

Edward A. Kusich
Engineering, Mathematics

Dr. John A. Montgomery
Business Administration

Harry W. Prochaska
Art

Elizabeth K. Rempel
Art

Gilbert G.W. Steed
Art

Alice P. Wilson
English

John B. Bestall
Engineering

Herbert W. Free
Real Estate

Winifred P. Stetson
Business, Counselor

Robert A. Brauns
Play Production

John B. Dooley
Librarian

Albert K. Fine
Technical Drafting

Herbert H. Hudson
Physical Education, Counselor

D. Richmond Le Gallais
Chemistry

Chauncey J. Martin
Machine Tool, Welding Technology

Jeannette J. Mathers
Speech, English

Ellentine M. Mullaney
English

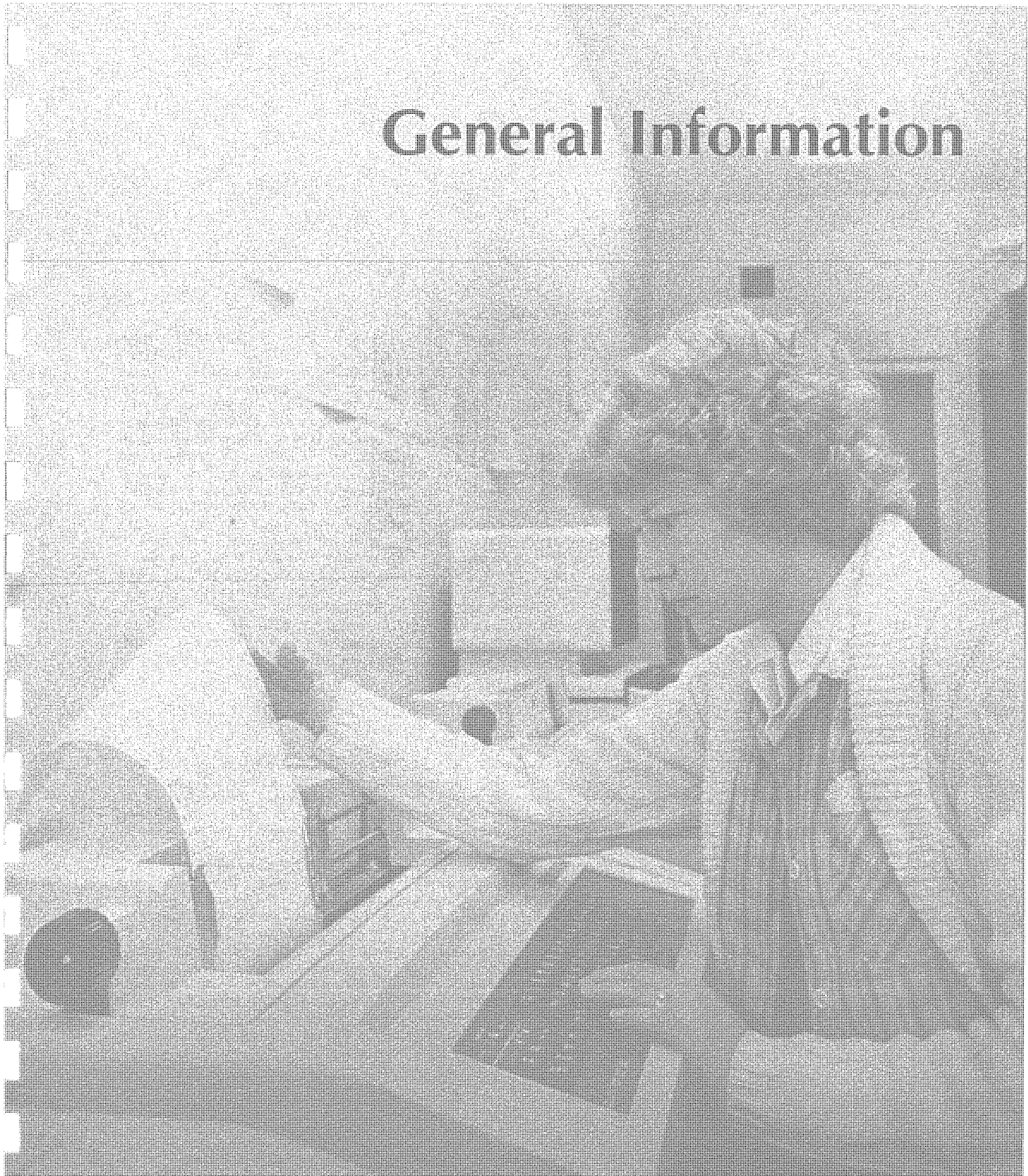
Samuel S. Rolph
Play Production

Russell M. Stoker
Psychology

Bernard F. Woods
Business Administration

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General Information



Business

RAYMOND HEMMING



He grew up in San Mateo, was student body president at San Mateo High School, and after pursuing higher education at College of San Mateo, Stanford and Harvard, Raymond Hemming brought his considerable business skills home to San Mateo. In 1958 Hemming, a 1939 graduate of CSM, established himself as a Certified Public Accountant in San Mateo. In 1964 he became a partner in the highly-respected Hemming, Morse and Co., CPA, with offices in San Francisco, San Mateo and Sunnyvale. Today his business, which began with "only an idea and no clients," has grown to include 40 to 50 staff members and hundreds of clients. When he came to College of San Mateo right out of high school, Hemming had no plans to study business. He was interested in aviation. His ability, however, did not match his interest, he recalls. His instructors wisely guided him from the engineering curriculum, and mediocre grades, to a business-oriented curriculum, and all A's in his final semester. His change of emphasis to economics and political science was a wise one. It enabled him to transfer to Stanford University to work towards a Bachelor of Arts degree. From there he went on to the Navy Supply Corps School, Harvard Graduate School of Business, and finally, to the Stanford Graduate School of Business, where he was awarded his MBA. His years at CSM, he recalls, "provided a stable foundation and a realization that you can do about as well as you wish to do if you select objectives compatible with your capabilities and interests."

MARTHA MIRABELLA



After being out of school for 18 years Martha Mirabella felt a great deal of apprehension about returning to education. A mediocre student in high school, she wasn't sure she could compete with college students. She decided to take the risk and after three years at CSM in which she was "very pleasantly and enjoyably introduced to higher education," she has a record of which she can be very proud. In 1977 she was awarded her A.A. degree in the field of data processing (with a 3.97 grade point average) and was hired to fill a demanding position as a computer programmer with a San Francisco firm. Today she continues to find her job interesting and challenging. While she was at CSM, not only did she find a well-rounded curriculum, but she was afforded an opportunity to put theory into practice through the college's Volunteer Program. To provide her with some real experience, Mirabella was placed as a programmer with a non-profit organization. "The data processing manager was pleased with my work and recommended me to a friend who then hired me for my first paid position," she relates. Of the CSM staff she says, "They encouraged me and inspired me. They were well prepared, they enjoyed their work, and the subjects they taught. I remember that they often patiently covered the same points over and over until they felt the students understood."

General Information

The District

Starting with just 42 students when it first opened its doors at the Baldwin campus in downtown San Mateo in 1922, the San Mateo County Community College District has grown to a complex of three modern campuses serving more than 30,000 day and evening students from throughout San Mateo County.

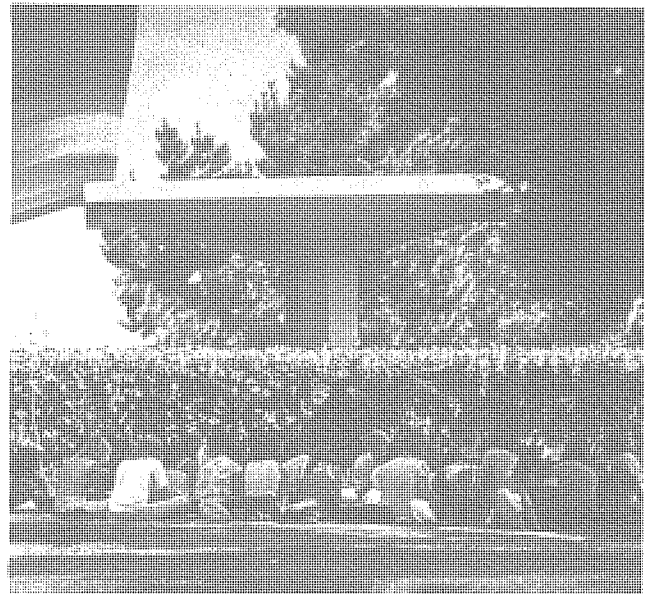
In the beginning, the District consisted only of the area within the San Mateo Union High School District. In 1937 the Jefferson Union and Half Moon Bay high school districts were included, and the San Mateo Junior College District Board of Trustees was established. Sequoia Union High School District joined the college district in 1961, and South San Francisco Unified School District was annexed in 1966. (The name of the District was changed to San Mateo Community College District in 1973.) In July of 1976 the District annexed the La Honda-Pescadero Unified School District, and in recognition that District boundaries were now conterminous with those of the County, the District name was again changed, to San Mateo County Community College District.

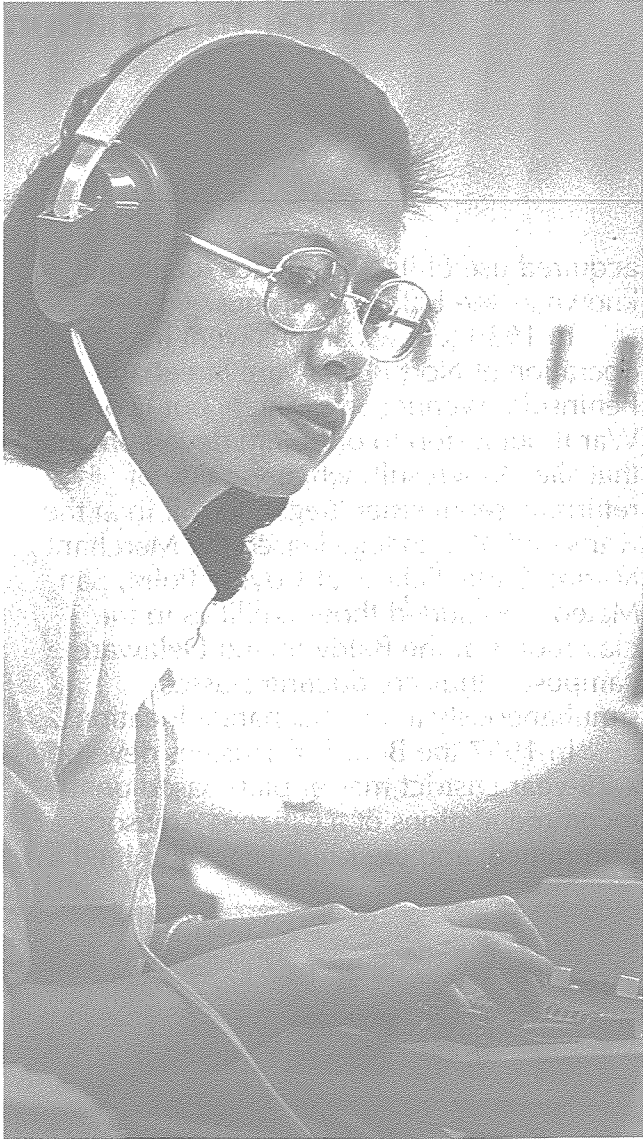
First classes were held in a building shared with San Mateo High School in downtown San Mateo. In 1923 the college moved to a large house on the Kohl Estate, in what is now San Mateo's Central Park, and added some tents to handle the overflow attendance. Four years later the high school occupied a new campus, and the college

acquired use of its "birthplace location," known as the Baldwin campus.

In 1939 a new campus went into operation at North Delaware Street and Peninsula Avenue, San Mateo, but World War II put a stop to optimum development of that site. As a result, when the tide of returning servicemen began to roll in at the war's end, the college leased the Merchant Marine Cadet School at Coyote Point, San Mateo, and added those facilities to the classrooms at the Baldwin and Delaware campuses, thus conducting classes simultaneously at three separate locations.

In 1957 the Board of Trustees developed a 25-year District master plan based on the recommendations of a Citizens Advisory Committee, and the same year submitted a





\$5.9 million bond issue to voters that was approved by an overwhelming 3 to 1 margin.

The bond issue victory cleared the way for prompt acquisition of the present College of San Mateo campus, and also provided funds for purchase of a 111-acre site west of Skyline Boulevard and south of Sharp Park Road in San Bruno. A third site, of 131 acres west of the Farm Hill subdivision on the

Redwood City-Woodside line, was purchased in 1962.

College of San Mateo campus was opened in 1963, followed by Canada College, Redwood City, in 1968, and Skyline College, San Bruno, in 1969. Construction of Canada and Skyline was made possible in large part from proceeds from a second bond issue of \$12.8 million approved by District voters in 1964.

The College and the District continue to work towards the goal of the Trustees' master plan — to provide sufficient junior college facilities for the district for the rest of the 20th century.

The College

College of San Mateo, the "oldest" of the three colleges in the San Mateo County Community College District, is located on a 153-acre site that provides a panoramic view of the entire north Bay Area.

Completed at a cost of almost \$19.5 million, the campus opened its doors in 1963 and currently serves more than 15,000 day and evening students. It enrolls students from the entire District, although its chief service area is central San Mateo County.

The College's main educational structures are built along a north-south axis provided by the main pedestrian mall. A second mall, running east and west, connects the Fine Arts Center with the Library. Total gross space is 537,000 square feet, with 160 teaching stations, plus offices, storage rooms and support facilities.

The architectural style for College of San Mateo emphasizes both aesthetics, in dignity and structural clarity, and practicality — a fitting setting for pursuing a quality education.

Philosophy and Purposes of the College

College of San Mateo has established its educational philosophy on three fundamental premises: that a free society requires intelligent support; that the individual has worth and dignity; and that a college has obligations both to society and the individual.

As a corollary to these premises, the college realizes that in its role of community college it must remain sensitive to changes in the needs of its area and evolve its educational offerings in response to those needs.

In general the purpose of College of San Mateo is to provide education beyond the high school level for the people in its area who can profit thereby. This education is designed to help the student realize his or her potential by pursuing cultural and vocational abilities. It prepares the student to assume the responsibilities of citizenship in our free society. It attempts to develop in the student the ability to think clearly.

To achieve its purpose, College of San Mateo offers the following kinds of education:

General Education: Instruction which helps students function effectively as individuals, as members of their families, and as citizens with local, national and world responsibilities.

Lower-Division College Education: Courses which enable students to complete the first two years of four-year college work. These courses satisfy the lower division requirements in the liberal arts and in scientific, engineering and other professional and technical fields.

Career Programs: Instruction designed to develop personal and technical competencies necessary for successful employment in specific careers.

Extended Educational Programs: Classes in which all persons living in the area may broaden their educational, vocational and aesthetic horizons.



To assist students in profiting most from their education, the college helps them to explore their aptitudes, choose their lifework, and plan an educational program which will prepare them for that work. It offers this assistance through a formal program of guidance and counseling, and through informal student-teacher relationships, which are among the most distinctive and valuable of its services. The college recognizes the educational value of organized student activities and encourages students and faculty participation in these activities.

Situated as it is, close to San Francisco and several fine colleges and universities, College of San Mateo is a part of a colorful



community which enjoys many cultural advantages. Many College of San Mateo graduates transfer to the University of California, Stanford University and the nearby state universities. Because the needs of these students who transfer to upper-division work are carefully provided for in the curriculum, the college enjoys a fine reputation among the universities of the state. Graduates have consistently had a pattern of success in four-year educational institutions. Many College of San Mateo students, having temporarily

completed their formal education with the Associate in Arts or the Associate in Science degree, find employment in business and industry.

Accreditation

College of San Mateo is fully accredited by the Western Association of Schools and Colleges, the recognized local agency which is affiliated with the Federation of Regional Accrediting Commissions of Higher Education.

Revision of Regulations

Any regulation adopted by the Administration of College of San Mateo will be considered an official ruling and will supersede regulations on the same subject which appear in this catalog and other official publications, provided that the new regulation has been officially announced and posted.

Veterans and Veterans' Dependents

College of San Mateo is listed by the Veterans Administration as qualified to receive students under Chapter 34 (veterans), Chapter 35 (veterans' dependents) and Chapter 31 (vocational rehabilitation). All students, except those under Chapter 31, buy their own books and supplies. Those interested in attending College of San Mateo under any of these chapters should contact the Office of Veterans' Affairs, Rooms 249 and 251 in the Administration Building, to determine eligibility for benefits.

The State of California provides a program for children of veterans who are deceased or are disabled from service-connected causes. Application should be made to the California Department of Veterans Affairs at 350 McAllister Street in San Francisco.

Costs to Students

All students are required to pay a Health Service fee for each semester.

Each student purchases his/her own textbooks and supplies. A considerable saving is possible through the purchase of used texts from the on-campus College of San Mateo Bookstore. Excluding living and transportation costs, the total of all expenses, including membership in the Associated Students, should not exceed \$200 per semester. Special equipment is needed for

certain courses such as Electronics, Drafting, Engineering, Art and Architecture, involving an additional initial outlay ranging from \$25 to \$125. Please refer to course descriptions for special costs.

In addition to other costs, non-residents pay tuition.

Tuition (Non-Resident Fee)

No tuition is charged to legal residents of California who reside in San Mateo Community College District. No tuition is charged to legal residents of California (see Residence Requirements for Admission on page 38) who reside outside of San Mateo County and qualify for admission.

Out-of-state residents pay a non-resident fee of \$1,539 for the academic year 1979-80. The fee is payable at the time of registration each semester at the rate of \$51.30 per unit or a maximum of \$769.50. (See Refund Policy, page 40.)

Resident status is determined by the Office of Admissions and Records. Detailed regulations governing non-resident fee and admission requirements will be distributed to students who apply for admission.

Parking

Parking for students is provided in clearly designated areas on the campus. Most of the parking is located at the entrance to the college, in the southwest sector of the campus. Certain parking areas are reserved for visitors with permits and for staff who hold permanent parking permits. Spaces for handicapped and provisions for persons with major medical problems are available. Student parking is provided in Lots 1, 2, 3, 9, 10, 10A, 15, 16, and 17. Portions of Lots 2 and 3 have some spaces reserved for permit parking. Locations are shown on the campus map. Parking and traffic regulations are

enforced by the Campus Security Office and violations are cited to the San Mateo Municipal Court. During the evening hours, portions of Lots 3, 8, and 11, reserved during the day, are open to student parking.



High School Diplomas

The college does not issue high school diplomas. Students who wish to complete requirements for the diploma should consult the high school they last attended to determine graduation requirements. College courses used to satisfy a high school diploma requirement may not be used toward a college degree. Students who are unable to make arrangements with their previous high schools can contact the office of the high school district in which they now reside. Counseling services for high school diplomas may be obtained by persons living in the San Mateo Union High School District by

phoning 347-9871 and asking for the Adult Education Counselor.

Policy of Nondiscrimination

College of San Mateo is committed to equal opportunity regardless of sex, physical handicap, race, color, religion or national origin, for admission to the College, enrollment in classes, student services, financial aid, and employment in accordance with provisions of Title VI of the 1964 Civil Rights Act, Title IX of the Educational Amendments of 1972 (45 CRF 86), and Section 504, Rehabilitation Act of 1973 (P.L. 93-112).

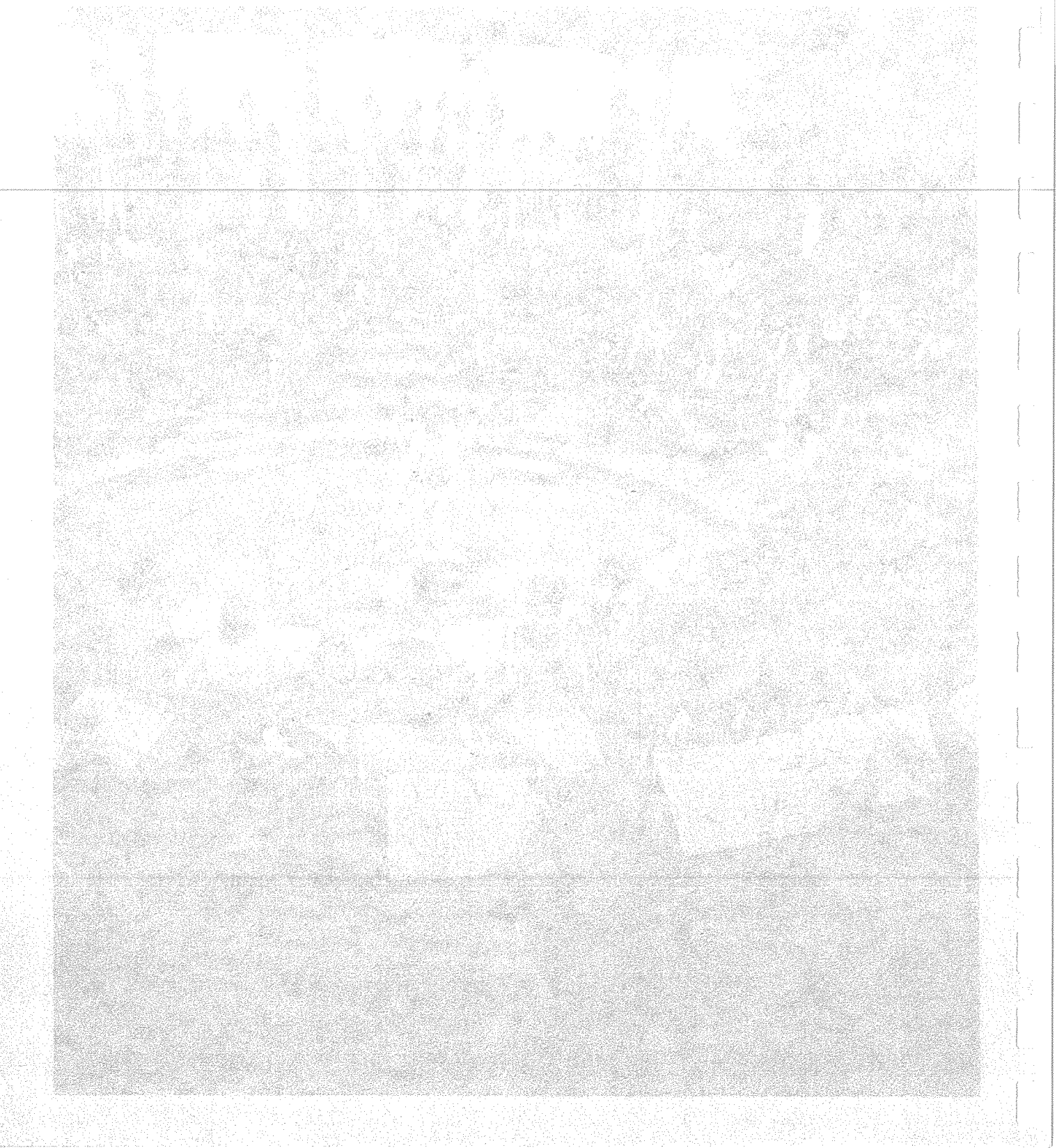
Inquiries concerning these laws and policies may be directed to the Director of Special Programs and Services, Administration Building, Room 209, telephone 574-6181.

It is important that students, staff, and all others associated with the College understand the importance of reporting concerns about possible violations of this policy. The College's commitment to equal opportunity demands full investigation of possible violations and an opportunity for a fair and impartial hearing on any matter relating to these laws and policies.

Any person claiming grievance because of alleged violations of Title VI of the 1964 Civil Rights Act and Sec. 504 of the Rehabilitation Act of 1973 should contact the Director of Special Programs and Services, Administration Building, Room 209, telephone 574-6181.

All grievances will be reviewed in terms of Title VI and Title IX law, and persons involved will be advised of the provisions of the law and their legal rights. If necessary, assistance in the preparation of written statements will be given. The office will take

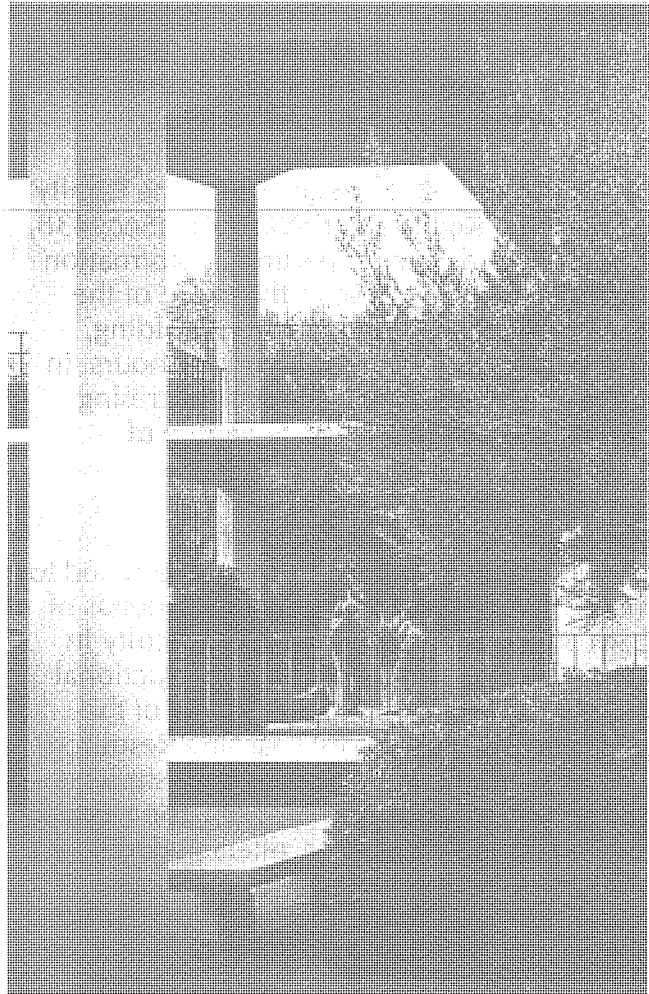




up grievances with the appropriate parties and will follow the progress of each grievance. If normal channels are not available or fail to meet legal requirements, the necessary action will be initiated. The office will maintain a record of all Title VI and Title IX grievances, and will report to the Affirmative Action Committee the general nature of such grievances and progress toward their resolution.

Privacy Rights of Students

The Family Educational Rights and Privacy Act (Sec. 438, P.L. 93-380, as amended) requires educational institutions to provide: access to official educational records directly related to the student; an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading, or otherwise inappropriate; that the College must obtain the written consent of the student before releasing personally



identifiable information from records to other than a specified list of persons and agencies; and that these rights extend to present and former students of the College.

The Act provides that the College may release certain types of "Directory Information" *unless the student submits a request in writing*, to the Records Officer that certain or all such information not be released without his/her consent. "Directory Information" at this College includes: (1) student's name and city of residence; (2) participation in recognized activities and

sports; (3) dates of enrollment; (4) degrees and awards received; (5) the most recent previous educational agency or institution attended; and (6) height and weight of members of athletic teams.

A copy of the College Policy, the Family Educational Rights and Privacy Act (Sec. 438, P.L. 93-380) and other pertinent information and forms are available in the office of the Records Officer, Administration Building, Room 210, during normal working hours. In addition, a complete statement describing procedures appears in the **Schedule of Classes**.

The Learning Resources Center

The Learning Resources Center is designed to meet the many and varied learning needs of CSM Students and to support the faculty in the development of innovative instructional programs. With its panoramic view of the Bay Area, the three-story Learning Resources Center is an inviting place for both students and faculty to study and browse. The Library, located on the main floor, offers general book, reserve, reference, periodical, and microfilm collections. The mezzanine is the open-stock book area. (Non-book media are located on the lower floor in the Coordinated Learning Lab.) The union catalog lists both print and non-print media. There are many tables for individual study and carrels in the open-stock areas, as well as a typing room with copy machine and group study facilities. In the library collection, there are approximately 100,000 volumes, 850 carefully selected periodicals, and 3,200 reels of microfilm. The Library is open each school year, Monday through Friday. Specific hours

for the daily schedule and for holidays are posted at the Library entrance.

The lower floor houses the Media Center, with many listening/viewing stations and 30 program sources using both reel-to-reel and cassette. There are two language labs available for student use, as well as faculty recording studios, preview rooms, photography darkrooms, a media production center, and a media equipment storage, repair and distribution area.

The Media Center staff oversees this area and provides faculty with expertise in media and instructional design. The non-print collection contains 8,000 disc records, 8,000 tape and cassette recordings, 400 films, and thousands of slides and filmstrips.

Also located on the lower floor are the television and radio studios.

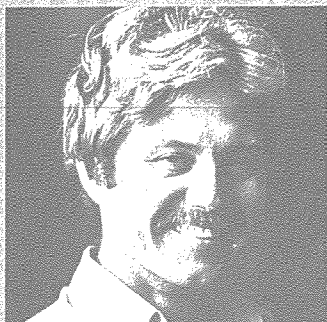
Through its new 1.5 million watt transmitter, KCSM-TV, Channel 60, provides courses to those students not able to come to the campus for their learning experience. Closed-circuit television provides both live and taped video for some 90 classrooms on campus. KCSM-FM broadcasts stereo to the greater Bay Area on 91.1 Mhz, providing a wide variety of programming to meet both student and community needs.

The Career Development Center is located on the lower level of the Learning Resources Center (Library Bldg.). A variety of short courses, open forums, individual and group career exploration activities and professional counseling services are available to assist students with academic, personal or career planning. For further information contact the Career Development Center or the Office of Student Services.

Evening Program and Summer Intersession



Fine and Performing Arts



KELLY HAMILTON

When Kelly Hamilton attended CSM in 1963-65, he was deeply involved in the theater arts program. He acted in several productions, wrote the music and lyrics for a children's musical, "Whinnie, the Pooh," and wrote a comic opera, "Charlotte the Harlotte". Today he is doing some of those same things, but on a much grander scale and to much larger audiences. Three of the writer/composer's musicals have met with considerable acclaim in theaters in Chicago, San Francisco and New York. "Dance on a Country Grave," his adaptation of Thomas Hardy's "Return of the Native," was presented in Chicago and won the Joseph Jefferson award. Since then it has been produced off-Broadway and is currently under option for Broadway. "Surprise!," based on Moliere's "Tartuffe" and produced in San Francisco, is scheduled for an off-Broadway production in the Fall of '79. "Saga," a folk opera commissioned by CBS and winner of the David B. Marshall award in musical theater, opened off-Broadway in April, '79. CSM courses in acting and directing, scene design, costume and history of theater were extremely valuable to his professional development, Hamilton says. His musical "Surprise!," was written as a result of his study of Moliere while at the college. "CSM was a place to do something creative in my field of interest," he remembers, "When I was at CSM there wasn't too much established structure and therefore always room to gather a group and make something happen, with an unusual amount of help and encouragement from the faculty." The playwright/composer for 15 musicals, Hamilton is also Associate Editor, critic and columnist for Drama-Logue, a Los Angeles theatrical trade paper.



NANCY GELLERMAN

Nancy Gellerman's life has always been filled with the need to create. Some of her earliest and best memories are of doing art work as a child. Still, she never saw art as a possibility for her life's work. That is, not until after she became involved in CSM's Re-entry to Education Program. Enrolling at the college in 1975 as a re-entry woman, she was guided to vocational testing and career counseling in her quest for a satisfying career. She took classes in several fields, including math and electronics, before finally deciding to put her efforts into fine arts. It was a very happy choice, she says today. Since graduation in 1977 she has had numerous showings of her paintings, including three single artist shows. Her floral water color interpretation titled "Blue Ins" won an award at the 1978 San Mateo County Fair. "CSM contributed to my present success by teaching me the basic skills and knowledge I needed to be an artist", she says, "I constantly use those skills with every painting I begin." Gellerman chose the college for very practical reasons. "As a wife with two young children, a husband and a home to look after, I had a very tight schedule to keep. CSM offered an excellent education and was close enough to home to become a workable plan." She is continuing her education in art with several highly trained and successful artists. She is a member of the California Society of Fine Arts, Burlingame Art Society and the Society of Western Artists.

Evening Program and Summer Intersession

Evening Program

College of San Mateo serves not only full-time day students, but those who may have commitments at work or home which prevent them from attending during daytime hours.

Evening classes provide opportunities for students to resume interrupted education and to investigate new fields of interest; to take college courses leading to an Associate in Arts or Science degree or for transfer credit; to complete requirements for a certificate program; and to enroll in general continuing education classes for self-enrichment or improvement of job skills.

Classes in the evening program are open to persons who are over 18 years of age or are high school graduates. Students attending high school must have permission of the Office of Admissions and Records to attend evening classes. In credit classes, all students must enroll for the prescribed number of units, complete the required work, and be assigned a grade; no auditors are allowed. All units earned in credit classes are applicable toward the Associate in Arts or Science degree. Registration procedures are included in the Schedule of Classes, which is distributed at the college and through local libraries about four to six weeks prior to the beginning of each semester (see Calendar).

Certificate programs, planned mutually by the college and advisory committees, are available in the evening and include: Ornamental Horticulture, Vocational Gardening, Real Estate, Fire Science Training, Administration of Justice, Teacher Assistant, Library Technology, Early Childhood Education, Aeronautics, Secretarial, Business Management, and Business Merchandising. Certificates in these fields are issued upon completion of required and elective courses, and the units earned in them may be applied toward the Associate in Arts or Science degree for those persons who wish to continue their education.

Separate brochures are available at the Office of Extended Educational Programs in the Administration Building for outlines of programs, course descriptions, explanations of programs and certificate requirements. At the beginning of the final course required for a certificate, it is the responsibility of each candidate to file an application in the Office of Admissions and Records (see Calendar).

Evening Final Grade Reports

Final grade reports will be mailed to all evening students enrolled in credit classes. Mid-term grade reports will be mailed to an evening student only if his/her cumulative record shows a potential probation or dismissal status.

Evening Fees

The College of San Mateo does not charge evening tuition. Certain courses have fees covering special supplies, services or equipment which are payable by both adult and minor students.

Out-of-District Students

With the exception of residents of San Francisco and Peralta Community College districts, students whose legal addresses are in another community college district are required to present a release from that district before being allowed to register in any evening class. This release must be presented at the time of registration; places cannot be reserved for students who intend to secure a release at a later date.

Out-of-State Students

Out-of-state students may register in evening classes, but will be required to pay at the rate of \$51.30 per unit for courses at the time of registration (see Tuition Policy, page 25).

Foreign Students

Students who are legal residents of another country and are in the United States on other than immigrant visas may not register in evening classes without approval of the Office of Admissions and Records. Immigrants as residents in the District are eligible to register.

Evening Testing

The School and College Aptitude Test (SCAT) and Coop English Test are administered each semester for students planning counseling appointments. The English test is required of all students planning to enroll in English classes.

Evening Registration

Registration for classes and dates of registration are described in detail in the class schedules. Registration in classes is closed at the end of the second class meeting if the class meets once a week and the third class meeting if the class meets twice a week. It is recommended that beginning students with full-time occupations do not enroll for more than two evenings per week. No auditors are permitted.

Evening Schedule of Classes

A schedule of classes, indicating times, days and locations, is printed for each semester and is available prior to the registration dates at College of San Mateo and the public libraries. While the basic program in the evening is similar from year to year, the specific classes presented at any given time may vary from those of the previous semester. For offerings of any given semester, consult the current Schedule of Classes.

Evening Academic and Career Counseling

Every effort is made to assist students in the wise choice of individual courses, major fields and even career goals. Drop-in counseling services are available in the second floor of the Administration Building from 6:30 until 7 p.m. Coun-

seling appointments may be made for the hours 7 until 9 p.m. by calling 574-6165. Anyone who wishes individual counseling should bring transcripts of previous work to his/her interview. Contact the Office of Admissions and Records for an appointment.

Additional career counseling and career exploration services are available through the Career Development Center and regularly offered Guidance classes (Guidance 410, 430, 431, 432).

Withdrawal Procedure from Evening or Summer Intersessions

Students wishing to withdraw from an evening or summer intersession class must obtain a permit to withdraw from the Office of Extended Educational Programs or the Office of Admissions and Records, Building 1, second floor.

Withdrawal from evening and summer classes is the responsibility of the student. A student who does not withdraw, in accordance with established procedures, may receive a grade of "F."

Summer Intersession

A balanced offering of day and evening summer Intersession classes enables students to accelerate their programs or satisfy course or curriculum requirements. The Summer Intersession also affords opportunity to exceptionally able high school students after completing the junior year to take selected college courses. Further information may be obtained by calling the College of San Mateo, Information Office (574-6544), or by contacting the high school counselor.

Admission Requirements Registration



Health and Service Careers



TONY PINI

"Nothing will ever replace on-the-job experience and neither will anything replace a good academic background." This is the philosophy of Tony Pini, a 1975 CSM graduate, as he reflects on his nine years with two Bay Area Fire Departments. As a rookie firefighter, he entered CSM planning only to take a few fire science courses. Once there he recognized the advantage of working toward an A.A. degree and transferring to a university. "CSM prepared and qualified me for career advancement. My A.A. degree qualified me for a number of promotional opportunities and gave me the necessary background for job growth," he says. Today, in his early 30s, Pini is Battalion Chief, Operations Division, in the Campbell Fire Department. His responsibilities include the department's paramedic program, training program and all fire suppression activities. On a rotating basis he acts as duty chief and responds to all structure fires as a command officer. The college, he says, not only provided him with a strong education, but it also gave him the opportunity to meet other professionals. "The course in fire science provided an excellent chance to exchange ideas, discuss common problems and listen to what innovations were ahead of us in the years to come." Pini went on to receive his Bachelor's Degree (summa cum laude) from the University of San Francisco.



TERI MILLS

Following graduation from high school Teri Mills entered the nursing program at CSM with the short-term goal of receiving a degree in two years. After three months in the program she knew exactly what direction her life would take. "I knew I wanted to teach. I was so impressed with the teachers in the nursing program", she says, "They were fantastic role models." As a result of that decision Mills outlined an ambitious program for herself which ultimately led to her becoming a full-time teacher in the nursing program at Umqua Community College in Roseburg, Oregon. The steps toward her goal included graduation from CSM in 1973, working as a registered nurse for Peninsula Hospital for a year, and obtaining a B.S. degree from Sonoma State University in 1976. Her appointment to the faculty at Umqua College began in Sept. '76. She regards the help she received at CSM instrumental in attaining her goal. "The CSM nursing program was extremely difficult, but when I graduated I knew that I was self-sufficient, that I was an independent thinker." She recalls that the instructors were always willing to help students during difficult times. They were readily available, even by phone at home. Another plus, she says, was the fact that, with the program being offered in a tuition-free school, the students were freed from financial worries that beset students in other programs. Today as she looks back on her education at CSM, she is still impressed by the fact that in only two years the nursing program can turn out R.N.s who are thoroughly prepared to take charge (head) nurse positions.

Admission Requirements — Day Classes

Admission

Admission requirements must be completed before a student will be permitted to register.

Admission Requirements — Day Classes

Students applying to the College of San Mateo who wish to enroll for more than 9 units per semester are required to:

1. File a written application for admission on forms supplied by the College.
2. Request that two complete transcripts be mailed directly to College of San Mateo by the high school of graduation (or the high school last attended), and each college attended.
3. Take Placement/Counseling tests and other specific examinations necessary. (See schedule of tests on Application for Admission).

Students who do not complete the transcript and test requirements for admission (2 or 3 above) may be limited to a maximum of 9 units in day classes at the time of registration (see Part-Time Students).

Priority for registration will be given to students who complete the admission requirements one month prior to the scheduled registration period.

Transfer Credits

Credit will be allowed for lower-division work done in other accredited institutions. All work presented will be evaluated by the Office of the Admissions and Records.

High School Graduates

Normally, graduation from high school or other schools of equivalency rank or successful completion of a high school equivalency examination of the General Education Development Examination (GED) is a prerequisite for admission.

Persons over 18 years of age may be admitted to classes for which experience and maturity will, in the opinion of the President, qualify them, even though they are not high school graduates.

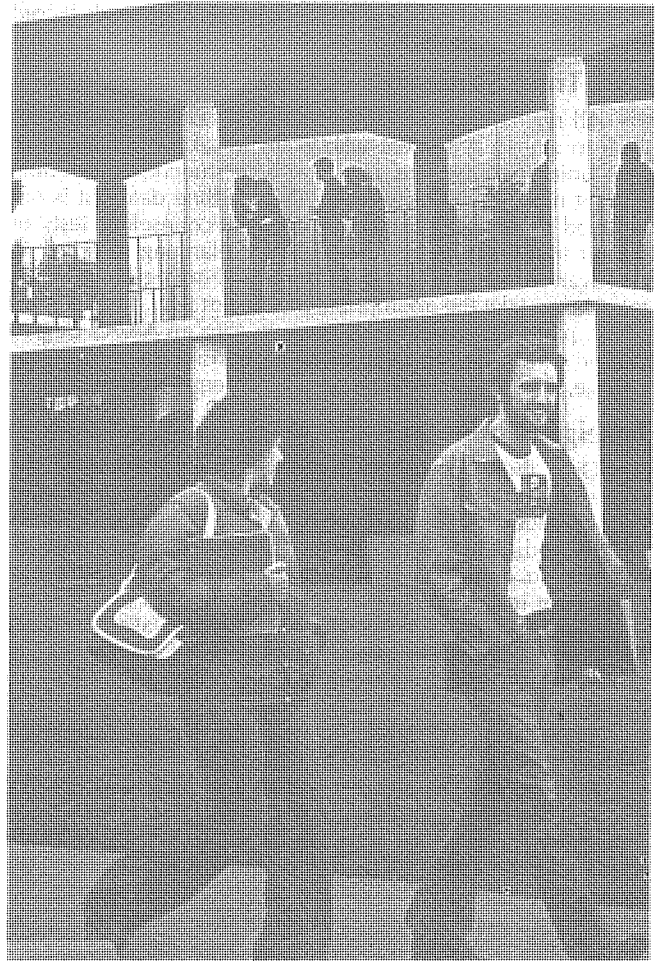
Any person who is not a legal resident of California or who is a legal resident of another community college district in California should see "Residence Requirements for Admission." See Page 38.

Transfers from Four-Year Institutions

Transfer students from four-year institutions are subject to CSM Academic Policy. See page 45.

Transfers from Other Community Colleges

Students who have previously attended another community college and are in good standing are eligible to enroll at College of San Mateo, subject to residence requirements. Students who have been placed on probation by another community college will not be admitted in the semester immediately following their attendance at that community college. After one semester's absence, such students may be admitted, subject to the Academic Policy. See page 45.



Former Students of College of San Mateo

Former students of College of San Mateo are eligible to return; however, if they have a grade point deficiency, they will be readmitted according to provisions of the current academic policies of the college. See page 45.

Veterans

For academic credit purposes, a veteran is defined as an honorably discharged member of the United States Armed Forces who was on active duty for one year or more. Upon presentation of separation or discharge papers, veterans are exempt from the Health Science and Physical Education requirements for the AA/AS Degree. They are also entitled to six units of elective credit toward the AA/AS Degree.

In addition, veterans who qualify may receive credit for military service schools toward the Associate in Arts/Science degree upon presentation of proof to the Office of Admissions and Records. They must have completed a minimum of 12 units with a grade-point average of 2.0 at College of San Mateo. Units of credit for military service (6 units) and military service schools will be recorded on a student's record at the time of graduation.

Part-Time Students

All regular day or credit classes are open to adults who wish to attend. A student who plans to take a maximum of nine units is designated as a part-time student. A part-time student must file application by the deadline date but is not required to take the general placement/counseling tests or submit transcripts. A part-time student planning to enroll in an advanced foreign language course and/or English course is required to take the appropriate placement test.

A part-time student who plans to earn an AA/AS Degree and/or certificate, or who plans to transfer to a four-year college, should complete all admission requirements.

Foreign Students

Only those foreign students who have completed the equivalent of an American high school education with satisfactory grades will be admitted.

In addition to the above, foreign students will be required to demonstrate sufficient command of English to profit from instruction at the college. They must also present evidence that they have the necessary funds to take care of all living expenses while attending College of San Mateo, a minimum of \$200 to \$275 a month if living in a private home.

Application for admission for the college year (fall semester) must be completed by the first week of April.

Foreign students are required to pay \$1,539 tuition for the academic year. The first year's tuition and a designated amount required for the purchase of an accident and health insurance policy must be paid prior to the issuance of an I-20 form.

Foreign students who have unusual circumstances that create financial hardships may petition for a waiver of tuition.

Residence Requirements for Admission

The right to attend a public community college in California is, in addition to the academic requirements, determined by certain residence qualifications.

Non-residents, those students who have not been legal residents of California for one year or longer prior to the beginning of a term, are required to pay \$51.30 per unit with a maximum of \$769.50 per semester.

In general, the unmarried minor (a person under 18 years of age) derives legal residence from his/her father (or from his/her mother if the father is deceased) or, in the case of permanent separation of the parents, from the parent with whom the minor maintains his/her place of abode. The residence of a minor cannot be changed by act of the minor or that of the minor's guardian, so long as the minor's parents are living.

An adult must take steps to establish legal residence in the state at least one year prior to the beginning of the term.

Information concerning acceptable documentation of intent to establish and maintain California residency and exceptions from non-resident tuition is available in the Office of Admissions and Records.

An applicant who is a legal resident of another community college district must be a graduate of a high school and submit a written release from the community college district granting the student permission to enroll at the College of San Mateo.

If an applicant is unable to obtain a release from the college district of residence, the student can attend by paying the non-resident fee of \$51.30 per unit.

Choice of College

Residents of the district may elect to attend College of San Mateo, Cañada College or Skyline College. In the event the capacity of one college is reached, students will be diverted to one of the other colleges. Major and date of application will be taken into consideration if such diversion becomes necessary.

Admission requirements must be completed before a student will be permitted to register. See page 37.

Counseling/Advising Appointments

Upon completion of admission requirements, new and returning students will be given a counseling/advising and registration appointment prior to the opening of each semester. (See Calendar at the front of the catalog.) Students register only after receiving program approval from a counselor/advisor.

Unit Load Limitations

A normal class load is 15 units. No student will be permitted to take more than 19 units without special approval of the counselor/advisor and the director of counseling services.

Registration—Day Classes

Students working full time or those in the military service should limit their program to 9 or fewer units. Combinations of work and school should be carefully discussed with the counselor/advisor.

Auditing is not permitted in any class. No person will be allowed to attend a class unless he or she is registered in that section.

A program of 12 units or more is considered a full-time load for Financial Aid, Veterans Benefits, Social Security Benefits and other benefits which are dependent upon student status.

Health Service Fee

All students are required to pay a \$4 Health Service fee each semester. The summer intersession fee is \$2. (This fee is not refundable.)

Program Changes

No changes of program will be permitted during the period of registration prior to the beginning of classes.

A program once entered by signing up for any given set of classes may not be changed unless a properly completed add/drop slip is obtained from the student's counselor/advisor, and the student completes the prescribed change-of-program procedure.

Changes of programs will be permitted only for students who have valid reasons for such requests.

A student may not add a new semester-length class after the designated date indicated in the official college calendar. A student may add a short course no later than the third class meeting. Please see your counselor/advisor for assistance.

Students may withdraw from a semester-length course, whether passing or failing, at any time through Friday of the second census week and receive a 'W' grade. Students may withdraw from a short course, whether passing or failing, at any time during the first half of the course and receive a 'W' grade. After these dates, a student will receive an 'F' grade if failing or a 'W' grade if passing, as determined by instructor at the time of withdrawal. Class withdrawals will not be authorized after the start of final examinations. Students failing to follow established withdrawal procedures may be assigned an 'F' grade by the instructor. For further information concerning procedures consult the Class Schedule.



Fees—Refunds

Fees:

All day students are required to pay a health service fee. (See page 39).

Foreign Students, out-of-state residents and, under some circumstances, California residents are required to pay a non-resident tuition of \$51.30 per unit. (See page 38 — sections on Foreign Students and Residence Requirements for Admission.)

Certain courses have fees covering special supplies, services or equipment.

Refunds:

Non-resident and Foreign Student tuition may be refunded according to the following schedule:

1. Official Withdrawal from School

- a. Prior to beginning of classes for those students who officially cancel their registration
100 per cent

- b. Official withdrawal from college during the first two weeks
 - 75% during first week of summer intersession
 - 50% during second week of summer intersession
 - 50% during second week of summer session
- c. Official withdrawal during third and fourth weeks
 - 50% during regular semesters
 - None for summer intersession

2. Change of Program

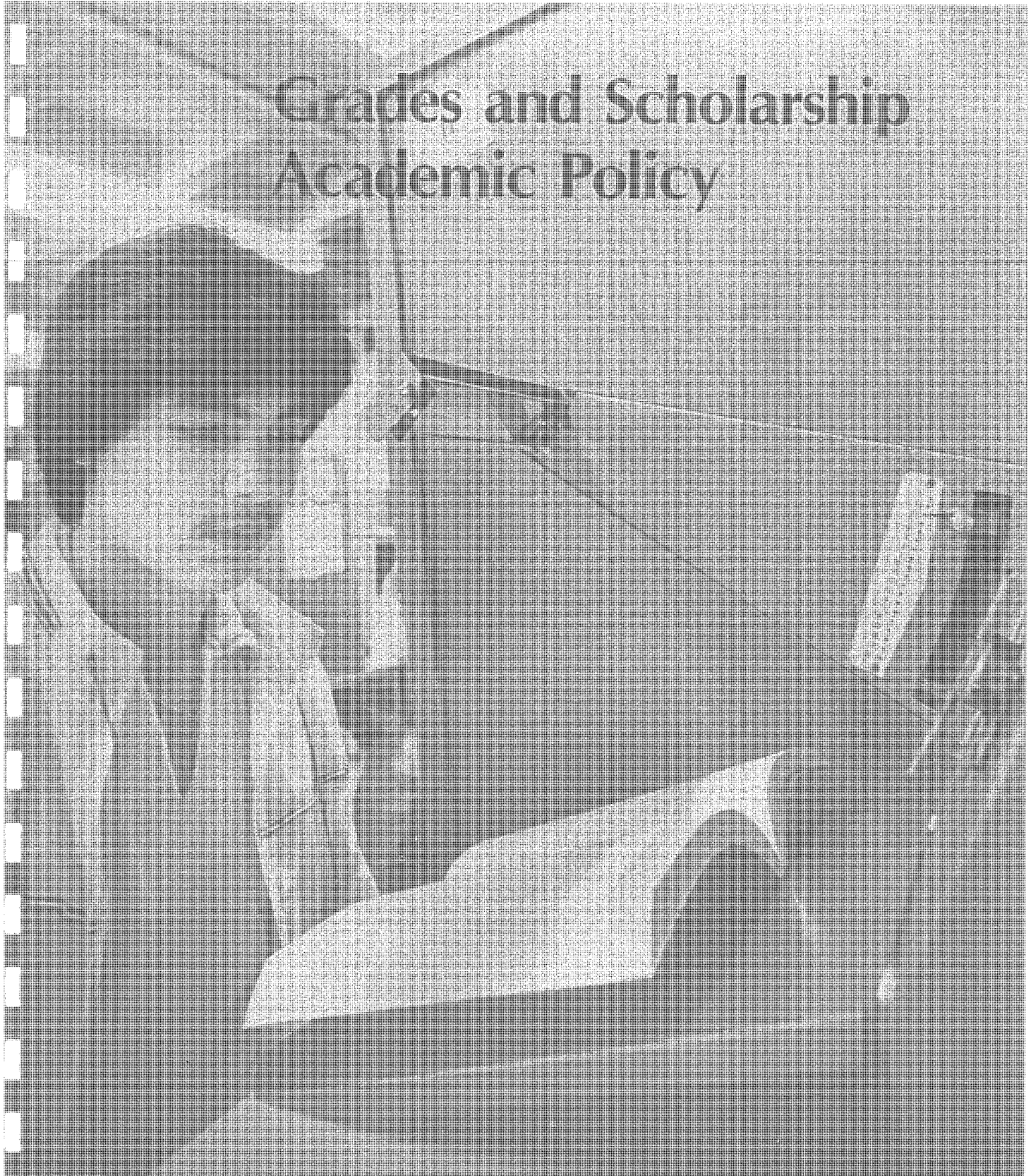
- a. During the first two weeks for those students who reduce their class load by an official change of program
 - 100% on reduced program, prorated
- b. Reduction of program during third and fourth weeks
 - 50 per cent during regular semester

3. No refunds after the fourth week except for students

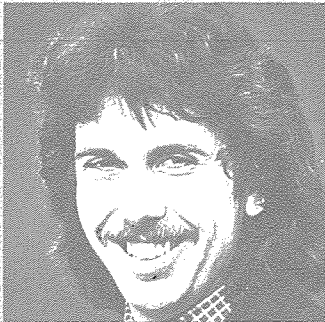
- a. whose tuition has been collected in error
- b. whose residence has been determined in error
- c. who have been called into military service

Refunds are not issued automatically. The student must complete a refund request form and submit proof of payment and appropriate withdrawal forms.

Grades and Scholarship Academic Policy



Language Arts



JOHN HOLLAND

While attending CSM with a full academic load, John Holland worked 20 to 40 hours a week as a chef at Mills Hospital, he composed music and poetry and participated in the CSM poetry program. In addition, he retained a 4.0 grade point average throughout. Today, he continues to perform brilliantly while being involved in a myriad of endeavors. While completing his Ph.D. at U.C. San Diego, he teaches writing at Warren College, one of U.C.S.D.'s four colleges. He is assistant archivist at the university's Center for New Poetry and is presently preparing papers on T. S. Eliot, James Joyce, and the "Crisis of Solipsism in Modern Literature," "Melville and the American Renaissance," and *The Prelude and Romantic Genre Theory*. A 1963 CSM graduate, Holland says, "CSM contributed to my present success by providing me a solid and remarkably wide-ranging humanistic education, a background that essentially inspired the direction of my future study." A major reason to choose a community college over a four year university for the initial years of study, he says, is the opportunity it affords students to meet and talk with teachers as individuals. "One can early-on have that true experience of education in that quickened dialogue between interested teacher and excited student — and then have the best of both worlds by moving to a university when class sizes are decreasing and professors are increasingly available to the advanced student." After leaving CSM, Holland went on to U.C. Santa Cruz, where he graduated with honors in philosophy and English literature. He was then awarded a graduate position and teaching appointment at U.C. San Diego.



HELEN JOHNSEN

When Helen Johnsen was growing up in Scotland, she had two dreams — one, to come to America; two, to attend a university. At 19 she arrived in America. Soon thereafter she married, began raising a family and put away her second dream. More than 20 years later, with the help of College of San Mateo, she realized that second childhood dream. "Had I gone directly to Berkeley without passing 'Go' at CSM, I would have had great difficulty coping with the workload and the system in general", she says. "At CSM I learned to study, read catalogs, define goals, use the library facilities and get help when I needed it." Today as she nears completion of her B.A. degree in English from U.C. Berkeley, Johnsen has been elected to Phi Beta Kappa and is making plans to go on to graduate school. Enrolling in one CSM class in 1974, she recalls, "I had no particular goal — but one big question — 'did my brain still work?'" Discovering that it did indeed work, she added more classes. When English kept appearing in her class schedule she decided to put her efforts into that field. Her interest in this area led to her participation in the CSM poetry program, of which she was chairperson in '76. Twice her short stories were awarded publication in the *Pendulum*, the student art and literary magazine, and she won the Helen Berryhill prize for poetry in '77. "Some exceptional instructors helped me enormously," Johnsen says. "While the study of literature opened doors for me to the world at large, these instructors helped me to open the most important door of all — the door to myself."

Grades and Scholarship

Units Work and Credit

A "unit" of college credit normally represents one hour weekly of lecture or 3 hours of laboratory, or similar scheduled activity, during one semester.

Grades and Grade Points

Once a subject has been made a part of a student's program of attendance, the record for the subject will be reported to the Office of Admissions and Records by one of the following symbols:

A—Excellent	4 grade points per unit
B—Above average	3 grade points per unit
C—Average	2 grade points per unit
D—Passing; below average	1 grade point per unit
*CR—Credit	0 grade points per unit
*NC—No credit	0 grade points per unit
F—Failed	0 grade points per unit
Inc—Incomplete	0 grade points per unit
W—Withdrawn	0 grade points per unit

*Used in courses in which grades of "credit" or "no-credit" are given. The units for credit count as units completed. No-credit means the student is not charged with units attempted and is not credited with units completed.

A grade of "Incomplete" may be given in case of absence from required examinations, or in case of circumstances which warrant granting the student additional time in which to complete the work of the course. A student reported "Inc." in any subject must remove the deficiency by the end of the next semester. Additional time may be provided upon approval of the instructor and the Director of Admissions and Records; however, the extension of time may not exceed one calendar year from the date of issuance of the "Inc." The units for "Inc." grade are not charged as units attempted and do not enter into the computation of grade-point average.

A grade of "W" (Withdrawn from class) indicates that the subject has been canceled from the student's study list. No credit can be counted in subjects for which a "W" is recorded. Please see section on program changes (page 39.) Withdrawal from class will not be authorized once final examinations have begun.

The GPA (grade point average) is determined by dividing the total number of grade points earned by the total number of units attempted. (Please see page 45 under "Academic Policies.")

Final Examinations

Final examinations are required and will be given in accordance with the final examination schedule. The final examination schedule is printed in the class schedule so that students may plan their programs to avoid conflicts or an extensive load.

Grade Reports

A student is held responsible for his own academic progress. Grade reports are available to each student at mid-semester. Following final examinations at the end of the semester, the student is sent the report of his final grades, which serve as the basis for computing the student's standing.

Transcripts

Official transcripts will be sent to employers, colleges and other institutions upon written request by the student. Only courses taken at College of San Mateo will appear on the transcript. Transcripts from high school and other colleges will not be forwarded.

Each student is entitled to two free transcripts. Additional copies will cost \$1 each.

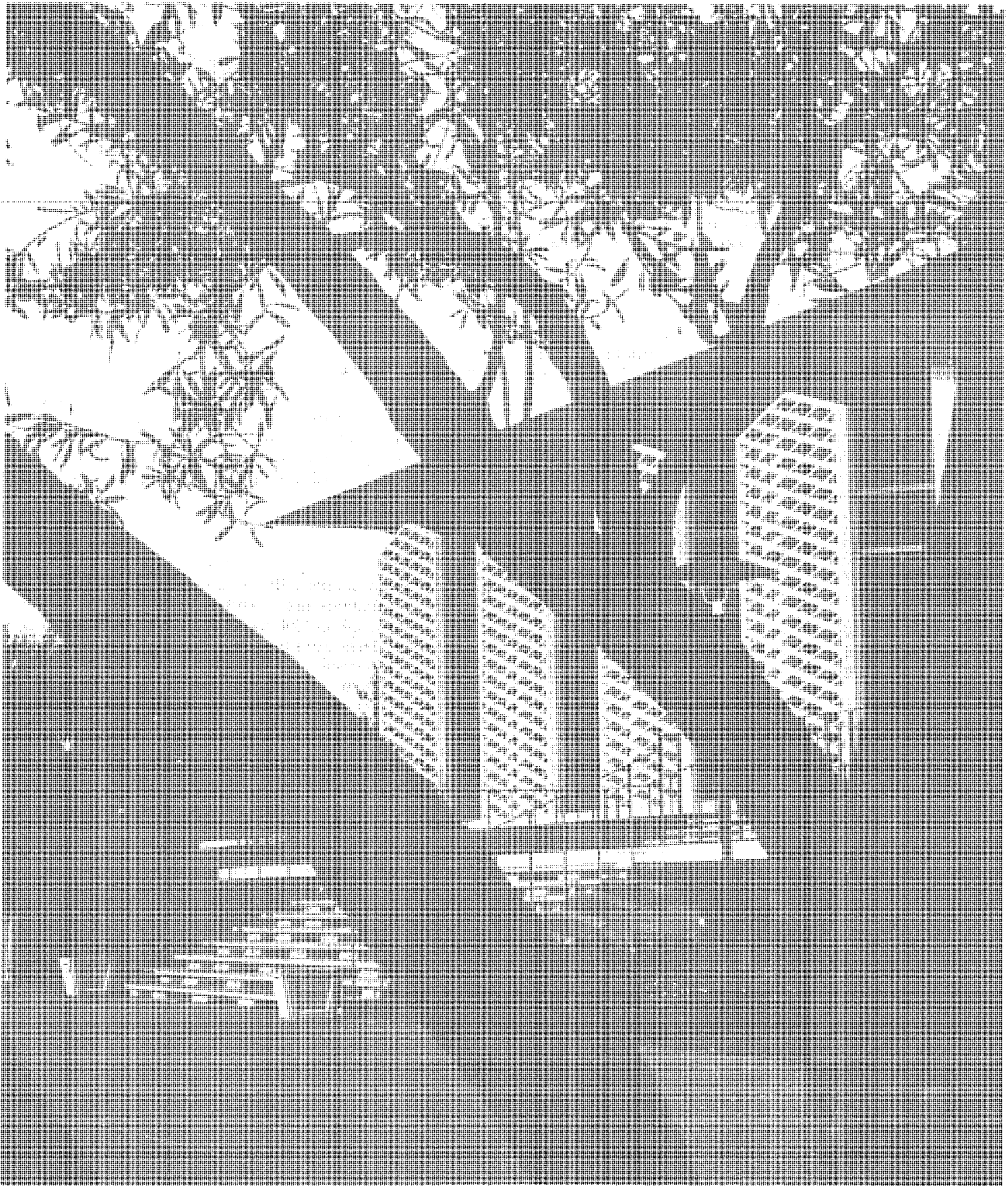
Scholarship Honors

College of San Mateo is affiliated with the California Community College Honor Scholarship Society, Alpha Gamma Sigma. The local chapter is the Eta Chapter. Students carrying 12 units or more of graded classes in a semester and who achieve a GPA of 3.30 or higher in their semester course work will be recognized at end of the semester by inclusion on the Dean's List. Permanent Membership in Alpha Gamma Sigma is awarded upon graduation if the student has maintained a cumulative GPA of 3.5 or higher for all recognized college work.

Honors at Graduation

Honors are awarded to students at graduation based upon cumulative GPA as follows:

3.30—3.49	Graduation with Honors
3.50—4.00	Graduation with High Honors



Academic Policy

Grade-Point Deficiency

The Academic Standards Policy of College of San Mateo is based on a cumulative grade-point average of "C," the minimum standard of progress toward graduation or transfer.

All units and grade points are on a cumulative basis. At all times, a student must maintain a cumulative grade-point total that is double the total units undertaken (C average). (Example: If a student undertakes 12 units in one semester and 15 units in a second semester, the cumulative units are 27, requiring a grade-point total of 54.)

Any grade-point total less than twice the attempted units is regarded as deficient.

Probation

A student will be placed on probation under the following criteria:

1) **Academic Probation based on grade point deficiency**
His/her grade point deficiency amounts to 12 or more grade points.

OR

2) **Probation based on failure to maintain satisfactory progress**
He/she is enrolled in more than 9 units, and does not receive passing grades in at least 60% of those units in which he/she was enrolled on or after Monday of the fourth week of the semester. (Note: Passing grades — A, B, C, D, Cr; Unsatisfactory grades — W, F, Ncr, Inc.)

These two probationary criteria will be applied in such a manner that a student may be placed on probation under either or both systems and subsequently be dismissed under either or both systems. The satisfactory progress standard will not be applicable, however, if the student completes the official Leave of Absence Procedure. (See page 49.)

A probationary student may petition the Standards Committee for removal of probationary status if it has resulted from unusual circumstances beyond the student's control.

Dismissal

A student on probation who incurs a further deficiency in grade points or who fails to maintain satisfactory progress as defined above, will be dismissed and must ordinarily remain out of the College of San Mateo, day and evening classes, for one semester before petitioning the Standards Committee for reinstatement.

A dismissed student may present a written appeal to the Standards Committee requesting immediate reinstatement if dismissal has resulted from unusual circumstances. A registered student making such an appeal should remain in classes until the decision of the Standards Committee is made.

Academic Renewal Policy

A maximum of two semesters (or three quarters) and one summer intersession of work which is substandard, that is less than 2.0 grade point average, and not reflective of the student's present scholastic level of performance may be alleviated and disregarded in the computation of grade point averages under the following conditions:

1. A period of at least three years must have elapsed since the work to be alleviated was completed
2. Students seeking alleviation must have completed nine (9) units of work with a 3.5 cumulative grade point average, or fifteen (15) units with a 3.0 cumulative grade point average, or twenty-one (21) units with a 2.5 cumulative grade point average, or twenty-four (24) units with a cumulative 2.0 grade point average since the work to be alleviated was completed.
3. A semester or quarter is defined as all work attempted during a single academic term. The terms need not be consecutive.
4. The substandard work to be alleviated may have been completed at any college or university. However, the work upon which the application for alleviation is based must be completed at the College of San Mateo.

It should be noted that the Academic Renewal Policy will be applied only when alleviation of prior work is necessary to qualify a student for admission to a program, for transfer to another institution, for completion of a certificate program, or for graduation from the college.

Determination of the applicability of this policy will be made only following formal application to the Office of Admissions and Records. When academic work is alleviated, the permanent record shall be appropriately annotated in a manner to insure that all entries are legible and that a true and complete record is maintained.

Attendance Regulations

Regular attendance in a class and laboratory sessions is an obligation assumed by every student at the time of registration. By being absent from class, the student misses both the content of the particular session and the continuity of the course as developed in a single period of work. When a student's failure to attend class places her/his success in jeopardy, the instructor may drop the student from class.

In all cases it is the instructor's prerogative to determine when absences are excessive. An instructor has the right to drop a student from class when such absences jeopardize the

student's opportunity to successfully complete the class work or to benefit from the instruction. A guideline used by many instructors in that excessive absence is represented by twice the number of hours the class meets in one week for semester-long classes and one-ninth of scheduled meetings in classes which meet for less than a full semester.

Absence means non-attendance, and includes non-attendance for illness or personal emergency. Absences due to a student's participation in a school-sponsored activity should be considered as "excused" absences, but it is the student's responsibility to notify the instructor in advance of the absence, and the student is responsible for all work missed. It is noted again that it is the instructor's prerogative to determine when such absences are excessive.

Any student dropped from a class because of this regulation may appeal in writing to the Attendance Committee within five school calendar days of such drop if there are extenuating circumstances. A student making such an appeal may, with the permission of the instructor, remain in class until the decision of the Attendance Committee is reached. The Attendance Committee will make a recommendation to the instructor after considering such an appeal.

Open Enrollment

Every course offered at College of San Mateo (unless specifically exempted by legal statute) is open for enrollment and participation by any person who has been admitted to the college and who meets the prerequisites of the course.

Transfer Students

A transfer student who enters with a deficiency of 12 or more grade points will be dismissed upon incurring a grade-point deficiency in any subsequent semester. However, a transfer student who has not increased the total deficiency after admission to College of San Mateo may petition the Standards Committee for permission to continue in college. A registered student making such an appeal should remain in classes until the committee has reached a decision.

Credit By Examination

A regularly enrolled student may be permitted to obtain credit for courses if he/she is especially qualified through previous training or instruction and can demonstrate such qualifications by successfully completing an examination approved by the appropriate division. (Credit will not be allowed for a course for which credit has been previously granted for for which credit has been earned in a more advanced course in the same sequence.) A student may earn up to 12 units by credit by examination, which will be applied toward the A.A./A.S. degree and graduation residency requirements. Units earned by examination will NOT be counted for financial aid purposes. Credit by examination may be earned through: (1) Advanced placement examinations and (CLEP), (2) Credit by challenge, and (3) Credit by certificate/license.

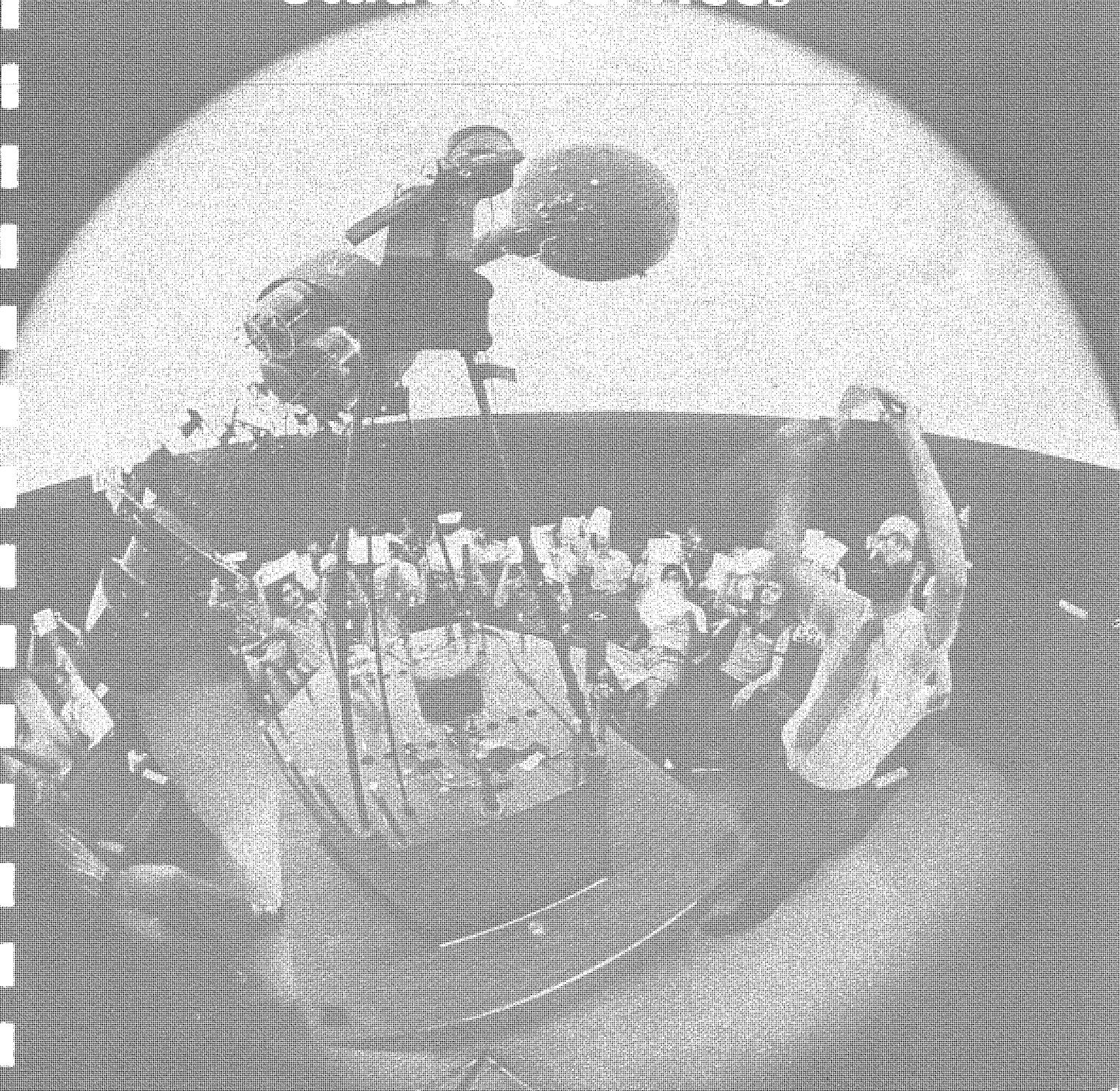
Academic Review Committee

The Academic Review Committee considers requests for waivers and/or exceptions with respect to academic policies. Inquiries should be directed to the Director of Admissions and Records.

Repeated Course Policy

A student who has received a grade of D, F, or Inc. in a course taken at a college of the San Mateo County Community College District may, with authorization, repeat the course at the College of San Mateo. On petition to the Director of Admissions and Records, the student may have the grade of the repeated course used in computation of the grade-point average. Course repetition completed at colleges of the San Mateo County Community College District will be honored; students may apply for such consideration to the Director of Admissions and Records. In no case will the unit value of a course be counted more than once. Courses in which the student has received grades other than those specified above are not subject to the provisions of the policy.

Student Responsibilities Student Services



Student Responsibilities

Mathematics and Science



RALPH GLASSON

Ralph Glasson, a College of San Mateo student in the late 40's, is a man who played a major role in the selection, successful introduction and maintenance of some of the world's best-known jet transport aircrafts. A United Airlines executive, his work has been with aircraft including the DC-8, 727, 737, Caravelle, 749, and DC-10. Glasson has been with United for 28 years and has held vice-president positions with several divisions of the company. He joined the airlines as a flight navigator in 1951, after four years in the Air Force in World War II. Within a few years he began moving up through the levels of management and in 1968 he was elected to his first vice-presidency. Presently, he is Vice President in charge of Maintenance Administration. His affiliation with CSM has been helpful to him in several ways, he says. "I obtained a solid foundation which prepared me well for undertaking work at Stanford leading to B.S. and M.A. degrees. In addition, knowledge of CSM as a community college has enabled me to utilize the college personally and to refer employees in our business to CSM." Entering the college in 1946, Glasson pursued a math and science curriculum. Several of the math classes, which were taught to small groups and were almost tutorial in nature, were especially helpful to his future development, he says. He rates his instructors "very superior relative to lower division instructors at large universities." Following CSM graduation in 1948, he went on to receive degrees from Stanford in math (B.S.) and education (M.A.). In 1968 he completed the Advanced Management Program at Harvard University.



PAT EDELMAN

In the fall of '78 Pat Edelman, Ph.D., was named to the roster of "Outstanding Young Women of America," an honor accorded her for her teaching and research work in the field of biological sciences. A 1966 graduate of CSM, she has been a member of the faculty of the Biological Sciences Department at California State University, Chico, since 1976. She presently teaches courses in bacterial physiology and molecular genetics and conducts a research program in the area of nitrogen fixation. Reflecting on her first two years of undergraduate work, she says, "I received an excellent science education while at CSM, which was afforded by instructors who were patient, enthusiastic and excellent in their field of study." Among the most supportive was an instructor who had been her general science teacher when she was a Hillsdale High School student. After she enrolled at CSM, he joined the CSM staff and she sought his help and guidance many times, she says. Edelman chose CSM because of its proximity, low-cost and because it offered a good lower division curriculum which would satisfy lower division requirements for an A.B. in bacteriology at U.C. Davis. Upon leaving CSM, she received both an A.B. and Ph.D. at U.C. Davis. She continued her academic career at the University of Washington as a Postdoctoral Fellow and received an NIH Postdoctoral Fellowship to support research on aging. "CSM's most significant contribution to me," she concludes, "was an excellent education and an environment which led me to pursue an academic teaching/research career."

Student Responsibilities

Conduct

The principle of personal honor is the basis for student conduct. The honor system rests on the sincere belief that the college student is mature and self-respecting, and can be relied upon to act as a responsible and ethical member of society. Each individual has the obligation to observe the college code of rules and regulations.

Social or other functions using the name of the college are thereby identified as college functions and become subject to the same high standards of conduct and of supervision, whether conducted on or off the campus.

Social or other functions for which no college staff member is listed as a sponsor will not be considered school functions. Further, no off-campus organizations may use the college name or imply college sponsorship in any publicity or other information.

Any student may be suspended and/or recommended for expulsion if her/his actions on campus are disruptive of orderly and peaceful conduct of the college or are in flagrant violation of college rules and regulations. In case of disciplinary action, the student will have access to established appeals procedures.

Student Grievances and Appeals

Students are encouraged to pursue their academic studies and become involved in other college sponsored activities that promote their intellectual growth and personal development. The college is committed to the concept that, in the pursuit of these ends, the student should be free of unfair and improper actions on the part of any member of the academic community. If, at any time, a student feels that he/she has been subject to unjust actions, or denied his/her rights, redress can be sought through the filing of an appeal or grievance. Detailed information is provided in the **Student Guide**, which is available to the Student Activity Office. For further information concerning any aspect of student grievances or rights of appeal, students should contact the Office of the Dean of Student Services.

Fines

Fines are assessed for failure to comply promptly with library and other campus regulations, and students are required to pay for careless or unnecessary damage to college property. Students who are delinquent in their financial obligations to the college may not receive grades, reports or other records of their work until such delinquencies have been adjusted to the satisfaction of the college authorities.

Secret Organizations

Sororities and fraternities and other secret organizations are banned on community college campuses under the Education Code of the State of California.

Extended Absence

An absence of less than one week need not be reported to the college.

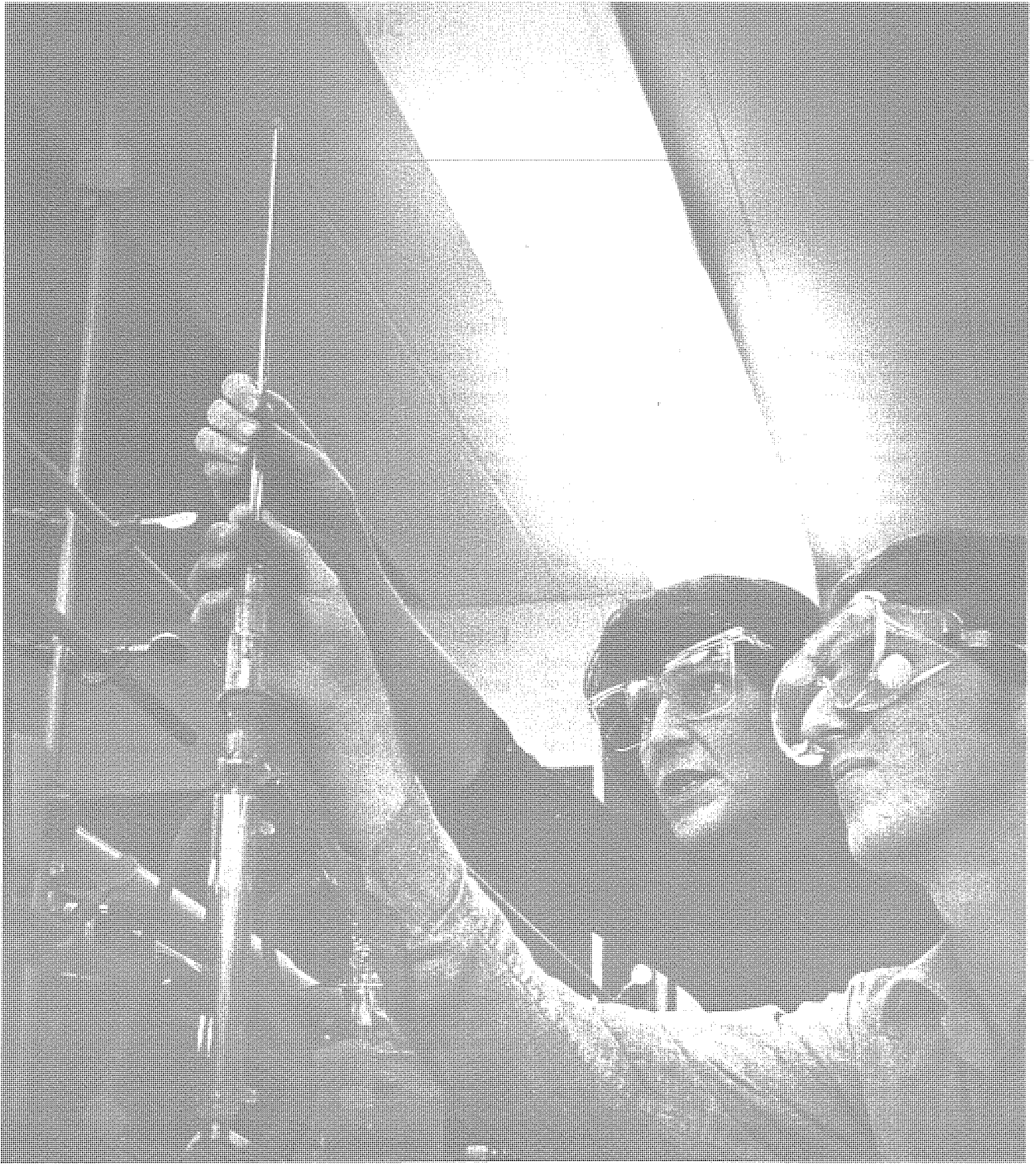
Students who will be absent from any class or classes for one week or longer for any health reason may request notification to instructors by the Student Health Center.

Students who will be absent from any class or classes for one week or longer for other personal emergencies may request notification to instructors by the Director of Counseling Services. (Please see Attendance Regulations, page 45).

If a medical or personal emergency requires absence of more than one week, the student should consult with his/her instructors and counselor/advisor regarding the advisability of continuing in classes.

Permanent Leave of Absence

Students who must withdraw from all of their day classes after registration must obtain an Application for Permanent Leave of Absence from their assigned counselor/advisor. Part-time students (taking nine units or less) may obtain this petition from the Drop-In Advisor, Bldg. 1-102. The completed form must be returned within five college days to the Student Services Office, Building 1-207. Failure to comply with this procedure may result in grades of "F." (See "Program Changes" on page 39.)



Student Services

STUDENT SERVICES AND ADMINISTRATION AFFAIRS

Dean of Student Services
Allan R. Brown

Director of Admissions and Records
Herbert R. Warne

Director of College Readiness Program
Jackman LeBlanc

Director of Counseling Service
Aline Fountain

Director of Special Programs and Records
Philip D. Morse

Assistant Registrar
Edith N. Hopkins

Career Development Center
Carol Heitz

Coordinator of Security
Harold S. Bogan

Coordinator of Student Activities
Rusty Wilson

Coordinator of Veteran Affairs
Steven N. Morehouse

Enabler for Physically Handicapped Students
Jacqueline Rose

Financial Aids Officer
Leatha E. Webster

Foreign Student Advisor
Gerald J. Frasseti

Health Services
Leah Tarleton

Permanent Resident Student Advisor
(Immigrant students)
Carl A. Wagner

Psychological Services

Anita Fisher
Noel W. Keys

Speech Pathologist
Mary Herman

Student Center
Bookstore Manager—Andra Morgan
Cafeteria Manager—Esther Rores

Student Placement Interviewer
Glenna Lombardi

ACADEMIC ADVISORS

Administration of Justice
Kern Richmond

Aeronautics
Dale W. Blust
H. Sanford Gum

Architecture
Ernest L. Multhaup

Art
Jack Daniels

Business Administration
Daniel Berry
John Cron

Business
John Cron
Tom George
Marcia A. Mahood
Rosemary Piserchio
Elizabeth Wittwer

College Readiness Program
Elizabeth Nakagawa
Adrian Orozco
Debbie Upshaw

Consumer Arts and Sciences

Mamie E. Ireson

Cosmetology

Jo Ann C. Rock

Data Processing

Douglas B. Crawford

Dental Assisting

Marcia Mahood

Drafting Technology

Dean Chowenhill

H. Sanford Gum

Clois A. McClure

Education

Eric Gattmann

Electronics Technology

George Angerbauer

George Bramlett

Engineering

Douglas B. Crawford

Ernest L. Multhaup

Fire Science

Kern Richmond

General Education

(Liberal Arts, General Education, No Major Program, Special Program, Undecided Major Program, Career Specialists)

J. Kyle Clinkscales

Eric Gattmann

Carol A. Heitz

Robert S. Howe

Alan A. Hynding

Carolyn Ramsey

Horticulture

Jo Ann C. Rock

Language Arts

(Dramatics, Radio, Telecommunications, Speech, English, Foreign Languages, Journalism)

Henry Cordes

Dan Odum

Life Sciences

Mary Jane Baker

J. Kyle Clinkscales

Roland Fark

Manufacturing Technology

Dean Chowenhill

Mathematics

Douglas B. Crawford

Ernest L. Multhaup

Music

R. Galen Marshall

Nursing

Mary Jane Baker

Frances Henderson

Physical Education

Carol A. Heitz

Physical Sciences

J. Kyle Clinkscales

William Glen

Re-Entry Program

Rose Marie Beuttler

Real Estate

Thomas George

Social Sciences

Eric Gattmann

Anita Fisher

Alan A. Hynding

Musonda Mantabe

Richard S. Phipps

Kern Richmond

**Technical Illustration, Machine Tool Technology,
Welding Technology**

Dean Chowenhill

Veteran Affairs

Steven N. Morehouse

Program Planning and Counseling

Certain faculty members are officially designated as counselor/advisors. Each regular student will be assigned a counselor/advisor who is a specialist in a field. Counselors are available by appointment during the registration period and throughout the academic year to consult with students. Counselor/advisors assist students in planning programs of study; they must approve the final program for each semester and must be consulted about changes. However, each student is responsible for fulfilling his/her own graduation and/or transfer requirements.

The Office of Student Services will make appointments for interviews with counselor/advisors for the purpose of assisting students in the selection of a course of study with relation to a career or profession and to complete registration.

All faculty members are an important part of the college's advising program. Students should feel free to approach counselor/advisors and other faculty members for information. Personal counseling is available to all registered students through their counselor/advisors and/or through psychologist/counselors with specialized personal counseling skills. The staff will attempt to help students develop their full potential and obtain maximum benefit from their college experience. When appropriate, students may be referred to other offices for specialized assistance. Appointments may be made in person, by telephone through a counselor/advisor, or through the Student Health Center.

Drop-In Counseling/Advising

The Drop-In Counseling/Advising Office is located in Building 1, Room 201 and is available to part-time day and evening students and members of the community who wish assistance with program planning, counseling, and academic advising.

Health Service

The Health Center is staffed by a public health nurse and a receptionist. Services provided include first aid nursing evaluation, health counseling, rest, referral to physicians, clinics or community agencies, arrangement for emergency transportation, hearing tests, vision screening tests, reading of TB skin tests, blood pressure reading, etc. Medical insurance application, referral and claim forms, where applicable, are available.

Absences of 5 days to 2 weeks for medical reasons should be reported to the Health Center by the student so instructors can be notified.

All entering students are required to complete a health card as part of the application. It is important that the information be completed in case of an on-campus emergency.

An ill or injured person who is unable to communicate will be sent to the emergency room at Choape Community Hospital if the student's health card does not specify a physician or other hospital, and if the family cannot be reached.

Student Health Insurance

The college provides limited accident and health insurance coverage to its students in two parts. Every student enrolled is required to pay a Health Services fee each semester. In addition to the health services described above, the fee provides coverage for emergency sickness and/or accident *when the student is on campus or at a school sponsored event.*

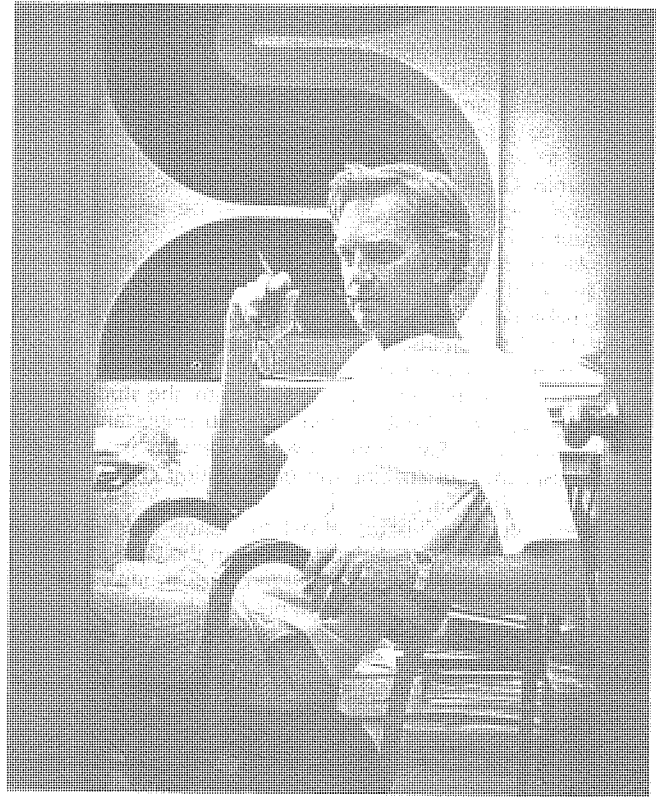
In addition, the college has endorsed a voluntary health

insurance program which may be purchased by students who are not covered by their own or their parents' policies. The voluntary policy provides for 24 hours, around-the-clock protection at an advantageous group rate. Detailed information is available in the Student Health Center.

Testing

The Office of Student Services and the Career Development Center maintain a service in personal and vocational testing which is available to all registered students. Through this service, students may receive assistance in assessing their aptitudes and interests so that they may better plan their educational and vocational goals.

Special personalized testing is also available through the series of Guidance classes. Many of these Guidance classes are designed as 6- and 8-week courses which allow for flexible entry and exit. (See course descriptions on page 160). Included in these classes are thorough explanations and interpretations of tests taken at entrance and additional tests to help the student appraise aptitudes, interests, personal adjustment, and special abilities. These tests are useful to the student to verify or make effective educational and vocational plans.



Career Development Center

The Career Development Center offers a variety of services and programs to students and members of the community designed to assist individuals in setting career goals. Several short and semester-long courses are offered which assist students in making career choices. Descriptions of individualized and group guidance class offerings are found in the Description of Courses section of this catalog under the heading GUIDANCE.

Students and members of the community are encouraged to visit the Career Development Center, located in the lower level of the Library. The Center is open daily from 8:00 to 4:30 p.m., and several evenings per week. For information call 574-6571.

Student Placement Services

The College maintains a placement office to assist students currently enrolled in good standing to secure part-time employment. This service is also available to graduating and former students who wish to secure full-time employment.

Financial Aid

The financial aid program at the College of San Mateo is dedicated to the concept that no individual should be denied an education solely for financial reasons. Any student applying for admission to the college who has a financial need for assistance is urged to apply for aid.

The Financial Aid Office administers a program of grants, loans, and work-study programs which may be awarded to qualified students. We assist and encourage students to apply for California State Scholarships, College Opportunity Grants, Vocational Training Grants, and all other state and local awards. Students must be enrolled in a minimum of 12 units to be eligible.

All awards are based on need; the determination of need is based upon a careful analysis of family income and assets, liabilities, number of children, medical expenses, etc. While the determination of the student's financial need is geared mainly to the student's educational and vocational career plans, it is recognized that frequently the student may have personal considerations that play an important part in this determination. Each application is evaluated on an individual basis with all special and extenuating circumstances taken into consideration.

Students are advised that determination of eligibility is approximately an eight-week process from the time the application is determined complete. Students are strongly encouraged to observe application deadlines. Applications received after the established deadline will be considered subject to the availability of funds.

For detailed information regarding specific assistance programs, students should see the Financial Aid Officer, in the Administration Building, second floor, Room 221. Small emergency loan applications are available through the office

of the Director of Counseling Services, in the Administration Buildings.

Scholarships

The San Mateo College Foundation administers funds from private sources which are available to students as scholarships, loans and grants.

Scholarship applications are available through the office of the Director of Special Programs and Services in the Administration Building.

College Readiness Program

The College Readiness Program is a multi-cultural program designed primarily to assist Third World Students in their pursuits of higher education. This program provides supportive counseling services (academic, financial, personal, vocational and tutorial), as well as cultural enrichment.

The essential requirement for participation is that each student have his/her academic folder on file at the CRP office, and receive counseling from the counselors assigned to the program.

Counselors are multi-cultural people, and can easily identify with and understand their counselees. Counselors attempt to build relationships which are warm and real.

The offices are located in Building 20, Rooms 107-113. All personnel can be contacted at 574-6154.

Learning Center

The Learning Center is designed to help students succeed academically, operating on the principle that those who come to College of San Mateo wanting to learn should be assisted in that endeavor. Students may be referred by teachers and counselors, or just drop in. Tutoring is available as needed and as tutors can be provided. Also offered are discussion groups, programmed learning, and classes, such as Guidance 897, 898, and 899. Additional information is available by contacting the Learning Center.

Physically Handicapped Students

Students entering college with physical handicaps who need assistance through tutoring, reader services, mobility help, braille, special parking permits, access to classrooms, orientation to the campus and special arrangements, may contact the Enabler in the Learning Center. Pre-enrollment interviews are provided to set up assistance services before the student enrolls in classes.

Speech Therapy

Professional staff can provide testing, individual and small-group therapy to students who need special assistance with speech and/or related problems. The program is offered in close cooperation with other services on campus relating to students with special needs.

Veterans' Affairs

The Office of Veterans' Affairs at the College of San Mateo was established by a Federal grant to provide veterans with a wide variety of services necessary to successfully complete an academic career. Eligible veterans have 10 years from the date of separation from active duty to use their educational benefits.

The Office of Veterans' Affairs is located in the Administration Building (Bldg. 1). The office is staffed Monday through Friday from 8:00 a.m. to 4:30 p.m., and several evenings per week.

To initiate VA benefits, report to the VA Clerk (Building 1) and bring: (1) two copies of your DD214 (separation papers); (2) one copy of your marriage/divorce certificate; and (3) copies of birth certificates of children.

Veterans who have previously attended college must have official copies of college transcripts on file in the Office of Admissions and Records. For further information, contact the Office of Veterans' Affairs, 574-6193.

Re-Entry Program

The Re-Entry program is designed for individuals whose education has been postponed or interrupted. Counseling and tutorial assistance are offered, together with a coordinated instructional program at hours convenient to those with school-age children.

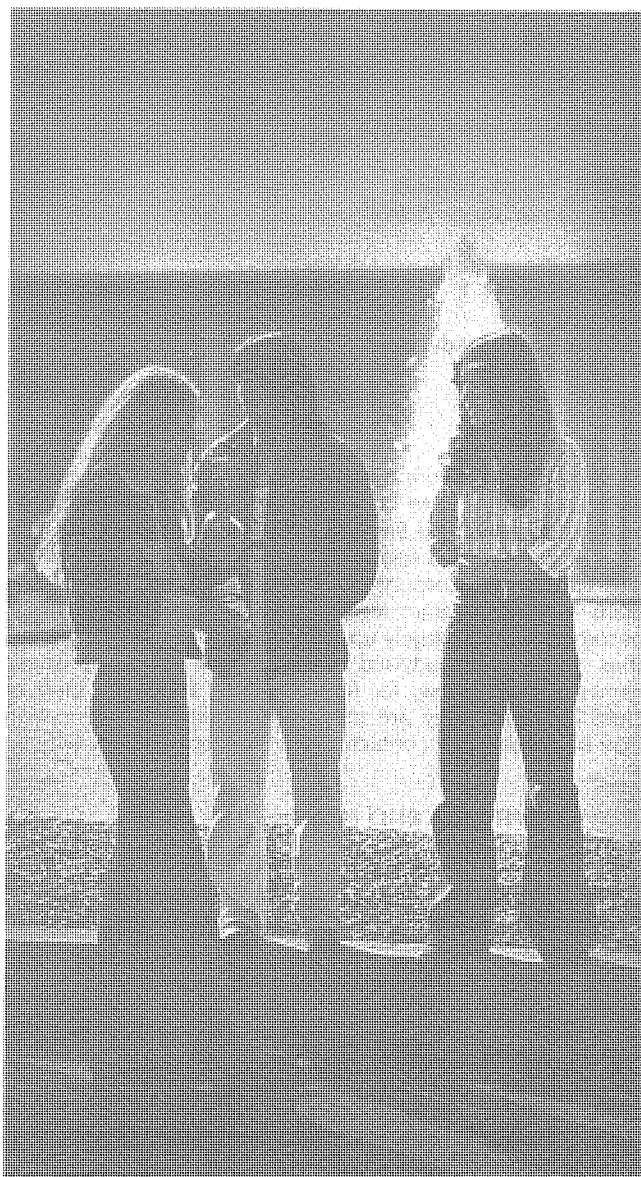
Tutoring in a wide range of subjects is available for those who need such assistance. Instruction is provided in basic skills such as text reading, paper writing, use of the library, note taking, and test taking. Students desiring further information should visit the Re-Entry Information Center, Building 15, Room 165, or call 574-6440.

Associated Students

The Student Government at the College of San Mateo is composed of two major bodies: the Student Senate and the Student Programs Board. The Senate is charged with the responsibility of providing student input into the college decision-making process, and of assessing and trying to meet student needs. The Senate is organized along college divisional lines and Senators are elected by students majoring in a specific divisional area, i.e., political science majors vote for the Social Science Division Senator. The following are the Divisions from which Senators are elected and other positions on the ASCSM Student Senate:

President
 Vice-President
 Vice-President for Evening Students
SENATORS
 Business Division
 Fine Arts Division
 Health Occupations Division
 Language Arts Division

Math/Life Science Division
 Social Science Division
 Specials Students Division
 Technical Division
 Unclassified Division
 Judicial Council (5)



The Student Programs Board is charged with the responsibility of providing activities and services for the CSM student body. It is organized into ten committees which have responsibility for programming in that specific area:

- Contemporary Entertainment Committee
- Performing Arts and Lectures Committee
- Visual Arts Committee
- Outdoor Recreation Committee
- Innovative Programming Committee
- Minority Programming Committee
- Art and Exhibits Committee
- Recreation/Games Area Committee
- Innovative Services Committee
- Women's Programming Committee

Student Associations

Student Senate Advisors
Philip Morse, Rusty Wilson

Student Programs Board Advisor
Rusty Wilson

Judicial Council Advisor
To be named

Organizations

In order to secure the most from college life, a student may participate in one or more of the many clubs organized within the Associated Students. The clubs listed below offer many and diversified opportunities to students for both social and educational contacts. Each club elects its officers and plans its own program for the semester. How successful it becomes depends largely upon the enthusiasm of its membership. Students are advised to contact the sponsors, whose names appear below, for further details about the club or clubs in which they are interested. Additional information may be obtained by contacting the Student Activities Office.

ALPHA ETA RHO (Aviation)
Bruce Walters

ALPHA GAMMA SIGMA (Honor Society)
Al Acena

AMATEUR RADIO CLUB
Donald Beaty

ASIAN STUDENT UNION
Gladys Chaw

ASSOCIATION OF TECHNICAL DRAFTSMEN
Clois McClure

BULLDOG TRACK CLUB
Robert Rush

CERAMICS CLUB
Vince Rascon

COLLEGIATE CHRISTIAN FELLOWSHIP
Robert Anderson

ECOLOGY ACTION
Greg Davis

ETA EPSILON
(Consumer Arts and Fashion Merchandising)
Grace Sonner

HORTICULTURE
Alexander Graham

INTERNATIONAL CLUB
Zelta Crawford

ORGANIZATION OF ARAB STUDENTS
Zelte Crawford

ROOTS CLUB
Kwaku Asenso

SAMAHAN (Filipino Club)
Al Acena

SIERRA CLUB
Cliff Denny

SKI CLUB
Rusty Wilson

Student Activities Office

The Student Activities Office is located at the north end of the Student Center. It is a drop-in type of office and is a place you should come if you have a question regarding any aspect of the college. If the staff can't assist you directly, they will refer you to someone who can. A number of services are provided for students by the Student Activities Office. Among them are:

Housing

Dormitories and other types of college-sponsored housing are not available at the College of San Mateo. The Student Activities Office maintains an up-to-date listing of housing available in the community. The majority of listings are rooms in private homes, but apartments and houses are sometimes available.

Student Government and Clubs Information

Information concerning any aspect of student government, student activities or clubs may be obtained in the Student Activities Office. This office provides all of these groups with duplicating and publicity services. The Student Activities Office is also responsible for the supervision of the Recreation/Games Room and the Student Center Lounge.

Travel Information

A reference library concerning aspects of travel from local to international is maintained in the Student Activities Office. International Student Identification Cards are issued by this office.

Publications

The following publications are issued by College of San Mateo.

The San Matean — A student newspaper published weekly, serving a two-fold purpose of providing full covering of activities on campus and of giving experience to journalism students.

Student Guide — A manual for students containing information about College of San Mateo, the rules, staff, student organizations and services.

Pendulum — A student art and literary magazine published each spring, sponsored by the English Division. Each year the "Pendulum" provides a showcase for the talents of the creative writing and art classes, as well as informative and timely articles by other interested students.

CSM Bulletin — A mimeographed publication, prepared and distributed by the Activities Office every Monday and Thursday, announcing activities, new events and items of interest to the faculty and students of the College. The deadline for submission of items for publications is 9:30 a.m. on the preceding day.

Student Orientation and Self-Help Guide — An orientation to College of San Mateo distributed by the Office of Student Services. It is designed to assist new students with program planning, campus vocabulary and campus resources, and it includes recommendations to help students in registering for classes.

Athletics

The College of San Mateo offers a full program of athletic activities, both intramural and intercollegiate, designed to benefit all interested students. For men and women students who seek competitive activity but lack sufficient time or training for intercollegiate athletics, the intramural program provides the opportunity to engage in a wide variety of team and individual sports. Participants may receive one-half (½) unit of credit each semester by involvement in two 8-week activities. The intramural program is planned on a year-round basis, and it provides an excellent opportunity to broaden and improve recreational knowledge and skills.

The College of San Mateo sponsors intercollegiate sports within the Golden Gate Conference for the benefit of those students interested in team competition. Sports offered are: Baseball, Men's Basketball, Women's Basketball, Men's Cross-Country, Women's Cross-Country, Men's Tennis, Women's Tennis, Football, Golf, Women's Softball, Men's Track, Women's Track, Wrestling, and Women's Volleyball.

The College of San Mateo adheres to the eligibility rules and regulations of the California State Athletic Code, the Golden Gate Conference. Final decisions rest with the Golden Gate Conference Commissioner of the California State Athletic Committee.

The following basic principles pertain to all matters of eligibility:

1. No student shall represent this college in any athletic contest unless enrolled in a minimum of any 12 units in a regular or special course as defined in the curricula of this institution.
2. In meeting the unit requirements, courses which have been failed may be repeated, but those that have been completed with a grade of "C" or better may not be repeated.
3. In order to remain eligible to participate in an athletic program, a student-athlete who is enrolled in college as a full time student must comply with one of the following:
 - a. Pass 12 units the previous semester
 - b. Pass 24 units if he or she attends as a full-time student the previous two semesters.

If a student enrolled in 12 units at College of San Mateo, he may participate in Varsity Soccer at either Canada College or Skyline College.

Graduation Requirements



Physical Education/Athletics



BILL WALSH

Bill Walsh, head coach of the San Francisco 49ers and one of the most highly respected strategists in the world of football, began his higher education at the College of San Mateo, a school he rates "the outstanding two-year institution in northern California". Walsh came to CSM in 1951 after graduating from Hayward High School. At CSM he pursued a general education curriculum and played football and basketball, before going on to San Jose State University. From San Jose he received both a B.A. and M.A. in history. He believes his years at CSM contributed to his present success by providing him a strong foundation in basic liberal arts, some outstanding faculty experiences and the opportunity to work in an excellent athletic program. "There was a great atmosphere on campus, both socially and educationally", he relates, "It was an excellent transition between high school and university work." Walsh's career spans 24 years during which he coached high school, community college, university and professional players. His more than ten years with professional football teams includes positions with the Oakland Raiders, Cincinnati Bengals, San Diego Chargers and San Francisco 49ers. Prior to his affiliation with pro teams he was assistant coach at Stanford University and the University of California, Berkeley. He later returned to Stanford as head coach, where he was named the 1977 Pacific-8 Conference Coach of the Year. He coached Stanford to bowl victories in both 1977 and '78.



DIANE KALLIAM

Diane Kalliam wanted to be a P.E. teacher ever since she was in fifth grade. Several years after graduation from CSM she realized that goal and much more. She became a player/coach for a professional softball team, the Santa Clara Laurels which later became the San Jose Sunbirds. During her 15 years of association with the team, both the team and Kalliam collected an impressive string of honors. She was chosen five times to the National All Star Team in softball, was twice named batting champion at the Amateur Softball Association national tournament, and she set the all-time high batting average (.632) at the 1975 national tournament. Her team played in national tournaments six times and were two times runners-up in the competition. In their initial season in 1976 the Sunbirds were western division champions. Raised in San Mateo Kalliam came to CSM in 1961 because it offered an opportunity to begin her college education at a very reasonable cost. "I received an exceptionally fine and relevant general education at CSM. It allowed me to go on to school and develop those skills which I use today as an athlete, teacher and coach." While at the College of San Mateo she became involved with the Women's Recreation Association, later becoming an officer of the organization. The campus advisor for W.R.A. was especially helpful in counseling Kalliam and was instrumental in involving her in professional softball. After graduating in 1964 she went on to receive her B.S. degree from California State University, Hayward, after which she taught physical education classes in a San Jose school for 12 years. Currently, she is enrolled in the master's program at San Francisco State University, where she coaches the women's softball team.

Graduation Requirements

This section of the Catalog, Pages 61 to 63 contain new course numbers only. For equivalent numbers in the old system, refer to the course descriptions or to the cross reference listing on page 104.

A.A./A.S. Degree Requirements

Graduation from College of San Mateo with the Associate in Arts or Science degree is based upon the completion of 60 units of lower-division college-level work, including the requirements A through E listed below. An application for the degree must be filed in the Office of the Director of Admissions and Records during the last semester of attendance (refer to calendar for the college year for deadline).

A. Residence

Either 48 units of the 60 units required or the last 12 units must be completed at the College of San Mateo.

B. Scholarship

A minimum grade point average of 2.0 in the last 60 units, and a minimum grade point average 2.0 in courses taken at the College of San Mateo and submitted as part of the 60 units.

C. Major

A minimum of 18 units from a list of courses specified for the major by the division involved. These 18 units are exclusive of any units offered in satisfaction of any other A.A. or A.S. degree requirement.

A division may require more than 18 units for a given major. The additional units may, if appropriate, be used to satisfy other A.A. or A.S. degree requirements.

D. General Education

General Education introduces the student to areas of study that develop breadth of outlook and contribute to a balanced educational development. The courses are complementary to, but different in emphasis from, the specialized training one receives for a job, a profession or a particular field of study.

1. AMERICAN HISTORY AND INSTITUTIONS, CALIFORNIA STATE AND LOCAL GOVERNMENT

- This requirement may be satisfied in three different ways:
- by completing either Political Science 200: National, State and Local Government (5 units), or, for foreign students only, Political Science 205: American Society (5 units); or
 - by completing one of the options in each of the groups listed below; or

- by demonstrating equivalent knowledge through examinations acceptable to the Social Science Division and the Office of Instruction.

Courses used to satisfy this requirement may also be used, if appropriate, to satisfy requirements listed under 5b, Social Sciences.

Group 1—American History and Institutions

- History 201, 202—United States History (6 units), or
- Political Science 250, 260, 210, 220, 255 or 215 (3 units), or
- History 100, 102—Western Civilization (6 units), or
- History 101, 102—Western Civilization (6 units), or
- History 201 or 202—plus any one of the following 3-unit history courses:
 - Economic History (3)
 - American Foreign Policy (3)
 - The American West (3)
 - 20th Century American History (3)
 - Women in American History (3)
 - The American Labor Movement (3)
 - The South, Old and New in American History (3)
 - The Afro-American in U.S. History (3)
 - Civil War and Reconstruction (3)
- History 800—Historical Geography (3), or
- History 810—American History and Current World Affairs (3)

Group 2—California State and Local Government

- Political Science 310—California State and Local Government (2 units), or
- Political Science 300—State and Urban Government (3 units), or
- History 315—History of San Mateo County (3 units), or
- History 310—California History (3 units), or
- Sociology 200—Urban Development (3 units)
- Social Science 130 to 134—California, an Interdisciplinary Approach to Selected Topics (2-3)

2. ENGLISH

Two semester courses (6 units) are required. One of these shall be a composition course (English 800, 801 or 100) and the other shall be selected from the following list. Credit for English 100 may be earned by those students who can demonstrate equivalent knowledge through examinations acceptable to the Language Arts Division and the Office of Instruction. Courses used to satisfy this requirement may be used, if appropriate to satisfy requirements 5c and 5d.

English: 100, 110, 120, 130, 140, 161, 162, 165, 195, 200, 210, *311, *312, 800, 680, 801, 802, 860, 880.

62 Graduation Requirements (continued)

Literature: 101, 105, 111, 113, 115, 143, 151, 200, 201, 202, 231, 232, 251, 266, 301, 302, 430, 451, 452, 461, 462, 680, 841.

Reading: 802, 803.

Speech: 100, 111, 112, 120, 130, *811, *812, 825.

**For non-native speakers.*

3. HEALTH SCIENCE

Two units of Health Science are required (Health Science 100 (2 units) or two classes selected from Health Science 101-112, 160, 310); however, the requirement may be waived for qualified students who demonstrate equivalent knowledge through an examination acceptable to the Math/Science Division and the Office of Instruction. The requirement may be waived for veterans with one or more years active service.

4. PHYSICAL EDUCATION REQUIREMENT

Students must complete two semester-long activity courses in Physical Education (not taken concurrently), unless excused, to complete the requirements for the Associate in Arts or Associate in Science degree.

Note also that, in accordance with policy adopted by the Board of Trustees, the requirement may be waived for students in one of the following categories:

- Graduates of community colleges or other colleges and universities.
- Persons enrolled in Continuing Education classes (i.e., those who complete in such classes at least 60% of the courses taken at this college in fulfillment of A.A./A.S. degree).
- Veterans with one or more years of active service.
- Persons excused for medical reasons.

Students wishing to request a waiver for any reason not specifically provided for above, may petition for consideration through regularly established college procedures. Inquiries should be directed to the Office of Admissions and Records.

5. ADDITIONAL REQUIREMENTS

A minimum of 15 units with at least 3 units in each of the following areas, a, b, c, and d is required.

a. **Natural Science** (at least 3 units)

PHYSICAL SCIENCE

Astronomy 100, 110, 120, 130
Chemistry 100, 101-107* 190, 210, 220, 224, 225, 231, 232, 250, 260, 410, 420
Electronics Technology 100
Geography 100
Geology 100, 130, 210, 220
Home Economics 113
Meteorology 100, 110
Oceanography 100
Physical Science 100

Physics 100, 210, 220, 250, 260, 270
Technology 100

LIFE SCIENCE

Anthropology 125
Biology 100, 102, 106, 110, 112, 113, 114, 115, 116, 117, 118, 119, 125, 130, 137, 140, 145, 150, 160, 180, 184, 210, 220, 230, 240, 245, 250, 260, 314, 320, 410, 420

Home Economics 310

Horticulture 311, 312, 320, 340

Paleontology 110

**For the purpose of this requirement, three one-unit courses from Chemistry 101-107 are considered the equivalent of one course.*

b. **Social Science** (at least 3 units)

Anthropology 110, 130, 140, 180, 310

Biology 370

Business 101, 102

Economics 100, 102, 108, 130, 230, 250, 661, 662, 663

Ethnic Studies 101, 102, 150, 151, 152, 160, 261, 262, 290, 300, 305, 310, 425, 435, 450, 520, 645

Geography 110, 120, 150, 160, 170, 800

History 100, 101, 102, 110, 130, 141, 142, 150, 160, 201, 202, 210, 230, 242, 260, 270, 280, 290, 310, 315, 350, 360, 401, 402, 421, 422, 450, 800, 810

Home Economics 412

Labor Studies 110, 120, 150, 200, 290

Management 140

Political Science 100, 110, 130, 150, 200, 205, 210, 215, 220, 250, 255, 260, 300, 310, 520, 550

Psychology 100, 105, 108, 110, 201, 250, 300, 340, 355, 358, 400, 410, 480

Social Science 130-134, 185, 261, 262

Sociology 100, 105, 110, 141, 150, 151, 152, 200, 300

c. **Humanities** (at least 3 units)

Architecture 100

Art 101, 102, 103, 106, 108, 111, 141, 142, 151, 152, 350, 451, 452

Drama 101, 102, 140

English 110, 120, 130, 140, 802

Ethnic Studies 266, 267, 270, 275, 288, 320, 350, 351, 510, 585

French 140, 161, 162, 620

German 140, 161, 162, 620

Humanities 101, 102, 111, 112, 113, 114, 125, 136, 140

Literature 101, 105, 111, 113, 115, 143, 151, 200, 201, 202, 231, 232, 251, 266, 301, 302, 430, 451, 452, 841

Music 100, 202, 270, 275

Philosophy 100, 101, 105, 160, 170, 190, 240, 300, 320, 340, 395

Spanish 140, 161, 162, 251, 620

Speech 111, 112

d. **Learning Skills** (at least 3 units)

Accounting 100, 111

Art 461, 462

Business 115, 129, 130, 800

Data Processing 110, 151, 160, 180

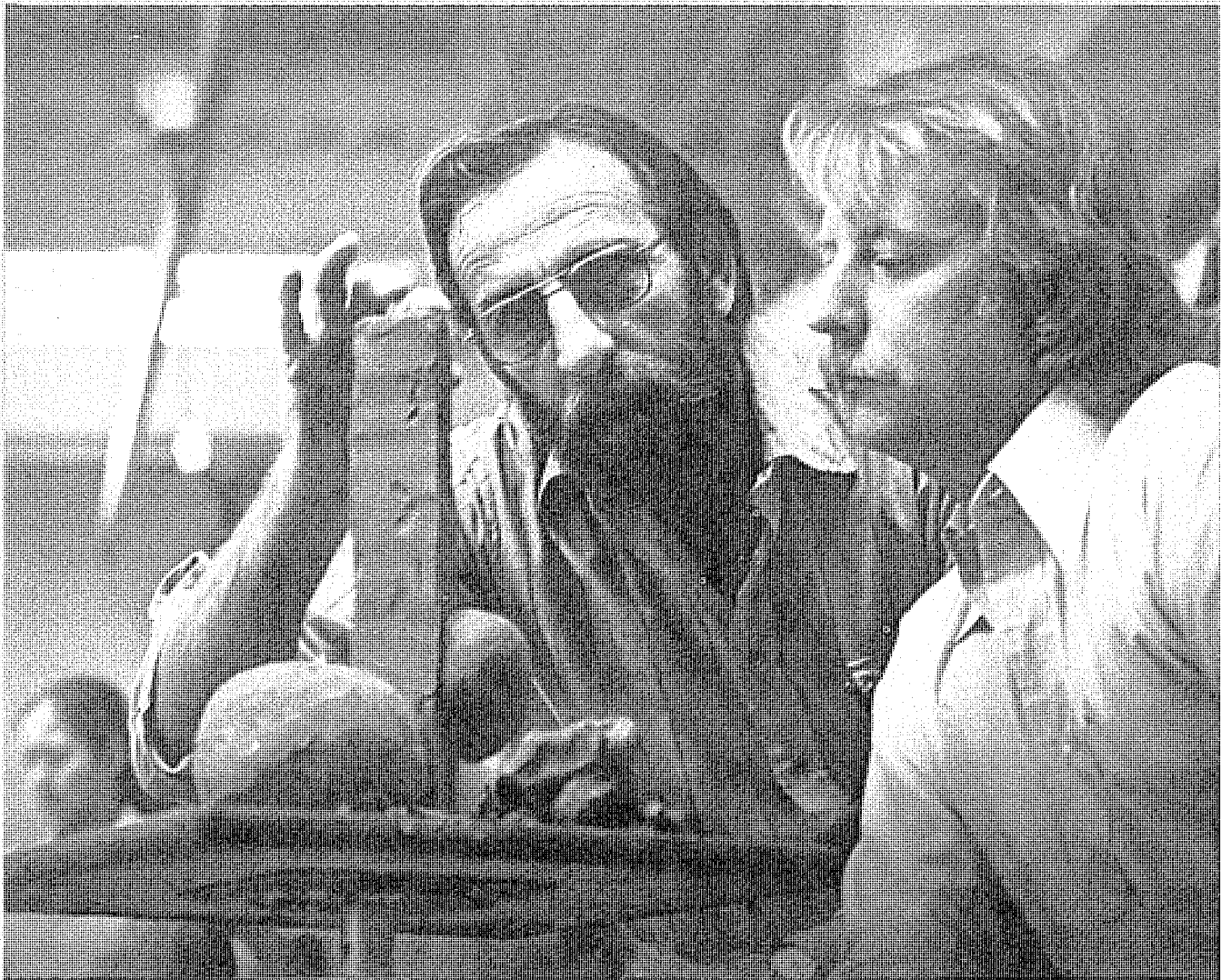
Drafting Technology 711, 712

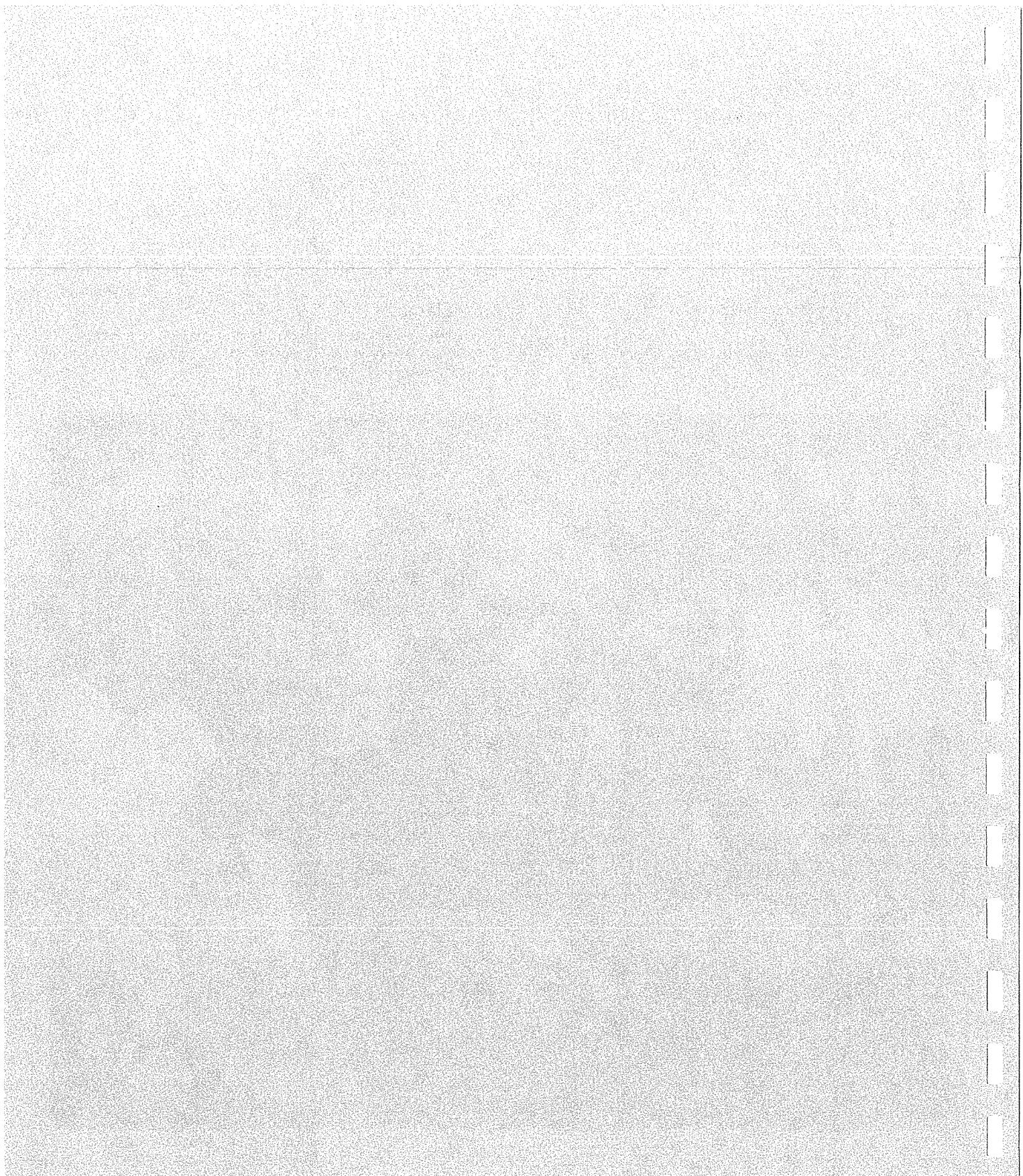
Economics 123
Electronics Technology 230
English 100, 161, 162, 165, 195, 200, 210, 311, 312, 800, 801, 860, 880
French 110, 111, 112, 120, 121, 122, 130, 131, 132, 801, 802, 803, 804
German 110, 111, 112, 120, 121, 122, 130, 131, 132, 801, 802, 803, 804
Japanese 100, 101, 102, 110, 111, 112
Journalism 120, 300, 310
Literature 461, 462
Machine Tool Technology 100
Mathematics 105, 110, 111, 112, 115, 119, 120, 121, 125, 130, 151, 152, 162, 200, 210, 219, 220, 241, 242, 260, 261, 262, 263, 270, 275, 414, 415, 416, 417, 811, 812, 813

Philosophy 200, 210
Psychology 121
Reading 802, 803
Real Estate 105, 141
Secretary 400, 401
Spanish 110, 111, 112, 120, 121, 122, 130, 131, 132, 801, 802, 803, 804
Speech 100, 120, 130, 811, 812, 825
Telecommunications 115, 194
Welding Technology 100

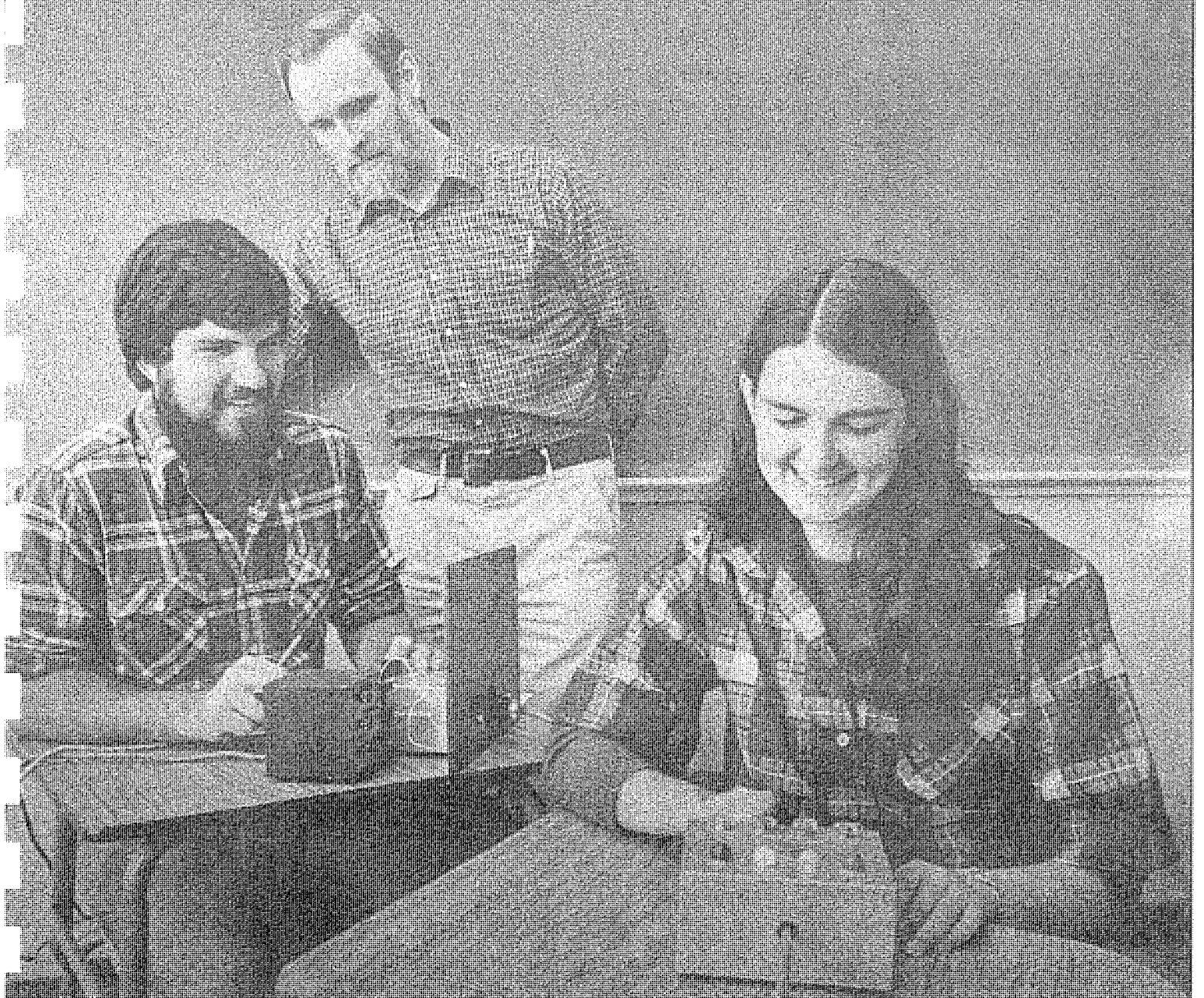
E. Electives

All courses not included in the major requirements of specified above in the General Education requirements are considered electives.

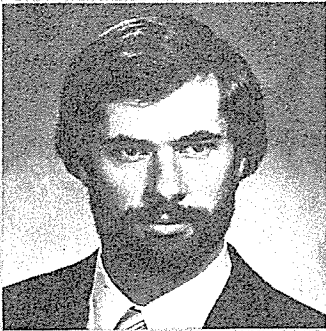




Program Planning Suggested Curricula



Social Science



TIM McCARTHY

Tim McCarthy has collected an impressive number of academic and business accomplishments in his 26 years. Higher education, which began at the College of San Mateo in 1969, was climaxed in June, 1978, when he was named a Baker Scholar, the highest academic award given to a Harvard graduate. Since graduation from the Harvard Graduate School of Business Administration, he has founded a wholesale furniture importing firm based in San Francisco. His company, with showrooms in San Francisco, Los Angeles and Seattle, has 25 representatives covering the western half of the United States. And this is his second business venture. While a student at CSM he was an instructor, manager, and later owner of a Karate school. McCarthy came to CSM following his graduation from a San Mateo high school, choosing a general curriculum with emphasis in political science. Though he could have chosen any number of schools because of his excellent high school record, he came to the San Mateo college because of proximity and flexibility of scheduling. He soon discovered other benefits. "Seldom can one find a school so willing to accommodate a student's needs and yet still have high academic standards," he says of his years at CSM. "The quality of education is easily on a par with any major college I have been connected with." The guidance he received from his counselor and the advisor for the Model United Nations were instrumental in his success, he says. McCarthy headed the Model U.N. while at CSM and when he transferred to U.C. Davis in 1971, he established a similar organization there. His study of languages and interest in sports, which he pursued while a student at CSM, has continued to be an important part of his life. Today he is fluent in several languages and he holds a black belt in Karate.

Program Planning and Suggested Curricula

Students enrolling at College of San Mateo should plan a program of studies which will meet their education goals. Their objective may be to transfer to a four-year college or university. Depending on the program they follow, they may also receive an Associate in Arts (or Associate in Science) degree from College of San Mateo. On the other hand, their objective may be to enter an occupational field after becoming qualified through one of numerous Associate-in-Arts/Science degree programs or through one of several certificate programs.

If in the course of their enrollment at College of San Mateo students find it advisable to change their program of studies, they may do so, in conference with their counselor. However, students should be aware that any changes may result in extending the time necessary to fulfill all requirements.

Students have the responsibility for planning their programs.

Transfer Programs

The student who intends to transfer to a four-year college or university or to another educational institution should consult the catalog of that institution to ascertain requirements for graduation.

College catalogs and occupational information on file in the Career Development Center are accessible to the student. Students may write directly to the registrar or dean of admissions of the college of their choice to obtain catalogs, circulars of information and other data concerning required subjects.

Transfer of Credit

A student expecting to transfer to a four-year college or university can usually complete the first two years of work at College of San Mateo. A student must complete 60 transferable units to be classified as a junior upon entering a four-year college or university. In any event, it is important that they consult with their counselor/advisor in order to arrange a program which will meet the requirements for transfer to the institution of their choice.

The earlier students make a decision regarding a transfer institution, the better their chances are for meeting all requirements without delay. If they are unable to make this decision when they enter College of San Mateo, they may elect to follow a general education transfer pattern.

High school subject deficiencies may be made up at College of San Mateo in order to meet course prerequisites at college level. In some instances students may qualify for transfer to the college of their choice by maintaining an acceptable grade-point average at College of San Mateo in a minimum of 56 units of appropriate transfer courses.

Transfer Majors

Students who intend to transfer and major in one of the following fields should plan their course at College of San Mateo to meet the general requirements for junior standing, as well as the lower division departmental requirements of the college or university to which they plan to transfer. This list indicates some majors available and is not intended to be all inclusive. Students should work closely with counselors in order to fulfill both major and lower division requirements for the college of their choice, including specific courses to be taken at College of San Mateo.

Accounting	Industrial Arts
Administration of Justice	Insurance
Aeronautics	Interior Design
Agriculture	International Relations
(Vocational)	Journalism
Anatomy	Law
Anthropology	(Pre-Legal)
Archaeology	Liberal Arts
Architecture	Life Science
Art	Machine Tool Technology
Astronomy	Management
Bacteriology	Marine Biology
Biochemistry	Marketing
Biology	Mathematics
Biophysics	Medical Services
Botany	Meteorology
Business Administration	Microbiology
Business Education	Music
Chemistry	Nursing
Consumer Arts and Sciences	Nutrition
Criminology	Office Administration
Data Processing	Optometry
Dental Hygiene	(Pre-Optometry)
Dentistry	Paleontology
(Pre-Dental)	Personnel Relations
Dietetics	Pharmacy
Drafting Technology	Philosophy
Drama	Photography
Ecology	Physical Education
Economics	Physical Therapy
Education	Physics
Electronics Technology	Physiology
Engineering	Police Science
Engineering Technology	Political Science
English	Psychology
Entomology	Public Health
Ethnic Studies	Real Estate
Finance	Recreation
Foreign Language	Social Science
Forestry	Sociology
French	Spanish
Genetics	Technical Art/Graphics
Geography	Technology
Geology	Telecommunications
Geophysics	Theatre Arts
German	Transportation
Health Science	Veterinary Medicine
History	(Pre-Veterinary)
Home Economics	Welding Technology
Horticulture	Wildlife Conservation
Humanities	(Management)
	Zoology

California State University and Colleges

GENERAL EDUCATION REQUIREMENTS

Graduation from the California State University and Colleges requires the completion of a general education program (40 units) with at least 32 units chosen under specific limitations from the areas of (a) Natural Science, (b) Social Science, (c) Humanities and (d) Basic Subjects. In addition to the 32 units, the elective units may include any transferable course outside the area of the major. College of San Mateo will certify completion of the general education requirement (40 units) or the completion of specific area requirements if the student satisfies the following requirements.

NATURAL SCIENCES

(Minimum of 6 units — at least one course in Life Science and one course in Physical Science.)

LIFE SCIENCE

Anthropology 125
Biology 100, 102, 106, 110, 112, 113, 114, 115, 116, 117, 118, 119, 125, 130, 137, 140, 145, 150, 160, 180, 184, 210, 220, 230, 240, 245, 250, 260, 320, 325, 326, 410, 420
Home Economics 310
Horticulture 311, 312, 320, 340
Paleontology 110

PHYSICAL SCIENCE

Astronomy 100, 110, 120, 130
Chemistry 101-107*, 210, 220, 224, 225, 231, 232, 250, 260, 410, 420
Geography 100
Geology 100, 130, 210, 220
Home Economics 113
Meteorology 100, 110
Oceanography 100
Physical Science 100
Physics 100, 210, 220, 250, 260

*For the purpose of this requirement, three one-unit courses from Chemistry 101-107 are considered the equivalent of one course.

SOCIAL SCIENCES

(Minimum of 11 units — including American Institutions, State and Local Government requirement and 6 additional units.)

Anthropology 110, 130, 140, 180, 310
Biology 370
Business 101, 102
Economics 100, 102, 108, 130, 230, 250, 661, 662, 663
Ethnic Studies 101, 102, 150, 151, 152, 160, 261, 262, 290, 300, 305, 310, 425, 435, 450, 520, 645
Geography 110, 120, 150, 160, 170
History 100, 101, 102, 110, 130, 141, 142, 150, 160, 201, 202, 210, 230, 242, 260, 270, 280, 290, 310, 315, 350, 360, 401, 402, 421, 422, 450
Home Economics 412
Labor Studies 110, 120, 150, 200, 290
Political Science 100, 110, 130, 150, 200, 205, 210, 215, 220, 250, 255, 260, 300, 310, 520, 550
Psychology 100, 105, 108, 110, 201, 250, 300, 340, 355, 358, 400, 410, 480

Social Science 130-134, 185, 261, 262
Sociology 100, 105, 110, 141, 150, 151, 152, 200, 300

HUMANITIES

(Minimum of 6 units, including at least 3 units in Literature or Philosophy.)

Architecture 100
Art 101, 102, 103, 106, 108, 111, 141, 142, 151, 152, 350, 451, 452
Drama 101, 102, 140
English 110, 120, 130, 140
Ethnic Studies 266, 267, 270, 275, 288, 320, 350, 351, 510, 585
French 140, 161, 162, 620
German 140, 161, 162, 620
Humanities 101, 102, 111, 112, 113, 114, 125, 136, 140
Literature 101, 105, 111, 113, 115, 143, 151, 200, 201, 202, 231, 232, 251, 266, 301, 302, 430, 451, 452
Music 100, 202, 270, 275
Philosophy 100, 101, 105, 160, 170, 190, 240, 300, 320, 340, 395
Spanish 140, 161, 162, 251, 620
Speech 111, 112

BASIC SUBJECTS

(Minimum of 6 units, including English composition.)

Art 461, 462
Data Processing 110, 151, 160, 180
Economics 123
English 100, 161, 162, 165, 200, 210
French 110, 111, 112, 120, 121, 122, 130, 131, 132
German 110, 111, 112, 120, 121, 122, 130, 131, 132
Japanese 100, 101, 102, 110, 111, 112
Mathematics 105, 110, 111, 112, 115, 119, 120, 121, 125, 130, 151, 152, 162, 200, 210, 219, 220, 241, 242, 260, 261, 262, 263, 270, 275, 414, 415, 416, 417
Philosophy 200, 210
Psychology 121
Spanish 110, 111, 112, 120, 122, 130, 131, 132
Speech 100, 120, 130

ELECTIVES

Since individual campuses may have additional requirements in the upper division, it is important that you consult the catalog of the transfer institution and discuss the requirements with your counselor.

**College of San Mateo
Courses Transferable Toward Baccalaureate Degree Credit
at California State Universities and Colleges**

1979-80

Courses which College of San Mateo designates as appropriate for baccalaureate credit are accepted by any of the California State Universities and Colleges for credit toward a baccalaureate degree. Below are listed the courses given at College of San Mateo which are transferable toward a baccalaureate degree.

Accounting 100, 111, 112, 195, 680, 690

Admin. of Justice 100, 102, 104, 106, 108, 120, 125, 140, 141, 142, 150, 153, 165, 170, 647, 680, 690

Aeronautics 100, 101, 102, 115, 126, 141, 142, 143, 144, 145, 156, 300, 301, 310, 311, 320, 321, 330, 331, 340, 341, 350, 351, 360, 361, 370, 371, 649, 680, 690

Anthropology 110, 125, 130, 140, 180, 310, 680, 690

Architecture 100, 110, 112, 114, 115, 120, 125, 130, 140, 145, 150, 160, 170, 210, 220, 230, 240, 644, 666, 680, 690

Art 101, 102, 103, 106, 108, 111, 141, 142, 145, 146, 147, 148, 151, 152, 155, 156, 157, 201, 202, 206, 207, 214, 223, 224, 231, 232, 237, 238, 241, 242, 301, 305, 310, 320, 328, 336, 350, 351, 352, 353, 354, 355, 405, 406, 411, 412, 415, 416, 450, 451, 452, 461, 462, 463, 464, 642, 680, 690

Astronomy 100, 107, 110, 120, 130, 680, 690

Biology 100, 102, 106, 110, 112, 113, 114, 115, 116, 117, 118, 119, 125, 130, 137, 140, 145, 150, 160, 180, 182, 184, 210, 220, 230, 240, 245, 250, 260, 314, 320, 325, 326, 327, 370, 410, 420, 644, 680, 690

Business 100, 101, 115, 123, 129, 130, 140, 150, 151, 152, 154, 170, 175, 180, 185, 190, 201, 202, 204, 220, 270, 271, 272, 273, 274, 275, 276, 277, 412, 641, 680, 690

Chemistry 100, 101, 102, 103, 104, 105, 106, 107, 210, 220, 224, 225, 231, 232, 250, 260, 410, 420, 680, 690

Dance 121, 122, 130, 141, 143, 148, 180, 360, 380, 411, 412, 642, 680, 690

Data Processing 110, 120, 140, 151, 152, 160, 162, 170, 180, 195, 641, 680, 690, 695

Drafting Technology 120, 201, 202, 301, 302, 400, 680, 690

Drama 101, 102, 140, 200, 201, 202, 203, 250, 260, 300, 305, 338, 642, 680, 690

Early Childhood Education 210, 211, 212, 230, 647, 690

Economics 100, 102, 108, 123, 130, 230, 250, 412, 661, 662, 663, 680, 690

Education 100, 647, 680, 690

Electronics 100, 110, 200, 230, 250, 252, 260, 280, 300, 302, 310, 330, 350, 360, 362, 380, 680, 690

Engineering 111, 112, 120, 150, 160, 200, 220, 230, 260, 270, 644, 666, 680, 690, 700

English 100, 110, 120, 130, 140, 161, 162, 165, 195, 200, 210, 311, 312, 643, 680, 690

Ethnic Studies 101, 102, 150, 151, 152, 160, 261, 262, 266, 267, 270, 275, 288, 290, 300, 305, 310, 320, 350, 351, 425, 435, 450, 510, 520, 585, 645, 680, 690

French 110, 111, 112, 120, 121, 122, 130, 131, 132, 140, 161, 162, 201, 202, 620, 680, 690

Geography 100, 110, 120, 150, 160, 170, 680, 690

Geology 100, 130, 210, 220, 680, 690

German 110, 111, 112, 120, 121, 122, 130, 131, 132, 140, 161, 162, 201, 202, 620, 680, 690

Guidance 410, 411, 430, 431, 680

Health Science 100, 101, 102, 103, 104, 105, 106, 109, 111, 112, 160, 310, 644, 680, 690

History 100, 101, 102, 110, 130, 141, 142, 150, 160, 201, 202, 210, 230, 242, 260, 270, 280, 290, 310, 315, 350, 360, 401, 402, 421, 422, 450, 680, 690

Home Economics 110, 113, 116, 117, 118, 151, 152, 154, 301, 302, 310, 412, 450, 647, 666, 680, 690

Horticulture 311, 312, 315, 320, 327, 330, 340, 341, 342, 411, 412, 415, 647, 680, 690, 701, 702, 705, 706, 711, 712, 721, 722, 731, 732, 741, 742, 771, 772, 773, 774, 775, 776

Humanities 101, 102, 111, 112, 113, 114, 125, 136, 140, 680, 690

Japanese 100, 101, 102, 110, 111, 112

Journalism 110, 120, 300, 310, 680, 690

Labor Studies 110, 120, 125, 140, 150, 200, 290, 680, 690

Library Science 100

Literature 101, 105, 111, 113, 115, 143, 151, 200, 201, 202, 231, 232, 251, 266, 301, 302, 430, 451, 452, 461, 462, 643, 680, 690

Machine Tool Technology 100, 110, 111, 120, 121, 210, 211, 220, 221, 230, 680, 690

Management 100, 110, 205, 300, 301, 303

Mathematics 105, 110, 111, 112, 115, 119, 120, 121, 125, 130, 151, 152, 162, 200, 210, 219, 220, 241, 242, 260, 261, 262, 263, 270, 275, 414, 415, 416, 417, 680, 690

Medical Assisting 140

Meteorology 100, 110, 680, 690

Military Science 1a-b, 12a-b.

Music 100, 101, 102, 103, 104, 131, 132, 133, 134, 150, 170, 202, 270, 275, 301, 302, 303, 304, 320, 340, 360, 371, 372, 402, 403, 430, 440, 445, 450, 460, 470, 480, 490, 495, 642, 680, 690

Nursing 210, 221-222, 231, 241, 242, 647

Oceanography 100

Paleontology 110

Philosophy 100, 101, 105, 160, 170, 190, 200, 210, 240, 300, 320, 340, 395, 680, 690

Physical Education All classes in the following series: 100-199, 200-299, 300-399, 400-499, 600-699

Physical Science 100

Physics 100, 210, 220, 250, 260, 270, 680, 690

Political Science 100, 110, 130, 150, 200, 205, 210, 215, 220, 250, 255, 260, 300, 310, 520, 550, 680, 690

Psychology 100, 105, 108, 110, 121, 201, 250, 300, 340, 355, 358, 400, 410, 480, 680, 690

Real Estate 100, 105, 110, 121, 131, 141, 143, 145, 200, 210, 215, 220

Recreation Education 100, 110, 140, 165, 175

Secretary 100, 110, 120, 200, 210, 211, 230, 300, 440, 444

Social Science 130, 131, 132, 133, 134, 185, 261, 262, 648, 680, 690

Sociology 100, 105, 110, 141, 150, 151, 152, 200, 300, 680, 690

Spanish 110, 111, 112, 120, 121, 122, 130, 131, 132, 140, 161, 162, 201, 202, 251, 620, 680, 690

Speech 100, 111, 112, 120, 130, 680, 690

Technical Art/Graphics 201, 202, 210, 220, 300, 310, 351, 352, 400, 680, 690

Technology 100, 110, 120, 200, 649, 680, 690

Telecommunications 110, 115, 131, 132, 135, 192, 195, 231, 232, 241, 242, 243, 642, 680, 690

Welding Technology 100, 110, 111, 120, 121, 210, 211, 220, 221, 300, 680, 690

Cooperative Education 601, 602, 640, 641, 642, 643, 644, 646, 647, 648, 649 with a maximum of 12 units.

Stanford University

JUNIOR STANDING REQUIREMENTS

Selection is made on a competitive basis from those who meet minimum requirements and who have a significant reason for transferring to Stanford. All student candidates must satisfy general requirements for admission to the university itself, as well as special requirements for admission to the Schools of Medicine, Law, Nursing or the Hopkins Marine Station.

Academic Requirements for Junior Standing:

1. **Completion of 87 quarter units (58 semester units). Normally a 2.75 grade point average is required for consideration.**
2. **A satisfactory score on the Scholastic Aptitude Test of the College Entrance Examination Board.**
3. **Recommendations as to character and personal qualifications.**

Students are urged to consult with their counselor at the College in regard to their plans and to refer to the Stanford University Bulletin which may be secured directly from Stanford University.

University of California

A student planning to transfer to one of the campuses of the University of California can usually complete the first two years of his or her work at College of San Mateo. In some cases, students may wish to make up high school course deficiencies or grade point average deficiencies. It is important to work with your counselor from the general catalog of the University campus you plan to attend. The current issue of the University publication "Prerequisites and Recommended Subjects" is a helpful planning guide. It lists the requirements for admission, breadth requirements and requirements for the major, all of which should be carefully considered in planning your program at CSM.

Courses from College of San Mateo Acceptable at University of California (All Campuses)

This information represents that most current at the time of publication of this catalog. The College of San Mateo recommends strongly that you discuss the transferability of courses to the University of California with your counselor who may have more recent information and who can assist with the interpretation of the course applicability to various major programs.

Accounting 111, 112

Administration of Justice (Police Science) 100, 102, 104, 106, 108, 120, 125

Anthropology 110, 125, 130, 140, 180, 310

Architecture 100, 110, 112, 120, 130, 140, 145, 220, 230, 240

Art 101, 102, 103, 106, 108, 111, 201, 202, 207, 214, 223, 224, 231, 232, 237, 238, 301, 305, 310, 320, 350, 351, 352, 353, 354, 405, 406, 411, 412, 413, 414, 415, 416, 451, 452, 461, 462, 463, 464

Astronomy 100, 107, 110, 120, 130

Biology 100, 102, 106, 110, 112, 113, 114, 115, 116, 117, 118, 119, 125, 130, 140, 145, 150, 160, 180, 182, 184, 210, 220, 230, 240, 245, 250, 260, 370

Business 123, 130, 201, 202

Chemistry 100, 101, 102, 103, 104, 105, 106, 107, 210, 220, 224, 225, 231, 232, 250, 260, 410, 420

Cooperative Education 640-649 (1-4; maximum 6 units in otherwise transferable areas only.)

Data Processing 110, 140, 151, 152, 160, 162, 180

Drama 101, 102, 140, 200, 201, 202, 203, 230, 250, 260, 300, 305, 338

Early Childhood Education 212, 230

Economics 100, 102, 108, 123, 130, 230, 250, 661, 662, 663

Education 100

Engineering 111, 112, 200, 220, 230, 260, 270, 666

English 100, 110, 120, 130, 140, 161, 162, 165, 200, 210, 311, 312, 411

Ethnic Studies 101, 102, 150, 151, 152, 160, 261, 262, 266, 267, 270, 275, 288, 290, 300, 305, 310, 320, 350, 351, 425, 435, 450, 510, 520, 585, 645

French 110, 111, 112, 120, 121, 122, 130, 131, 132, 140, 161, 162, 201, 202, 620

Geography 100, 110, 120, 150, 160, 170

Geology 100, 130, 210, 220

German 110, 111, 112, 120, 121, 122, 130, 131, 132, 140, 161, 162, 201, 202, 620

Health Science 100, 101, 102, 103, 104, 105, 106, 109, 111, 112, 310

History 100, 101, 102, 110, 130, 141, 142, 150, 160, 201, 202, 210, 230, 242, 260, 270, 280, 290, 310, 315, 350, 360, 401, 402, 421, 422, 450

Home Economics 110, 113, 117, 118, 301, 302, 303, 310, 412, 450

Humanities 101, 102, 111, 112, 113, 114, 125, 136, 140

Japanese 100, 101, 102, 110, 111, 112

Journalism 110, 120, 300, 310

Labor Studies 110, 290

Library Science 100

Literature 101, 105, 111, 113, 115, 143, 151, 200, 201, 202, 231, 232, 251, 266, 301, 302, 430, 451, 452, 461, 462

Mathematics 105, 125, 151, 152, 162, 200, 210, 219, 220, 241, 242, 260, 261, 262, 263, 270, 275

Meteorology 100

Military Science 1a, 1b, 12a, 12b

Music 100, 101, 102, 103, 104, 131, 132, 133, 134, 150, 170, 202, 270, 275, 301, 302, 303, 304, 320, 340, 360, 371, 372, 402, 403, 430, 440, 445, 450, 451, 460, 470, 480, 490, 495, 496

Oceanography 100

Paleontology 110

Philosophy 100, 101, 105, 160, 170, 190, 200, 210, 240, 300, 320, 340

Physical Education All classes in the following series: 100-199, 200-299, 300-399, 400-499, 600-699

Physical Science 100

Physics 100, 210, 220, 250, 260, 270

Political Science 100, 110, 130, 150, 200, 205, 210, 215, 220, 250, 255, 260, 300, 310, 520, 550

Psychology 100, 105, 108, 110, 121, 201, 250, 300, 340, 355, 400, 410, 480

Recreation Education 100, 110

Social Science 130, 131, 132, 133, 134, 185, 261, 262

Sociology 100, 105, 110, 141, 150, 151, 152, 200, 300

Spanish 110, 111, 112, 120, 121, 122, 130, 131, 132, 140, 161, 162, 201, 202, 251, 620

Speech 100, 111, 112, 120, 130

Telecommunications 110, 241, 242, 243

SPECIAL NOTE:

The following courses are also transferable:
601, 602, 640, 641, 642, 643, 644, 646, 647, 648, 649,
Cooperative Education in (Division)
680 Special Seminar in (Department)
690 Individual Study in (Department)

Career Programs

Specialized career programs are offered in more than fifty occupational fields (see tabular listing which follows) for students planning to prepare for gainful employment. All career programs are carefully developed by advisory committees composed of college staff and selected representatives from the business and industrial community.

Career programs are designed to develop personal and technical competencies necessary for successful employment and job advancement.

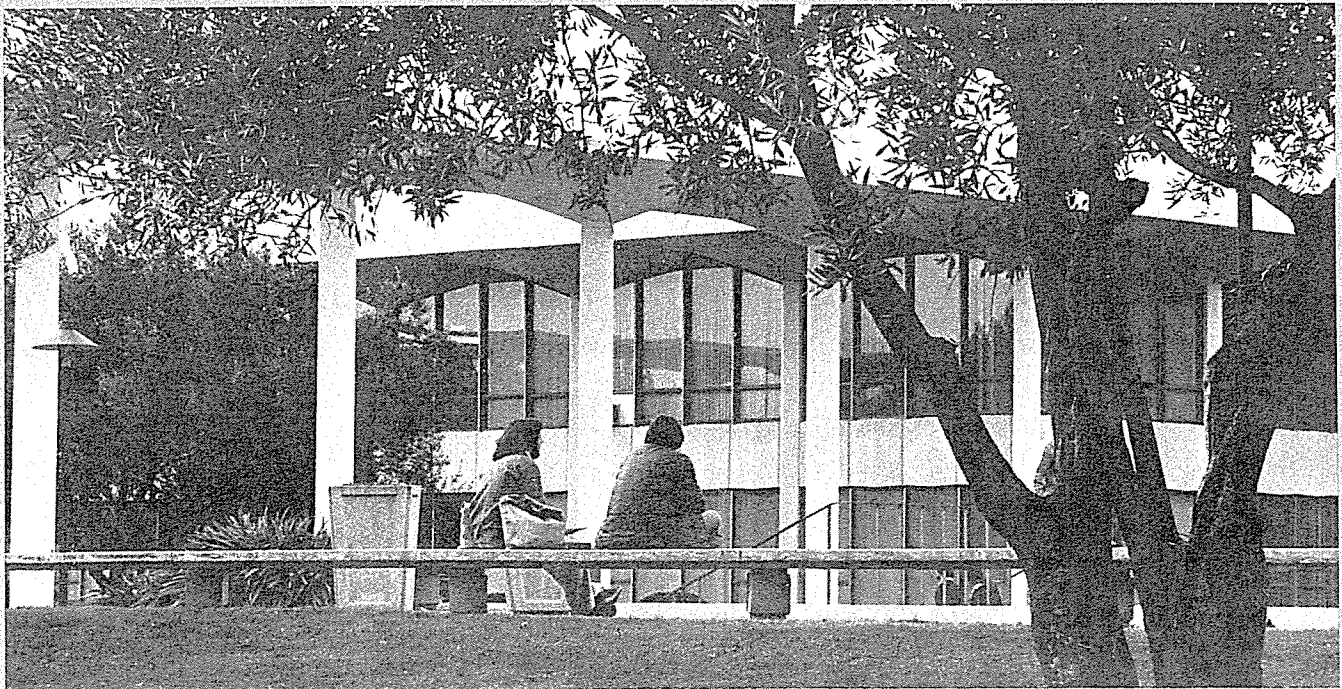
Two-Year Career Programs—AA or AS Degree

All two-year programs lead to an Associate in Arts or Associate in Science degree. Many of the units earned in career programs are accepted by four-year colleges as meeting certain requirements.

Certificate Programs

Certificates of Proficiency are awarded upon successful completion of selected career programs. Some Certificates of Proficiency require less than two years of full-time study. To be eligible for a certificate, a student must pass all required certificate courses with a grade of "C" or better.

Certificates may be earned through day or evening part-time enrollment or during regular full-time enrollment.



College of San Mateo A.A./A.S. Degree and Certificate Career Programs

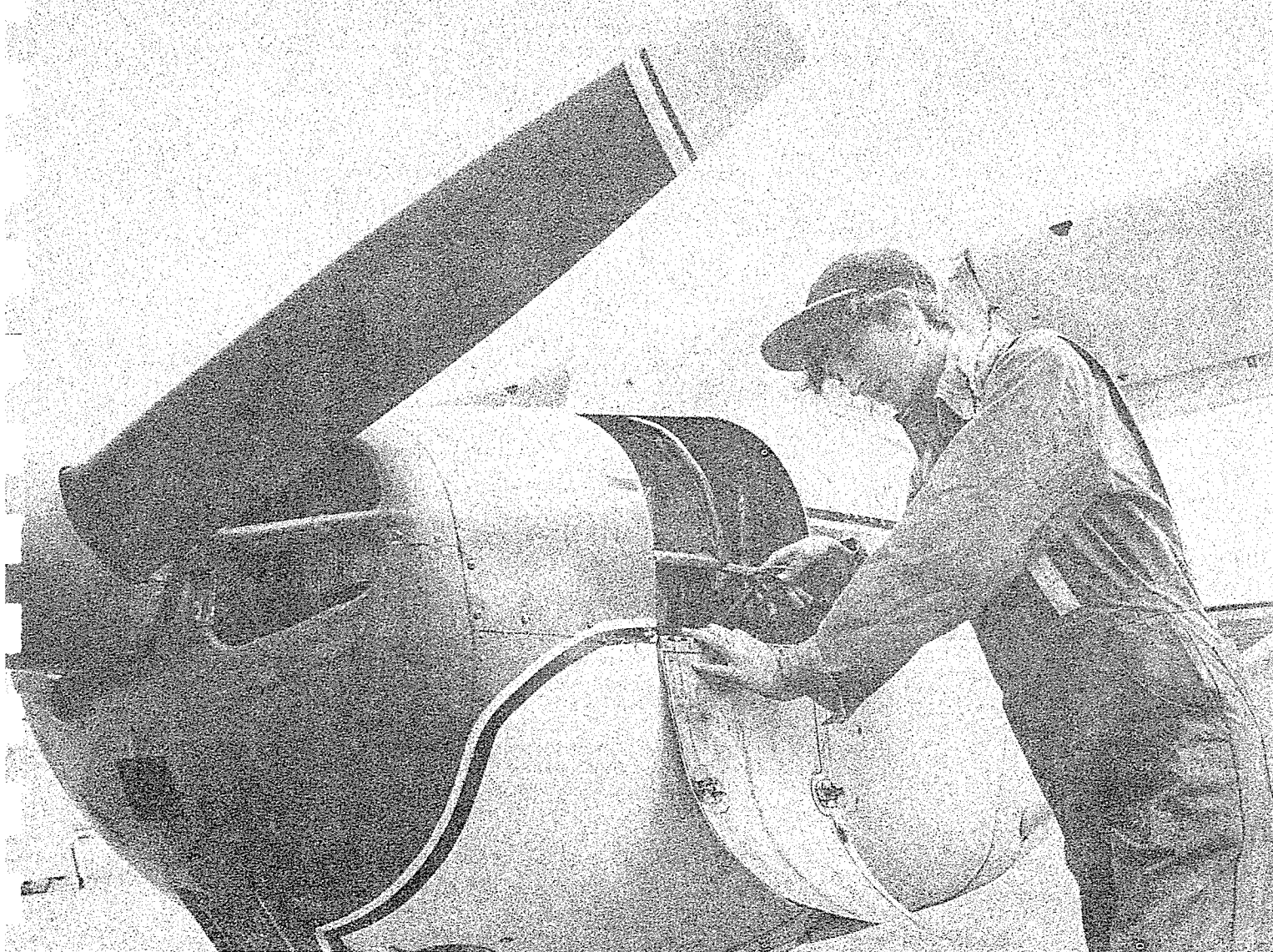
Occupational Area	Curriculum	A.A./A.S. Degree	Certificate
Administration of Justice	Administration of Justice	X	X
Aeronautics	Aircraft Maintenance Technology	X	
	Airframe/Powerplant Maintenance Technology	X	X
	Commercial Pilot Technology	X	X
	Pilot Technology	X	
Building Inspection	Building Inspection		X
Business	Banking		
	Banking Operations		X
	Credit & Lending		X
	Business Administration	X	
	Accounting Paraprofessional	X	X
	Chartered Life Underwriter		X
	Clerical	X	X
	Data Processing	X	
	Computer Programmer		X
	Computer Operator		X
	Escrow	X	X
	Key Data Entry		X
	Legal Secretary	X	X
	Management		
	Business Management	X	X
	Small Business Management	X	X
	Industrial Management	X	X
	Marketing Management	X	X
	Medical Assisting	X	X
	Merchandising—Fashion	X	X
	Merchandising—General	X	X
	Merchandising—Management	X	X
	Real Estate	X	X
	Secretarial—Shorthand Specialty	X	X
	Secretarial—Machine Transcription Specialty	X	X
	Secretarial—Word Processing Specialty	X	X
	Transportation	X	X
Home Economics	Home Economics	X	
	Fashion Merchandising	X	X
Cosmetology	Cosmetology—Cosmetologist	X	X
	Cosmetology—Manicurist		X
	Cosmetology—Instructor	X	
Dental Assisting	Dental Assisting	X	X
Education	Teacher Assistant	X	X
Fire Science	Fire Science	X	X
	Fire Science Academy		X
Horticulture	Floristry		X
	Vocational Gardening		X
	Environmental Horticulture	X	X
	Ornamental Horticulture	X	X
Interior Design	Interior Design	X	X
Library	Library Technical Assistant		X

College of San Mateo A.A./A.S. Degree and Certificate Career Programs

Occupational Area	Curriculum	A.A./A.S. Degree	Certificate
Nursing	Nursing	X	
	Nursing—Vocational	X	X
	Nursing Assistant Home Health Aide		X
Technology	Building Inspector		X
	Drafting Technology	X	X
	Electronics Technology	X	X
	Machine Tool Technology	X	X
	Technology Art/Graphics	X	X
	Welding Technology	X	X
Telecommunications	Broadcast Engineering (Radio & Television)	X	X
	Radio Broadcasting	X	X
	Television Broadcasting	X	X

For information on other occupational programs in the District, call Cañada College, 364-1212, or Skyline College, 355-7000.

**Course Requirements for Transfer Majors
A.A./A.S. Degrees
Certificate Career Programs**



Technology



KAREN SQUYRES (Left)

In the spring of 1979 Hawaiian Airlines made aviation history with a flight completely "manned" by an all-female crew. Among crew members was First Officer Karen Squyres, a 1978 graduate of College of San Mateo's aeronautical program. The flight, carrying 30 passengers from Honolulu to Molokai in a turboprop SD3-30 aircraft, was the first of its kind for any certified scheduled American carrier. Co-pilot Squyres, who recently completed ground school, had been with Hawaiian Airlines only a few months prior to the historic flight. As a result of her strong desire to move ahead in her field, she will soon qualify for several additional ratings, including the Airline Transport Pilot Rating, the highest rating attainable. With Hawaiian Airlines she can look forward to flying as co-pilot on the Douglas DC-9. Squyres' goal to be an airline pilot was established long ago, she says. "I chose CSM after researching many schools only to find that CSM offered the best program of study for the aeronautics major." She has high praise for the quality of instruction in the program. "CSM helped to feed my intense hunger to gain experience and knowledge from these who teach in the aviation field", she says, "All of the instructors were obviously well-prepared and experienced in the field they taught. None of them ever ran out of advice or sources of reference material." Another important aspect of the program, according to Squyres, was the close relationships which developed between staff and students. She recalled that students, under faculty supervision, often got together during vacations to fly to various locations. The aim was three-fold — to gain additional knowledge, to accumulate pilot hours, and to participate in an exciting activity.



BRUCE BOLES

Bruce Boles is a man on his way up in the field of computer engineering. He received the first step of his training as a College of San Mateo student studying electronic technology. After graduation in 1975 he went on to California Polytechnic University of San Luis Obispo, completing his study there with a degree in Engineering Technology, electronics option. He was hired immediately at Hewlett Packard as an Associate Customer Engineer in the Computer Service Engineering Division. A promotion in the spring of '79 has moved him up to Production Engineer in that division. When he entered CSM Boles had no plans to transfer. "I chose CSM because it was known for its practical application in electronics and excellent labs. I thought I'd get a good two-year education and get a job in the electronics industry," he recalls. "When I discovered the transfer program to Cal Poly, I revised my goals. I would go ahead and finish the A.A. degree, but also take the required courses to transfer." Looking back over his four years of higher education, he believes he made the best choice possible. From CSM he gained a strong practical background and from Cal Poly, the detailed theory. "CSM provided a smooth transfer from high school to a four-year university. I believe most people benefit more from going to a community college first," he says. One of the most important benefits of community college education, he believes, is the close association between instructor and student. "In a four-year university, lower division classes may have 200 to 400 students per class." Boles indicated that faculty members in his department at CSM were particularly willing to give assistance on counseling matters, special projects and homework problems.

Course Requirements for Transfer Majors A.A./A.S. Degrees, Certificate Career Programs

Administration of Justice

Associate in Science Degree with a Major in Administration of Justice

This Program is designed for both transfer and non-transfer students. Although only 18 units in Administration of Justice courses are necessary for the major, it is recommended that the transfer student take the five core courses plus nine elective units only and concentrate in the area of general education for transfer in junior standing to a four-year institution.

Requirements	Semester Units
Administration of Justice 100, 102, 104, 106, 108 (1, 2, 3, 4, 5) and three elective units	18

Suggested Electives: Administration of Justice 120 (7) and 165 (17) are highly recommended for transfer students; 125, 150, 153 (10, 12, 19) are also desirable.

General Education and other requirements for the A.S. degree: See pages 61-62.

Certificate Programs

These programs, offered to police officer classification and qualified pre-service students, consist of the following pre-service courses: introduction (3 units), Principles and Procedures of Justice System (3 units), Criminal Law (3 units), Criminal Evidence (3 units), Police Community Relations (3 units), Criminal Investigation (3 units), and Traffic Supervision and Control (3 units). Students who complete these courses receive a Certificate of Completion and college credit, which may be applied to the Associate in Science degree.

Verification of completion will be issued for the following special courses upon completion with a grade of C or better. Elective credit may be applied to the A.S. degree.

ADMJ 755 (94) Advanced Officer Training	1-2 units
ADMJ 760 (96a) Peace Officer Orientation	1-2 units
ADMJ 762 (96c) Security Baton	½-1 units
ADMJ 766 (98) Police Firearms, Chemical Agent	½-1 units
ADMJ 771, 772, 773 (99a-b-c) Reserve Officer Training	10 units

Aeronautics

Transfer programs are available for four-year degree curricula at San Jose and San Francisco State Universities and other institutions which provide Aeronautics or Design and Industry majors.

Aeronautics— Airframe and Powerplant Technology

Associate in Science Degree with a Major in Airframe and Powerplant Technology

Recommended High School Preparation: Elementary Algebra, Intermediate Algebra, Plane Geometry, Drafting, General Shop, Physics, or Physical Sciences. Students should check course descriptions and prerequisites and discuss recommended sequence with counselors.

Because of Federal Aviation Administration regulations regarding attendance and performance, the following special rules apply to all Maintenance courses Aero 300 (51) through Aero 370 (58): 1) Any time missed during one of these courses must be made up before the end of the semester. If more than three days or 18 hours are missed in any one course, the student will receive a "W," and the course must be repeated before he/she is eligible to enroll in an advanced course. 2) Anything less than 70% (letter grade of C) will be considered a failing grade. A final examination will be given at the end of each eight-week course. Failure to achieve a 70% on this final examination will require that the course be repeated before the student can enroll in an advanced course.

Priorities for Admission: Preference will be given to applicants who have (1) successfully completed Aero 680 (48), "Introduction to Aeronautics", and English 680 (48), "Writing for Industry", and (2) residents of San Mateo County.

Career Opportunities: The student who completes courses and obtains a Federal Aviation Certificate and Associate in Science degree in Airframe and Powerplant Technology has excellent opportunities for steady employment by airlines as well as other aircraft operations.

Requirements	Semester Units
Airframe: Aero 350, 351, 370, 371 (56, 56L, 58, 58L)	13
Powerplant: Aero 340, 341, 360, 361 (55, 55L, 57, 57L)	13
Total	26

If a student has an airframe or powerplant license, upon application to the Aeronautics Department, 7 units of credit may be granted. If a student wishes to have an A.S. degree in Airframe and Powerplant, a minimum of 6 units from the following list of technical electives is required, plus the airframe or powerplant curriculum lacking. Technology 100 (71), Electronics 110, 280 (14, 53), Telecom. 190 (65), Drafting 120 (14), Welding 300 (75), Physics 100 (10).

Requirements	Semester Units
FAA Airframe or Powerplant license (equivalent)	7
Powerplant: Aero 340, 341, 360, 361 (55, 55L, 57, 57L)	13
Airframe: Aero 350, 351, 370, 371 (56, 56L, 58, 58L)	
Technical Electives (6 units required)	
Technology 100 (71); Electronics 110 (14), 280 (53);	
Telecom. 190 (65), Drafting 120 (14); Welding 300 (75);	
Physics 100 (10)	6
Total	26

If a student wishes to obtain an A.A. or A.S. degree in some other major, the 7 units may be used for elective credit. General Education and other requirements for the A.S. degree: see Pages 61-62.

Certificate Program

Students may apply for a certificate in Airframe and Powerplant Technology upon completion of the following courses:

Requirements	Semester Units
Aero. 340, 341, 350, 351, 360, 361, 370, 371 (55, 55L, 56, 56L, 57, 57L, 58, 58L)	26

Aeronautics— Aircraft Maintenance Technology

Associate in Science Degree with a Major in Aircraft Maintenance Technology

This major is designed especially for the student who already possesses both the airframe and powerplant licenses granted by the F.A.A. Upon application to the Aeronautics Department, a student may receive 13 units of credit toward an Associate in Science degree in Aircraft Maintenance Technology. In addition a minimum of 13 units is required from the list of selected electives as indicated below:

Requirements	Semester Units
F.A.A. Airframe and Powerplant licenses	13 (equivalent)

Select 12 units from the following courses:

Drafting 120 (14); Electronics 110 (14), 280 (53); Physics 100 (10);

Technology 100 (71); Welding 300 (75);	
Electronics 770 (105), 771 (106); Telecom. 190 (65)	13
Total	26

If a student wishes to obtain an A.A. or an A.S. Degree in some other major, the 13 units may apply toward elective credit.

General Education and other requirements for the A.S. degree: see pages 61-62.

Aeronautics—Commercial Pilot

Associate in Science Degree with a Major in Commercial Pilot

Recommended High School Preparation: Intermediate Algebra, Plane Geometry, Drafting, Trigonometry, General Shop, and Physics or Physical Sciences or Business Administration. Student should check course descriptions and prerequisites, and discuss recommended sequence with counselors.

Designed for the student who plans to become a commercial pilot, flight instructor, airline pilot or fixed-base operator. This program may also be used as basic training for aviation business and entrance into air traffic control employment.

Requirements	Semester Units
Aeronautics 100, 101, 102, 103*, 115, 126, 137	
(2a, 2b, 2c, 3* 5, 6, 7)	21
Meteorology 100 or 110 (1 or 10)	3
General Education and other requirements for A.S. degree: See pages 61-62.	

Certificate Program

Students may apply for a certificate in Commercial Pilot upon completion of the following courses:

Requirements	Semester Units
Aero. 100, 101, 102, 103*, 115, 126, 137 (2a, 2b, 2c, 3*, 5, 6, 7)	21½-23
Meteorology 100 or 110 (1 or 10)	3
Total	26

*Aero. 103 (3) may be taken five times for credit.

Aeronautics — Pilot Technology

Associate in Science with a Major in Pilot Technology

This major is designed especially for the student who already possesses a commercial pilot, instrument, and multi-engine license or an airline transport pilot license. Upon application to the Aeronautics Department, a student may

receive eleven units of credit toward an Associate in Science degree in Pilot Technology. In addition, the student must take an additional twelve units from the selected electives listed below.

Requirements	Semester Units
Commercial, instrument, and multi-engine license or air transport license (equivalent) 11	
Select 12 units from following courses	
Aero. 115 (5); Business 101 (8a); Data Proc. 110 (50); Electronics 110 (14); Business 100 (10); Technology 100 (71); Physics 100 (10); Astronomy 100 (10)	12
Total	23

If a student wishes to obtain an A.A. or A.S. degree in some other major, the eleven units may apply toward elective credit.

**Agriculture
Transfer Program**

Recommended High School Preparation: Chemistry, Physics, Elementary Algebra, Intermediate Algebra, Geometry, Trigonometry, Mechanical Drawing, two years in one foreign language.

The student who intends to transfer a major in Agriculture should plan a course at College of San Mateo to meet the general requirements for junior standing, as well as the lower division requirements of the specific college or university.

Apprenticeship — Trade Related

Related training classes for apprentices are offered. (See Trade and Industrial courses.)

Archaeology

See Anthropology courses.

Architecture — Architectural Engineering, Landscape, City and Regional Planning

Students who plan to transfer to a university or college offering a professional program in Architecture should consult the catalog of the advanced institution of their choice, and then arrange a schedule of suitable transfer courses.

Architecture

Associate in Science Degree with a Major in Architecture

Recommended High School Preparation: Academic program including Mathematics (4 years), Art (1 year), Mechanical

Drawing (1 semester). Students should check course descriptions and prerequisites, and discuss recommended sequence with counselors. Courses listed below are transfer requirements; those marked with an asterisk are A.S. degree requirements.

Requirements	Semester Units
Architecture 100, 120*, 130*, 140*, 145, 150, 160, 170, 210*, 220*, 230*, 240*, (10, 11*, 12*, 15a, 15b, 16, 17, 18, 21*, 22*, 23*, 24*)	33

Suggested Electives: Architecture 112, 114, 115, 125 (1a, 7a, 7b, 13); mathematics by eligibility; Physics 210, 220 (2a, 2b)

General Education and other requirements for the A.S. degree: See Pages 61-62.

Art

Associate in Arts Degree with a Major in Art

Requirements	Semester Units
Art 201 (2a), 301 (5a), plus 12 units from courses in the Arts Department	18

General Education and other requirements for the A.S. degree: See Pages 61-62.

Art — Commercial

Associate in Arts Degree with a Major in Commercial Art

Recommended High School Preparation: Design, Drawing, Painting and Poster Service.

Career Opportunities: Commercial artists may be employed in advertising, manufacturing, public relations or communications. Experienced artists frequently specialize in a particular product or field such as fashion, industrial art, advertising, story illustration or interior design.

Requirements	Semester Units
Art 201, 202, 206, 207, 301, 310, 328 (2a, 2b, 52, 15, 15a, 12, 51)	21

Students should check course descriptions and prerequisites, and discuss recommended sequence with counselors.

Technical Art/Graphics 351 (65a)	2
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Suggested Electives: Art 214, 223, 231, 241, 320, 305 (3, 6a, 7a, 62a, 4, 5b) Business 175 (12); Guidance 410 (10); Speech 100 (1a).

General Education and other requirements for the A.A. degree: See Pages 61-62.

Art—Interior Design

Associate in Arts Degree with a Major in Interior Design

Requirements	Semester Units
Art 145, 146, 147, 148, 151, 152, 157, 450 (81, 83, 82, 84, 85a, 85b, 80, 87)	24

Suggested Electives: Art 101, 102, 103, 155, 156, 201 (1a, 1b, 1c, 88, 89, 2a).

General Education and other requirements for the A.A. degree: See Pages 61-62.

Certificate Program

Requirements	Semester Units
Art 145, 146, 147, 148, 151, 157, 450 (81, 83, 82, 84, 85a, 80, 87)	21

Suggested Elective: Art 152 (85b)

Art — Painting

Associate in Arts Degree with a Major in Painting

Requirements	Semester Units
Art 201, 202, 207, 214, 223, 231, 237, 405 (2a, 2b, 15, 3, 6a, 7a, 17a, 22).....	24

Students should check course descriptions and prerequisites, and discuss recommended sequences with counselors.

Suggested Electives: Art 101, 102, 103, 406 (1a, 1b, 1c, 23)

General Education and other requirements for the A.A. degree: See Pages 61-62.

Art—Photography

Associate in Arts Degree with a Major in Photography

Requirements	Semester Units
Art 201 or 301 or 350, 351, 352, 353, 354, 355 (2a or 5a or 40, 41a, 41b, 41c, 43a, 43b)	21

Suggested Electives: Art 101, 214, 237, 461 (1a, 3, 17a, FA15); Technical Art/Graphics 351, 352 (65a, 65b)

General Education and other requirements for the A.A. degree: See Pages 61-62.

Building Inspection

Certificate Program

Students may apply for a Certificate in Building Inspection upon completion of 24 units from the following courses:

Requirements	Semester Units
700, 710, 720, 730, 740, 750, (63a, b, c, d, e, f).....	15-18

Select 6-9 units from following courses: Technology 700 (73); Business 101 (8a), 160 (123), Management 110 (52), 235 (92)..... 6-9
Total 24

Business Administration

Transfer Program

Recommended High School Preparation: Elementary Algebra, Intermediate Algebra, Plane Geometry, Trigonometry, Chemistry of Physics, Foreign Language. If student has not completed Intermediate Algebra in high school, he/she should take Math 120 or 119 and 121 (19 or 20).

For information concerning the transfer requirements of other colleges and universities, students should consult the catalog of the colleges and universities concerned, or their College of San Mateo Counselor.

Associate in Arts Degree with a Major in Business Administration

The curriculum is for the student who wishes to major in general business. Students should check course descriptions and prerequisites, and discuss recommended sequence with counselors.

Requirements	Semester Units
Option 1—Actg. 111, 112, 195 (Bus. Ad. 1a-b, 20); Bus. 201, 123 (Bus. Ad. 18a, Bus. 2)	19
Option 2 —Bus. 100, 101, 115 (10, 8a, 51), Actg. 100 (Bus. 66) or Actg. 111 (Bus. Ad. 1a); Bus. 129 (93); Bus. 201 (Bus. Ad. 18a), Actg. 195 (Bus. Ad. 20) or D.P. 110 (Data 50)	20-21

Suggested Electives: Option 1—Econ. 100, 102 (1a-b); **Option 2**—Bus. 140, 150, 170, 180, 270 (81, 65, 11, 24, 70)

Courses listed in Option 1 are transfer requirements. Those listed in either Option 1 or Option 2 meet A.A. degree requirements.

General Education and other requirements for the A.A. degree: See Pages 61-62.

Business

Career Programs

The following major programs are designed to qualify a student, upon completion of a curriculum, for employment in an area of specialization. The development of business skills which can be utilized for immediate employment is emphasized, with general courses offered to provide a background for future promotion in the chosen occupational area.

Students graduating with a major in the field of Business must meet the following subject requirements:

Mathematics—A percentile rating of at least 35 of the quantitative part of the SCAT entrance examination, or completion of Bus. 810 (50) with a grade of C or better. It is recommended that Bus. 810 (50) be completed by the end of the second semester.

Business 100 (10)—Introduction to Business.

Business—Accounting

*Associate in Arts Degree
Certificate Program*

Recommended Preparation: Typing, general office procedures, good command of English usage.

Career Opportunities: Graduates may be employed in a position of paraprofessional accounting in accounting firms, government and private companies.

Requirements:	Semester Units
Actg. 111, 112, 113, 195 (Buad 1a, 1b, 1c, 20); Bus 201 (Buad 18a), Bus 129 (Bus 93)	20

Suggested electives: Bus 100, 101, 115, 123 (Bus 10, 8a, 51, 2);
Econ 100, 102, (1a, 1b).

General Education and other requirements for the A.A. degree: See Pages 61-62.

Business—Banking

American Institute of Banking Certificate Programs

Bank Operations

Requirements	Semester Units
Bus. 110, 115, 810 (8a, 51, 50) or Mgmt. 300 (Bus. 30); Bus. 201 (Bus. Ad. 18a); D.P. 110 (Data 50); Mgmt. 120 (54)	18

Select 6 units from the following courses: Sec. 100, 400, 401 (Bus. 92, 91, 56),
Bus. 129 (93); Mgmt. 105, 215, 235 (50, 80, 92) Spch. 120 (10)... 6
Total 24

Credit and Lending

Requirements	Semester Units
Actg. 111, 112 (Bus. Ad. 1a-b), Econ. 100, 102 (1a-1b), Mgmt. 301, 303 (Bus. 31, 32)	20

Select 3 units from following courses: Bus. 130, 129 (35, 93), Sec. 401 (Bus. 56); Bus. 201 (Bus. Ad. 18a); Mgmt. 105, 135 (50, 63)

Actg. 100 (Bus. 66) or Actg. 111 (Bus. Ad. 1a) recommended. Total 23

Business—Clerical

Associate in Arts Degree with a Clerical Major

Recommended High School Preparation: Typing, General Office Procedures, Business English, Introduction to Business, Business Math, Recordkeeping, Business Law.

Career opportunities: Students primarily develop general skills and knowledge which are essential for making a living. These students may be employed in various entry-level positions for a career in business such as file clerks, receptionists, typists, bank tellers, and account clerks.

To meet the major requirements for the Associate in Arts degree, the student should plan a program to include any needed prerequisites for the core courses.

Requirements	Semester Units
Business 100, 810*, 129 (10, 50, 93), Sec. 400, 110, 300 (2 units), 412 (Bus. 91, 92.5, 94, 96)	14-17
Electives from following list	7
	Total 21-24

*See Page 81 for Business Division's Mathematics requirement.

Electives: Business 101 (8a), Sec. 401, 440, 200, 210, 211, 230, 205, 145, 120, 410, 305 (Bus. 56, 59L, 90.1, 90.2, 90.3, 90.4, 90.5, 90P, 92.2, 92.8, 100a, 102), Actg. 105 (Bus. 67); Meda 100 (MA 59).

General Education and other requirements for the A.A. degree: See Pages 61-62.

Business—Clerical

Certificate Program

Students may apply for a Clerical Certificate upon completing the A.A. degree major requirements with grades of C or better.

Business—Data Processing

Associate in Arts Degree with a Major in Data Processing

Requirements	Semester Units
Data Proc. 110, 130, 140, 151, 152, 160 (Data 50, 51, 52, 53a, 53b, 54)	23
Actg. 111 or 100 (Bus. Ad. 1a or Bus. 66)	4
	Total 27

Students should check course descriptions and prerequisites, and discuss recommended sequence with counselors.

Select 6 units from following courses: Bus. 123, 101, 100, 180, 810 or 115, 150 (2, 8a, 10, 24, 50 or 51, 65), Sec. 401 (Bus. 56); D.P. 195, 162, 690, 170, 180, 120, 695 (20, 25, 49, 55, 56, 97, 106); Actg. 112 (Bus. Ad. 1b); Econ. 100, 102 (1a, 1b).

General Education and other requirements for the A.A. degree: See Pages 61-62.

Computer Operator Certificate Program

Students may apply for this certificate upon completion of Data Processing 810, 130, 140, and 151 (50, 51, 52, and 53a).

Computer Programmer Certificate Program

Students may apply for this certificate upon completion of Data Processing 810, 130, 140, 151-152, and 160 (50, 51, 52, 53a-53b, and 54).

Key Data Entry Certificate Program

Students may apply for this certificate upon completion of Data Processing 120 (97) with minimum speed of 8000 keystrokes per hour, less than 2% error rate, and ability to program and operate key-to-disk equipment.

Business—Escrow

Associate in Arts Degree with a Major in Escrow

The California Escrow Association recommends 24 units of required core courses and 12 units of suggested electives for the A.A. degree. See the Real Estate Department counselor for guidance regarding these courses and for information regarding the Escrow Certificate. See Escrow brochure for program details.

Requirements	Semester Units
R.E. 301*, 303, 305, 100*, 121, 131 (Bus. 145b*, 145d, 145e, 83a*, 87, 88), Bus. 810, 115 (50, 51) (or a mathematics class — Math. 120 (19) or higher), Sec. 401 (Bus. 56), Bus. 100(10)	24

Select 12 units from following courses.

Bus. 101 (8a), Actg. 100 or 111 (Bus. 66 or Bus. Ad. 1a), Ins. 110 (Bus. 80a), Sec. 100 (92.0), R.E. 110, 235 or Bus. 170, 200, 141 or 143, 210, (Bus. 85, 111 or 11, 131, 134 or 135, 138); Bus. 201 (Bus. Ad. 18a); Econ. 100 or 102 (1a or 1 b); Psych. 100 (1a); Spch. 100 or 120, (1a or 10)	12
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General Education and other requirements for the A.A. degree: See Pages 61-62.

If a person has already earned an A.A. degree in Real Estate and wishes to earn a second A.A. degree in Escrow, it may be done by completing the three Escrow courses, Secretary 401 (Business 56), and 6 additional units taken from Real Estate. Please contact College catalog or a Real Estate counselor for additional information.

Professional Certificate Program

The Escrow Certificate requires completion of eight courses or 24 units of required courses and suggested electives. Units earned in the certificate program will fulfill the major requirements for the A.A. degree with a major in Escrow. See Escrow brochure for program specifics.

Requirements	Semester Units
R.E. 301*, 303, 305, 100* (Bus. 145b*, 145d, 145e, 83a*); R.E. 121 and 131 (Bus. 87 and 88)	18
Select 6 units from following courses: (as recommended by California Escrow Association)	
Bus. 101, 810 or 15 (8a, 50 or 51), Sec. 401 (Bus. 56), Actg. 100 or 111 (Bus. 66 or Bus. Ad. 1a), Ins. 110 (Bus. 80a), R.E. 110, 200, 141 or 143, 210, 230 (Bus. 85, 131, 134 or 135, 138, 142), Sec. 10 (Bus. 92.0) or Coop 641**	6
Total 24	

If the Escrow Certificate is earned following the Real Estate Certificate, the 6 units of selected electives must be taken from the category listed above, excluding any that have been utilized to earn the Real Estate Certificate.

*At recommendation of the Real Estate Counselor and approval of Instructor of Real Estate 301, 303 (Bus. 145d, Bus. 145b), may be by-passed; or at the recommendation of the Counselor alone, Real Estate 100 (Bus. 83a) may be by-passed, provided equivalent units of the suggested electives are completed.

**Verify with Real Estate Dept. Counselor requirements for Work Experience Program.

NOTE: CSM's Escrow Certificate Program has been approved for official certification by CEA (California Escrow Association). Check with the Real Estate Department Counselor for further details.

Business—Legal Secretarial

Associate in Arts Degree with Legal Secretarial Major

Recommended High School Preparation: Typing, Shorthand, Business English, Business Arithmetic and Office Machines.

Career Opportunities: The legal secretary may be employed in a small one-girl office where the work will be varied and interesting. Secretaries in large law firms may

specialize in areas such as domestic relations, probate, collections or breach of contract suits and may become specialists themselves. There are many government positions for legal secretaries in this area.

Requirements	Semester Units
Bus. 100, 810*, (10, 50*), Sec. 440, 250 (Bus. 59L, 90), Actg. 105, 100 or 111 (Bus. 67, 66 or Bus. Ad. 1a), Sec. 250, 400, 120, 444, 412, 448 (Bus. 90L, 91, 92.8; 94L, 96, 100L)	22-25
Select 2 units from following courses: Bus. 101, 220, 129 (8a, 52, 93), Sec. 401, 200, 210, 211, 230, 205, 145, 110, 300, 410, 305 (56, 90.1, 90.2, 90.3, 90.4, 90.5, 90P, 92.2, 92.5, 94, 100a, 102); Meda 100 (M.A. 59), Bus. 201 (Bus. Ad. 18a)	
	2
	Total 24-27

*See page 81 for Business Division's Mathematics requirements.

Requirements for the degree in excess of 18 units may be counted toward General Education requirements for graduation.

General Education and other requirements for the A.A. degree: See Pages 61-62.

Certificate Program

Students may apply for a Legal Secretarial Certificate upon completing the A.A. degree major requirements with grades of C or better.

Business—Management

Associate in Arts Degree and Certificate Programs

The Certificate in Management can be earned in any one of four areas: Business Management, Small Business Management, Industrial Management, and Marketing Management. The certificate will be awarded by College of San Mateo upon completion of the required courses, plus additional electives totaling a minimum of 24 units. Most of these courses carry three units of lower division college credit. The 24 units earned in the certificate program will fulfill the major requirements for an Associate in Arts degree.

The courses are all general in nature and practical in application; the program is designed for persons working at the supervisory level or for those interested in supervisory positions. An advisory committee composed of representatives from various types of business and industrial organizations has assisted the College staff in the development of the program.

Under some circumstances, parallel courses completed at other institutions may be applied toward the certificate upon submission of transcripts or official verification of records.

There are two courses which are required of all management certificates and which may be considered core courses in the sense that they are fundamental and should be taken before other courses in the program. These are: Management 100 (99) — Principles of Management and Management 235 (92) — Techniques of Supervision. The Management Advisory Committee recommends that you take the required courses listed below in the order indicated.

Business Management

Requirements	Semester Units
Management 100, 235, 220, 140 (99, 92, 85, 65)	12
Select 12 units from the following: Bus. 101-180, 8a, 24); Data Proc. 110 (50); Management 105, 110, 120, 125, 130, 135, 215, 225, 245, (50, 52, 54, 55, 61, 63, 80, 90, 96)	
	12
	Total 24

Small Business Management

Requirements	Semester Units
Management 100, 235, (99, 92); Bus. 150 (65); Management 140 (65)	12
Select 12 units from the following: Actg. 100 (Bus. 66), 101, 190, 180 (8a, 16, 24), Bus. 201 (Bus. Ad. 18a), Data Proc. 110 (50); Management 110, 120, 130, 215, 220, 245 (50, 52, 54, 61, 80, 85, 96)	
	12-13
	Total 24-25

Industrial Management

Requirements	Semester Units
Management 100, 235, 140, 210 (99, 92, 65, 77)	12
Select 12 units from the following: Bus. 101, (8a); Data Proc. 110 (50); Management 105, 110, 120, 125, 130, 135, 200, 205, 215, 220, 245 (50, 52, 54, 55, 61, 63, 71, 72, 80, 85, 96)	
	12
	Total 24

Marketing Management

Requirements	Semester Units
Management 100, 235 (99, 92); Bus. 180 (24); Management 140 (65)	12
Select 12 units from the following: Bus. 175, 190, 185 (12, 16, 25); Data Proc. 110 (50); Management 105, 110, 120, 125, 215, 230, 245 (50, 52, 54, 55, 80, 91, 96)	
	12
	Total 24

Business—Medical Assisting

Associate in Arts Degree with a Major in Medical Assisting

Recommended High School Preparation; Written and oral communication skills, typing, biology, psychology, and anatomy.

Career Opportunities for persons trained as medical assistants occur primarily in physicians' offices and clinics. Related positions are found in hospitals, insurance companies, medical publishing firms, laboratories, and pharmaceutical firms.

To meet the major requirements for the Associate in Arts degree, the student should plan a program to include any needed prerequisites for the core courses.

Requirements	Semester Units
Biology 130 (7) (this course fulfills the Natural Science requirement for graduation), Bus. 101 (8a) or Psych. 100 (1a); Medical Assisting 100, 110, 120, 140, 150, 160, 170 (59, 57a, 60, 94, 100, 95, 108)	29

See page 61-62 for Business Division's Mathematics requirement.

Select two courses from the following: Biology 250, 425 (23, 52); Bus. 101 (8a); Actg. 100 (Bus 66), Sec. 401, 400, 110 (Bus. 56, 91, 92.6 and 92.7), Psych. 100 (1a).

Certificate Program

Students may apply for a Medical Assisting Certificate upon completion of the following courses with grades of C or better: Biology 130 (7), Bus 101 (8a) or Psych. 100 (1a), Bus. 100, 810 (10, 50) (if required by test), Sec. 110 (Bus. 92) (Intermediate Level) or equivalent, Medical Assisting 110, 100, 120, 140, 160, 150, 170 (57a, 59, 60, 94, 95, 100, 108).

Business—Merchandising

Certificate Programs

Merchandising — General

Students may apply for a Merchandising — General Certificate upon completion of Business 101, 100, 170, 175, 190, 180, 641 (6 units), 810 (if required by test) (8a, 10, 11, 12, 16, 24, 47 (6 units) 50 (if required by test).

Merchandising — Fashion

Students may apply for a Merchandising Fashion Certificate upon completion of Business 100, 170, 175, 810 or 115 or equivalent (10, 11, 12, 50 or 51 or equivalent); H.E. 154, 152, 151, 113, 117, 412 (CA&S 15, 17, 18, 22, 24, 45).

Merchandising — Management

Students may apply for a Merchandising — Management Certificate upon completion of Business 101, 100, 170, 175, 190 or 180, 641 (6 units), 810 (if required by test) (8a, 10, 11, 12, 16 or 24, 47 (6 units), 50 (if required by test), Actg. 100 or 111 (Bus. 66 or Bus. Ad. 1a).

Associate in Arts Degree with a Major in Merchandising

By completing the Certificate Program above the General Education and other requirements for the A.A. degree, (pages 61-62), the student is eligible for both the Certificate in Merchandising and the Associate in Arts degree.

Business—Real Estate

Associate in Arts Degree with a Major in Real Estate

Requirements	Semester Units
Business 100 (10) or Mgmt. 100 (99); Bus. 810* or 115 (50* or 57); R.E. 100* or 105 (Bus. 83a or 84) or license equivalent; R.E. 110, 121, 131 (if not substituted by R.E. 100 (83a) (85, 87, 88, 131); R.E. 141 or 143 (134 or 135)	18-21

Contact Real Estate Department for Recommended course sequence.

*Business 810 (50) or 115 (51) will be waived with a percentile rating of at least 35 on the quantitative part of SCAT entrance examination, or completion of a higher mathematics course (Math. 120 (19) or higher).

Suggested Electives: Actg. 111 or 10 (Bus. Ad. 1a or Bus. 66); Econ. 100-102 (1a-1b); Arch. 100 (10); Bus. 101, 175, 150, 201 (8a, 12, 65, Bus. Ad. 18a); Ins. 100 (Bus. 80a); Sec. 401, 100 (Bus. 56, 92.0); D.P. 100 (Data 50); Psyc. 100 (1a).

General Education and other requirements for the A.A. degree: See Pages 61-62.

Professional Certificate Program

Basic Training Required: Business 100, 105 (Bus. 83a, 84).

Professional Courses Required: Prerequisite: A Real Estate Broker's or Salesman's License, or completion of R.E. 100 and 105 (Bus. 83a and 84) or equivalent, R.E. 110 (Bus. 85), 121, 200 or 100, 141 or 143 (87, 88, 131 or 83a, 134 or 135).

Advanced Professional Elective Courses: Three of the following are required: 235, 122, 132, 225, 143, 145, 215, 205, 220, 230, (Bus. 111, 112, 112, 114, 135, 136, 139, 140, 141, 142).

Special Professional Courses: (These may be used for Certificate credit also.) R.E. 311, 301, 313, 303, 305 (145a, 145b, 145c, 145d, 145e).

Business—Secretarial

Associate in Arts Degree with a Secretarial Major

Recommended High School Preparation: Typing, Shorthand, Business English, Business Arithmetic and Office Machines.

To meet the major requirements for the Associate in Arts degree, the student should plan a program to include any needed prerequisites for the core courses.

Career Opportunities: A secretary with shorthand skill may be employed to transcribe dictation given in a variety of business and industrial vocabulary. With the shorthand skill, one may qualify for a wider variety of positions.

A secretary with Machine Transcription as the major emphasis may be employed in office positions that use taped dictation in meeting the correspondence needs. Machine transcription duties require good typing skills and strong English grammar and punctuation skills in addition to a familiarity with many office duties.

Word Processors are in demand in law offices, medical facilities, engineering, architectural and construction firms, and in educational institutions and government offices, to name a few. Opportunities in business and industry are far more numerous than the number of trained operators in the field, and the need for competent personnel is expected to expand dramatically through the 1980's. Duties of the Word Processor include making decisions regarding the wording of business documents; therefore, aptitude in the fundamentals of Business English is essential.

Requirements	Semester Units
Option 1—Shorthand Specialty. Bus. 100, 810* (10, 50*), Actg. 105 (or 100 or 111) (Bus. 67 (or Bus. 66 or Bus. Ad. 1a), Sec. 401, 400, 120, 300 (4 units), 412, 410 (Bus. 56, 91, 92.8, 96, 100a).....	20-23
Electives from following list	4
Total	24-27

Option 2—Machine Transcription Specialty. Bus. 100, 810* (10, 50*) Actg. 105 (or 100 or 111) (Bus. 67 (or Bus. 66 or Bus. Ad. 1a), Sec. 401, 400, 120, 300 (4 units), 412, 410 (Bus. 56, 91, 92.8, 94 (4 units) 96, 100a).....	22-25
Electives from following list	2
Total	24-27

Option 3—Word Processing Specialty. Bus. 100, 810* (10, 50*), Actg. 105 (or 100 or 111) (Bus. 67 (or Bus. 66 or Bus. Ad. 1a), Sec. 401, 400, 300 (2 units), 412, 305 (Bus. 56, 91, 94 (2 units), (96, 102).....	20-23
Electives from following list	4
Total	24-27

Electives: Bus. 101, 129 (8a, 93), Sec. 440, 200, 200, 210, 211, 230, 205, 145, 110, 120, 300, 410, 305 (Bus. 59L, 90.1, 90.2, 90.3, 90.4, 90.5, 90P, 92.2, 92.5, 92.8, 94, 100a, 102); Meda 100 (M.A. 59).

*See page 81 for Business Division's Mathematics requirements.

Requirements for the degree in excess of 18 units may be counted toward General Education requirements for graduation.

Certificate Programs

Students may apply for a Secretarial Certificate in each specialty (Shorthand, Machine Transcription or Word Processing) upon completion of the A.A. degree major requirements listed in the three options above. Courses must be completed with grades of C or better.

Clerical—See page 81.
Legal Secretarial—See page 82.

Business—Transportation

Associate in Arts Degree with a Major in Transportation

Career Opportunities: A relatively new field in business, Transportation offers an unlimited future in rail, motor, marine and air transportation, plus the field of traffic management. Numerous positions are offered in personnel, public relations, trade development, promotional services and management.

Requirements	Semester Units
Bus. 100, 270, 272, 274, 275 (10, 70, 72, 74, 75)	18
Actg. 111 or 100 (Bus. Ad. 1a or Bus. 66)	4
Econ. 102 (1b) or Mgmt. 140 (65)	3

Select two courses from the following: Bus. 170, 273, 276, 277, 201 (11, 73, 76, 77, Bus. Ad. 18a), D.P. 110 (50).

General Education and other requirements for the A.A. degree: See pages 61-62.

Certificate Program

Requirements	Semester Units
Bus. 270, 271, 274, 275 (70, 71, 74, 75)	12

Select three courses from the following: Bus. 170, 670, 273, 276, 277, 201 (11, 47, 73, 76, 77, Bus. Ad. 18a), D.P. 110 (50).

Chemistry

Associate in Science Degree with a Major in Chemistry

Requirements	Semester Units
Chemistry 210, 220, 250, 231 (1a, 1b, 5, 12a).....	19

General Education and other requirements for the A.A. degree: See Pages 61-62.

Cooperative Education

Cooperative Education gives the student field experience which is related to the major. There are three basic programs. The Parallel Program operates concurrently with the daily studies. Through a program of work and study, the relationship between theory and practical application is established. The Alternate Semester Plan provides the student with full-time field experience for one semester. The other semester is spent in school. The new Careers Plan is for students who are working full time and taking evening classes related to their career goals. Further information is available in the Instruction Office.

Cosmetology—Cosmetologist

Completion of tenth grade or equivalent is required by State Law. Students must be 17 years of age to be eligible for State Examination.

The cosmetology program consists of 1600 hours training in theory and practical skills in all phases of beauty culture. Units are based on hours in attendance. Students may qualify for the Associate in Arts degree.

Note: High school students may enroll in cosmetology training at College of San Mateo in their junior or senior year by contacting their respective schools and the Cosmetology Department.

Priorities for Admission (1) San Mateo County residence. (2) High school graduation or equivalent; 18 years of age or older. (3) Early application. (4) Completion of all admission requirements to the College of San Mateo. (5) Admission to the Cosmetology program. Contact the Health and Service Careers Division (574-6323) for application information.

Advanced Standing Students with previous training in licensed schools of cosmetology may be admitted to advanced standing at College of San Mateo upon admission to the program and submission of State Board records to the Cosmetology Department. However, no student will be admitted to the Cosmetology program who has completed more than 1000 hours of approved training.

Associate in Arts Degree with a Major in Cosmetology.

Requirements	Semester Units
Cosmetology 712, 722, 732, 742 (50, 51)	40
Business 810 or 115 (50 or 51)	3

Suggested Electives: H.E. 118 (CA&S 26); Business 101 (8a), Actg. 100 (Bus. 66); Psyc. 100 (1a); Soci. 100 (1), Spch. 120 (10).

General Education and other requirements for the A.A. degree: See Pages 61-62.

One-Year Certificate Program

This program prepares the student, upon satisfactory completion of 1600 hours, to write the California State Board of Cosmetology examination for licensure as a cosmetologist.

Requirements	Semester Units
Cosmetology 712, 722 (50)	Variable to 18
Cosmetology 732, 742 (51)	Variable to 30
	Total 40

Special Courses in Cosmetology

Cosm. 750 (52) — Brush-up, units to be determined: Refresher course — upgrading persons who have satisfactorily completed an approved course of training with a minimum of 1600 hours, or for out-of-state Cosmetologists in preparation for California State Board of Cosmetology Examination.

Cosm. 754 (53) — Manicurist, units to be determined: 350 hours prepares a special manicurist to take the California State Board of Cosmetology Examination and subsequent employment in this field only.

Cosm. 790-791 (90) — Advanced Seminar I, II (1-1) (offered in the evening.)

Dental Assisting

Associate in Science Degree with a Major in Dental Assisting

Admission Requirements: To be eligible for enrollment in the Dental Assisting programs, the applicant must (1) be a high school graduate; (2) have completed one year of high school Math or Algebra and one year of typing or their equivalent with a C grade or better; (3) attain placement in English 801 (61) or eligibility for English 800 (A); (4) be admitted to the college and have a C average in all completed college courses; (5) be admitted to the Dental Assisting program. Contact the Health and Service Careers Division for application information.

Priorities for Admission: (1) San Mateo County residence. (2) High school graduation or equivalent. (3) Priority ranking as established by random lottery.

Requirements	Semester units
Dental Assisting 711-712 (51a-b) through 761-762 (56a-b)	33
Business 810 (50); Sec. 100 (Bus.92.1) or equivalent	3-6

Select three units from following:
 Psychology 108 (10); Sociology 100, 300
 (1,6) Speech 120 (10)

General Education and other requirements for the A.A. degree: See Pages 61-62.

One-Year Certificate

Admission Requirements: To be eligible for enrollment in the Dental Assisting program, the applicant must (1) be a high school graduate; (2) have completed one year of high school Math or Algebra and one year of typing or their equivalent with a C grade or better; (3) maintain placement in English 801 (61) or eligibility for English 800 (A); (4) be admitted to the college and have a C average in all completed college courses; (5) be admitted to the Dental Assisting program. Contact the Health and Services Careers Division for application information.

Priorities for Admission: (1) San Mateo County residence; (2) High school graduation or equivalent; (3) Priority ranking as established by random lottery.

First Semester	Semester Units
Dental Assisting 711, 721, 731, 741, 750, 751, 761 (51a, 52a, 53a, 54a, 55x, 55a, 56a)	15

Second Semester	Semester Units
Dental Assisting 647, 712, 713, 722, 732, 742, 752, 762 (47, 51b, 51c, 52b, 53b, 54b, 55b, 56b)	15½

Certificates

The College of San Mateo Dental Assisting Certificate will be awarded to all students completing Dental Assisting required courses with a grade of C or better.

Upon successful completion of either program with a grade of C or better in all courses required for the certificate, the student is eligible to take the National Certification Examination to become a Certified Dental Assistant, and the California Registration Examination to become a Registered Dental Assistant.

Drafting Technology

Associate in Science Degree with a Major in Drafting Technology

Recommended High School Preparation: Elementary Algebra, Mechanical Drawing. Students should check course descriptions and prerequisites, and discuss recommended sequence with counselors.

Requirements	Semester Units
Drafting Technology 201-202, 62-62b (52a-52b, 62a-62b)	20

Suggested Electives: Data Processing 110 (50).

General Education and other requirements for the A.A. degree: See Pages 61-62.

Certificate Program—Day

A Certificate of Completion may be earned by completing the A.S. major requirements with a G.P.A. or 2.0 or better and no grade lower than a C.

Requirements	Semester Units
Drafting Technology 711, 712, 400, (51a, 51b, 63) Elec. Tech. 110 (14); Tech. 100, 120, 200 (71, 74, 76).....	42

Associate in Science Degree with a Major in Drafting Technology, Evening Program.

Requirements	Semester Units
Drafting Technology 120 or 721, 731, 732, 740 (14 or 102a, 112a, 112b, 122)	15 units
Machine Tool 750 (102a) and one of the following: Math 816, 130, or 219 (6, 21 or 27)	6-8
	Total 21-23

Suggested Electives: Electronics 110 (14), Physics 100 (10).

General Education and other requirements for the A.S. degree: See page 61-62.

Certificate Program—Evening

A Certificate of Completion in Drafting Technology may be issued to those students who complete the following courses with a G.P.A. or 2.0 or better.

Requirements	Semester Units
Drafting Technology 120 or 721; 722, 731, 732, 740 (14 or 101a; 102b, 112a, 112b, 122) Electronics Technology 110 (14); Machine Tool Tech. 750 (102a); Physics 100 (10), and one of the following: Math 130, 219 (21, 27)	28

Career Opportunities: Technical draftsmen are employed in manufacturing and construction industries in the area. They should therefore be technically trained in order to be adaptable to all types of industry. Many draftsmen advance to positions in the upper levels of industry.

Drama

Transfer Program

Associate in Arts Degree with a Major in Drama

Drama majors should check requirements for transfer in junior standing to the college of their choice, or consult with their College of San Mateo counselor.

Requirements	Semester Units
Drama 101, 102 (1a-b), plus twelve units from Drama 140, 200, 201, 250, 260, 300 (10, 14a, 14b, 13, 12, 15) ..	18

Suggested Electives: Drama 300, 305, 338 (15, 16, 17); Lit. 151 (Eng. 25); Speech 130, 111 (33, 2a); Physical Education — Dance, Fencing, Ballet.

General Education and other requirements for the A.A. degree: See Pages 61-62.

Education

Transfer Program

Students who are planning for a career in teaching will concentrate on meeting the General Education requirements of the college they plan to attend. The program of courses recommended for a student who plans to teach will, to a considerable degree, depend upon the credential sought and the teacher education college the student plans to attend.

Students seeking a teaching credential should carefully plan their program with the assistance of their counselor.

Electronics Technology

Associate in Science Degree with a Major in Electronics Technology

Requirements	Semester Units
Electronics Technology 200, 230*, 250, 252, 260, 280, 300, 302, 300	32

*or Math 119 and 121 (20) or any math course for which Math 119 and 121 (20) is a prerequisite.

General Education and other requirements for the A.A. degree: See Pages 61-62.

The student will be required to purchase a set of prescribed personal tools at the beginning of the first semester.

Certificate Program

A Certificate of Completion will be issued to those students with a G.P.A. of 2.0 or better in the major requirements.

A Certificate of Proficiency will be issued to those students who successfully complete the A.S. major requirements plus the specialization electives listed below with a G.P.A. of 2.0 or better and with no grade lower than a C.

Specialization Electives: Electronics 350, 360, 362, 380	Total 45
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Associate in Science Degree with a Major in Electronics Technology – Evening Program.

Requirements	Semester Units
Electronics Technology 230*, 710, 720, 730, 750.....	19
plus two courses from the following:	
Specialization Electives: E.T. 280 and 330 (count as one course); E.T. 740, 751, 760, 765, 771	8
Total	27

*or Math 119 and 121 (20) or any math course for which Math 119 and 121 (20) is a prerequisite.

General Education and other requirements for the A.S. degree: See Pages 61-62.

Certificate Program—Evening

A Certificate of Proficiency will be issued to those students who successfully complete the A.S. major requirements plus two additional specialization electives listed above with a G.P.A. of 2.0 or better and with no grade lower than a C.

Total 31-35

Career Opportunities: Electronics technicians are employed by several hundred electronics companies in the Bay Area where the demand far exceeds the supply. Many technicians have advanced to positions as production engineers, heads of departments and other positions of prestige and responsibility. Typical fields are industrial control systems, computers and data processing equipment, electronic instruments, communications, CATV, microwave installations and testing of all types of electronic equipment.

Electronic Technology Course Equivalents—Day

The electronics technology curriculum was revised for the school year 1978-79. Continuing students who have been taking electronics technology courses should refer to the following table to determine which new course requirements have been satisfied by which old courses:

Old Course—satisfies requirements for—New Course

E.T. 51	230
E.T. 52, 51L	200
E.T. 53	280
E.T. 62, 62L	250 and 252
E.T. 63	330 and 380
E.T. 64	260
E.T. 71	302
E.T. 72, 72L	300
E.T. 73, 73L	310 and 360
E.T. 82, 82L	350
E.T. 83, 83L	362
E.T. 102	701
E.T. 105	770
E.T. 106	771
E.T. 122	720
E.T. 132	730
E.T. 133	740
E.T. 134	750
E.T. 135	751
E.T. 143	760

Engineering

The basic Engineering program prepares for transfer to a four-year college or university in junior standing. Students should refer to the catalog of the college of their choice for special requirements; however, the following core subjects were approved unanimously by the Engineering Liaison Committee of the California Community Colleges, State Colleges and Universities, and the University of California.

The following courses will satisfy the Engineering Liaison Committee core program requirements: Mathematics (beginning with Analytic Geometry and Calculus and completing a course in Ordinary Differential Equations, 16 units); Chemistry (for engineers and scientists, 8 units); Physics (for engineers and scientists, 12 units); Statics (3 units); Graphics and Descriptive Geometry (3 units); Computers, digital (2 units); Orientation and Motivation (1 unit); Materials Science (3 units); Electrical Circuits and Devices (3 units); Electives to include Mathematics 162 (25), Computer Programming (15 units).

Transfer Program

Associate in Science Degree with a Major in Engineering

Recommended High School Preparation; Mathematics (four years, including one semester of Analytic Geometry); Chemistry (one year); Physics (one year); Mechanical Drawing (one year). Students should check course descriptions and prerequisites, and discuss recommended sequence with counselors.

Requirements	Semester Units
Engineering 666, 200*, 220*, 230*, 260*, 270*, (4, 20*, 22*, 35*, 38* 45*)	15
Mathematics 162, 261, 262, 263, 275, (25, 31, 32, 33, 34)	18
Chemistry 215, 225 or 210, 220 (11a-11b or 1a-1b)	8-10
Physics 250, 260, 270 (4a-4b-4c)	12

*Plus 6 units from Engineering 111, 112 (1a-1b); Mathematics 162, 261, 262, 263, 275, 270 (25, 31, 32, 33, 34, 35); Physics 250, 260, 270 (4a, 4b, 4c) Chemistry 210, 220, 215, 225, 231 (1a, 1b, 11a, 11b, 12a)

Suggested Electives: Engineering 111 (1a); Mathematics 200, 151, 152, 270 (22, 24a, 24b, 35); Geology 210 (1a).

General Education and other requirements for the A.A. degree: See Pages 61-62.

*Courses listed above are transfer requirements; those marked with an asterisk are A.S. degree requirements.

Engineering Technology—General

Engineering Technology is that part of the engineering field which blends scientific and engineering knowledge with technical skills in research, development and production. The College offers the general education, mathematics, science, engineering, and many of technical courses for the lower-division requirements in Engineering Technology. An articulation agreement with the state colleges and universities assures the BSET degree within two years after transfer to the four-year school.

Transfer Program

Associate in Science Degree with a Major in Engineering Technology

Requirements	Semester Units
Engineering 120, 150*, 160*, 200*, 220*, 270* (14, 16*, 17*, 20*, 22*, 45*)	15
Mathematics 241*, 242*, 162 (23a*-23b*, 25)	11
Chemistry 215 (11a)	4
Physics 210-220 (2a-2b)	8
Technical Elective	6

*Plus 6 units from area of technology specialization.

Suggested Electives: Technical courses; Accounting 100 (Bus. 66); Engineering 666 (4); Mathematics 200, 151, 152 (22, 24a, 24b)

General Education and other requirements for the A.A. degree: See Pages 61-62.

*Courses listed above are transfer requirements; those marked with an asterisk are A.S. degree requirements.

Engineering Technology—Electronics

Transfer Program (Cal Poly pattern)

Associate in Science Degree with a Major in Engineering Technology-Electronics

Requirements	Semester Units
Engineering 150*, 160*, 270* (16*, 17*, 45*)	9
Electronics Technology 200, 250*, 252*, 260*, 280, 300, 310*, 330, 350*, 360*, 362*, 380	39
(If evening courses ET 710, 720, 730 are substituted for corresponding day courses, additional units of technical electives must be included to make a total of 39 units.)	
Mathematics 241*-242* (23a*-23b*)	8
Physics 210-220 (2a-2b)	8
Chemistry 215 (11a)	4

Suggested Electives: Engineering 666 (4); Mathematics 200, 151, 152, 162 (22, 24a, 24b, 25).

General Education and other requirements for the A.S. degree: See Pages 61-62.

*Courses listed above are transfer requirements. Those courses marked with an asterisk are A.S. degree requirements.

English

Associate in Arts Degree with a Major in English

Requirements	Semester Units
18 units from Humanities courses listed under Graduation Requirements, pages with a minimum of 9 units from English courses (other than English 110, 120, 130, 140 (Eng. 12abcd)	18

General Education and other requirements for the A.A. degree: See Pages 61-62.

Ethnic Studies

Transfer Program

Associate in Arts Degree with a Major in Ethnic Studies

The Ethnic Studies program is structured for the student who plans to major in the Social Sciences, Social Welfare, Humanities, Ethnic Studies or related areas in either a two-year program or as transfer to a four-year institution. Ethnic Studies courses are transferable as Social Science, Humanities, Electives or Ethnic Studies, depending upon the respective institution. In addition, Ethnic Studies courses allow public school teachers the opportunity to meet California State requirements in ethnic education. The multicultural emphasis of the department has attracted many persons currently employed in public school systems, social services and human relations, and professionals whose jobs involve interpersonal situations with multiracial groups.

Requirements	Semester Units
Ethnic Studies 101 and 102 (1a-1b) plus 12 units from the following: Ethnic Studies 300, 425, 305, 151, 152, 160, 310, 320, 350, 351, 435, 267, 150, 510, 520, 290, 450, 261, 262, 270, 275, 266, 288, 585, 645 (3, 4, 5, 6a, 6b, 7, 8, 11, 12a, 12b, 14, 15, 16, 17, 18, 20, 25, 33a, 33b, 41, 42, 43, 44, 45, 46)	18

General Education and other requirements for the A.A. degree: See Pages 61-62.

Filmmaking

Associate in Arts Degree with a Major in Filmmaking

Filmmaking majors should check requirements for transfer in junior standing to the college of their choice, or consult with their College of San Mateo Counselors.

Requirements	Semester Units
Art 451, 452, 461, 462, 463, 464 (F.A. 16a, 16b, 15a, 15b, 17a, 17b)	18

General Education and other requirements for the A.A. degree: See pages 61-62.

Fire Science

Associate in Science Degree with a Major in Fire Science

The Fire Science program is designed to give the student an opportunity to prepare to meet the high standards necessary in pursuing a career in fire service. It is recommended that the transfer student take the six core courses and one elective only, and concentrate in the area of general education for transfer to a junior standing in a four-year institution.

Requirements	Semester Units
Fire Science 700, 705, 715*, 720, 755, 731 (50, 51a, 55*, 56, 62a, 66)	18

Select two courses from Fire Science electives6
 Total 24

General Education and other requirements for the A.A. degree: See Pages 61-62.

Certificate Program

Requirements	Semester Units
Fire Science 700, 705, 715*, 755, 731 (50, 51a, 55, 66, 62a) and 6 units of electives.....	21

*In all Fire Science programs, Fire Science 715 (55), Introduction to Fire Protection and Suppression, may not be required for those students who have three or more years of certified service as professional fire fighters. If Fire Science 715 (55) is not required for this reason, another 3-unit Fire Science course must be substituted.

Floristry

Certificate Program

See Horticulture Courses

French

Associate in Arts Degree with a Major in French

Requirements	Semester Units
French language courses.....	18

Art 103 (1c) and History 101 (4b) may be accepted with Language Arts Division approval.

General Education and other requirements for the A.A. degree: See Pages 61-62.

Geology

Associate in Science Degree with a Major in Geology

Requirements	Semester Units
Geology 210, 220 (1a-b); Oceanography 100 (10); Chemistry 210 (1a) and Geology 130 (6) or Paleontology 110 (1)....	20

General Education and other requirements for the A.A. degree: See Pages 61-62.

German

Associate in Arts Degree with a Major in German

Requirements	Semester Units
German language courses.....	18
English 200 (14), History 150 (46) and Philosophy 190 (20c) may be accepted with Language Arts Division approval.	

General Education and other requirements for the A.S. degree: See Pages 61-62.

Home Economics

Transfer Program

Associate in Arts Degree with a Major in Home Economics

The student who intends to transfer a major in Home Economics should plan a course at College of San Mateo to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the specific college or university the student plans to attend. This program aids the student in dealing with the responsibilities of self, family and the professional world that affect the many hours not structured by job assignments.

Requirements	Semester Units
Home Economics 666, 310, 113, 412 (CA&S 5, 9, 22, 45) plus eight additional units of H.E. courses.....	18

General Education and other requirements for the A.A. degree: See Pages 61-62.

Career Opportunities: A major in Home Economics will prepare a student for occupations in the field of clothing design, construction and merchandising, in foods preparation and management and in interior furnishing and consumer problems, in jobs such as airline hostess, merchandising in clothing and furniture stores, dietetic assistants in hospitals, nursing homes, as well as practical experience relevant to the daily operation of a household.

Associate in Arts Degree with a Major in Fashion Merchandising

The Fashion Merchandising curriculum is a study of the ready-to-wear apparel industry with consideration of the various factors (economical, political and societal change), which affect the merchandising of fashion apparel.

Requirements	Semester Units
Home Economics, 113, 117, 154, 151, 152, 412, 680 (CA&S 22, 24, 15, 18, 17, 45, 48)	21
Business 100, 170, 175, 810 or 115 (10, 11, 12, 50 or 51) or equivalent.....	12

General Education and other requirements for the A.A. degree: See Pages 61-62.

Certificate Program – Fashion Merchandising

Requirements	Semester Units
Home Economics 113, 117, 154, 151, 152, 412 (CA&S 22, 24, 15, 18, 17, 45)	18
Business 100, 170, 175, 810 or 115 (10, 11, 12, 50 or 51) or equivalent.....	12
	Total 30

Horticulture

Five programs in Horticulture are available to interested students. These programs, though similar, afford specific training geared to meet the individual requirement of the Horticulture student. Although these programs are designed to provide certification in Horticulture, it is possible to enroll in individual classes without regard to the certificate program. No prerequisites are required. Consult individual course listings under Horticulture.

Horticulture—Environmental

Associate in Science Degree with a Major in Environmental Horticulture

Requirements	Semester Units
Option 1, 2, or 3 below	18
Suggested Electives: Hort. 412, 320, 415, 341 (117, 118, 119, 120); Architecture 110 (14); Accounting 100 (Bus. 66); Business 170 (11).	

General Education and other requirements for the A.S. degree: See Pages 61-62.

Certificate Program (One-Year Day Program)

Requirements	Semester Units
Option 1—Hort. 311-312, 315, 327, 342, 330 (110a-b, 111, 112, 113, 114).....	18
Option 2—Hort. 311-312, 315, 342, 330, 340 (110a-b, 111, 113, 114, 115).....	18
Option 3—Hort. 311-312, 315, 327, 330, 411 (110a-b, 111, 112, 114, 116).....	18

Horticulture—Floristry

Certificate Program (One-Year Day Program)

Requirements	Semester Units
Horticulture 327, 411, 412, 415 (112, 116, 117, 119)	12

Horticulture—Ornamental

Associate in Science Degree with a Major in Ornamental Horticulture

Requirements	Semester Units
Horticulture 711-712, 705, 706 (95a-b, 93, 94), plus 4 units from 771, 772, 773, 774, 775, 776 (90a-b-c-d-e-f) plus 12 units from Horticulture 701-702, 721-722, 731-732, 741-742 (91a-b, 96a-b, 97a-b, 98a-b)	24

General Education and other requirements for the A.S. degree: See Pages 61-62.

Certificate Program—Evening

Requirements	Semester Units
Horticulture 711-712, 705, 706, 771-772, or 773-774, or 775-776 (95a-b, 93, 94, 90a-b or 90c-d, or 90e-f), plus 12 units from Horticulture 701-702, 721-722, 731-732, 741-742 (91a-b, 96a-b, 97a-b, 98a-b)	24

Horticulture—Vocational Gardening

Certificate Program—Evening

Requirements	Semester Units
Horticulture 801, 802, 811, 812, 821, 822 (130a-130b, 132a-132b, 135a-135b)	18

Humanities

Associate in Arts Degree with a Major in Humanities

Requirements	Semester Units
Humanities 111, 112, 113, 114	12
Electives from the following list:	6
Humanities 101, 102, 125, 136, 140	
Total	18

General Education and other requirements for the A.A. degree: See Pages 61-62.

Journalism

Associate in Arts Degree with a Major in Journalism

Requirements	Semester Units
Journalism 110, 120 (1, 2); six units from Journalism 300 and 310 (15 and 16) and six units from English or Literature courses listed under Humanities	18

General Education and other requirements for the A.S. degree: See Pages 61-62.

Liberal Studies

Associate in Arts Degree with a Major in Liberal Studies

Students should confer with a counselor and refer to the catalog of the college of their choice for special requirements in specific fields.

Requirements	Semester Units
Eighteen units selected from the lists provided under Graduation Requirements (page 61) for Natural Sciences, Social Science, and Humanities, with at least 3 units in each area	18

General Education and other requirements for the A.S. degree: See Pages 61-62.

Library Technology

Certificate Program

A Certificate of Proficiency is awarded upon successful completion (with grade C or better) of 24 units in the following courses.

Requirements	Semester Units
Library Technology 200, 210, 220, 230, 240 (51, 52, 53, 54, 55)	15

One course from each of the following groups:

English 100, 801, 860, 880 (11, 61, 63, 65)	
Bus. 101 (8a); Management 235 (92); D.P. 110 (50)	
Speech 100 (1a); Lib. Tech. 250, 191 (56, 57)	9

Typing will be required in courses and future employment. Students must verify typing ability of at least 35 words per minute in order to complete the certificate program.

Life Sciences

Transfer Program

Recommended High School Preparation: Biology (1 year); Chemistry (1 year); Physics (1 year); Mathematics—(Algebra, 2 years; Geometry, 1 year; Trigonometry, 1 semester).

For those students wishing to major in Biological Science or Medical Science who have little or no high school preparation in one or more of the above subjects, the following courses should be completed prior to attempting courses in the major sequence: Biology 110 (2); Chemistry 190 (51); Math. 110 (11) or other appropriate level of Math; Physics 100 (10).

The programs outlined below are typical of requirements to transfer in junior standing to a four-year college or university. In order to meet the requirements of specific institutions, the students should refer to the catalog of the college of their choice.

Life Sciences—Biological

Associate in Science Degree with a Major in Biological Sciences

(Botany, Forestry, Marine Biology, Zoology, etc.)

Requirements	Semester Units
Biology 210*, 220*, 230* (21*, 22*, 27*)	14
Chemistry 210*, 220, 231, 232 (1a*, 1b, 12a, 12b)	16
Biology Electives (excluding Biology 100 and 110 (1 and 2))	12
Mathematics 120, 130 (19, 21) (or equivalent)	1-6
Science Electives (Physics 210, 220 (2a-2b) or Physics 250, 260, 270 (4a-b-c))	8-12

General Education and other requirements for the A.S. degree: See Pages 61-62.

*Courses listed above are transfer requirements. Those courses marked with an asterisk are A.S. degree requirements.

Life Sciences—Medical

Associate in Science Degree with a Major in Medical Sciences

(Pre-Med., Pre-Dental, Pre-Vet., Medicine, etc.)

Requirements	Semester Units
Biology 210*, 230* (21*, 27*)	9
Biology electives (Biology 250, 260, 240 (23, 24, 25))	4-12
Chemistry 210*, 220*, 231, 232 (1a*, 1b*, 12a-12b)	15-20
Mathematics 241, 242 or 260, 261, 262 (23a-23b or 30, 31, 32)	8-12
Physics 210, 220 or 250, 260, 270 (2a-2b or 4 a, b, c)	8-12

General Education and other requirements for the A.S. degree: See Pages 61-62.

*Courses listed above are transfer requirements. Those courses marked with an asterisk are A.S. degree requirements.

Life Sciences—Pre-Nursing

Transfer Program

Associate in Science Degree with a Major in Pre-Nursing

Requirements	Semester Units
Biology 250*, 260*, and 245 or 240* 23*, 24*, and 26 or 25*	13-14
Biology Elective (excluding Biology 100 and 110 (1 and 2))	4
Chemistry 210, 220*, or 410, 420* (1a-1b, or 30a-30b*)	8-10
Science Electives (Physics 210, 220 or 100 (2a-2b or 10))	3-8

General Education and other requirements for the A.S. degree: See Pages 61-62.

*Courses listed above are transfer requirements. Those courses marked with an asterisk are A.S. degree requirements.

Students should refer to the catalog of the institution at which they plan to take their formal nursing training for other specific requirements.

Machine Tool Technology

Associate in Science Degree with a Major in Machine Tool Technology

Recommended High School Preparation: General mathematics, drafting, metals shop, and related courses. Students should check course descriptions and prerequisites and discuss recommended sequence with counselors.

Requirements	Semester Units
Machine Tool Technology 100, 110*, 111*, 120*, 121*, 210* 211*, 220*, 221*, 230*, 700*, 710*	

720*, (51a-51b, 52, 52L, 53, 53L, 210, 211, 220, 221, 230, 64, 53* 63-63L)	21
Welding Technology 300 (75)	2
Drafting 120 (14)	3
Technology 110 (72)	3
Electronics 110	3
Sec. 100 (Bus. 92.1)	1
Data Processing 110 (50)	3
Total	36

Students will be required to maintain a personal set of tools. General Education and other requirements for the A.S. degree: See Pages 61-62.

*Short courses

Certificate Program—Day

Students successfully completing the machine tool technology courses listed above with a G.P.A. or 2.0 or better will be eligible to receive the Certificate of Proficiency in Machine Tool Technology.

Career Opportunities: The machine tool technician is a vital figure in any manufacturing industry. He or she must work from blueprints, understand manufacturing processes, and fabricate necessary parts through the use of lathes, mills, drills, grinding, numerical-control programming and many other processes.

Certificate Program—Evening

A Certificate of Completion may be earned by completing the following courses with a G.P.A. of 2.0 or better:

Machine Tool Technology 100, 690 750, 755, 760	11 Units
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Career Opportunities: The machine tool technician is a vital figure in any manufacturing industry. He or she must work from blueprints, understand manufacturing processes and fabricate necessary parts through the use of lathes, mills, drills, grinding, numerical control programing and many other processes.

Mathematics

Transfer Program

College of San Mateo offers a wide variety of courses for students who wish to major in Mathematics, enabling them to transfer to a university or four-year college at the end of the sophomore year. Students should consult the catalog of the college of their choice for special requirements.

Recommended High School Preparation: Four years of high school level Mathematics, Physics (one year), Mechanical Drawing (one year), two or more years of a Foreign Language (German, French or Russian).

Associate in Arts Degree or Associate in Science Degree with a Major in Mathematics.

Requirements	Semester Units
Mathematics 261, 262, 263 (31, 32, 33) and at least 6 units from 200, 151, 152, 162, 260, 270, 275 (22, 24a, 24b, 25, 30, 35, 34)	18

General Education and other requirements for the A.A. degree: See Pages 61-62.

Medical Assisting

(For Program Planning and Suggested Curricula see Business—Medical Assisting, page 84).

Military Science (Reserve Officer's Training Corps)

Military Science is offered to qualified students enrolled on a full-time basis at College of San Mateo. Classes and leadership laboratory are conducted at San Jose State University under the supervision of the Professor of Military Science, San Jose State University.

Students may complete the first two years of Army ROTC while enrolled at College of San Mateo and qualify for enrollment in the advanced course (third and fourth year) at degree granting colleges or universities. Completion of ROTC and a baccalureate degree qualify students for a commission in the United States Army Reserve or Regular Army.

Students may obtain enrollment forms from their counselor or the Department of Military Science, San Jose State University (telephone (408) 277-2985/2986).

Music

Transfer Program

Associate in Arts Degree with a Major in Music

Music majors should check requirements for transfer in junior standing to a four-year college or university. Students should refer to the catalog of the college of their choice for specific requirements, or consult with their College of San Mateo counselor.

Music classes are also available to the general student body and members of the community for personal enrichment and to apply towards general education requirements for transfer to four-year institutions. Auditions may be required. All qualified students are invited to join a performing organization. Majors must have three semesters of performance classes.

Requirements	Semester Units
9 units from Music 100, 101, 102, 103, 104, 131, 132, 133, 134, 150, 170 (9 1a-b, 2a-b, 4a-b, 5a-b, 17, 16)	
3 units from Music 202, 270, 275 (6, 7, 8);	
6 units from Music 170, 430, 440, 445, 450, 451, 460, 470, 480 (16, 23, 21, 22, 28, 29, 27, 33, 34), completion of 3 semesters of Music 496 (41);	
2 units from Music 301, 302, 303, 304, 320, 340, 360, 371, 372, 402, 403, (12, 13, 14, 15, 24, 25, 26, 18a, 18b, 37, 38)	20
General Education and other requirements for the A.A. degree: Pages 61-62.	

Nursing

Transfer Program

Students who intend to transfer to a major in Nursing should plan their course at College of San Mateo to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which they wish to transfer.

Please refer to Life Science Pre-Nursing Program in College of San Mateo catalog.

Associate in Science Degree with a Major in Nursing

The College of San Mateo Associate in Science Nursing Program provides students with opportunities for learning at the College, local hospitals and related health agencies. Clinical practice begins early in the first semester.

A graduate of this program is prepared to care for patients in homes, hospitals, clinics and doctors' offices.

Upon graduation, the candidate receives an Associate in Science degree and is eligible to write the California Board of Registered Nursing licensing examination.

Admission Requirements:

To be eligible for enrollment in the program, the applicant must:

1. Be a high school graduate or equivalent as determined by the California Board of Registered Nursing;
2. Have completed one year of high school Algebra, Chemistry with lab, and Biology with lab or their equivalents with C grades, or above, within the last five years.

3. Meet College of San Mateo admission requirements for regular student status.
4. Have a cumulative G.P.A. of 2.5 in all college courses taken — or attain an overall 60th composite percentile on the National League for Nursing examination and attain a minimum G.P.A. of 2.5 in all nursing related courses. Contact the Nursing Department for application information.

Priorities for Admission: Preference will be given to (1) applicants on the basis of the greatest number of units completed in satisfaction of requirements for the A.S. Degree nursing program (as listed in the college catalog); (2) residents of San Mateo County.

The following program shall be completed before qualifying for the licensing examination:

Requirements	Semester Units
Nursing 210, 221 and 222, 231 and 241 and 242 (1, 2, 4, 5)	38
Biology 410, 420 (41, 42)	9
Psychology 100, 201 (1a, 5); Sociology 100 (1)	9
Speech 100, or 120 (1a or 10); English 100 (11)	6
Elective from Art, Drama, Music or Philosophy (see Humanities requirements)	3

General Education and other requirements for the A.S. degree: See Pages 61-62.

Nursing — Vocational

Certificate Program

Total Program Hours: 450 lecture, 1,080 laboratory.

This program is designed to prepare the student to meet the qualifications for licensing set up by the California Board of Vocational Nurse and Psychiatric Technician Examiners. The graduate of this program is prepared to care for patients in hospitals under the supervision of a registered nurse or licensed physician.

Admission requirements: To be eligible for enrollment in the program, the applicant must (1) be a high school graduate or equivalent as determined by the Board of Vocational Nurse and Psychiatric Technicians; (2) have completed courses in Mathematics and General Biology within the last 5 years with no grade less than C; (3) be admitted to the college and have a C Average in all completed college courses; (4) show satisfactory completion of English 801 (61) or eligibility for English 800 (A) or 100 (11).

Priorities for Admission: Preference will be given to (1) applicants on the basis of the greater number of units com-

pleted in satisfaction of requirements for the Vocational Nursing Program (as listed in the college catalog); (2) residents of San Mateo County.

Requirements	Semester Units
First Semester (18 weeks)	
Nursing 110 (5)	11
Biology 130 (7)	3
Psychology 100 (1a)	3
Total	17

Second Semester (18 weeks)	
Nursing 120 (52a)	13
Biology 425 (25)	2
Total	15

Third Semester (10 weeks)	
Nursing 130 (52b)	13
Grand Total	45

Associate in Arts Degree with a Major in Vocational Nursing

Requirements	Semester Units
Nursing 110, 120, 130 (51, 52a, 52b)	37
Biology 130, 425 (7, 52)	5
Psychology 100 (1a)	3
Total	45

General Education and other requirements for the A.S. degree: See Pages 61-62.

Physical Education

Transfer Program

Associate in Arts Degree with a Major in Physical Education

Recommended High School Preparation: Foreign Language, Elementary Algebra, Plane Geometry, Intermediate Algebra, Biology, Chemistry, competency in aquatics, rhythms and dance, games and relays, individual and dual sports, team sports, gymnastics and (for men) combatives competitive experience.

The program outlined below is typical of requirements for transfer in junior standing to a four-year college or university.

Students should refer to the catalog of the college of their choice for specific requirements, or consult with their College of San Mateo counselor.

Requirements	Semester Units
MEN —P.E. 100 (40) and Recreation 100 (40), and 110 (40), and P.E. 131, P.E. 132 (43a-b); plus 9 units from any activity class (excluding intramurals and varsity athletics), plus P.E. 646 (47) (1-3 units only)	20

WOMEN—P.E. 100 (40) and recreation 100 (40), and 110 (40), and P.E. 131, P.E. 132 (43a-b); plus 9 units from any activity class (excluding intramurals and varsity athletics), plus P.E. 646 (47) (1-3 units only); plus Dance Production 411 and 412 (20a-b) (I AND II)

20

Suggested Electives: Biology, Chemistry, Anatomy, Physiology, Physics.

General Education and other requirements for the A.A. degree: See pages 61-62.

Physical Science

Transfer Program

Associate in Science Degree with a Major in Physical Science

Recommended High School Preparation: Elementary Algebra, Plane Geometry, Intermediate Algebra, Trigonometry, Chemistry, Physics.

Students should refer to the catalog of the college of their choice for specific requirements, or consult with their College of San Mateo counselor.

Requirements	Semester Units
At least one course in each of the following areas: Astronomy 100, 130 (10, 1); Chemistry 100, 410, 210 (10, 30a, 1a); Geology 100, 210 (10, 1a); Physics 100, 210, 250 (10, 2a, 4a)	18

Suggested Electives: Chemistry 250, 241 (5, 12a); Mathematics 162, 260, 261, 262, 263, 275 (25, 30, 31, 32, 33, 34); Meteorology 100 (1); Physics 250, 260, 270 (40a-b-c).

General Education and other requirements for the A.S. degree: See pages 61-62.

Physics

Associate in Science Degree with a Major in Physics

Requirements	Semester Units
Physics 250, 260, 270 (4a-b-c)	12
Mathematics 261, 262, 263 (31, 32, 33)	12

General Education and other requirements for the A.S. degree: See pages 61-62.

Police Science

(See Administration of Justice)

Recreation Education

Transfer Program

Associate in Arts Degree with a Major in Recreation Education

Recommended High School Preparation: See Physical Education A.A. degree requirements.

Requirements	Semester Units
MEN —P.E. 100 (40) and Recreation 100 (40), and 110 (41), and P.E. 131, P.E. 132 (43a-b); plus 9 units from any activity class (excluding intramurals and variety athletics), plus P.E. 646 (47) (1-3 units only)	20
WOMEN —P.E. 100 (40) and Recreation 100 (40), and 110 (41), and P.E. 131, P.E. 132 (43a-b); plus 9 units from any activity class (excluding intramurals and varsity athletics), plus P.E.646 (47) (1-3 units only); plus Dance Production 411 and 412 (20a-b) (I AND II)	20

Suggested Electives: Biology, Chemistry, Anatomy, Physiology, Physics.

General Education and other requirements for the A.A. degree: See Pages 61-62.

Social Science

Transfer Program

Associate in Arts Degree with a Major in Social Science

Social Science fields are many and varied, and include such areas as Cultural Anthropology, Economics, Geography, History, International Relations, Philosophy, Political Science, Psychology, and Sociology.

Students should refer to the catalog of the college of their choice for special requirements.

Requirements	Semester Units
The requirements for a Social Science major will total 18 units selected from at least 3 of the following, with a minimum of 2 courses in one of the following:	
Anthropology (not including Anthro. 125 (1)/Bio. 125 (11); Economics (not including Econ. 123 (2); Ethnic Studies (not including Ethn. 320, 350, 351, 510, 270, 275, 266, 288, 585, (11, 12a, 12b, 15, 17, 41, 42, 43, 44, 45); Geography (not including Geog. 100 (1a); History Philosophy (not including Phil. 200 or 210 (7 or 12); Political Science, Psychology (not including Psych. 12 (7); Social Science, Sociology	18

General Education and other requirements for the A.A. degree: See Pages 61-62.

Spanish

The program is designed to give the student a functional proficiency in the language, while at the same time preparing him or her to transfer to a four-year institution with a minor or major in Spanish.

Associate in Arts Degree with a Major in Spanish

Requirements	Semester Units
Spanish language courses	18
Anthropology 110 (2), Ethnic Studies 300, 310, 320 (3, 8, 11), and History 421, 422 (8a-b) may be accepted with Language Arts Division approval.	

General Education and other requirements for the A.A. degree: See pages 61-62.

Certificate of Proficiency

Students who feel written proof of their proficiency would be beneficial to their careers may apply for a Certificate of Proficiency in Spanish after they have completed the advanced intermediate course (Spanish 140 (4)), and a minimum of two additional units, and have passed the department tests on aural comprehensive and speaking fluency.

Speech

Associate in Arts Degree with a Major in Speech

Requirements	Semester Units
Speech 111-112, 120, 130 (2a-b, 10, 33)	9
Humanities courses	9

General Education and other requirements for the A.A. degree: See Pages 61-62.

Technology

Transfer Programs

Normally graduates of College of San Mateo Technology Programs enter industry directly upon completion of their studies. Some graduates, however, may decide to further their collegiate education at that time or after gaining some industrial experience. Several of the state colleges offer programs to graduates of technology curriculums. The time required to complete the state college program is normally two years, at which time the graduate is awarded a Bachelor's degree. The state college curriculum in which the graduates enroll is flexible; each graduate is considered individually and courses are selected which will meet the needs and desires of the student.

Transfer curriculums which are open to College of San Mateo Technology graduates include the following:

San Francisco State University: Design-Arts-Industry Program, Special Engineering Technology Curriculum.

California Polytechnic State University: (San Luis Obispo Campus) Industrial Technology, Industrial Arts Education, and Industrial Sales and Technology.

San Jose State University: Industrial Studies, Industrial Design, Industrial Technology, and Industrial Arts Education.

California State University, Fresno: Industrial Technology Curriculum.

California State University, Long Beach: Industrial Technology Curriculum.

California State University, Chico: Industrial Technology Curriculum.

Technical Art/Graphics

Associate in Arts Degree with a Major in Technical Art and Graphics

Requirements	Semester Units
Technical Art and Graphics 201-202, 210, 220, 300, 310, 351-352, 400 (52a-52b, 54, 55, 63, 64, 65a, 65b, 66)	33
Art 202 or 328 (2b or 51)	3

General Education and other requirements for the A.A. degree: See Pages 61-62.

Certificate Program

A Certificate of Completion will be issued to those students with a G.P.A. of 2.0 or better in the major requirements.

Those students who successfully complete the above curriculum with a G.P.A. of 3.0 or better will be eligible to receive the Certificate of Proficiency in Technical Art/Graphics.

Career Opportunities: There are career opportunities for artists with technical art and graphics training in many areas, including research and development centers, technical publications, manufacturing plants, state and federal bureaus, educational institutions, and advertising agencies.

Technical Art/Graphics— Graphic Communications

Certificate Program—Evening

Graphic Communications is the study of the processes, starting with the planning and creation of original art or copy through to the reproduction of the subject by the printing process. These processes involve design, composition, copy preparation, camera work, stripping, platemaking, press work and bindery.

The student may enter any of the six, eight-week mini-courses without prerequisites. Courses TA/G 710 through 714 are composed of teacher-paced cores A through F, which progress sequentially, with repetition of cores planned as intensification of facts and skills. Self-paced instructional units are provided to accelerate the students' progress through each core.

Upon successful completion of TA/G 710 through 715, the student will be eligible to receive the Certificate of Proficiency in Graphic Communications.

Career Opportunities: Graphic reproduction technicians are employed as production artists, photo-composing operators, lithographic camera persons, stripping or flat assemblers, platemakers, offset press operators, bindery operators. There are also opportunities for sales and service persons in the related industries. Much growth has occurred in the in-plant graphics shops as well as the franchised printing outlets.

Technical Art/Graphics— Industrial Design

Transfer Program

Students should refer to the catalog of the college of their choice for special requirements since the three California colleges approved by the Industrial Design Society of America vary considerably in their recommendations for undergraduate preparation. Typical requirements for transfer include: Art 102, 103 (1b, 1c); Biology 110 (2); Economics 100, (1a); Physics 210, 220 (2a, 2b); Speech 100 (1a).

Requirements	Semester Units
Technical Art/Graphics 201, 210, 220, 310 (52a, 54, 55, 64)	18

Suggested Electives: Technical Art/Graphics 351 (65a), Technical Materials 110 (72), Technical Processes 120 (74).

Career Opportunities: Industrial designers work for manufacturing companies and independent design offices. Today, nearly every manufacturer of consumer hard goods, housewares, appliances, automobiles and electronic equipment has a design staff or retains a consultant.

Telecommunications— Broadcast Engineering

Associate in Arts Degree with a Major in Broadcast Engineering.

Requirements	Semester Units
Electronics 200 (52-52L); Telecommunications 115, 131, 190, 231, 301, 302 (66, 52a, 65, 60a, 101a, 101b)	27
Data Processing 110 (50)	27
General Education and other requirements for the A.A. degree: See Pages 61-62.	

Telecommunications—Radio Broadcasting

Associate in Arts Degree with a Major in Radio Broadcasting

Requirements	Semester Units
Telecommunications 115, 131, 132, 190, 231 (66, 52a, 52b, 65, 60a) and 6 units from 110, 135, 192, 195 (51, 53, 68, 67); Art 463, 464 (FA17a, 17b); Data Processing 110 (50); Speech 10 (1a)	27

General Education and other requirements for the A.S. degree: See Pages 61-62.

Telecommunications—Television Broadcasting

Associate in Arts Degree with a Major in Television Broadcasting

Requirements	Semester Units
Telecommunications 115, 131, 190, 231, 232, 241, 242 (66, 52a, 65, 60a, 60b, 61a, 61b); D.P. 110 (50)	24
Telecommunications Electives	3

General Education and other requirements for the A.A. degree: See Pages 61-62.

Career Opportunities: The CSM Telecommunications programs — in Broadcasting Engineering, Radio Broadcasting, and Television Broadcasting — prepare graduates for many excellent positions throughout the industry. All branches of the communications industry need qualified, capable broadcasters and sound and video-control technicians, and although competition is very keen, the outlook for a future in the field is promising for the student who successfully completes any one of three Telecommunications programs and meets the Federal Communications Commission licensing requirements.

Students who enroll in Telecommunications programs receive instruction in the theoretical aspects of the field, and have an additional, important advantage of working in and with live facilities. Through actual on-the-air broadcasts from the campus stations, KCSM-FM and KCSM-TV, students receive practical experience that provides excellent preparation for immediate employment — or, if they prefer, for transfer to a four-year program.

Trade and Industrial Courses

Classes of related training are offered for apprentices in certain trades as indicated in the section on curriculum for Trade and Industrial courses. These classes follow the course outlined by the State Bureau of Apprenticeship Standards.

Vocational Gardening

Certificate Program

See Horticulture Courses.

Welding Technology

Associate in Science Degree with a Major in Welding Technology

Recommended High School preparation: Elementary Algebra, Physics, Mechanical Drawing.

Requirements	Semester Units
Welding Technology: 100, 110, 111, 120, 121, 210, 211, 220, 221 (51, 52a, 52al, 52b, 52bl, 62a, 62al, 62b, 62bl)	35
Drafting 120 (14), Tech. 100 (71) or Physics 100 (10), Tech. 200 (76)	10
Electronics 110 (4)	3

General Education and other requirements for the A.A. degree: See Pages 61-62.

Students will be required to purchase personal safety equipment and adhere to all safety rules.

Those students who successfully complete the above curriculum with a G.P.A. of 3.0 or better will be eligible to receive the Certificate of Proficiency in Welding Technology.

Career Opportunities: The field of welding offers employment in automotives, aircraft, guided missiles, nuclear energy, railroads, radio, television, appliances, department stores and food processing plants. The welding technician can join, separate and remove excess metals with various techniques, and is able to work with ferrous, non-ferrous and exotic metals using TIG and MIG processes. The welding technician is the liaison between the welding engineer and the welder.

Women's Studies

The College of San Mateo currently offers Women's Studies courses in various academic disciplines. These include History 260 (28): Women in American History (3 units), which surveys the accomplishments of American women from colonial times to the present. The roles played by American women of different racial and local origins are explored in depth. Psychology 250 (28): Psychology of Women (3 units) examines, within a framework of standard psychological concepts, the ways in which culture influences feminine and masculine role behavior. Literature 251 (Eng. 29): Women and Literature investigates the images of women in English and American literature and introduces students to important contemporary women writers. Pol. Sci. 255 (28):

Women, Politics & Power (3 units) examines the changing role of women in the American political process. Guidance 808 (8) (1-3 units) analyzes the student's present abilities and interests, develops college-level study skills, examines career opportunities for women, and provides academic and career counseling in a milieu supportive of women.

An academic major in Women's Studies is now available at some four-year colleges and universities. Students interested in majoring in Women's Studies should consult the catalog of the college of their choice for detailed information. In addition, the College of San Mateo offers a College Re-Entry Program for women whose formal education has been interrupted or postponed. (See page 55.)



Description of Courses



Student Services



VINCENT DAVIS

Vincent Davis, a 26 year old Veteran's Hospital orderly and ex-Navy man, came to College of San Mateo in 1966 with one goal in mind—to improve his reading skills. Though he didn't recognize it at the time, it was the first step in his becoming a college instructor. Six years later he was appointed to the Social Sciences faculty of Mt. Hood Community College in Gresham, Oregon, where he is today a popular teacher of such classes as introductory sociology and Black-white relations. Soon after he came to CSM and enrolled in the College Readiness Program, his diligence was noted by his instructor who encouraged him to continue in school the next semester. Deciding to put his full efforts into education, Davis quit his orderly job and returned to school as a full-time student on the G.I. Bill. Working diligently and taking advantage of tutors available through the college, he made substantial gains in his classwork. In 1968 he received his A.A. degree. "The most significant contribution to me was the learning experience that provided me with knowledge and attitudes that allowed me to solve problems that once baffled me," he says. He recalls one such incident. "Having taken a course in music appreciation, (with little interest in classical music), I soon discovered that I needed help. I found help quickly, and with some effort passed the class. From this class I learned the art of listening not only to music, but to people." From CSM he went on to San Francisco State University, where he was awarded a B.A. in psychology, and Portland State University, where he received an M.A. in sociology.



MARY GILL

In 1978 Mary Gill was appointed Staff Director of the State Student Financial Aid Study Group, a position to which she brought outstanding experience. Not only had she been both a needs analyst and director of a college financial aid program, but she had also been a recipient of student aid at College of San Mateo during the early 60s. The study group was formed last year after the Legislature called for the California Postsecondary Education Commission and the California Student Aid Commission to review the policies and objectives of student aid programs. The group's report is due to the Legislature in Jan. 1980. Gill is certain that it will "provide a framework for better student aid services in California." The financial aid provided to Gill by CSM played an important part in her preparation for a future career. With this vital support she was able to be a full-time student and make plans for continued education beyond CSM. CSM, however, provided more than financial aid, she says, "The faculty and administration helped me any time I asked, particularly in financial crisis times. Their special efforts helped me to get the support I needed to continue my education after CSM." She indicated that the faculty also stimulated her interest in political science and provided opportunities, such as the Model United Nations, to learn through experience. "I was encouraged to participate in student government and clubs. These were experiences which helped me to begin to explore my potential." After graduation from CSM in 1965, she went on to receive a B.A. degree from Sonoma State University. Currently, she is completing work for her M.A. in public administration.

Courses of Instruction Information Regarding Course Additions for 1979-80

New Course Title, Number and Name

Accounting 113 Accounting Theory/Practice
Art 106 Survey of Contemporary Art
Art 108 History of American Art
Art 413-414 Bronze Casting — Beginning & Intermediate
Astronomy 107 The Naked-Eye Sky
Dental Assisting 735 Communication in Allied Health Professions
Dental Assisting 771 Coronal Polish
Drama 230 Mime & Movement
Electronics 115 Electronics Soldering Techniques
Ethnic Studies 350-351 Native American Way of Life
Guidance 432 Job Search Strategy
Humanities 111 Man and His Place in the Cosmos: Classical Civilizations
Humanities 112 Man and His Artistic Creations, the Middle Ages and Renaissance
Humanities 113 Man and Nature: The Impact of the New Science, 17th to 19th Centuries
Humanities 114 Man and Man: Literature and Film as Communications in the 20th Century
Humanities 136 Creative Women in Modern Times
Humanities 140 Cultural Heritage of San Francisco and its Environs
Labor Studies 125 Collective Bargaining
Physical Education: Combatives 400 Self-Defense for Women
Secretarial Science 305 Word Processing
Speech 125 Elements of Communication

Courses are offered at the discretion of the college in accordance with its determination of educational needs and available resources.

Some four-year colleges will accept, as transfer credit, units earned in any course offered at College of San Mateo, with the exception of remedial courses. Other colleges will accept only those courses which are equivalent to courses taught at those institutions. Students should consult with their counselor regarding particular transfer institutions.

The credit value of each course in semester units is indicated by a numeral in parenthesis following the title. A semester unit of credit is based upon one hour of the student's time at the College per week in lecture or recitation throughout one semester, together with the necessary preparation time, or a longer time in laboratory or other exercises not requiring outside preparation.

Specific information concerning class hours will be found in the Schedule of Classes.

Students should check course descriptions and prerequisites, and discuss the recommended sequence with counselors/advisors.

NOTE: In order to establish a common numbering system for the three District colleges, Cañada College, Skyline College and College of San Mateo, new course number designators have been assigned. Each will consist of a series of not more than four characters followed by three digits. In the course descriptions and program planning sections of the Catalog, the new descriptors are immediately followed by the old course numbers enclosed in parentheses. You will find a cross reference listing of former course numbers and their new equivalents on the following pages.

Cross Reference List of Former Course Numbers to New Course Numbers.

Former Number	New Number	Former Number	New Number	Former Number	New Number
ADMJ 1	ADMJ 100	AERO 92B	AERO 741	ART 7B	ART 232
ADMJ 2	ADMJ 102	AERO L51	AERO 301	ART 10A	ART 111
ADMJ 3	ADMJ 104	AERO L52	AERO 311	ART 10B	ART 112
ADMJ 4	ADMJ 106	AERO L53	AERO 321	ART 12	ART 310
ADMJ 5	ADMJ 108	AERO L54	AERO 331	ART 15	ART 207
ADMJ 7	ADMJ 120	AERO L55	AERO 341	ART 17A	ART 237
ADMJ 10	ADMJ 125	AERO L56	AERO 351	ART 17B	ART 238
ADMJ 12	ADMJ 150	AERO L57	AERO 361	ART 20A	ART 411
ADMJ 15A	ADMJ 140	AERO L58	AERO 371	ART 20B	ART 412
ADMJ 15B	ADMJ 141	ANTH 1	ANTH 125	ART 21A	ART 415
ADMJ 15C	ADMJ 142	ANTH 2	ANTH 110	ART 21B	ART 416
ADMJ 17	ADMJ 165	ANTH 3	ANTH 130	ART 22	ART 405
ADMJ 19	ADMJ 153	ANTH 4	ANTH 140	ART 23	ART 406
ADMJ 25	ADMJ 170	ANTH 8	ANTH 310	ART 25A	ART 413
ADMJ 47	ADMJ 647	ANTH 18	ANTH 180	ART 25B	ART 414
ADMJ 48	ADMJ 680	ANTH 48	ANTH 680	ART 40	ART 350
ADMJ 49	ADMJ 690	ANTH 49	ANTH 690	ART 41A	ART 351
ADMJ 94	ADMJ 755	ARCH 1A	ARCH 112	ART 41B	ART 352
ADMJ 96A	ADMJ 760	ARCH 4	ARCH 666	ART 41C	ART 353
ADMJ 96B	ADMJ 761	ARCH 7A	ARCH 114	ART 43A	ART 354
ADMJ 96C	ADMJ 762	ARCH 7B	ARCH 115	ART 43B	ART 355
ADMJ 98	ADMJ 766	ARCH 10	ARCH 100	ART 47	ART 641
ADMJ 99A	ADMJ 771	ARCH 11	ARCH 120	ART 48	ART 680
ADMJ 99B	ADMJ 772	ARCH 12	ARCH 130	ART 49	ART 690
ADMJ 99C	ADMJ 773	ARCH 13	ARCH 125	ART 51	ART 328
ADMJ 767	ADMJ 767	ARCH 14	ARCH 110	ART 52	ART 206
AERO 2A	AERO 100	ARCH 15A	ARCH 140	ART 62A	ART 241
AERO 2B	AERO 101	ARCH 15B	ARCH 145	ART 62B	ART 242
AERO 2C	AERO 102	ARCH 16	ARCH 150	ART 68A	ART 141
AERO 3	AERO 103	ARCH 17	ARCH 160	ART 68B	ART 142
AERO 5	AERO 115	ARCH 18	ARCH 170	ART 70	ART 336
AERO 6	AERO 126	ARCH 21	ARCH 210	ART 80	ART 157
AERO 7	AERO 137	ARCH 22	ARCH 220	ART 81	ART 145
AERO 11	AERO 141	ARCH 23	ARCH 230	ART 82	ART 147
AERO 12	AERO 142	ARCH 24	ARCH 240	ART 83	ART 146
AERO 13	AERO 143	ARCH 47	ARCH 644	ART 84	ART 148
AERO 14	AERO 144	ARCH 48	ARCH 680	ART 85A	ART 151
AERO 15	AERO 145	ARCH 49	ARCH 690	ART 85B	ART 152
AERO 16	AERO 156	ARCH 115	ARCH 340	ART 87	ART 450
AERO 47	AERO 649	ARCH 120	ARCH 341	ART 88	ART 155
AERO 48	AERO 680	ART 1A	ART 101	ART 89	ART 156
AERO 49	AERO 690	ART 1B	ART 102	ASTR 1	ASTR 130
AERO 51	AERO 300	ART 1C	ART 103	ASTR 7	ASTR 107
AERO 52	AERO 310	ART 1D	ART 105	ASTR 10	ASTR 100
AERO 53	AERO 320	ART 1E	ART 106	ASTR 15	ASTR 110
AERO 54	AERO 330	ART 1F	ART 108	ASTR 16	ASTR 120
AERO 55	AERO 340	ART 2A	ART 201	ASTR 48	ASTR 680
AERO 56	AERO 350	ART 2B	ART 202	ASTR 49	ASTR 690
AERO 57	AERO 360	ART 3	ART 214	AUTO 51	AUTO 880
AERO 58	AERO 370	ART 4	ART 320	BIOL 1	BIOL 100
AERO 65A	AERO 710	ART 5A	ART 301	BIOL 2	BIOL 110
AERO 65B	AERO 711	ART 5B	ART 305	BIOL 3	BIOL 145
AERO 91A	AERO 730	ART 6A	ART 223	BIOL 4	BIOL 314
AERO 91B	AERO 731	ART 6B	ART 224	BIOL 5	BIOL 106
AERO 92A	AERO 740	ART 7A	ART 231	BIOL 7	BIOL 130

Former Number	New Number	Former Number	New Number	Former Number	New Number
BIOL 8	BIOL 320	BUS 11	BUS. 170	BUS 90L	SEC. 250
BIOL 9	BIOL 140	BUS 12	BUS. 175	BUS 90P	SEC. 205
BIOL 11	BIOL 125	BUS 15	BUS. 154	BUS 91	SEC. 400
BIOL 12	BIOL 137	BUS 16	BUS. 190	BUS 93	BUS. 129
BIOL 14	BIOL 184	BUS 17	BUS. 152	BUS 94	SEC. 300
BIOL 15	BIOL 102	BUS 18	BUS. 151	BUS 94L	SEC. 444
BIOL 16	BIOL 180	BUS 24	BUS. 180	BUS 96	SEC. 412
BIOL 17	BIOL 182	BUS 25	BUS. 185	BUS 99	SEC. 495
BIOL 18A	BIOL 325	BUS 30	MGMT 300	BUS 100A	SEC. 410
BIOL 18B	BIOL 326	BUS 31	MGMT 301	BUS 100B	SEC. 418
BIOL 19	BIOL 327	BUS 32	MGMT 303	BUS 100L	SEC. 448
BIOL 21	BIOL 210	BUS 35	BUS. 130	BUS 102	SEC. 305
BIOL 22	BIOL 220	BUS 45	BUS. 412	BUS 111	R.E. 235
BIOL 23	BIOL 250	BUS 47*	BUS. 641	BUS 112	R.E. 122
BIOL 24	BIOL 260	BUS 47*	ACTG 641	BUS 113	R.E. 132
BIOL 25	BIOL 240	BUS 47*	SEC. 641	BUS 114	R.E. 225
BIOL 26	BIOL 245	BUS 47*	INS. 641	BUS 123	BUS. 160
BIOL 27	BIOL 230	BUS 47*	R.E. 641	BUS 131	R.E. 200
BIOL 30	BIOL 150	BUS 47*	MGMT 641	BUS 134	R.E. 141
BIOL 33	BIOL 160	BUS 48*	BUS. 680	BUS 135	R.E. 143
BIOL 37	BIOL 370	BUS 49	BUS. 690	BUS 136	R.E. 145
BIOL 40A	BIOL 112	BUS 50	BUS. 810	BUS 138	R.E. 210
BIOL 40B	BIOL 113	BUS 51	BUS. 115	BUS 139	R.E. 215
BIOL 40C	BIOL 114	BUS 52	BUS. 220	BUS 140	R.E. 205
BIOL 40D	BIOL 115	BUS 56	SEC. 401	BUS 141	R.E. 220
BIOL 40E	BIOL 116	BUS 59L	SEC. 440	BUS 142	R.E. 230
BIOL 40F	BIOL 117	BUS 65	BUS. 150	BUS 145A	R.E. 311
BIOL 40G	BIOL 118	BUS 66	ACTG 100	BUS 145B	R.E. 301
BIOL 40H	BIOL 119	BUS 67	ACTG 105	BUS 145C	R.E. 313
BIOL 41	BIOL 410	BUS 69A	ACTG 171	BUS 145D	R.E. 303
BIOL 42	BIOL 420	BUS 69B	ACTG 172	BUS 145E	R.E. 305
BIOL 47	BIOL 644	BUS 70	BUS. 270	BUS 90.1	SEC. 200
BIOL 48	BIOL 680	BUS 71	BUS. 271	BUS 90.3	SEC. 210
BIOL 49	BIOL 690	BUS 72	BUS. 272	BUS 90.4	SEC. 211
BIOL 52	BIOL 425	BUS 73	BUS. 273	BUS 90.5	SEC. 230
BLDG 48	BLDG 680	BUS 74	BUS. 274	BUS 92.1	SEC. 100
BLDG 63A	BLDG 700	BUS 75	BUS. 275	BUS 92.2	SEC. 145
BLDG 63B	BLDG 710	BUS 76	BUS. 276	BUS 92.5	SEC. 110
BLDG 63C	BLDG 720	BUS 77	BUS. 277	BUS 92.8	SEC. 120
BLDG 63D	BLDG 730	BUS 80A	INS. 110	BUS 92.9	SEC. 320
BLDG 63E	BLDG 740	BUS 80B	INS. 120	CA&S 1	H.EC 301
BLDG 63F	BLDG 750	BUS 80C	INS. 130	CA&S 2	H.EC 302
BUAD 1A	ACTG 111	BUS 80D	INS. 140	CA&S 3	H.EC 303
BUAD 1B	ACTG 112	BUS 80E	INS. 150	CA&S 5	H.EC 666
BUAD 1C	ACTG 113	BUS 80F	INS. 160	CA&S 6	H.EC 320
BUAD 18A	BUS. 201	BUS 80G	INS. 170	CA&S 9	H.EC 310
BUAD 18B	BUS. 202	BUS 80H	INS. 180	CA&S 15	H.EC 154
BUAD 18C	BUS. 204	BUS 80J	INS. 190	CA&S 17	H.EC 152
BUAD 20	ACTG 195	BUS 80K	INS. 200	CA&S 18	H.EC 151
BUAD 48	ACTG 680	BUS 81	BUS. 140	CA&S 20	H.EC 110
BUAD 49	ACTG 690	BUS 83A	R.E. 100	CA&S 21	H.EC 116
BUS 2	BUS. 123	BUS 84	R.E. 105	CA&S 22	H.EC 113
BUS 8A	BUS. 101	BUS 85	R.E. 110	CA&S 24	H.EC 117
BUS 8B	BUS. 102	BUS 87	R.E. 121	CA&S 26	H.EC 118
BUS 10	BUS. 100	BUS 88	R.E. 131	CA&S 40	H.EC 450

106 Courses of Instruction (continued)

Former Number	New Number	Former Number	New Number	Former Number	New Number
CA&S 45	H.EC 412	C PE 2	AQUA 310	COOP 647	COOP 647
CA&S 46	H.EC 155	C PE 2	AQUA 300	COOP 648	COOP 648
CA&S 47	H.EC 647	C PE 2	FITN 120	COOP 649	COOP 649
CA&S 48	H.EC 680	C PE 2	FITN 110	COSM 47	COSM 647
CA&S 48	H.EC 312	C PE 2	AQUA 401	COSM 48	COSM 680
CA&S 49	H.EC 690	C PE 7	VARs 180	COSM 49	COSM 690
CA&S 52	H.EC 305	C PE 10	VARs 140	COSM 50*	COSM 722
C PE 2	INDV 123	C PE 11	VARs 160	COSM 50*	COSM 712
C PE 2	INDV 253	C PE 40	P.E. 100	COSM 51*	COSM 732
C PE 2	INDV 170	C PE 43A	P.E. 131	COSM 51*	COSM 742
C PE 2	INDV 125	C PE 43B	P.E. 132	COSM 52	COSM 750
C PE 2	INDV 110	C PE 47	P.E. 646	COSM 53	COSM 754
C PE 2	INDV 255	C PE 48	AQUA 680	COSM 90A	COSM 791
C PE 2	INDV 161	C PE 48	COMB 680	COSM 90B	COSM 792
C PE 2	INDV 320	C PE 48	FITN 343	COSM 91	COSM 760
C PE 2	INDV 251	C PE 48	P.E. 680	DANC 5	DANC 180
C PE 2	INDV 220	C PE 48.	TEAM 680	DANC 6	DANC 360
C PE 2	INDV 150	C PE 48+	INDV 680	DANC 8	DANC 148
C PE 2	AQUA 130	C PE 48*	FITN 680	DANC 10	DANC 380
C PE 2	AQUA 120	C PE 48*	VARs 680	DANC 12A	DANC 141
C PE 2	AQUA 109	C PE 49	AQUA 690	DANC 12B	DANC 143
C PE 2	AQUA 100	C PE 49	COMB 690	DANC 13A	DANC 121
C PE 2	TEAM 115	C PE 49	P.E. 690	DANC 13B	DANC 122
C PE 2	P.E. 200	C PE 49	TEAM 690	DANC 14	DANC 130
C PE 2	TEAM 145	C PE 49*	FITN 690	DANC 20A	DANC 411
C PE 2	TEAM 200	C PE 49*	VARs 690	DANC 20B	DANC 412
C PE 2	TEAM 111	C PE 49-	INDV 690	DANC 47	DANC 642
C PE 2	TEAM 175	CHEM 1A	CHEM 210	DANC 48	DANC 680
C PE 2	TEAM 140	CHEM 1B	CHEM 220	DANC 49	DANC 690
C PE 2	TEAM 173	CHEM 5	CHEM 250	DATA 20	D.P. 195
C PE 2	TEAM 171	CHEM 7	CHEM 260	DATA 25	D.P. 162
C PE 2	TEAM 151	CHEM 10	CHEM 100	DATA 47	D.P. 641
C PE 2	FITN 341	CHEM 11A	CHEM 224	DATA 48	D.P. 680
C PE 2	FITN 333	CHEM 11B	CHEM 225	DATA 49	D.P. 690
C PE 2	FITN 218	CHEM 12A	CHEM 231	DATA 50	D.P. 110
C PE 2	FITN 300	CHEM 12B	CHEM 232	DATA 51	D.P. 130
C PE 2	COMB 201	CHEM 21	CHEM 101	DATA 52	D.P. 140
C PE 2	COMB 101	CHEM 22	CHEM 102	DATA 53A	D.P. 151
C PE 2	COMB 104	CHEM 23	CHEM 103	DATA 53B	D.P. 152
C PE 2	FITN 331	CHEM 24	CHEM 104	DATA 54	D.P. 160
C PE 2	FITN 212	CHEM 25	CHEM 105	DATA 55	D.P. 170
C PE 2	FITN 211	CHEM 26	CHEM 106	DATA 56	D.P. 180
C PE 2	INDV 257	CHEM 27	CHEM 107	DATA 97	D.P. 120
C PE 2	INDV 121	CHEM 30A	CHEM 410	DATA 106	D.P. 695
C PE 2	INDV 142	CHEM 30B	CHEM 420	DENT 47	DENT 647
C PE 2	INDV 101	CHEM 48	CHEM 680	DENT 48	DENT 680
C PE 2	INDV 122	CHEM 49	CHEM 690	DENT 49	DENT 690
C PE 2	FITN 210	CHEM 51	CHEM 190	DENT 51A	DENT 711
C PE 2	FITN 203	COOP 50A	COOP 601	DENT 51B	DENT 712
C PE 2	FITN 130	COOP 50B	COOP 602	DENT 51C	DENT 713
C PE 2	FITN 201	COOP 641	COOP 641	DENT 52A	DENT 721
C PE 2	FITN 170	COOP 642	COOP 642	DENT 52B	DENT 722
C PE 2	FITN 100	COOP 643	COOP 643	DENT 53A	DENT 731
C PE 2	INDV 201	COOP 644	COOP 644	DENT 53B	DENT 732
C PE 2	INDV 330	COOP 646	COOP 646	DENT 54A	DENT 741

Former Number	New Number	Former Number	New Number	Former Number	New Number
DENT 54B	DENT 742	ECON 20B	ECON 662	ENGG 46	ENGR 700
DENT 55A	DENT 751	ECON 20C	ECON 663	ENGG 47	ENGR 644
DENT 55B	DENT 752	ECON 45	ECON 412	ENGG 48	ENGR 680
DENT 55X	DENT 750	ECON 48	ECON 680	ENGG 49	ENGR 690
DENT 56A	DENT 761	ECON 49	ECON 690	ENGG 90A	ENGR 411
DENT 56B	DENT 762	ECON 51	ECON 880	ENGG 90B	ENGR 412
DENT 61	DENT 771	EDUC 1	EDUC 100	ENGG 91	ENGR 421
DRAF 14	DRAF 120	EDUC 47	EDUC 647	ENGG 92	ENGR 422
DRAF 47	DRAF 649	EDUC 48	EDUC 680	ENGL A	ENGL 800
DRAF 48	DRAF 680	EDUC 49	EDUC 690	ENGL 2	ENGL 165
DRAF 49	DRAF 690	ELEC 10	ELEC 100	ENGL 3	ENGL 195
DRAF 51A	DRAF 711	ELEC 14	ELEC 110	ENGL 9A	ENGL 161
DRAF 51B	DRAF 712	ELEC 32	ELEC 666	ENGL 9B	ENGL 162
DRAF 52A	DRAF 201	ELEC 48	ELEC 680	ENGL 11	ENGL 100
DRAF 52B	DRAF 202	ELEC 49	ELEC 690	ENGL 12A	ENGL 110
DRAF 62A	DRAF 301	ELEC 51	ELEC 230	ENGL 12B	ENGL 120
DRAF 62B	DRAF 302	ELEC 52	ELEC 200	ENGL 12C	ENGL 130
DRAF 63	DRAF 400	ELEC 53	ELEC 280	ENGL 12D	ENGL 140
DRAF 102A	DRAF 721	ELEC 62	ELEC 250	ENGL 13	ENGL 210
DRAF 102B	DRAF 722	ELEC 63*	ELEC 380	ENGL 14	ENGL 200
DRAF 112A	DRAF 731	ELEC 63*	ELEC 330	ENGL 15A	LIT. 461
DRAF 112B	DRAF 732	ELEC 64	ELEC 260	ENGL 15B	LIT. 462
DRAF 122	DRAF 740	ELEC 65	ELEC 775	ENGL 16A	LIT. 451
DRAF 130	DRAF 750	ELEC 70	ELEC 765	ENGL 16B	LIT. 452
DRMA 1A	DRAM 101	ELEC 71	ELEC 302	ENGL 20	LIT. 430
DRMA 1B	DRAM 102	ELEC 72	ELEC 300	ENGL 21	LIT. 111
DRMA 10	DRAM 140	ELEC 72*	ELEC 252	ENGL 22	LIT. 105
DRMA 12	DRAM 260	ELEC 73*	ELEC 310	ENGL 23	LIT. 115
DRMA 13	DRAM 250	ELEC 73*	ELEC 360	ENGL 24	LIT. 143
DRMA 14A	DRAM 200	ELEC 82	ELEC 350	ENGL 25	LIT. 151
DRMA 14B	DRAM 201	ELEC 83	ELEC 362	ENGL 26	LIT. 113
DRMA 14C	DRAM 202	ELEC 102	ELEC 710	ENGL 27	LIT. 101
DRMA 14D	DRAM 203	ELEC 105	ELEC 770	ENGL 29	LIT. 251
DRMA 15	DRAM 300	ELEC 106	ELEC 771	ENGL 30	LIT. 200
DRMA 16	DRAM 305	ELEC 115	ELEC 115	ENGL 31A	LIT. 201
DRMA 17	DRAM 338	ELEC 122	ELEC 720	ENGL 31B	LIT. 202
DRMA 47	DRAM 642	ELEC 132	ELEC 730	ENGL 42A	LIT. 301
DRMA 48	DRAM 680	ELEC 133	ELEC 740	ENGL 42B	LIT. 302
DRMA 49	DRAM 690	ELEC 134	ELEC 750	ENGL 43	LIT. 266
DRMA 230	DRAM 230	ELEC 135	ELEC 751	ENGL 46A	LIT. 231
ECED 3	ECE. 212	ELEC 143	ELEC 760	ENGL 46B	LIT. 232
ECED 4	ECE. 210	ENGG 1A	ENGR 111	ENGL 47*	ENGL 643
ECED 5	ECE. 211	ENGG 1B	ENGR 112	ENGL 47*	LIT. 643
ECED 7	ECE. 230	ENGG 4	ENGR 666	ENGL 48*	LIT. 680
ECED 47	ECE. 647	ENGG 14	ENGR 120	ENGL 48*	ENGL 680
ECED 48	ECE. 680	ENGG 16	ENGR 150	ENGL 49*	ENGL 690
ECED 49	ECE. 690	ENGG 17	ENGR 160	ENGL 49*	LIT. 690
ECON 1A	ECON 100	ENGG 19	ENGR 290	ENGL 57A	ENGL 311
ECON 1B	ECON 102	ENGG 20	ENGR 200	ENGL 57B	ENGL 312
ECON 2	ECON 123	ENGG 22	ENGR 220	ENGL 61	ENGL 801
ECON 10	ECON 108	ENGG 35	ENGR 230	ENGL 61A	ENGL 811
ECON 11	ECON 230	ENGG 36	ENGR 240	ENGL 62	ENGL 802
ECON 12	ECON 130	ENGG 37	ENGR 250	ENGL 63	ENGL 860
ECON 15	ECON 250	ENGG 38	ENGR 260	ENGL 65	ENGL 880
ECON 20A	ECON 661	ENGG 45	ENGR 270	ENGL 66	READ 802

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Former Number	New Number	Former Number	New Number	Former Number	New Number
ENGL 67*	READ 803	FIRE 67	FIRE 760	GERM 25B	GERM 162
ENGL 75	LIT. 841	FIRE 68A	FIRE 771	GERM 30	GERM 620
ENGL A11	ENGL 411	FIRE 68B	FIRE 772	GERM 48	GERM 680
ENGL 148	READ 801	FIRE 70A	FIRE 781	GERM 49	GERM 690
ETHN 1A	ETHN 101	FIRE 70B	FIRE 782	GERM 100A	GERM 801
ETHN 1B	ETHN 102	FITN 309	FITN 309	GERM 100B	GERM 802
ETHN 3	ETHN 300	FREN 1	FREN 110	GERM 100C	GERM 803
ETHN 4	ETHN 425	FREN 1A	FREN 111	GERM 100D	GERM 804
ETHN 5	ETHN 305	FREN 1B	FREN 112	GUID 5	GUID 405
ETHN 6A	ETHN 151	FREN 2	FREN 120	GUID 8	GUID 808
ETHN 6B	ETHN 152	FREN 2A	FREN 121	GUID 10	GUID 410
ETHN 7	ETHN 160	FREN 2B	FREN 122	GUID 11	GUID 411
ETHN 8	ETHN 310	FREN 3	FREN 130	GUID 30A	GUID 430
ETHN 11	ETHN 320	FREN 3A	FREN 131	GUID 30B	GUID 432
ETHN 12A	ETHN 350	FREN 3B	FREN 132	GUID 31	GUID 431
ETHN 12B	ETHN 351	FREN 4	FREN 140	GUID 48	GUID 680
ETHN 14	ETHN 435	FREN 8A	FREN 201	GUID 49	GUID 690
ETHN 15	ETHN 267	FREN 8B	FREN 202	HIST 4A	HIST 100
ETHN 16	ETHN 150	FREN 25A	FREN 161	HIST 4B	HIST 101
ETHN 17	ETHN 510	FREN 25B	FREN 162	HIST 4C	HIST 102
ETHN 18	ETHN 520	FREN 30	FREN 620	HIST 5	HIST 110
ETHN 20	ETHN 290	FREN 48	FREN 680	HIST 6A	HIST 401
ETHN 25	ETHN 450	FREN 49	FREN 690	HIST 6B	HIST 402
ETHN 33A	ETHN 261	FREN 100A	FREN 801	HIST 8A	HIST 421
ETHN 33B	ETHN 262	FREN 100B	FREN 802	HIST 8B	HIST 422
ETHN 41	ETHN 270	FREN 100C	FREN 803	HIST 11	HIST 230
ETHN 42	ETHN 275	FREN 100D	FREN 804	HIST 12	HIST 130
ETHN 43	ETHN 266	GEOG 1A	GEOG 100	HIST 17A	HIST 201
ETHN 44	ETHN 288	GEOG 1B	GEOG 110	HIST 17B	HIST 202
ETHN 45	ETHN 585	GEOG 4	GEOG 120	HIST 20A	HIST 141
ETHN 46	ETHN 645	GEOG 5A	GEOG 160	HIST 20B	HIST 142
ETHN 48	ETHN 680	GEOG 5B	GEOG 170	HIST 21	HIST 315
ETHN 49	ETHN 690	GEOG 6	GEOG 150	HIST 22	HIST 310
F.A. 15A	ART 461	GEOG 48	GEOG 680	HIST 24	HIST 280
F.A. 15B	ART 462	GEOG 49	GEOG 690	HIST 25	HIST 350
F.A. 16A	ART 451	GEOG 99	GEOG 800	HIST 26	HIST 210
F.A. 16B	ART 452	GEOL 1A	GEOL 210	HIST 28	HIST 260
F.A. 17A	ART 463	GEOL 1B	GEOL 220	HIST 30	HIST 290
F.A. 17B	ART 464	GEOL 6	GEOL 130	HIST 32	HIST 360
FIRE 47	FIRE 647	GEOL 10	GEOL 100	HIST 33	HIST 242
FIRE 48	FIRE 680	GEOL 48	GEOL 680	HIST 35	HIST 270
FIRE 49	FIRE 690	GEOL 49	GEOL 690	HIST 44	HIST 450
FIRE 50	FIRE 700	GERM 1	GERM 110	HIST 45	HIST 160
FIRE 51A	FIRE 705	GERM 1A	GERM 111	HIST 46	HIST 150
FIRE 53	FIRE 710	GERM 1B	GERM 112	HIST 48	HIST 680
FIRE 54	FIRE 712	GERM 2	GERM 120	HIST 49	HIST 690
FIRE 55	FIRE 715	GERM 2A	GERM 121	HIST 50	HIST 810
FIRE 56	FIRE 720	GERM 2B	GERM 122	HIST 99	HIST 800
FIRE 61	FIRE 725	GERM 3	GERM 130	HORT 47	HORT 647
FIRE 62A	FIRE 731	GERM 3A	GERM 131	HORT 48	HORT 680
FIRE 62B	FIRE 732	GERM 3B	GERM 132	HORT 49	HORT 690
FIRE 63	FIRE 740	GERM 4	GERM 140	HORT 90A	HORT 771
FIRE 64	FIRE 745	GERM 8A	GERM 201	HORT 90B	HORT 772
FIRE 65	FIRE 750	GERM 8B	GERM 202	HORT 90C	HORT 773
FIRE 66	FIRE 755	GERM 25A	GERM 161	HORT 90D	HORT 774

Former Number	New Number	Former Number	New Number	Former Number	New Number
HORT 90E	HORT 775	HUM 40	HUM. 140	MACH 211	MTT. 211
HORT 90F	HORT 776	HUM 48	HUM. 680	MACH 220	MTT. 220
HORT 91A	HORT 701	HUM 49	HUM. 690	MACH 221	MTT. 221
HORT 91B	HORT 702	JAPA 1	JAPA 100	MACH 230	MTT. 230
HORT 93	HORT 705	JAPA 1A	JAPA 101	MACH 712	MTT. 712
HORT 94	HORT 706	JAPA 1B	JAPA 102	M.A. 57A	MEDA 110
HORT 95A	HORT 711	JAPA 2	JAPA 110	M.A. 57B	MEDA 111
HORT 95B	HORT 712	JAPA 2A	JAPA 111	M.A. 59	MEDA 100
HORT 96A	HORT 721	JAPA 2B	JAPA 112	M.A. 60	MEDA 120
HORT 96B	HORT 722	JOUR 1	JOUR 110	M.A. 70A	MEDA 180
HORT 97A	HORT 731	JOUR 2	JOUR 120	M.A. 70B	MEDA 130
HORT 97B	HORT 732	JOUR 15	JOUR 300	M.A. 94	MEDA 140
HORT 98A	HORT 741	JOUR 16	JOUR 310	M.A. 95	MEDA 160
HORT 98B	HORT 742	JOUR 48	JOUR 680	M.A. 100	MEDA 150
HORT 110A	HORT 311	JOUR 49	JOUR 690	M.A. 108	MEDA 170
HORT 110B	HORT 312	LABR 10	LBST 290	MATH 1	MATH 811
HORT 111	HORT 315	LABR 11	LBST 110	MATH 2	MATH 812
HORT 112	HORT 327	LABR 12A	LBST 120	MATH 3	MATH 813
HORT 113	HORT 342	LABR 12B	LBST 125	MATH 4	MATH 414
HORT 114	HORT 330	LABR 14	LBST 140	MATH 5	MATH 415
HORT 115	HORT 340	LABR 15	LBST 150	MATH 6	MATH 416
HORT 116	HORT 411	LABR 20	LBST 200	MATH 7	MATH 417
HORT 117	HORT 412	LABR 48	LBST 680	MATH 10	MATH 100
HORT 118	HORT 320	LABR 49	LBST 690	MATH 11	MATH 110
HORT 119	HORT 415	LCTR 96	GUID 896	MATH 11A	MATH 111
HORT 120	HORT 341	LCTR 97	GUID 897	MATH 11B	MATH 112
HORT 130A	HORT 801	LCTR 98	GUID 898	MATH 12	MATH 115
HORT 130B	HORT 802	LCTR 99	GUID 899	MATH 13	MATH 125
HORT 132A	HORT 811	LTEC 1	LSCI 100	MATH 16	MATH 105
HORT 132B	HORT 812	LTEC 47	LIBR 647	MATH 17	MATH 210
HORT 135A	HORT 821	LTEC 48	LIBR 680	MATH 19	MATH 120
HORT 135B	HORT 822	LTEC 49*	LIBR 690	MATH 19A	MATH 119
HSCI 1	HSCI 100	LTEC 49*	LSCI 690	MATH 19B	MATH 121
HSCI 2A	HSCI 102	LTEC 51	LIBR 200	MATH 21	MATH 130
HSCI 2B	HSCI 104	LTEC 52	LIBR 210	MATH 22	MATH 200
HSCI 2C	HSCI 105	LTEC 53	LIBR 220	MATH 23A	MATH 241
HSCI 2D	HSCI 109	LTEC 54	LIBR 230	MATH 23B	MATH 242
HSCI 2E	HSCI 103	LTEC 55	LIBR 240	MATH 24A	MATH 151
HSCI 2F	HSCI 101	LTEC 56	LIBR 250	MATH 24B	MATH 152
HSCI 2G	HSCI 106	LTEC 57	LIBR 191	MATH 25	MATH 162
HSCI 2H	HSCI 111	MACH 48	MTT. 680	MATH 27	MATH 219
HSCI 2I	HSCI 112	MACH 49	MTT. 690	MATH 28	MATH 220
HSCI 9	HSCI 310	MACH 51A	MTT. 100	MATH 30	MATH 260
HSCI 11	HSCI 160	MACH 52	MTT. 110	MATH 31	MATH 261
HSCI 47	HSCI 644	MACH 53*	MTT. 120	MATH 32	MATH 262
HSCI 48	HSCI 680	MACH 53*	MTT. 710	MATH 33	MATH 263
HSCI 49	HSCI 690	MACH 63	MTT. 720	MATH 34	MATH 275
HUM 1	HUM. 101	MACH 64	MTT. 700	MATH 35	MATH 270
HUM 2	HUM. 102	MACH L52	MTT. 111	MATH 48	MATH 680
HUM 11	HUM. 111	MACH L53	MTT. 121	MATH 49	MATH 690
HUM 12	HUM. 112	MACH 102A	MTT. 750	METE 1	METE 100
HUM 13	HUM. 113	MACH 102B	MTT. 755	METE 10	METE 110
HUM 14	HUM. 114	MACH 102C	MTT. 760	METE 48	METE 680
HUM 25	HUM. 125	MACH 140	MTT. 770	METE 49	METE 690
HUM 36	HUM. 136	MACH 210	MTT. 210	MGMT 48	MGMT 680

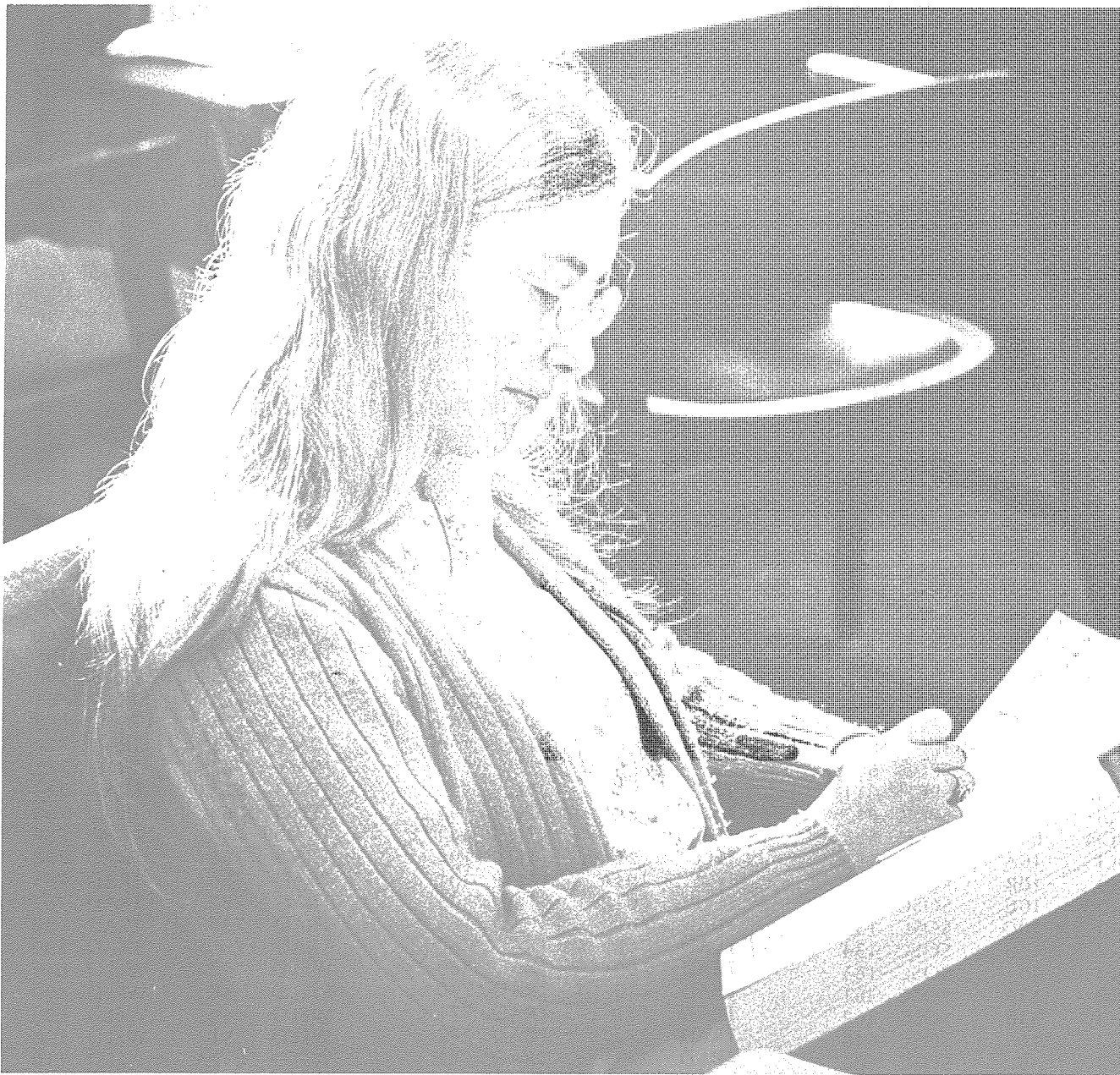
110 Courses of Instruction (continued)

Former Number	New Number	Former Number	New Number	Former Number	New Number
MGMT 49	MGMT 690	MUS 16	MUS. 170	PHIL 24A	PHIL 300
MGMT 50	MGMT 105	MUS 17	MUS. 150	PHIL 24B	PHIL 340
MGMT 52	MGMT 110	MUS 18A	MUS. 371	PHIL 35	PHIL 320
MGMT 54	MGMT 120	MUS 18B	MUS. 372	PHIL 37	PHIL 395
MGMT 55	MGMT 125	MUS 21	MUS. 440	PHIL 48	PHIL 680
MGMT 61	MGMT 130	MUS 22	MUS. 445	PHIL 49	PHIL 690
MGMT 63	MGMT 135	MUS 23	MUS. 430	PHYS 2A	PHYS 210
MGMT 65	MGMT 140	MUS 24	MUS. 320	PHYS 2B	PHYS 220
MGMT 71	MGMT 200	MUS 25	MUS. 340	PHYS 4A	PHYS 250
MGMT 72	MGMT 205	MUS 26	MUS. 360	PHYS 4B	PHYS 260
MGMT 77	MGMT 210	MUS 27	MUS. 460	PHYS 4C	PHYS 270
MGMT 80	MGMT 215	MUS 28	MUS. 450	PHYS 10	PHYS 100
MGMT 85	MGMT 220	MUS 29	MUS. 451	PHYS 48	PHYS 680
MGMT 90	MGMT 225	MUS 33	MUS. 470	PHYS 49	PHYS 690
MGMT 91	MGMT 230	MUS 34	MUS. 480	PLSC 1	PLSC 100
MGMT 92	MGMT 235	MUS 35	MUS. 490	PLSC 2	PLSC 110
MGMT 93	MGMT 240	MUS 37	MUS. 402	PLSC 3	PLSC 130
MGMT 96	MGMT 245	MUS 38	MUS. 403	PLSC 5	PLSC 150
MGMT 99	MGMT 100	MUS 39	MUS. 405	PLSC 7	PLSC 250
M PE 1	AQUA 201	MUS 40	MUS. 495	PLSC 9	PLSC 260
M PE 1	AQUA 210	MUS 41	MUS. 496	PLSC 12	PLSC 300
M PE 1	AQUA 204	MUS 47	MUS. 642	PLSC 18	PLSC 520
M PE 1	TEAM 165	MUS 48	MUS. 680	PLSC 21	PLSC 210
M PE 1	FITN 213	MUS 49	MUS. 690	PLSC 22	PLSC 220
M PE 1	COMB 308	NRSNG 1	NURS 210	PLSC 23	PLSC 310
M PE 1	COMB 302	NRSNG 2*	NURS 221	PLSC 25	PLSC 200
M PE 1	TEAM 135	NRSNG 2*	NURS 222	PLSC 27	PLSC 205
M PE 1	COMB 305	NRSNG 3	NURS 231	PLSC 28	PLSC 255
M PE 1	FITN 215	NRSNG 4	NURS 241	PLSC 30	PLSC 215
M PE 1	TEAM 105	NRSNG 5	NURS 242	PLSC 39	PLSC 550
M PE 1	TEAM 101	NRSNG 41	NURS 810	PLSC 40	PLSC 590
M PE 1	FITN 214	NRSNG 42*	NURS 821	PLSC 48	PLSC 680
M PE 4	VARS 120	NRSNG 42*	NURS 822	PLSC 49	PLSC 690
M PE 5	VARS 110	NRSNG 43	NURS 831	PSCI 10	PSCI 100
M PE 6	VARS 200	NRSNG 44	NURS 841	PSYC 1A	PSYC 100
M PE 8	VARS 100	NRSNG 45	NURS 842	PSYC 1B	PSYC 105
M PE 9	VARS 170	NRSNG 46	NURS 850	PSYC 4	PSYC 110
M PE 12	VARS 130	NRSNG 47	NURS 647	PSYC 5	PSYC 201
M PE 13	VARS 190	NRSNG 48	NURS 680	PSYC 6	PSYC 300
MUS 1A	MUS. 101	NRSNG 49	NURS 690	PSYC 7	PSYC 121
MUS 1B	MUS. 102	NURV 51	NURS 110	PSYC 10	PSYC 108
MUS 2A	MUS. 103	NURV 52A	NURS 120	PSYC 13	PSYC 480
MUS 2B	MUS. 104	NURV 52B	NURS 130	PSYC 14	PSYC 355
MUS 4A	MUS. 131	NURV 60	NURS 100	PSYC 28	PSYC 250
MUS 4B	MUS. 132	OCEN 10	OCEN 100	PSYC 33	PSYC 400
MUS 5A	MUS. 133	PALE 1	PALN 110	PSYC 34	PSYC 410
MUS 5B	MUS. 134	PHIL 1	PHIL 100	PSYC 39	PSYC 340
MUS 6	MUS. 202	PHIL 6A	PHIL 101	PSYC 40	PSYC 358
MUS 7	MUS. 270	PHIL 6B	PHIL 105	PSYC 48	PSYC 680
MUS 8	MUS. 275	PHIL 7	PHIL 200	PSYC 49	PSYC 690
MUS 9	MUS. 100	PHIL 12	PHIL 210	RCED 40	REC. 100
MUS 12	MUS. 301	PHIL 20A	PHIL 160	RCED 41	REC. 110
MUS 13	MUS. 302	PHIL 20B	PHIL 170	RCED 42	REC. 165
MUS 14	MUS. 303	PHIL 20C	PHIL 190	RCED 43	REC. 140
MUS 15	MUS. 304	PHIL 23	PHIL 240	RCED 44	REC. 175

Former Number	New Number	Former Number	New Number	Former Number	New Number
SOCI 1	SOCI 100	SSCI 49	SOSC 690	TRAD 48	TRAD 680
SOCI 2	SOCI 105	TA/G 14	TA&G 100	TRAD 62	TRAD 740
SOCI 3	SOCI 141	TA/G 47	TA&G 649	TRAD 71A	TRAD 701
SOCI 4	SOCI 110	TA/G 48	TA&G 680	TRAD 71B	TRAD 703
SOCI 6	SOCI 300	TA/G 49	TA&G 690	TRAD 72A	TRAD 705
SOCI 12	SOCI 200	TA/G 52A	TA&G 201	TRAD 72B	TRAD 707
SOCI 16	SOCI 150	TA/G 52B	TA&G 202	TRAD 73A	TRAD 711
SOCI 40A	SOCI 151	TA/G 54	TA&G 210	TRAD 73B	TRAD 713
SOCI 40B	SOCI 152	TA/G 55	TA&G 220	TRAD 74A	TRAD 715
SOCI 48	SOCI 680	TA/G 63	TA&G 300	TRAD 74B	TRAD 717
SOCI 49	SOCI 690	TA/G 64	TA&G 310	TRAD L71A	TRAD 702
SPAN 1	SPAN 110	TA/G 65A	TA&G 351	TRAD L71B	TRAD 704
SPAN 1A	SPAN 111	TA/G 65B	TA&G 352	TRAD L72A	TRAD 706
SPAN 1B	SPAN 112	TA/G 66	TA&G 400	TRAD L72B	TRAD 708
SPAN 2	SPAN 120	TA/G 710	TA&G 710	TRAD L73A	TRAD 712
SPAN 2A	SPAN 121	TA/G 711	TA&G 711	TRAD L73B	TRAD 714
SPAN 2B	SPAN 122	TA/G 712	TA&G 712	TRAD L74A	TRAD 716
SPAN 3	SPAN 130	TA/G 713	TA&G 713	TRAD L74B	TRAD 718
SPAN 3A	SPAN 131	TA/G 714	TA&G 714	TRAD 721	TRAD 721
SPAN 3B	SPAN 132	TA/G 715	TA&G 715	TRAD 722	TRAD 722
SPAN 4	SPAN 140	TECH 47	TECH 649	TRAD 723	TRAD 723
SPAN 8A	SPAN 201	TECH 48	TECH 680	TRAD 724	TRAD 724
SPAN 8B	SPAN 202	TECH 49	TECH 690	TRAD 725	TRAD 725
SPAN 25A	SPAN 161	TECH 71	TECH 100	TRAD 726	TRAD 726
SPAN 25B	SPAN 162	TECH 72	TECH 110	TRAD 727	TRAD 727
SPAN 29	SPAN 251	TECH 73	TECH 700	TRAD 728	TRAD 728
SPAN 30	SPAN 620	TECH 74	TECH 120	TRAD 751	TRAD 751
SPAN 48	SPAN 680	TECH 76	TECH 200	TRAD 752	TRAD 752
SPAN 49	SPAN 690	TELE 47	TELE 642	TRAD 753	TRAD 753
SPAN 100A	SPAN 801	TELE 48	TELE 680	TRAD 754	TRAD 754
SPAN 100B	SPAN 802	TELE 49	TELE 690	TRAD 761	TRAD 761
SPAN 100C	SPAN 803	TELE 51	TELE 110	TRAD 762	TRAD 762
SPAN 100D	SPAN 804	TELE 52A	TELE 131	TRAD 763	TRAD 763
SPCH 1A	SPCH 100	TELE 52B	TELE 132	TRAD 764	TRAD 764
SPCH 2A	SPCH 111	TELE 53	TELE 135	TRAD 765	TRAD 765
SPCH 2B	SPCH 112	TELE 60A	TELE 231	TRAD 766	TRAD 766
SPCH 10	SPCH 120	TELE 60B	TELE 232	TRAD 767	TRAD 767
SPCH 33	SPCH 130	TELE 61A	TELE 241	TRAD 768	TRAD 768
SPCH 48*	SPCH 852	TELE 61B	TELE 242	TRAD 769	TRAD 769
SPCH 48*	SPCH 680	TELE 61C	TELE 243	TRAD 770	TRAD 770
SPCH 48*	SPCH 851	TELE 65	TELE 190	TRAD 771	TRAD 771
SPCH 49	SPCH 690	TELE 66	TELE 115	TRAD 772	TRAD 772
SPCH 57A	SPCH 811	TELE 67	TELE 195	TRAD 782	TRAD 782
SPCH 57B	SPCH 812	TELE 68	TELE 192	TRAD 783	TRAD 783
SPCH 62	SPCH 825	TELE 70	TELE 463	TRAD 784	TRAD 784
SSCI 10A	SOSC 130	TELE 71	TELE 194	TRAD 785	TRAD 785
SSCI 10B	SOSC 131	TELE 101A	TELE 301	TRAD 786	TRAD 786
SSCI 10C	SOSC 132	TELE 101B	TELE 302	TRAD 787	TRAD 787
SSCI 10D	SOSC 133	TRAD 767	TRAD 767	TRAD 788	TRAD 788
SSCI 10E	SOSC 134	TRAD 768	TRAD 768	TRAD 790	TRAD 790
SSCI 20	SOSC 185	TRAD 769	TRAD 769	WELD 47	WELD 649
SSCI 33A	SOSC 261	TRAD 770	TRAD 770	WELD 48	WELD 680
SSCI 33B	SOSC 262	TRAD 771	TRAD 771	WELD 49	WELD 690
SSCI 47	SOSC 648	TRAD 772	TRAD 772	WELD 51	WELD 100
SSCI 48	SOSC 680	TRAD 781	TRAD 781	WELD 52A	WELD 110

112 Courses of Instruction (continued)

Former Number	New Number	Former Number	New Number	Former Number	New Number
WELD 52B	WELD 120	WELD L62B	WELD 221	W PE 3	FITN 216
WELD 62A	WELD 210	WELD 103	WELD 700	W PE 4	VARs 310
WELD 62B	WELD 220	W PE 3	TEAM 118	W PE 7	VARs 380
WELD 75	WELD 300	W PE 3	TEAM 158	W PE 21	VARs 340
WELD L52A	WELD 111	W PE 3	TEAM 178	W PE 22	VARs 300
WELD L52B	WELD 121	W PE 3	COMB 110	W PE 23	VARs 320
WELD L62A	WELD 211	W PE 3	FITN 150	W PE 24	VARs 330



Description of Courses

Accounting

100 (BUS. 66) ACCOUNTING PROCEDURES (4)

Five lecture hours plus one lab hour per week. Prerequisite: Completion of or concurrent enrollment in Bus. 810 (50) or 115 (51), or equivalent.

Application of accounting procedures for a small business using general and special journals, general ledger, subsidiary ledgers, petty cash records and payroll records for cash or accrual basis. Preparation of trial balances, work sheets, adjusting and closing entries and financial statements.

105 (BUS. 67) SECRETARIAL ACCOUNTING (2-3)

Three lecture hours and one lab hour a week by arrangement for 11 weeks – 2 units; three lecture hours and one lab hour a week by arrangement for 16 weeks – 3 units. Prerequisite: Bus. 810 (50) or 115 (51), or equivalent. (Fall only.)

Fundamentals of accounting, including instruction and practice in organizing, recording, and interpreting basic record-keeping essentials. For the student who needs a general knowledge of accounting. Students planning to transfer to a university should complete Math 120 or have two years of high school Algebra.

111 (BUAD 1A) ACCOUNTING PRINCIPLES I (4)

Five lecture hours per week. Prerequisite: Sophomore standing recommended.

Records, accounts and statements of proprietorship enterprises. Debit and credit theory and generally accepted accounting principles and concepts.

112 (BUAD 1B) ACCOUNTING PRINCIPLES II (4)

Five lecture hours per week. Prerequisite: Actg. 11 (Bus. Ad. 1a), or equivalent with grade of C or better.

Applications of theory, concepts and principles to partnerships and corporations. Introduction to departmental, cost and manufacturing accounting, budgeting, analysis and management decisions.

113 ACCOUNTING PRINCIPLES III (4)

Five lecture hours per week. Prerequisite: Actg. 112 (Bus. Ad. 1b) or equivalent with grade C or better.

Current issues in accounting theory and practice. Accounting for and constructing books, statements and records from incomplete data. Practical application of auditing. Business taxes, all forms from calculation to reporting.

171 (BUS. 69A) FEDERAL INCOME TAX I (3)

Three lecture hours per week. Prerequisites: Actg. 100 (Bus. 66), Actg. 111 (BUAD 1a).

Study of the procedures for computing the income tax liability of individuals in accordance with the latest income tax laws and regulations. Practice in solving typical problems and in preparation of tax returns.

172 (BUS. 69B) FEDERAL INCOME TAX II (3)

Three lecture hours per week. Prerequisite: Actg. 111 (BUAD 1a) or equivalent.

Study of the procedures for computing the income tax liability of partnerships, corporations, estates and trusts in accordance with the latest income tax laws and regulations. Practice and solving of typical problems in the preparation of tax returns.

195 (BUAD 20) COMPUTER APPLICATIONS (4)

Three lecture hours and two lab hours per week. Prerequisites: Concurrent enrollment in or completion of Actg. 111 (BUAD 1a); completion of one year of high school algebra, or Math. 110 (11).

Study of business usage of computers; concepts and components of computers; impact of computers upon business organization. Use of source language(s) in writing, running and debugging programs; problems of accounting and management science.

680 (BUAD 4B) SELECTED TOPICS IN BUSINESS ADMINISTRATION (1-3)

Hours by arrangement.

Selected topics in Business Administration not covered by regular catalog offerings. Course content and unit credit to be determined by the Business Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (BUAD 49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.
Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Administration of Justice

(Police Science)

100 (1) INTRODUCTION TO ADMINISTRATION OF JUSTICE (3)

Three lecture hours per week. Required of all Administration of Justice majors in the freshman year.

An orientation to the Administration of Justice program, as well as law enforcement as a profession. Includes history and philosophy of law enforcement, employment opportunities and general requirements of the various law enforcement agencies.

102 (2) PRINCIPLES AND PROCEDURES OF THE JUSTICE SYSTEM (3)

Three lecture hours per week.

Review of criminal justice systems in the United States with special emphasis on California. Procedures from time of offense until disposition of the case by the court. Basic principles of federal, constitutional, state and local laws as they pertain to law enforcement and the court system.

104 (3) CONCEPTS IN CRIMINAL LAW (3)

Three lecture hours per week.

The structure and definitions in the most frequently used sections of the California Penal Code and other criminal statutes. Classification of crimes, nature of crimes, intent involved in the commission of an offense, attempts, and criminal liability.

106 (4) LEGAL ASPECTS OF EVIDENCE (3)

Three lecture hours per week. Prerequisite: Administration of Justice 104 (3).

The kinds and degrees of evidence and the rules governing the admissibility of evidence in court. Emphasis on recent Supreme Court decisions, laws of arrest, and search and seizure.

108 (5) COMMUNITY RELATIONS (3)

Three lecture hours per week.

Interaction of law enforcement and local government. Current innovative programs by police agencies to establish communications and liaison between law enforcement and the community.

120 (7) CRIMINAL INVESTIGATION (3)

Three lecture hours per week. Prerequisites: Administration of Justice 101 (1), 102 (2) and 104 (3).

Rudiments of criminal investigation; crime scene search; collection, preservation and identification of physical evidence; scientific aids; sources of information; interrogation of victims, witnesses and suspects; cooperation with related agencies; case preparation and follow-up work.

125 (10) JUVENILE PROCEDURES (3)

Three lecture hours per week. Prerequisite: Completion of or concurrent enrollment in Administration of Justice 100 (1).

The role law enforcement agencies play in juvenile and delinquency control; organization and functions of related juvenile agencies, the laws governing the handling of juvenile offenders and their application; a brief resume of the juvenile court and its jurisdiction.

150 (12) TRAFFIC SUPERVISION AND CONTROL (3)

Three lecture hours per week. Prerequisite: Administration of Justice 100 (1).

Laws relating to the operation of motor vehicles: California Vehicle Code sections most often encountered and violated; regulation and traffic control; traffic accident investigation; emphasis on causes and contributory aspects of driver behavior.

140, 141, 142 (15a-15b-15c) CRIMINAL IDENTIFICATION I, II, III (1-1-1)

Three sections of this course will be offered each third semester as a block for three units of credit. The individual sections will be offered as required. The course may be taken only once for credit, either in segments or as a block. Prerequisite: Administration of Justice 120 (7).

140 (15a) Fingerprint Classification — A study of the biological structure of the layers of the skin, the history of fingerprinting. Development of knowledge and identification capabilities for fingerprint patterns. Henry and FBI systems of classification with ability to file and search, and demonstration of practical application. **141 (15b) Fingerprinting, Latent** — Discussion of modus operandi leading to the location of areas containing latent impressions. Development of latent impressions by mechanical and chemical mediums,

photography and lifting techniques. Comparison of latents with rolled impression. Courtroom comparison with practical application. **142 (15c) Criminal Identification** — A study of basic methods of identification (Portrait Parle), Bertillion system and present-day identification systems, and equipment available for development of composite images. Identification and field photography, camera and darkroom procedures and techniques.

153 (19) PATROL PROCEDURES (3)

Three lecture hours per week. Prerequisite: Completion of or concurrent enrollment in Administration of Justice 100 (1).

Methods, techniques and responsibilities of the patrol unit. The value of one-man car as opposed to the two-man car; marked vs. unmarked patrol cars. Beat patrol and observation, police hazards and how to handle them.

165 (17) POLICE ORGANIZATION AND ADMINISTRATION (3)

Three lecture hours per week. Prerequisites: Administration of Justice 100 (1) and 102 (2) and sophomore standing.

Functions of the police organization. Concepts of chain of command, span of control, functional supervision, unity of command and the purpose of the police organization and administration.

**170 (25) POLICE DEFENSE TACTICS (1)
(Formerly Police Defensive Tactics)**

Two lecture hours per week.

Modern police techniques in self-defense. Use of techniques which subdue with least amount of violence; controls with least possibility of injury to both parties. Teaches the art of judo and jujitsu and baton training.

**647 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

**680 (48) SELECTED TOPICS IN ADMINISTRATION
OF JUSTICE (1-3)**

Hours by arrangement.

Selected topics in Administration of Justice not covered by regular catalog offerings. Course content and unit credit to be determined by the Health and Service Careers Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

755 (94) ADVANCED OFFICERS COURSE (1-2)

Hours by arrangement. Prerequisite: Completion of ADMJ 100 (1), 102 (2), 104 (3), 106 (4), 108 (5).

New laws, recent court decisions, current enforcement procedures, new concepts in law enforcement technology, community human relations and other refresher training as may be necessary. Certified by the Commission on Peace Officer Standards and Training (POST). (May be repeated for credit.)

760 (96a) PEACE OFFICERS ORIENTATION (1-2)

One week, by arrangement: 26 or 40 hours.

Laws of arrest, search and seizure, methods of arrest and discretionary decision-making. The care and use of firearms, moral and legal applications of firearms, and range qualification to demonstrate performance objectives. This course certified by Peace Officer Standards & Training (POST) as required by Penal Code Section 832 for Peace Officers. (Note: Any person convicted of a felony may be in violation of the law by participating in the firearms portion of this course.)

761 (96b) SECURITY FIREARMS (½-1)

Eight or 16 lecture hours (one week by arrangement).

Moral and legal aspects in the use of firearms, care, safety and nomenclature of firearms with range qualification to demonstrate performance objectives. Course approved by Consumer Affairs Bureau to meet requirement for application to security personnel. (Note: Any person convicted of a felony may be in violation of the law by participating in the firearms portion of this course.)

762 (96c) SECURITY BATON TRAINING (½-1)

8 or 16 hours (one week by arrangement).

A course in the legal and moral aspects as related to use of force. Familiarization with various baton procedures, defensive and offensive control and arrest techniques. Ability to demonstrate performance objectives. This course certified by Peace Officers Standards and Training (POST) and fulfills requirements of Consumer Affairs Division.

79-80

766 (98) CHEMICAL FIREARM INSTRUCTION (½-1)*Eight to 40 hours per week, by arrangement.*

Safety instruction for firing range operation. Care, safety and use of various police weapons including range familiarization in various firearms courses utilized in law enforcement. Nonlethal chemical agents, history and use in law enforcement. Field application and exposure to various agents and first aid for exposure victims. This course conforms to Peace Officers Standards and Training (POST) for Chemical Agents Training. (Note: Any person convicted of a felony may be in violation of the law by participating in the firearms portion of this course.)

771 (99a) RESERVE OFFICERS BASIC TRAINING I (3)

Three lecture hours per week and eight hours on designated Saturdays. (Total 85 hours.) Prerequisite: Administration of Justice 100 (1) or 102 (2), or eligibility for Reserve Police Organization.

Arrest, search and seizure, law theory and practical application; firearms, legal aspects, safety standards and procedures. Range-firing of weapon and qualification by student. Student must be able to demonstrate performance objectives upon completion of course. Course is certified by Commission on Peace Officer Standards and Training (POST) as required under Penal Code Section 832.6. (Note: Any person convicted of a felony may be in violation of the law by participating in the firearms portion of this course.)

772 (99b) RESERVE OFFICERS BASIC TRAINING II (3)

Three lecture hours per week and eight hours on designated Saturdays. (Total 82 hours.) Prerequisite: Administration of Justice 771 (99a), or equivalent.

Role of the back-up officer, including patrol procedures, defensive tactics, vehicle stops; range, with shotgun. Booking procedures and communications. The student, upon completion of the course, must be able to satisfactorily complete the required performance objectives. Course certified by Peace Officers Standards and Training (POST). (Note: Any person convicted of a felony may be in violation of the law by participating in the firearms portion of this course.)

773 (99c) RESERVE OFFICERS BASIC TRAINING III (4)

Three lecture hours per week and eight hours on designated Saturdays. (Total 88 hours.) Prerequisites: Administration of Justice 771 (99a) and 772 (99b), or equivalent.

Professional orientation, community relations. Law as related to specific offenses. Traffic control and violations; criminal investigation; report writing; vehicle operation; laws of evidence; patrol procedures and physical fitness and defensive techniques. Upon completion of this module, the student must be able to satisfactorily complete the required performance objectives. Course certified by Peace Officers Standards and Training (POST).

In addition to completing Administration of Justice 771, 772 and 773, students must complete first aid, CPR and Administration of Justice 766 (98) in order to qualify for Verification of Completion in Reserve Officer Training Program.

Aeronautics

(Also see Meteorology 100 and 110)

Students in Airframe and Powerplant courses will be expected to pay a fee (approximately \$30) for airplane taxiing at the airport site.

100 (2a) BASIC PILOT GROUND SCHOOL (3)

Three lecture hours per week. Concurrent enrollment in Aero. 126 (6) required (Aero. 126 (6) not required for evening session).

Preflight requirements, basic navigation, flight computer, use of basic flight manuals, aviation aeronautical chart reading, aviation weather, federal aviation regulations and enroute emergency procedures.

101 (2b) INSTRUMENT FLIGHT GROUND SCHOOL (3)

Three lecture hours per week. Prerequisites: Aero. 100 (2a) and concurrent enrollment in Aero. 103 (3), 115 (5), 137 (7), Meteorology 110 (10) or 100 (1). (Private Pilot license or Aero. 100 (2a) required for Evening Session.)

Federal Aviation regulations, navigation and meteorology, requirements for instrument flight. Preparation of flight logs and related flight planning.

102 (2c) COMMERCIAL PILOT GROUND SCHOOL (3)

Three lecture hours per week. Prerequisite: Aero. 100 (2a), 101 (2b) and 137 (7). (Private Pilot license or Aero. 100 (2a) required for Evening Session.)

Aircraft weight and balance, performance charts, high performance aircraft systems and operation. F.A.A. Regulations parts 1, 61, 91 and 135, NTSB 830. Prepares students to take F.A.A. Commercial Pilot Airplane written examination.

103 (3) FLIGHT SIMULATION (½)

(Credit/No Credit for Evening classes)

Prerequisites: Day – Completion of Aero. 100 (2a) or Private Pilot Certificate and concurrent enrollment in 101 (2b) or 102 (2c). A fee may be charged.

Practice in Singer GAT-1 ground trainer in basics of flight through advanced instrument maneuvers. Level of study depends on flight experience. Trainers are equipped with 3 axis motion and radio navigation aids including VOR, ADF, ILS. Automatic tracker records flight progress. (May be taken five times for credit.)

79-80

115 (5) AIRCRAFT POWERPLANT (3)

Three lecture hours per week.

Theory, operation and nomenclature of reciprocating and turbine powerplants. Basic construction of induction, ignition, lubrication, propellers, systems and use of performance curves.

126 (6) AIRCRAFT (3)

Three lecture hours per week.

Study of subsonic, transonic and supersonic flight with emphasis on stability and control. Aircraft nomenclature, design features, systems components and construction, including fixed and rotary wing aircraft. Weight and balance, load factors calculations on aircraft and introduction to the federal aviation regulations systems.

137 (7) FEDERAL AVIATION REGULATIONS (3)

Three lecture hours per week. Prerequisite: Aero. 101 (2b), or concurrent enrollment.

The study and practical application of Federal Aviation Regulations and the Airman's Information Manual as it pertains to general operating and flight rules, definitions, and abbreviations, pilot certification and National Transportation Safety Board accident reporting.

300 (51) GENERAL MAINTENANCE I (2½)

Five lecture hours per week for 8 weeks. Prerequisite: Concurrent enrollment in Aero. 301 (51L).

Blueprint reading, mechanical drawing, aircraft weight and balance procedures, and other maintenance functions as specified in Federal Aviation Regulation Part 147.

301 (51L) GENERAL MAINTENANCE LAB I (4)

Twenty-five lab hours per week for 8 weeks. Prerequisite: Concurrent enrollment in Aero. 300 (51).

Aircraft weighing, non-destructive testing, basic heat treating, use of technical manuals and other maintenance functions as specified in Federal Aviation Regulation Part 147.

310 (52) ADVANCED GENERAL MAINTENANCE II (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L) and concurrent enrollment in Aero. 311 (52L).

Fundamentals of direct and alternating current electricity, fundamentals of applied mathematics, fundamentals of applied physics as specified by Federal Aviation Regulation Part 147.

311 (52L) ADVANCED GENERAL MAINTENANCE LAB II (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), and concurrent enrollment in Aero. 310 (52).

Calculate and measure electrical power volts, amps, and resistance, start, ground operate, and move aircraft, overhaul piston and turbine engine ignition systems in accordance with Federal Aviation Regulation Part 147.

320 (53) POWERPLANT MAINTENANCE I (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), and concurrent enrollment in 321 (53L).

Fundamentals of piston engine construction and operation, basic powerplant indicating systems, as specified in Federal Aviation Regulation Part 147.

321 (53L) BASIC POWERPLANT MAINTENANCE LAB I (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), and concurrent enrollment in Aero. 320 (53).

Inspect and repair opposed and radial piston engines, perform powerplant inspections, inspect engine indicating systems as specified by Federal Aviation Regulation Part 147.

330 (54) AIRFRAME MAINTENANCE I (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), and concurrent enrollment in Aero. 331 (54L).

Principles of aircraft sheet metal structures, identification of aircraft fasteners, aircraft sheetmetal layout and fabrication as specified in Federal Aviation Regulation Part 147.

331 (54L) AIRFRAME MAINTENANCE LAB II (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), and concurrent enrollment in Aero. 330 (54).

Install special rivets and fasteners, inspect and repair sheet metal structures, fabricate tubular structures and other aircraft structural maintenance functions as specified by Federal Aviation Regulation Part 147.

340 (55) POWERPLANT MAINTENANCE II (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), 320 (53), 321 (53L), and concurrent enrollment in Aero. 341 (55L).

Fundamentals of turbine engine construction and operation, piston and turbine engine fuel metering systems as specified in Federal Aviation Regulation Part 147.

341 (55L) POWERPLANT MAINTENANCE LAB II (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), 320 (53), 321 (53L), and concurrent enrollment in Aero. 340 (55).

Inspect and service turbine engines, repair engine fuel metering components as specified by Federal Aviation Regulation Part 147.

350 (56) AIRFRAME MAINTENANCE II (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), 330 (54), 331 (54L), and concurrent enrollment in Aero. 351 (56L).

Principles of construction of aircraft wooden structures, repair of aircraft synthetic material, principles of rigging fixed and rotary wing aircraft as specified in Federal Aviation Regulation Part 147.

351 (56L) AIRFRAME MAINTENANCE LAB II (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), 330 (54), 331 (54L), and concurrent enrollment in Aero. 350 (56).

Application of aircraft covering material, aircraft painting, rig rotary and fixed wing aircraft as specified in Federal Aviation Regulation Part 147.

360 (57) POWERPLANT MAINTENANCE III (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), 320 (53), 321 (53L), 340 (55), 341 (55L), and concurrent enrollment in Aero. 361 (57L).

Theory of operation of engine fire detection and control systems, theory of operation and construction of aircraft propellers, and related components as specified in Federal Aviation Regulation Part 147.

361 (57L) POWERPLANT MAINTENANCE LAB III (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), 320 (53), 321 (53L), 340 (55), 341 (55L), and concurrent enrollment in Aero. 360 (57).

Inspect and repair engine exhaust and cooling systems, repair and balance propellers as specified in Federal Aviation Regulation Part 147.

370 (58) AIRFRAME MAINTENANCE III (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), 330 (54), 331 (54L), 350 (56), 351 (56L), and concurrent enrollment in Aero. 371 (58L).

Theory of operation of aircraft hydraulic pneumatic, oxygen, and auto-pilot systems, other aircraft systems and components as specified in Federal Aviation Regulation Part 147.

371 (58L) AIRFRAME MAINTENANCE LAB III (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 300 (51), 301 (51L), 310 (52), 311 (52L), 330 (54), 331 (54L), 350 (56), 351 (56L), and concurrent enrollment in Aero. 370 (58).

Inspect and repair aircraft hydraulic, fuel, pneumatic, and instrument systems and other aircraft components and systems as specified in Federal Aviation Regulation Part 147.

**649 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

680 (48) SELECTED TOPICS IN AERONAUTICS (1-3)

Hours by arrangement.

Selected topics in Aeronautics not covered by regular catalog offerings. Course content and unit credit to be determined by the Technology Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

710, 711 (65a-65b) AVIONICS I and II (3-3)

Three lecture hours per week. Prerequisite: Course in elementary electronics or equivalent.

710 (65) — The study of electronic principles and devices as they apply to aircraft avionic systems. Avionic Systems including gyros, ADF, compass systems, and VOR. **711 (65b)** — Aircraft navigation systems including DME, inertial navigation and autopilot.

730, 731 (91a-91b) AIRCRAFT POWERPLANT MECHANICS I and II (4-4)

Three lecture hours and three shop hours per week. Prerequisite: Applicant must have completed the FAA time requirements (18 months) prior to enrollment. Original enrollment may be in either Aero. 730 (91a) or 731 (91b).

730 (91a) — Basic theory, maintenance, lubrication, carburetion and fuel systems, ignition systems, propellers. **731 (91b)** — Electrical systems. FAA regulations and trouble-shooting, preparation for the FAA written examination.

740-741 (92a-92b) AIRFRAME MECHANICS I and II (6-6)

Six lecture hours per week. Prerequisite: Completion of the FAA time requirements (18 months) prior to enrollment. Original enrollment may be in either Aero. 740 (92a) or 741 (92b).

740 (92a) — Aircraft structures, weight and balance, hydraulic systems and aircraft control. **741 (92b)** — Aircraft electrical systems, fuel systems, sheet metal structure, welding and FAA regulations. Preparation for the FAA written and practical examination.

Anthropology

110 (2) CULTURAL ANTHROPOLOGY (3)

Three lecture hours per week.

Study of culture as the man-made environment of particular societies. Introduction to the anthropological point of view. Cross-cultural comparisons of cultural practices in specific societies and sub-cultures, including contemporary ethnic groups in the United States.

125 (1) PHYSICAL ANTHROPOLOGY (3)

Three lecture hours per week.

Man's place in nature. Topics include man's evolution, genetics and racial variation. Evolutionary basis of man's behavior and social systems. (Identical to Biology 125.)

130 (3) PREHISTORY (3)

Three lecture hours per week.

Archaeological theory and method; geological time sequences of biological and cultural evolution in the Old and New Worlds. Man's existence from his paleolithic beginnings over two million years ago, from the neolithic revolution to the advent of civilization and writing.

140 (4) ARCHAEOLOGY: FIELD EXCAVATIONS (3)

Three lecture hours and 2½ lab hours per week.

Theoretical and methodological procedures in field archaeology, including scientific excavation of prehistoric San Mateo County archaeological sites, processing and cataloging of artifacts, burials and cultural features. (Fall only.)

**180 (18) PRIMITIVE RELIGION (3)
(Formerly Magic, Science and Religion)**

Three lecture hours per week.

A cross-cultural study of preliterate societies' beliefs about the nature of reality, and their religious, scientific, and magical practices as a consequence of these beliefs. Primitive techniques for controlling both the natural and the supernatural.

310 (8) CULTURAL CONTRIBUTIONS OF BROWN AND RED PEOPLES (3)

Three lecture hours per week.

Cultural contributions including art, drama, music, dance, and dress patterns intrinsic to the culture of Brown and Red peoples. The significance of each of these art forms to American life and how they have affected the American scene. (Identical to Ethnic Studies 310.)

680 (48) SELECTED TOPICS IN ANTHROPOLOGY (1-3)

Hours by arrangement.

Selected topics in Anthropology not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN ANTHROPOLOGY (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Architecture

Students intending to major in Architecture are advised to consult with the architectural counselor in the Math/Science Division before registering.

100 (10) SURVEY OF CONTEMPORARY ARCHITECTURE (3)

Three lecture hours per week.

Basic values in contemporary architecture; its relationship to the environment, the individual and society. The home, the neighborhood, the region. Outstanding architects and planners and their contributions. Films, slides and individual research.

110 (14) BASIC ARCHITECT DRAWING (3)

Two lecture and four lab hours per week.

Introduction to history and principles of graphic communication. Use of instruments, drawing board geometry, lettering, technical sketching, orthographic projection, sectioning and dimensioning, pictorial drawing. Fundamentals of architectural and topographic drafting. Extra supplies may be required. (Fall only.)

112 (1a) SURVEYING (2)

Two lecture and 3 lab hours per week for 12 weeks. Prerequisite: Math 130 (21) or equivalent with grade C or better, or high school preparation including 1½ years of Algebra, one year of Geometry and one semester of Trigonometry with grade C or better.

Theory of measurements in surveying; measurement of distance, differential leveling and measurements of angles and directions, stadia techniques and topographic mapping.

114-115 (7a-7b) BUILDING CONSTRUCTION I and II (3-3)

Three lecture hours per week. Need not be taken sequentially.

Examines the roles of the people and organizations that comprise the building industry and determine its functioning, followed by study of the characteristics and applications of building materials.

120 (11) DRY GRAPHICS (2)

One lecture and three lab hours per week plus two hours by arrangement. Prerequisite: Concurrent enrollment in Arch. 210 (21).

Representational freehand drawing for Architecture majors, covering perspective, composition and specific techniques in black and white media, including introduction to the use of photography. A single lens reflex camera is required. (May be repeated for a total of 4 semester units.) Extra supplies may be required. (Fall only.)

125 (13) ARCHITECTURAL PHOTOGRAPHY (2)

One lecture plus two lab hours per week by arrangement. Prerequisite: Arch. 120 (11) or equivalent.

The use of photography as a visual process in the interpretation of architecture. Techniques of preparing a portfolio for transfer to professional schools of architecture. Extra supplies may be required. (Spring only.)

130 (12) WET GRAPHICS (1)

Three lab hours per week. Prerequisite: Concurrent enrollment in Arch. 220 (22).

Representational freehand drawing for Architecture majors, covering perspective, composition and specific techniques, using brush and water color. (May be repeated for a total of two semester units.) Extra supplies may be required. (Spring only.)

140 (15a) PERSPECTIVE DRAWING (2)

Six lab hours per week. Prerequisite: Arch. 120 (11), Math 115 (12) or equivalent, Arch. 110 (14) or equivalent.

Basic techniques in the graphic communication of architects: orthographic and isometric projection, descriptive geometry, mechanical perspective, and shades and shadows. Extra supplies may be required. (Spring only.)

145 (15b) DELINEATION (3)

Two lecture and four lab hours per week. Prerequisites: Arch. 120 (11), 130 (12), 140 (15a).

Three-dimensional representations with various drawing media which will enable the student to express architectural ideas and designs. Extra supplies may be required. (Fall only.)

150 (16) STATICS (3)

Three lecture hours per week. Prerequisite: Concurrent enrollment in Math 241 (23a) or 261 (31).

The analysis of forces and their effects on rigid body structures by both analytical and graphical methods in two and three dimensions. (Spring only.)

160 (17) STRENGTH OF MATERIALS (3)

Three lecture hours per week. Prerequisite: Arch. 150 (16).

Analysis of stresses and deformations caused by forces acting on simple structures; selection of beams, columns and joint configurations in the process of design. Introduction to statically indeterminate structures. (Fall only.)

170 (18) STRESS ANALYSIS (2)

Two lecture hours per week. Prerequisites: Arch. 150 (16), 160 (17); Math 241 (23a) or 261 (31).

Stress analysis of statically determinate and indeterminate structures. Deflection theory. Synthesis and analysis in the structural design process. (Spring only.)

210 (21) ARCHITECTURAL DESIGN (4)

Three lecture hours and three lab hours per week plus three hours by arrangement. Prerequisites: Arch. 110 (14) or equivalent, and concurrent enrollment in Arch. 120 (11). Arch. 110 (14) may be taken concurrently.

The principles of Architecture and its unique language. An investigation into the major facets of the profession, from basic design and methods of expression and presentation to the function of an architect, environmental analysis, form and composition. Extra supplies may be required. (Fall only.)

220 (22) ARCHITECTURAL DESIGN AND MATERIALS (4)

Three lecture and three lab hours per week plus three hours by arrangement. Prerequisites: Arch. 210 (21), concurrent enrollment in Arch. 130 (12) and Arch. 150 (16).

Principles of architectural design, synthesis of form, space and color, aesthetic and environmental aspects. Introduction to schematic presentation, preliminary studies in spacial relationships involving human and architectural criteria. Introduction to the language and application of building materials. Extra supplies may be required. (Spring only.)

230 (23) ARCHITECTURAL DESIGN AND PRACTICE I (4)

Three lecture and three lab hours per week plus three hours by arrangement. Prerequisites: Arch. 220 (22) and concurrent enrollment in Arch. 160 (17). Recommended: Arch. 112 (1a).

Architectural design, involving advanced projects, environmental esthetics and programming as design determinates. Introduction to electrical, mechanical and plumbing systems. Extra supplies may be required. (Fall only.)

240 (24) ARCHITECTURAL DESIGN AND PRACTICE II (4)

Three lecture hours and three lab hours per week, plus three hours by arrangement. Prerequisites: Arch. 230 (23) and Arch. 160 (17).

Architectural design involving advanced projects. Introduction to structural systems, details and analysis, with emphasis on integrated design solutions. Introduction to the language of working drawings as a mean of architectural communication. Extra supplies may be required. (Spring only.)

340 (115) GARDEN DESIGN (3)

Two lecture and three lab hours per week.

Introductory graphics, drafting, environmental planning and design for the garden landscape. (Identical to Horticulture 340 (115).) (Fall only.)

341 (120) LANDSCAPE DESIGN (3)

Two lecture and three lab hours per week. Prerequisite: Architecture 340 (115).

Advanced graphic techniques, environmental planning and design, planting, structures, engineering, materials, and history of the landscape. (Identical to Horticulture 341 (120).) (Spring only.)

**644 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

**666 (4) INTRODUCTION TO ARCHITECTURE (1)
(Credit/No Credit)**

Three lecture hours per week for first six weeks of fall semester.

An intensive introduction to the problems faced by a beginning architecture student; academic and professional requirements, opportunities, available areas of specialization and alternatives. (Fall only.)

680 (48) SELECTED TOPICS IN ARCHITECTURE (1-3)

Hours by arrangement.

Selected topics in Architecture not covered by regular catalog offerings. Course content and unit credit to be determined by the Math/Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Art

Studio classes may be taken for credit four times: 207 (15), 224 (66), 232 (7b), 238 (17b), 242 (62b), 352 (41b), 355 (43b), 405 (22), 406 (23), 412 (20b) and 416 (21b).

101 (1a) HISTORY OF ART I (3)

Three lecture hours per week.

Ancient, Classic, Early Christian and Medieval art. A survey of man's expression of art from the days of the cave man to the late Middle Ages, with emphasis on architecture and sculpture.

102 (1b) HISTORY OF ART II (3)

Three lecture hours per week.

A survey of Gothic, Renaissance and Baroque art. Emphasis on the development of painting from the 14th to the 18th centuries.

103 (1c) HISTORY OF ART III (3)

Three lecture hours per week.

A survey of European and American art from mid-18th Century to the present. Emphasis on the development of modern painting as a reaction against earlier traditions.

106 (1E) SURVEY OF CONTEMPORARY ART (3)

Three lecture hours per week.

A survey of modern art with an emphasis on present works. Painting, sculpture, ceramics, glass, etc. Field trips to Bay Area galleries and museums are included.

108 (1F) HISTORY OF AMERICAN ART (3)

Three lecture hours per week.

A study of art in America, its native artists and its relations to the historical evolution of this country. Emphasis on portraiture, nature and genre painting, realism, fantasy and symbolism.

111 (10a) INTRODUCTION TO RELATED ARTS (3)

Three lecture hours per week.

Introduction to painting, music and theatre, stressing basic elements, problems of organization and contemporary experiments with media and forms.

141 (68a) INTERIOR DESIGN I (3)

Three lecture hours per week.

Analysis of the modern home: site, design, furnishings and decoration.

142 (68b) INTERIOR DESIGN II (3)

Three lecture hours per week.

History of furniture, with examination of "period styles," their influence on modern interior decoration, and their values in solving problems.

145 (81) BASIC CONCEPTS FOR INTERIOR DESIGN (3)

Three lecture-critique hours and three lab hours per week.

The nature and control of design elements and principles in two and three dimensions as related to the interior design and problem-solving process.

146 (83) GRAPHIC INTERIOR DESIGN (3)

Three lecture-critique hours and three lab hours. Prerequisite: Art 147 (82).

Rendering techniques and styles in executing floor plans and elevations, utilizing the principles of graphic communication; technical sketching, pictorial drawing, sectional views and dimensioning practices.

147 (82) SPACE PLANNING (3)

Three lecture-critique hours and three lab hours.

Organization, planning and construction of interior space to satisfy practical and aesthetic needs. The drawing, designing and planning of a residence.

148 (84) COLOR APPLIED TO INTERIOR (3)

Three lecture hours per week.

The application of color theory to aesthetic, functional and psychological uses in textile design and interior decorating. The element of color is studied and applied to interiors with consideration to texture, scale, intensity and room arrangement.

151 (85a) HISTORY OF FURNITURE I (3)

Three lecture hours per week.

A survey of the furniture and decoration of the Western world from ancient times to the 18th century.

152 (85b) HISTORY OF FURNITURE II (3)

Three lecture hours per week. Prerequisite: Art 151 (85a).

A study of principal styles of furniture, accessories and architectural details of the 18th century, through contemporary furniture and decoration of the 20th century.

155 (88) INTERIOR DESIGN WORKSHOP (3)

Three lecture-critique hours and three lab hours per week. Prerequisites: Art 145 (81), 146 (83), 147 (82), 148 (84), 151 (85a), 152 (85b), 450 (87).

Development of contemporary and period design in interiors and furniture. Learning to work with the client, suppliers, contractors and architects; estimating, bids, and contracts.

156 (89) INTERIOR DESIGN PORTFOLIO (1)

Three lecture hours per week. Prerequisite: Art 155 (88).

An occupational course for the advanced student in Interior Design, emphasizing professional presentation of interior design projects to potential clients and potential employers.

157 (80) INTERIOR DESIGN MANAGEMENT (3)
(Formerly Management Systems for Interior Design)

Three lecture hours per week. Prerequisites: Art 145 (81), 147 (82) and 146 (83).

Instruction in retail and wholesale procedures. Merchandising, licensing, purchasing and pricing of furnishings. The communication of ideas; designer-client relations and business practices.

201 (2a) FORM AND COMPOSITION I (3)
(Formerly Drawing and Composition)

Three lecture-critique hours and three lab hours per week.

Study of three-dimensional form and space relationship, with black and white rendering of line, mass and values through a sequence of original problems based on underlying geometric forms.

202 (2b) FORM AND COMPOSITION II (3)
(Formerly Drawing and Composition)

Three lecture-critique hours and three lab hours per week. Prerequisite: Art 201 (2a).

Advanced composition; further study of three-dimensional form, in black and white and color; illustration; experimental pictorial composition.

206 (52) FIGURE DRAWING (2)

Two lecture-critique hours and two lab hours per week.

Drawing the human figure from both live models and plaster anatomical casts using charcoal, conte and ink. Emphasis is on proportion, action, structure, form and foreshortening. (May be repeated for credit.)

207 (15) LIFE DRAWING (3)

Three lecture-critique hours and three lab hours per week. Prerequisite: Art 201 (2a).

The human figure in action and repose, from the standpoint of classical and modern artistic anatomy, with lecture demonstration on the skeleton, musculature and surface forms. Drawing in various media from the nude model, as a basis for figure and portrait painting and sculpture. (May be repeated for credit.)

214 (3) COLOR (3)

Three lecture-critique hours per week. Prerequisite: Art 201 (2a), 301 (5a).

Course study is based on the psychological perception of color and the aesthetics of harmony. Stressed is the use of color for all areas of visual communication, and not the usual class approach of mixing color.

223 (6a) OIL PAINTING I (3)

Three lecture-critique hours and three lab hours per week. Prerequisite: 201 (2a)-202 (2b); 214 (3) recommended.

Introduction to basic techniques as applied to still-life, landscape, the human figure. Emphasis on the use of value, color and light to model forms and create the illusion of 3D objects in space.

224 (6b) OIL PAINTING II (3)
(Formerly Painting: Three Dimensional)

Three lecture-critique hours and three lab hours per week. Prerequisite: Art 223 (6a).

Continuation of Art 223 with increased emphasis on technique, color and composition as a means of achieving personal expression. (May be repeated for credit.)

231 (7a) WATERCOLOR I (3)

Three lecture-critique hours and three lab hours per week. Prerequisite: Art 201 (2a); Art 214 (3) recommended.

Through exercises and renderings, the student is made familiar with the various approaches and styles of watercolor; the importance of transparent washes, their effects and possibilities. Materials, color, moisture and the importance of light and dark to show form are studied.

232 (7b) WATERCOLOR II (3)

Three lecture-critique hours and three lab hours per week. Prerequisite: Art 213 (7a).

A continuation of Art 231, with emphasis on more painting experience in various styles and techniques in watercolor, such as an addition of opaque paints and the use of collage to extend the painting experience. (May be repeated for credit.)

237 (17a) ETCHING I (3)

Three lecture-critique hours and three lab hours per week. Prerequisite: Art 201 (2a).

An introduction to the Intaglio etching process as a fine art, with emphasis on traditional methods in the practice of engraving, the timed etch in line and aquatint, soft ground, lift, drypoint, and mezzotint and their printing in value and color. (Extra supplies may be required.)

238 (17b) ETCHING II (3)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 237 (17b).

An advanced course in Intaglio etching as a fine art, with emphasis on contemporary methods of color printing. (Extra supplies may be required. May be repeated for credit.)

241 (62a) SILKSCREEN I (2)
(Formerly Silkscreen and Serigraphy)

Two lecture-critique hours and two lab hours per week.

Introduction to screen printing and serigraphy; making the frame, mixing colors, and mastering and developing the technique of the paper stencil, glue and varnish, tusch methods. The photo silkscreen approach and the printing on fabrics such as T-shirts. (Extra supplies may be required.)

242 (62b) SILKSCREEN II (2)
(Formerly Silkscreen and Serigraphy)

Two lecture-critique hours and two lab hours per week.
Prerequisite: Art 241 (62a).

Advanced silkscreening problems designed to encourage student experimentation in utilizing serigraphic techniques for visual presentation. (Extra supplies may be required. May be offered for credit.)

301 (5a) DESIGN (3)

Three lecture-critique hours and three lab hours per week.

Development of problems dealing with two-dimensional design, such as repeat pattern, collage, mosaic, texture and line studies. Exploration of media and techniques is encouraged.

305 (5b) THREE-DIMENSIONAL DESIGN (3)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 301 (5a).

Volume line and space studies using paper, wire, wood, string and plaster of paris construction. Mobiles, stabiles and similar objects are created.

310 (12) LETTERING (3)

Three lecture-critique hours per week.

Development of proficiency in the freehand and mechanical lettering of the three main alphabetical types — Gothic, Roman and Text — with variations of these types. Emphasis is on letter proportions, character of style and proper spacing of letters and words.

320 (4) SYSTEMS OF PERSPECTIVE (2)

Two lecture hours per week.

Fundamentals of perspective necessary for illustrating landscapes, still-life objects and groups of buildings. (Does not meet requirements of Mechanical or Architectural Drafting.)

328 (51) RENDERING TECHNIQUES (3)

Three lecture-critique hours and three lab hours per week.
Prerequisites: Art 201 (2a), 202 (2b) and Art 301 (5a).

Illustration techniques and tools of the commercial artist; professional procedure in developing rendering; development of an illustration from a pencil rough to a finished comprehensive.

336 (70) PORTFOLIO (1)

Three lab hours per week. Prerequisite: Sophomore standing.

Preparation of art and course work for a portfolio. The instructor will analyze, evaluate and suggest to the student the quality of work necessary for portfolio presentation to art schools, colleges, universities and agencies. Instruction in portfolio organization, selection of work, matting, labeling and defining the objective of the art work.

350 (40) VISUAL PERCEPTION (3)

Three lecture-critique hours per week.

Visual exploration into natural forms and man-made objects as an expression of art, with emphasis on their relationship to the elements of design. In-depth study of photography, art and design. Field trips to museums and galleries. (Extra supplies may be required.)

351 (41a) PHOTOGRAPHY I (3)
(Formerly Elementary Photography: Black & White)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 350 (40), 201 (2a), or 301 (5) or concurrent enrollment.

Introduction to basic black and white photographic skills and equipment. Precise methods of negative developing, printing, and finishing the fine photograph. Extensive darkroom work. Portfolio is produced. (Extra supplies may be required.)

352 (41b) PHOTOGRAPHY II
(Formerly Intermediate Photography: Black & White)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 351 (41a.)

For students who have basic black and white camera and darkroom skills. Integration of exposure and development techniques including zone system. Portfolio is produced. (Extra supply charges may be required. May be repeated for credit.)

353 (41c) PHOTOGRAPHY III (3)
(Formerly Photography Workshop)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 351 (41a).

The broader aspects of technical perfection and visual awareness. Contemporary and creative forms of photography presentations are explored, with emphasis on experimental techniques. (Extra supplies may be required.)

354 (43a) COLOR PHOTOGRAPHY I (3)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 351 (41a).

Introduction to the use of color materials as an expressive media. Special emphasis on color exposure, transparency and negative development, and the subtractive method of color printing. (Extra supplies may be required.)

355 (43b) COLOR PHOTOGRAPHY II (3)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 354 (43a).

Continuation of Art 354, with emphasis on more refined control of color materials and a more cohesive portfolio. (Extra supplies may be required. May be repeated for credit.)

405 (22) SCULPTURE I (3)

Three lecture-critique hours and three lab hours per week.

Beginning clay modeling and an introduction to stone carving. Projects deal with both abstract and human forms. Nude models are used. Analysis of form for realistic expression is stressed in dealing with the human form. (May be repeated for credit. Extra supplies may be required.)

406 (23) SCULPTURE II (3)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 405 (22).

Armature building, mold making and casting are stressed. The student is introduced to a variety of materials and tools and their proper usage. (May be repeated for credit. Extra supplies may be required.)

411 (20a) CERAMICS I (3)

Three lecture-critique hours and three lab hours per week.

Elementary clay construction including pinch, coil and slab; methods of ornamentation, glazing and firing; introduction to the potter's wheel. (Extra supplies are required.)

412 (20b) CERAMICS II (3)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 411 (20a).

Continuation and advanced study of topics introduced in Art 411. (Extra supplies are required. May be repeated for credit.)

413 (25a) BRONZE CASTING I (3)

Three lecture-critique hours and three lab hours per week.

Fundamental procedures and techniques in all phases of lost-wax casting, mold making, wax forming, fabrication, foundry procedures and finishing. (Extra supplies may be required.)

414 (25b) BRONZE CASTING II (3)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 413 (25a).

Continuation of fundamental procedures and techniques introduced in Art 413; working in traditional and contemporary casting. (Extra supplies may be required. May be repeated for credit.)

415 (21a) GLASSBLOWING I (3)

Three lecture-critique hours and three lab hours per week.

An introduction to the study of glass blowing and flat glass design. Theory and practice of designing and applying materials to stained glass. (Extra supplies may be required.)

416 (21b) GLASSBLOWING II (3)

Three lecture-critique hours and three lab hours per week.
Prerequisite: Art 415 (21a).

A continuation of Art 415, with emphasis on three-dimensional design. (Extra supplies may be required. May be repeated for credit.)

450 (87) MATERIALS AND APPLICATION (3)

Three lecture hours per week.

An analysis of the functional use and aesthetic effect of various materials, including synthetics, masonry, metal, wood, glass, leather, fabric, carpeting, paint, paper and plastics.

451 (F.A. 16a) FILM HISTORY I (3)

Three lecture hours and two lab hours per week.

The first half of a two-semester survey of the evolution of the motion picture from the earliest efforts of European and American filmmakers through post-World War II productions. Emphasis on film appreciation, the language of film and analysis for full film enjoyment. (Identical to Lit. 451.)

452 (F.A. 16b) FILM HISTORY II (3)

Three lecture hours and two lab hours per week.

The second half of a two-semester survey of the evolution of the motion picture from the earliest efforts of European and American filmmakers through post-World War II productions. Emphasis on film appreciation, the language of film and analysis for full film enjoyment. (Identical to Lit. 452.)

461 (F.A. 15a) FILMMAKING I (3)

Three lecture hours and six lab hours per week.

Introduction to film theory, aesthetics, and 8mm production; includes screenplay writing and critical writing, as well as crew work on videotape productions and super-8mm motion pictures. (Identical to Lit. 461.)

462 (F.A. 15b) FILMMAKING II (3)

Three lecture hours and six lab hours per week. Prerequisite: Art 461 (15a).

Advanced theory, aesthetics and 8mm production. Students work on a production crew, as well as write and produce their own motion pictures. (Identical to Lit. 462. May be repeated for credit.)

463 (F.A. 17a) MOTION PICTURE PRODUCTION I (3)

Two lecture hours and five lab hours per week. Prerequisite: Art 461 (F.A. 15a) and 462 (F.A. 15b) or equivalent.

Introduction to the basic photographic and cinematographic techniques used in television and motion picture production. Includes graphics for television, sound-on-film techniques, scriptwriting and on-location photography laboratory. (Extra supplies may be required.)

464 (F.A. 17b) MOTION PICTURE PRODUCTION II (3)

Two lecture hours and five lab hours per week. Prerequisite: Art 463 (F.A. 17a) or equivalent.

Continuation of Art 463, with additional on-location training.

**642 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

680 (48) SELECTED TOPICS IN ART (1-3)

Hours by arrangement.

Selected topics in Art not covered by regular catalog offerings. Course content and unit credit to be determined by the Fine Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Astronomy

100 (10) INTRODUCTION TO ASTRONOMY (3)

Two lecture hours and one recitation hour per week.

Survey of astronomy satisfying science requirements in state colleges and universities. Include descriptive material on the solar system, stars, galaxies and life in the universe, together with an introduction to the methods employed by astronomers in gathering information.

107 (7) THE NAKED-EYE SKY (1)

Three lecture hours per week for six weeks.

Introduction to the sky as seen without a telescope. Constellations and mythology; use of star charts and coordinate systems; motion of sun, moon, planets; eclipses and other special configurations.

110 (15) THEORIES OF THE UNIVERSE (3)

Three lecture hours per week. Prerequisite: Astro. 100 (10).

Current topics, theories and problems of modern astronomy, including the origin and evolution of the solar system, the stars and the universe, and the phenomenon of life in the universe. Readings from current journals. Occasional observation sessions.

120 (16) LIFE IN THE UNIVERSE (3)

Three lecture hours per week. Prerequisite: Astro. 100 (10)

Study of formation of planetary systems. Likelihood of development of life elsewhere and its detection. Emergence of intelligence and prospect of communication with extraterrestrial civilizations.

130 (1) GENERAL ASTRONOMY (4)

Three lecture hours and three lab hours per week. Prerequisite: Plane Geometry and Intermediate Algebra.

A survey of current concepts of the universe with an emphasis on the physical principles involved. Designed primarily for science majors. Astronomical tools and techniques, the solar system, the stars, the galaxies, cosmology.

680 (48) SELECTED TOPICS IN ASTRONOMY (1-3)

Hours by arrangement.

Selected topics in Astronomy not covered by regular catalog offerings. Course content and unit credit to be determined by the Math/Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Automotive Technology

880 (51) THE ECONOMICS OF THE AUTOMOBILE (2)

Two lecture hours per week.

How to minimize the cost of automobile ownership. How an automobile works and what tools and procedures are used to maintain its life and reliability. Practical experience in maintaining and evaluating the used car. This course is designed for students who have had little or no previous mechanical experience. (Identical to Economics 880.)

Biology

100 (1) INTRODUCTION TO THE LIFE SCIENCES (3)

Three lecture hours per week.

Fundamental principles of life. The awareness of plant and animal interrelations and interdependencies. Man's role in the world of living things is examined in relation to contem-

porary problems. (This course is intended for non-science majors with no previous experience in the biological sciences.)

102 (15) ESSENTIALS OF CONSERVATION (3)

Three lecture hours per week.

Consideration of the national resources of the U.S., including forests, grasslands, wildlife, water, marine, soils, minerals, and recreational problems and practices in resource management.

106 (5) INTRODUCTION TO ECOLOGY (3)

Three lecture hours per week.

Emphasis on ecology and natural history of California. The ecological aspects of the plant and animal groups and their controls by geology, climate, each other, and by man. One or two field trips may be required.

110 (2) GENERAL PRINCIPLES BIOLOGY (4)

Three lecture hours and three lab hours per week.

A study of the principles of the biological sciences. Topics include: origin and evolution of life, cellular nature of living things, genetics, ecology, life cycles, and natural history. One or two field trips may be required. Extra supplies may be required.

112-113-114-115-116-117-118-119 (40) NATURE STUDY (1-3)

Two lecture and two lab hours per week for five and one-half weeks. Prerequisite: One course in the biological sciences.

Each semester three of the following one-unit courses will be offered: 112 — Birds, 113 — Reptiles and Amphibians, 114 — Native Trees, 115 — Insects, 116 — Fishes, 117 — Wildflowers, 118 — Marine Life, 119 — Mammals. Each course introduces students to the means of identifying the organisms, their life histories and how they relate to the environment. Emphasis will be on native Northern California communities.

125 (11) PHYSICAL ANTHROPOLOGY (3)

Three lecture hours per week.

Man's place in nature. Topics include man's evolution, genetics and racial variation. Evolutionary basis of man's behavior and social systems. (Identical to Anthropology 125 (1).)

130 (7) THE HUMAN MACHINE (3)

Three lecture hours per week. Prerequisite: Biology 100 (1) or 110 (2).

Study of the human body, its anatomy and physiology. The relationship of the cell to functional systems, i.e., nervous system, respiratory system, endocrine system. Recommended for students in the vocational nursing and medical assisting programs.

137 (12) PSYCHOSOMATIC ILLNESS (3)

Three lecture hours per week.

An introduction to the psychosomatic concept of disease and the physiological changes the body undergoes when the mind perceives a life situation as stressful. Basic principles of psychology as they apply to psychosomatic disease; psychophysiological components of various chronic and acute diseases. Designed to help students identify and appreciate potential stress-inducing situations.

140 (9) ANIMALS AND MAN (3)

Three lecture hours per week.

Introduction to animals around us and their relationship to man. Major emphasis on animals as prey, servants, companions and bearers of disease. General education course for non-science majors.

145 (3) PLANTS AND MAN (3)

Three lecture hours per week.

Basic principles of the living state as seen in plants. Plant structure and function; plant genetics and evolution; economic and cultural importance of plants to man. One or two field trips may be required.

150 (30) INTRODUCTION TO MARINE BIOLOGY (3)

Two lecture and three lab hours per week. Recommended: One college-level Biology course.

Introduction to physical oceanography, marine animals, marine plants and marine ecology. Major emphasis is given to the natural history of marine forms, including their taxonomy, morphology and physiology. Bays, estuaries and oceans are described as habitats.

160 (33) GENETICS (3)

Three lecture hours per week. Prerequisite: One course in the Biological Sciences.

Introduction to the principles of heredity in plants and animals with specific reference to inheritance and biochemical genetics. The importance of heredity in evolutionary concepts.

180 (16) INTRODUCTION TO FORESTRY (3)

Three lecture hours per week.

Study of the forest as a biological community; scientific and economic basis of forestry, including topics from ecology, dendrology, entomology, pathology, silviculture, mensuration, utilization and economics. Careers in forestry. Field trip may be required.

182 (17) FORESTRY SURVEYING (3)

Two lecture and three lab hours per week. Prerequisite: Completion of or concurrent enrollment in Geometry (Math. 115 (12).)

Introduction to theory and practice of forest surveying. Instruction in use of forest surveying instruments; hand compass, staff compass, abney levels, topographic and engineer's tape, engineer's level and transit. Field problems. Field trip may be required.

184 (14) WILDLIFE BIOLOGY

Three lecture hours per week plus one field trip.

Study of wildlife species, with emphasis on mammals of the Pacific states: their characteristics, life histories, ecology and economic importance. Introduction to basic wildlife management practices.

210 (21) GENERAL ZOOLOGY (5)

Three lecture and six lab hours per week. Prerequisite: High school biology or equivalent with grade C or better.

Introduction to the principles of animal biology. Topics include: molecular basis of life, structure, function and behavior as seen in invertebrates and selected chordates, ecology, zoogeography, and animal evolution. Extra supplies may be required.

220 (22) GENERAL BOTANY (5)

Three lecture and six lab hours per week. Prerequisite: High school biology or equivalent with grade C or better.

Principles of biology as illustrated by plants with emphasis on structure, physiology and reproduction in green plants. Extra supplies may be required.

230 (27) Introduction to Cell Biology (4)

Three lecture and three lab hours per week. Prerequisite: Chemistry 210 (1a) or Chemistry 410 (30a)-420 (30b).

Evaluation and analysis of the living cell and its component parts. The metabolism of the cell and bioenergetics involved are examined as they relate to cellular development, growth, and reproduction. (Recommended for all Life Science and Medical Science majors.) Extra supplies may be required.

240 (25) GENERAL MICROBIOLOGY (5)

Three lecture and six lab hours per week. Prerequisite: Chemistry 210 (1aL) or Chemistry 410 (30a), 420 (30b), college-level Biology course. Bio. 230 (27) recommended.

Introduction to the morphology and physiology of microorganisms, their control by chemical and physical means, and their role in the environment, including the disease process. Laboratory techniques in culture and identification. (Recommended for majors requiring a 5-unit course in Microbiology/Bacteriology: Life Sciences, Biochemistry, Nutrition, Pre-Dentistry, Nursing, Agriculture, Sanitary Engineering.) Extra supplies may be required. (Fall only.)

245 (26) GENERAL BACTERIOLOGY (4)

Two lecture and six lab hours per week. Prerequisite: One semester of a college-level Chemistry course. College-level Biology course recommended.

Introduction to the microbial world, the role of microorganisms in nature, and host-parasite relationships. (Recommended for majors requiring a 4-unit course in Microbiology/Bacteriology especially Nursing and Allied Medical Science.) Extra supplies may be required. (Fall only.)

250 (23) ANATOMY (4)

Three lecture and three lab hours per week. Prerequisite: High school biology or equivalent with grade C or better.

Structure of the human body. Laboratory study and dissection of the human male and female. (Primarily intended for students of Nursing, Physiotherapy, Physical Education and other related fields. Elective for Pre-Dental, Pre-Medical and Pre-Veterinarian students.) Extra supplies may be required.

260 (24) INTRODUCTORY PHYSIOLOGY (5)

Three lecture and six lab hours per week. Prerequisite: One course selected from Biology 210 (21), 250 (23), or 230 (27). A knowledge of elementary chemistry and physics is recommended.

Functions of the organs and systems of the human body. Intended for students of Nursing, Physiotherapy, Physical Education, Psychology and other related fields. Elective for Pre-Dental, Pre-Medical and Pre-Veterinarian students. Extra supplies may be required.

314 (4) SELECTED TOPICS IN NUTRITION (3)

Three lecture hours per week. Recommended: Course in Biology or Nutrition.

Discussion will vary depending upon student interest and current trends. A study of in-born errors in metabolism, iatrogenic malnutrition, diabetes, mineral nutrition, childhood obesity, fasting and starvation, artery and heart disease, cholesterol, nutrition and the pill, and nutrition and dental health.

320 (8) INTRODUCTION TO PLANT SCIENCE (3)

Two lecture and three lab hours per week.

Introduction to principles of plant structure, function, and reproduction. (Identical to Horticulture 320 (118).)

325 (18a)—326 (18b) PLANT AND LANDSCAPE I and II (3-3)

Two lecture and three lab hours per week.

325 (18a) — Growth habits, cultural requirements and landscape uses of ornamental trees adapted to the climates of California. Proper plant and maintenance techniques. (Fall only.) **326 (18b)** — Growth habits, cultural requirements and landscape; uses of ornamental shrubs and ground covers adapted to the climates of California. Proper planting and maintenance techniques. (Spring only.)

327 (19) PLANT GROWING (3)

Two lecture and three lab hours per week.

Soil, plant and fertilizer relationships. Physical, chemical and biological properties of soils as related to horticulture; soil sampling and testing; application techniques of fertilizer materials and soil amendments. Practical experience in growing plants in the greenhouse. (Identical to Horticulture 327 (112).)

370 (37) DEVELOPMENT OF BIOLOGICAL CONCEPTS (3)

Three lecture hours per week. Prerequisites: Twelve or more units of college work and a overall "C" average or better. One course in Life Science is recommended.

Description of the beginnings, growth and development of science in the ancient cultures, Greek and Mediterranean cultures, and the Dark Ages. Rebirth of science during the Renaissance, historical foundations of modern biology, and modern biological themes.

410 (41) ANATOMY AND PHYSIOLOGY (5)

Three lecture and six lab hours per week. Required for AARN Program. Prerequisite: One year of high school biology with grade B or better, or Biology 110 (2) or Biology 130 (7) with grade C or better.

An integrated study of basic structures and functions of the human body. Emphasis is on those areas which have a direct correlation with nursing and other health-related fields. Extra supplies may be required.

420 (42) MICROBIOLOGY FOR NURSES (4)

Three lecture, four lab hours, plus one hour by arrangement per week. Required for A.A. Degree Nursing Program. Prerequisite: Biology 410 (41).

Basic concepts of the structure and function of microorganisms, especially as related to the host-parasite relationship.

Control and prevention of the infectious diseases of man. (Spring only.)

425 (52) ALLIED HEALTH BACTERIOLOGY (2)

Two lecture hours per week. Prerequisite: Enrollment in either the Dental Assisting Program or the Licensed Vocational Nursing Program. Recommended for Medical Assistants.

Introduction to microbiology with emphasis on morphology, physiology, transmission and control of pathogenic forms. (Spring only.)

**644 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN BIOLOGY (1-3)

Hours by arrangement.

The topic of this course will be different each semester. It is intended to be a course covering a subject of relevance, but is not intended to be a permanent offering of the Division.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field. Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Building Inspection

680 (48) SELECTED TOPICS IN BUILDING INSPECTION (1-3)

The topic of this course will be different each semester. It is intended to be a course covering a subject of relevance, which may be offered as a seminar, lecture, or lecture/lab class.

700 (63a) TECHNIQUES OF INSPECTION (3)

Three lecture hours per week.

Organization and methods of inspecting soils, excavations, foundations, wood framing, masonry, concrete and steel structures.

710 (63b) BUILDING CODE INTERPRETATION (3)

Three lecture hours per week.

Building regulations which pertain to types of construction, areas of construction, height and separation laws, exits of buildings, fire resistance, flame spread and sprinkler systems.

720 (63c) ELECTRICAL WIRING INSPECTION (3)

Three lecture hours per week.

Electrical wiring for building inspection, covering single-family dwellings, multi-family dwellings, commercial locations (wiring plans for a store building), industrial locations (power installations), specialized and hazardous locations.

730 (63d) PLUMBING INSPECTION (3)

Three lecture hours per week.

Building regulations which pertain to drainage systems, vents and venting, plumbing, water systems, building sewers and gas piping.

740 (63e) MECHANICAL CODE (3)

Three lecture hours per week.

Building regulations which pertain to mechanical codes of construction, heating equipment, floor furnaces, wall furnaces, unit heaters, venting, ducts, ventilation systems, evaporative systems, refrigeration systems and equipment.

750 (63f) NON-STRUCTURAL PLAN CHECK (3)

Three lecture hours per week.

Study of occupancy requirements, types of construction, fire safety and State of California residential insulation requirements.

Business

Students graduating with a major in the field of business must meet the following subject requirements:

Mathematics—Bus. 810 (50), 115 (51). (See course descriptions on page 130). Students who are taking the transfer program may comply with the Business Math requirement by successful completion of an appropriate transfer mathematics course. **Bus. 100 (10)**—Introduction to Business.

100 (10) INTRODUCTION TO BUSINESS (3)

Three lecture hours per week.

An introductory survey of the nature, organization and struc-

ture of the American free enterprise system. A basic orientation course in business designed to develop a realization of the role of business in the economy and as an aid in selecting a field of vocational specialization. (Required of all students majoring in Career Business Programs. Satisfies Mgmt. 100 requirement for Management Certificate Program.)

101 (8a) HUMAN RELATIONS I (3)

Three lecture hours per week.

Application of psychological principles to problems of self-management and personal growth essential for successful living, including interpersonal relationships on the job.

102 (8b) HUMAN RELATIONS II (3)

Three lecture hours per week. Prerequisite: Bus. 101 (8a).

The study of human behavior and the necessity of taking positive action to achieve better interpersonal relationships. Discussion topics center around personal growth and communication problems in groups and organizations, such as business, community, social groups, school and home.

115 (51) BUSINESS MATHEMATICS (3)

Three lecture hours per week. Prerequisite: A percentile rating of at least 35 on the quantitative part of the SCAT entrance examination or completion of Bus. 810 (50) with a grade of C or better.

A study of mathematics as applied to business, with emphasis on calculations involving interest, discount, negotiable instruments, financial statements and ratios, inventory pricing, depreciation, present value, central tendency and correlation.

123 (2) ELEMENTARY STATISTICS (4)

See Economics 123 (2).

129 (93) MACHINE CALCULATION (1-2)

Five lecture hours per week for 5½ weeks (three 5-week modules per semester). Students may enter at the beginning of any module. Prerequisite: Bus. 810 (50) or equivalent.

Instruction includes electronic display and printing calculators and the touch system of operating the 10-key adding machine. Assignments emphasize actual business situations and problems. The printing calculator is used for the second unit practice set.

130 (35) PERSONAL MONEY MANAGEMENT (3)

Three lecture hours per week.

Develops understanding and skill in dealing with family and personal finance problems. Topics include: financial planning, borrowing money, insurance, introduction to investments, estate planning, real estate and taxes.

140 (81) SECURITY INVESTMENTS (3)

Three lecture hours per week. Prerequisite: Sophomore standing.

Stocks, bonds and investment trusts; investment policies, evaluation, charting—issues and industries.

150 (65) SMALL BUSINESS MANAGEMENT (3)

Three lecture hours per week. Prerequisite: Bus. 100 (10) or Mgmt. 100 (99).

Examination of the opportunities and hazards of small business operation; designed for business students who plan to establish or supervise a small business. Significant areas of vital interest to the prospective independent businessman are explored, including pre-opening requirements.

151 (18) FASHION MERCHANDISING (3)

Three lecture hours per week.

Structure of ready-to-wear apparel industry, including the functions and policies of the various types of retail stores as they relate to the promotion of fashion merchandising; consideration of the various factors which affect the merchandising of fashion apparel. (Identical to H. Ec. 151).

152 (17) FASHION COORDINATING AND DISPLAY (3)

Three lecture hours per week. Prerequisite: H. Ec. 151 (CA&S 18) or concurrent enrollment.

Study of the elements of fashion which make for success in fashion, merchandising: store windows, interior displays, sales promotion activities and techniques in displaying fashion. (Identical to H. Ec. 152).

154 (15) FASHION AND THE CONSUMER (3)

Three lecture hours per week.

A consideration of the apparel needs of the various groups and of many forces (economic, sociological, psychological and technological) which influence the consumer and the fashion market. (Identical to H. Ec. 154).

160 (123) PUBLIC RELATIONS (3)

Three lecture hours per week.

Role of public relations in business and industry. The fundamental principles, procedures and tools used in public relations.

170 (11) SALESMANSHIP FUNDAMENTALS (3)

Three lecture hours per week. Prerequisite: Business 100 (10) or equivalent.

Covers the role and impact of personal selling in the marketing process. Considers principles and techniques employed effectively in the direct sales process. Includes sales demonstrations by guests from the direct selling field and practical sales presentations by students.

175 (12) ADVERTISING (3)

Three lecture hours per week. Not open to first-semester freshmen.

The role of advertising in our economic life, with emphasis on advertising methods and media.

180 (24) MARKETING (3)

Three lecture hours per week. Prerequisite: Bus. 100 (10) or Mgmt. 100 (99).

Broad study of marketing principles and methods applicable to both consumer and industrial goods and services. Major topics include retailing and wholesaling consumers' goods, marketing industrial goods, marketing policies and practices, and government relationship to marketing.

185 (25) MARKETING RESEARCH (3)

Three lecture hours per week. Prerequisite: Business 180 (24).

Survey of marketing research and application as a management tool. The approach is essentially practical rather than theoretical.

190 (16) PRINCIPLES OF RETAILING (3)

Three lecture hours per week. Prerequisite: Bus. 100 (10) and Bus. 810 (50), 115 (51).

Retail processes emphasized include merchandise planning and control, buying and receiving, pricing, sale promotion and customer service.

BUS. 201 (BUAD 18a) BUSINESS LAW I (3)

Three lecture hours per week.

Introduction to law applicable to business, including sources, agencies and procedures for enforcement. Emphasis on nature and function of law through case study analysis in fields of contracts, sales and consumer protection.

BUS. 202 (BUAD 18b) BUSINESS LAW II (3)

Three lecture hours per week. Prerequisite: Bus. 201.

Continuation of 201 with business applications of laws of partnerships, corporations, real property, mortgages and security transactions, trusts, wills, bankruptcy and commercial paper.

BUS. 204 (BUAD 18c) GOVERNMENTAL REGULATORY POWER (3)

Three lecture hours per week. Prerequisite: Enrollment in or completion of one college English course.

Legal environment of business. Evolution, trend and implications of government regulation of business and the economy. Discussion of sources and constitutional limitations of power within the government, together with specific regulatory powers and their administration.

220 (52) LAW SURVEY FOR THE LAYMAN

Three lecture hours per week.

Survey of legal problems which confront people in their everyday life and personal business activities. Included are the court proceedings, marriage and divorce, real estate, community property, wills and trusts, juvenile and criminal law, accidents and investments.

270 (70) PRINCIPLES OF TRANSPORTATION (3)

Three lecture hours per week.

Transportation in our economy; the transportation system with emphasis on rail, air, water, motor and pipeline. Development and regulation of the various modes of transportation, theory of rate-making and government controls, selected carrier problems and transportation policies.

271 (71) TRAFFIC MANAGEMENT AND PHYSICAL DISTRIBUTION (3)

Three lecture hours per week. Prerequisite: Bus. 270 (70) or equivalent.

Emphasis on management of physical distribution, including the total cost concept, planning and coordinating the functions of transportation, storage, packaging, handling, inventory and location theory.

272 (72) REGULATION OF TRANSPORTATION (3)

Three lecture hours per week. Prerequisite: Bus. 270 (70) or equivalent.

Fundamental principles of laws governing transportation by common carrier. History and development of transport regulation in the United States. Emphasis on Interstate Commerce Act (I.C.A.), Civil Aeronautics Authority (C.A.A.) and Federal Aviation Authority (F.A.A.) practices and procedures.

273 (73) INTERSTATE AND TRANSCONTINENTAL RAILROAD RATES, RULES AND REGULATIONS (3)

Three lecture hours per week. Prerequisite: Bus. 270 (70) or one year experience in the traffic or transportation field.

Introduction to the basic structure and use of rail carrier tariffs, particularly those published by Pacific Coast Freight Bureau. Particular attention will be given to those sections of

the tariff pertaining to governing rules, regulations, rates and routes. Tariff principals will be related to various types of shipments.

274 (74) FREIGHT LOSS, DAMAGE, AND CLAIMS LAW (3)

Three lecture hours per week. Prerequisite: Bus. 270 (70) or equivalent.

Basic principles, procedures, and laws involved in freight loss, damage, and overcharge. Law of bailments, documentation, carrier liability, exceptions to carriers' liability and informal complaints to I.C.C. and P.U.C.

275 (75) INTRASTATE AND INTERSTATE MOTOR CARRIER RATES, RULES AND REGULATIONS (3)

Three lecture hours per week. Prerequisite: Bus. 270 (70) or equivalent.

Basic rules, rates and regulations applicable to intrastate and interstate motor carriers as published in the P.U.C. Tariffs, Western Motor Tariffs and Rocky Mountain Motor Tariff bureaus.

276 (76) AIR FREIGHT RATES, RULES AND REGULATION (3)

Three lecture hours per week. Prerequisite: Bus. 270 (70) or equivalent.

Historical development of air transportation with special emphasis on air freight. Application of rates, rules and regulations in domestic and international shipment.

277 (77) SPECIAL COMMODITIES TRANSPORT AND WAREHOUSE MANAGEMENT (3)

Three lecture hours per week. Prerequisite: Bus. 270 (70) or equivalent.

Emphasis on transport rates, rules and regulations as they apply to household effects and electronic shipment. Consideration of the principles and practices of warehouse management and supervision.

412 (45) CONSUMER ISSUES AND BUYING PROBLEMS (3)

Three lecture hours per week.

Study of problems facing the consumer; relationship of quality and cost to food, clothing, housing; legislation and agencies protecting the consumer. (Identical to H. Ec. 412 and Economics 412.)

**641 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN BUSINESS (1-3)

Hours by arrangement.

Selected topics in Business not covered by regular catalog offerings. Course content and unit credit to be determined by the Business Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN BUSINESS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

810 (50) BUSINESS ARITHMETIC (3)

Three lecture hours per week. Prerequisite: A percentile rating below 35 on the quantitative part of the SCAT entrance examination. (See Business Division requirement for business mathematics.)

Fundamental arithmetic operations including the basic processes, fractions, decimals and percentages as applied to ordinary problems of business.

Chemistry

100 (10) SURVEY OF CHEMISTRY (3)

Three lecture hours per week. (Not open to students who have had or are taking Chem. 210 (1a).)

General survey of the more important concepts and application of Chemistry for non-science majors.

101 (21) CHEMISTRY FOOD ADDITIVES (1)

Three lecture hours per week for six weeks. Prerequisite: A course in chemistry.

General survey of major food components from the standpoint of their chemical structures. The nature of food additives and their postulated metabolic impact. Chemical nature of carbohydrates, proteins, fats and vitamins as found in various foods and as utilized by the body.

102 (22) CHEMISTRY OF COSMETICS (1)

Three lecture hours per week for six weeks. Prerequisite: A course in chemistry.

Chemical composition of major types of cosmetics, deodorants, hair dressing. Effect of active ingredients on the substrate. Structure of components of major cosmetic categories and their relationship to the desired function.

103 (23) CHEMISTRY OF GARDENING (1)

Three lecture hours per week for six weeks. Prerequisite: A course in chemistry.

Chemical composition of fertilizers, pesticides, and herbicides. Mode of action and critical ingredients; potential side effects. Structures of the active components of commercial, agricultural and gardening aids, and the mechanism of their action.

104 (24) CHEMISTRY OF PHOTOGRAPHY (1)

Three lecture hours per week for six weeks. Prerequisite: A course in chemistry.

Chemical description of black and white and color film construction. Reactions occurring during image formation and processing.

105 (25) CHEMISTRY OF DRUGS (1)

Three lecture hours per week for six weeks. Prerequisite: A course in chemistry.

The structure and mode of action of selected drugs and pharmaceuticals.

106 (26) CHEMISTRY OF MOTOR FUELS (1)

Three lecture hours per week for six weeks. Prerequisite: A course in chemistry.

A description of the manufacture and performance of motor fuels as related to the chemistry of the components.

107 (27) CHEMISTRY OF POLLUTION (1)

Three lecture hours per week. Prerequisite: A course in chemistry.

Chemical nature and origin of pollutants in air and water. Problems of solid waste disposal; elements and compounds found as true contaminants in foods. Chemical problems associated with desmogging internal combustion engines and recycling of solid wastes.

190 (51) PREPARATORY CHEMISTRY (3)

One lecture and five lab hours per week. Prerequisite: High school Algebra.

Chemical nomenclature and formula writing, and mathematical review, including logarithms and exercises in calculations

relating to chemistry. (Provides preparation for students who do not have other prerequisites for Chem. 210 (1a). Extra supplies may be required.

210-220 (1a-1b) GENERAL CHEMISTRY I and II (5-5)

Three lecture and six lab hours per week. Prerequisites: 210 (1a) – Chem. 190 (51) or high school Chemistry with grade C-plus and two years of high school Mathematics; high school Physics recommended; 220 (1b) – Chem. 210 (1a) with Grade C or better. Intended for students majoring in science fields and chemical engineering.

210 (1a) — Basic principles of atomic and molecular structure and bonding. Chemical reactions and equations, solutions, gas laws, equilibrium; stoichiometry and related calculations. (Extra supplies may be required.) **220 (1b)** — Descriptive chemistry of the elements and qualitative analysis. Introduction to nuclear chemistry and detailed treatment of electro-chemistry, equilibrium and kinetics. Extra supplies may be required.

224-225 (11a-11b) ENGINEERING CHEMISTRY I and II (4-4)

Three lecture hours and three lab hours per week. Prerequisites: Chem. 190 (51) or high school chemistry with grade C and high school mathematics through trigonometry (concurrent enrollment in trigonometry acceptable); high school physics recommended. 225 (11b) – Chem. 224 (11a) with grade C or better.

224 (11a) — Mole concept and stoichiometry, solutions, gas laws, phase changes, thermo-chemistry, and related calculations. Extensive coverage of atomic theory, intermolecular and intramolecular bonding, with emphasis on applications to materials science. (Extra supplies may be required.)

225 (11b) — Detailed treatment of thermodynamics, equilibrium, electro-chemistry, kinetics, chemistry of complexes and introduction to nuclear chemistry. Extra supplies may be required.

231 (12a) ORGANIC CHEMISTRY I (5)

Three lecture, one recitation, and five lab hours per week. Prerequisite: Chem. 220 (1b) or Chem. 225 (11b) with grade C or better.

Introduction to basic concepts of structure and reactivity of organic compounds; reactions of major functional groups; reaction mechanisms; synthesis. Principles and practice of laboratory techniques; methods of separation, purification and synthesis. Theory and practice of instrumental methods including spectroscopy. Designed as first semester of one-year organic course, or one-semester overview. Extra supplies may be required.

232 (12b) ORGANIC CHEMISTRY II (5)

Three lecture, and one recitation hour and five lab hours per week. Prerequisite: Chem. 231 (12a) with grade C or better.

More rigorous treatment of mechanisms, reactions, and synthesis. Structure determination by degradation and spectroscopy. Laboratory will be implementation of techniques and skills taught in Chem. 231, including identification of unknown compounds and mixtures. Extra supplies may be required.

250 (5) QUANTITATIVE ANALYSIS (4)

Two lecture and six lab hours per week. Prerequisite: Chem. 220 (1b) with grade C or better.

Theory, calculations and practice of common analytical procedures. Includes gravimetric, volumetric methods; also colorimetric, potentiometric and other instrumental procedures. Extra supplies may be required.

260 (7) INTRODUCTION TO PHYSICAL CHEMISTRY (4)

Three lecture and three lab hours per week. Prerequisites: Chem. 210 (1a)-220 (1b), Chem. 250 (5).

Properties of matter, solutions, equilibrium, hydrogen ion concentration, thermochemistry and reaction velocity. Extra supplies may be required.

410-420 (30a-30b) HEALTH SCIENCE CHEMISTRY I and II (4-4)

Three lecture and three lab hours per week. Prerequisites: 410 (30a) – high school Algebra; 420 (30b) – 410 (30a) with grade C or better.

410 (30a) — An introduction to chemistry for the applied sciences, beginning with scientific measurement and metric system, followed by chemical bonding, solution chemistry, acids and bases, redox reactions, and general aspects of organic chemistry. **420 (30b)** — Completes the sequence, concentrating on organic and biochemistry with special emphasis on the chemistry of carbohydrates, lipids, proteins, vitamins and their respective metabolism. Students who have received credit for Chem. 210 (1a) cannot receive credit for Chem. 410 (30a).

680 (48) SELECTED TOPICS IN CHEMISTRY (1-3)

Hours by arrangement.

Selected topics in chemistry not covered by regular catalog offerings. Course content and unit credit to be determined by the Math/Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class. Extra supplies may be required.)

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field. Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally receive credit for only one Special Project per semester.)

Cooperative Education

601 and 602 GENERAL CAREER COOPERATIVE WORK EXPERIENCE (1-3) (Credit/No Credit)

One unit of credit for each five hours of work averaged per week per semester with a maximum of 3 units per semester. Enrollment in 7 units of credit including Cooperative Education is mandatory. Scheduled seminars, individual conferences, and individualized instruction are requirements of the course.

Development of desirable employment habits, attitudes, and career awareness under the direction of a college coordinator are the focus of the course. Each student must establish measurable learning objectives appropriate for his or her job. Designed for the student who does not have a specific occupational goal but desires experience on a job. A total of 6 units may be earned over 2 semesters. These units do not transfer. Students with established majors and career goals should enroll in Cooperative Education 641, 642, 643, 644, 646, 647, 648 or 649.

The program (called the Parallel Plan) operates concurrently with the daily studies. Through a program of work and study, the relationship between theory and practical application is established.

Further information is available in the Instruction Office.

For Veterans Only:

The Veterans Administration does not approve **Cooperative Education 601 and 602** for educational benefits.

641 through 649 CAREER COOPERATIVE WORK EXPERIENCE EDUCATION (1-4) ALTERNATE SEMESTER (1-8) (Credit/No Credit)

Available in each major field of study.

Occupational Cooperative Work Experience Education (1-4)

One unit of credit for each five hours of work averaged per week per semester, with a maximum of 4 units per semester, with development of appropriate measurable learning objectives. May be repeated for credit up to a grand total of 16 units. Enrollment in 7 units of credit including Cooperative Education is mandatory.

Alternate Semester (1-8)

Students in the alternate semester program may earn up to 8 units of co-op credit per semester. May be repeated for credit up to a grand total of 16 units.

Transferability

A maximum of 12 units may be transferred. Check with your counselor for current information on transferring co-op credit to the California State College and University and University of California systems.

Occupational Cooperative Work Experience is in a field related to a career goal and major, supplemented by individual counseling from an instructor-coordinator. There are two basic programs: (1) parallel plan, part-time work; and (2) alternate semester, alternating work and school each semester.

For Veterans Only:

The parallel plan qualifies for "institutional course" pay rates; the alternate plan qualifies for "cooperative course" pay rates, as designed by the Veterans Administration. Explanation of these rates is available through the Veterans Affairs Office on campus, 574-6193.

The Veterans Administration requires students in the parallel plan program to attend regularly scheduled weekly meetings. This requirement is met by concurrent enrollment in Guidance 430, 431, 432 or 680.

Cosmetology

The courses described below are open only to those students accepted in the Cosmetology Program. A grade of C or better is necessary for progression in sequence. Upon successful completion of the program with a C or better, including satisfactory performance on a comprehensive "mock board" examination including both theory and practical performance, the candidate receives a Certificate in Cosmetology and is eligible to write the California Board of Cosmetology examination. (Credit/No Credit)

670 (47) COOPERATIVE EDUCATION (1-4) (Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN COSMETOLOGY (1-3)

Hours by arrangement.

Selected topics in Cosmetology not covered by regular catalog offerings. Course content and unit credit to be determined by the Cosmetology Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

712 (50) FUNDAMENTALS OF COSMETOLOGY I (Variable to 9)

722 (55) FUNDAMENTALS OF COSMETOLOGY II (Variable to 9)

Twenty hours per week. Five lecture hours and 15 lab hours per week for a maximum of 9 units, fewer hours by arrangement for fewer units. Prerequisite: Completion of the twelfth grade recommended. Tenth grade completion or equivalent required by California Board of Cosmetology. Admission to and registration in the Cosmetology program.

All subjects required for licensing as a Cosmetologist by the California State Board of Cosmetology. (May be repeated for a maximum of 18 units.)

732 (51) ADVANCED COSMETOLOGY I (Variable to 9)

742 (51) ADVANCED COSMETOLOGY II (Variable to 9)

Twenty hours per week. Five lecture hours and 15 lab hours per week for a maximum of 9 units. Prerequisite: A minimum of 10 units with a grade C or better in Cosmetology 712 (50) and 722 (55).

Continuation of Cosmetology 712-722. (May be repeated for a maximum of 30 units.)

750 (52) BRUSH-UP (Variable to 10 units)

Five lecture hours and 33½ lab hours per week. Prerequisite: Cosmetology license, or Cosmetology 732 (51) and 742 (51) with a grade C or better.

For supplemental training requirements or out-of-state requirements. Course requirements must be met satisfactorily prior to state examination. (May be repeated for credit.)

754 (53) MANICURING (Variable to 10)

Nine lecture hours and 18½ lab hours per week. Prerequisite: Enrollment in Cosmetology curriculum.

Training in theory and practice in the art of manicuring and pedicuring in preparation for a licensure by the California State Board of Cosmetology, in that field only. (Total of 350 hours training.)

760 (91) COSMETOLOGY INSTRUCTION PREP (Variable to 17)

Nine lecture and 28½ lab hours per week for a total of 750 hours. Prerequisite: Satisfactory completion of an approved program of Cosmetology training with a minimum of 1600 hours.

A preparatory course of teaching techniques designed to qualify the student for the California State Board of Cosmetology Instructor examination. Requires the student to complete a 600-hour instructor training certificate program. Up to 150 hours may be added to the training, if necessary, to correct deficiencies.

791 (90a) ADVANCED COSMETOLOGY WORKSHOP I (1½)**792 (90b) ADVANCED COSMETOLOGY WORKSHOP II (1)**

Fall Semester – 791 – two lecture, three lab hours per week for nine weeks. (One session offered.) Prerequisite: California Cosmetologist License or completion of 800 hours of Cosmetology with grade C or better. Spring Semester – 792 – three lecture hours per week for eight weeks. Prerequisite: See 791 (90).

Dance

The classes listed below are identical to Physical Education classes with the same title. Students may enroll in either Dance or Physical Education classes, but not both.

121 (13a) CONTEMPORARY MODERN DANCE I (1)

Two lab hours per week.

Fundamentals of contemporary dance technique, body alignment, and basic locomotive movements. Modern dance styles and studied in relation to the significance of a dancer's training.

122 (13b) CONTEMPORARY MODERN DANCE II (1)

Two lab hours per week. Prerequisite: Dance 121 (13a).

In-depth study of modern dance techniques, body alignment and locomotive movements. Contemporary dance choreographers and their significance to modern dance are studied.

130 (14) JAZZ DANCE (1)

Two lab hours per week.

Beginning techniques in jazz-stage, jazz movements, fast jazz, jazz rock, and blues, plus various jazz combinations.

141 (12a) BEGINNING BALLET (1)

Two lab hours per week.

Beginning study of ballet techniques and style, barre, center floor and dance variations. Modern ballet works are explored.

143 (12b) INTERMEDIATE BALLET (1)

Two lab hours per week. Prerequisite: Dance 141 (12a).

Continuation of Dance 141, concentrating on barre, center floor and dance variations. Classic ballet works are explored.

148 (8) BEGINNING BALLET AND MODERN DANCE (1)

Two lab hours per week.

Movement skills, rhythmic structure of dance, qualities of movement, special design and appreciation of dance. Modern ballet and modern dance styles are emphasized in the creation of individual compositions.

180 (5) FOLK/SQUARE DANCE (1)

Two lab hours per week.

Fundamental and basic steps, techniques for leading and following, etiquette and development of rhythm. Square dances and a variety of folk dances.

360 (6) MOVEMENT AND BODY AWARENESS (1)

Two lab hours per week.

A course designed to build a concept of movement for modern daily living; to become aware and perceive the body as an instrument of self-image on purposive movements; and to recognize individual capabilities and limitations.

380 (10) DANCE AND MOVEMENT FOR THEATRE (2)

Four lab hours per week.

Movement and body awareness activities for the theatre environment. Dance technique, locomotor movements and various improvisation experiences resulting in choreographic movement studies.

411 (20a) DANCE PRODUCTION I (1)

Two lab hours per week. Prerequisite: Dance 148 (8) or 121 (13a) and 122 (13b).

Choreographic principles of dance composition and stage presentation. Types of dance include primitive, medieval, expressionism, cerebralism, jazz, improvisation, impression-

ism, formal ballet, modern ballet, Broadway musical, Americana and folk dances.

412 (20b) DANCE PRODUCTION II (2)

Two lab hours per week, plus additional hours by arrangement for production. Prerequisite: Dance 411 (20a).

A public-stage dance performance, with the creation of new works by students directed toward large groups, trios, duets and solos. Participation in the technical and business aspects of a student production.

642 (47) COOPERATIVE EDUCATION (Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

680 (48) SELECTED TOPICS IN DANCE (1-3)

Hours by arrangement.

Selected topics in Dance not covered by regular catalog offerings. Course content and unit credit to be determined by the Fine & Performing Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Data Processing

110 (Data 50) INTRODUCTION TO DATA PROCESSING (3)

Three lecture hours per week plus one lab hour per week by arrangement.

Emphasis on a wide variety of computer applications in social, physical, and life sciences, engineering, medicine, aeronautics, business, education and government, and their implications for the individual and society. Introduction to computer hardware, software and programming.

120 (Data 97) KEY DATA ENTRY (3)

Day – five lecture hours per week. Evening – six lecture hours per week. Prerequisite: Knowledge of typing.

Extensive operating experience on 029 and 129 keypunches, and introduction to key to desk equipment. Multi-level program design; practice exercises involving typical business applications, to prepare a student for entry-level employment.

130 (Data 51) COMPUTER OPERATIONS (4)

Three lecture and three lab hours per week.

Student should become proficient in the operation of an IBM 360/30, related input/output devices and peripheral (non-computer) equipment.

140 (Data 52) OPERATING SYSTEMS AND JOB CONTROL LANGUAGE (JCL) (4)

Three lecture and three lab hours per week. Prerequisite: D.P. 110 (50) or equivalent.

Emphasis on DOS concepts, with a survey of OS. Students design and test JCL for typical job streams and control statements for file-to-file utility and sort/merge programs.

151 (Data 53a) INTRODUCTION TO COBOL PROGRAMMING (4)

Three lecture hours and three lab hours per week. Prerequisite: D.P. 110 (50) or equivalent.

Writing and testing COBOL programs on an IBM-360/30 computer. Emphasis on logic or typical business programs and basic language elements. Included also are debugging techniques, use of reference manuals, program documentation standards and structured programming concepts.

152 (Data 53b) ADVANCED COBOL PROGRAMMING (4)

Three lecture hours and three lab hours per week. Prerequisite: D.P. 151 (53a) or equivalent.

Emphasis on processing standard sequential tape and disk files; indexed sequential and random disk files. Experience in writing integrated sets of programs for typical business systems using the team project method.

160 (Data 54) SYSTEM 360 ASSEMBLER (4)

Three lecture hours and three lab hours per week. Prerequisite: One semester's experience or training in any programming language, or equivalent.

Writing and testing ASSEMBLER programs on an IBM-360/30 computer. Emphasis is on solving business-type problems. Includes effective use of modular programming concepts, writing of complex programs utilizing control breaks, headings, and subroutines, and interpretation of core drums.

162 (25) FORTRAN PROGRAMMING WITH AN INTRODUCTION TO NUMERICAL AND STATISTICAL METHODS (3)

See Mathematics 162 (25).

170 (Data 55) REPORT PROGRAM GENERATOR (RPG) PROGRAMMING (4)

Three lecture hours and three lab hours per week.

Writing and testing RPG programs on an IBM-360/30 computer to process typical business problems involving punched card, printer, magnetic tape, and disk files. Introduction to IBM System 3 hardware and processing techniques.

180 (Data 56) PL/1 PROGRAMMING (4)

Three lecture hours and three lab hours per week. Prerequisite: One semester's experience or training in any programming language, or equivalent.

Writing and testing PL/1 programs on an IBM-360/30 computer. The commercial subsets of PL/1 are stressed; scientific subsets are to be covered in less detail. All forms of input/output design are covered.

195 (Data 20) ACCOUNTING APPLICATIONS (4)

See Actg. 195 (BUAD 20).

641 (Data 47) COOPERATIVE EDUCATION (1-4) (Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (Data 48) SELECTED TOPICS IN DATA PROCESSING (1-3)

Hours by arrangement.

Selected topics in Data Processing not covered by regular catalog offerings. Course content and unit credit to be determined by the Business Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/labatory class.

690 (Data 49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

695 (106) DATA PROCESSING FIELD PROJECTS (2-4)

Hours by arrangement. Prerequisite: Completion of a course in any programming language, or equivalent.

Directed individual study in field projects arranged between the student and the instructor.

Dental Assisting (One-Year Program)

647 (47) COOPERATIVE EDUCATION—HEALTH OCCUPATIONS (1-4) (Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN DENTAL ASSISTING (1-3)

Hours by arrangement.

Selected topics in Dental Assisting not covered by regular catalog offering. Course content and unit credit to be determined by the Health and Service Careers Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

The courses described below are open only to those students accepted in the Dental Assisting Program. A grade C or better is necessary for progression in sequence. Upon completion of the program, the candidate receives a Certificate in Dental Assisting and is eligible to write the National Certification Examination and the Registered Dental Assistant examination.

711 (51a) OFFICE PROCEDURES I (3)

Two lecture and three lab hours per week. Prerequisite: none.

Dental patient records and history. Patient psychology, public relations, office management responsibilities, telephone and

written communications, office manual, recall system, office billing, dental jurisprudence and malpractice. (Fall only.)

712 (51b) OFFICE PROCEDURES II (2)

Two lecture and three lab hours for ten weeks. Prerequisite: D.A. 711 (51a).

Appointment control, daily production records and book-keeping systems, case presentation. Collection methods, pre-paid dental insurance, expenses and disbursements, office machines, payroll and banking procedures. Employment. (Spring only.)

713 (51c) OFFICE PROCEDURES III (1)

Two lecture hours per week for eight weeks. Prerequisite: 712 (51b).

Continuation of Dental Assisting 712 (51b). (Spring only.)

721 (52a) DENTAL MATERIALS I (2½)

Two lecture hours and 1½ lab hours per week. Prerequisite: none.

A presentation in safety procedures necessary in the dental laboratory and its equipment. Physical properties with study in dental cements, restoratives, impression materials and gypsum products, designed to develop skills necessary for manipulation both for the dental operatory and laboratory. The study of the principles of prosthodontics. (Fall only.)

722 (52b) DENTAL MATERIALS II (2½)

Two lecture hours and 1½ lab hours per week. Prerequisite: D.A. 721 (52a).

A continuation of Dental Assisting 721 with a study in dental casting and prosthetic procedures. (Spring only.)

731 (53a) DENTAL SCIENCE I (2½)

Two lecture and 1½ lab hours per week. Prerequisite: none.

Basic introduction to the hard and soft tissues of the oral cavity, tooth morphology, odontography, oral embryology, oral histology. Study of pathological disturbances in the oral cavity and preventive dentistry, including nutritional counseling. (Fall only.)

732 (53b) DENTAL SCIENCE II (2½)

Two lecture and 1½ lab hours per week. Prerequisite: D.A. 731 (53a).

Further study in the hard and soft tissues of the oral cavity, anatomy of the head and neck. Introduction to body systems, blood supply of the head and neck and innervation of the teeth. (Spring only.)

735 COMMUNICATION IN ALLIED HEALTH PROFESSIONS (1)

One lecture hour per week.

Consideration of grammar, speech and fundamentals of psychology to prepare the Allied Health student to work and communicate effectively with patients, other auxiliaries, practitioners and other health professions.

741 (54a) CHAIRSIDE PROCEDURES I (3)

Two lecture and three lab hours per week. Prerequisites: none.

Beginning clinical application of chairside assisting techniques. Preparation of the patient and operatory area. Study of instrumentation, dental armamentarium, operative and fixed prosthodontic procedures, microbiology, sterilization procedures, dental office emergencies and public health dentistry. (Fall only.)

742 (54b) CHAIRSIDE PROCEDURES II (2½)

Two lecture and 3 lab hours per week. Prerequisite: D.A. 741 (54a).

Further study in chairside procedures. Emphasis is placed on the student's individual development. Study of dental specialties; instrumentation, application, procedure and patient instruction. Introduction to intra-oral functions, DA and RDA levels. (Spring only.)

750 (55x) DENTAL PRECLINIC (½)

Seven lab hours per week for six weeks. Prerequisite: none.

Introduction to clinical chairside procedures to be performed at the University of California and the University of the Pacific Schools of Dentistry. Prepares the Dental Assisting student for effective performance of utilization of the dental units, preparing the patient, anesthesia, rubber dam and basic set-ups. Introduction to instrumentation, oral evacuation and sterilization procedures. (Fall only.)

751 (55a) DENTAL CLINIC I (1½)

Seven lab hours per week for ten weeks. Prerequisite: concurrent enrollment in 742.

Transfer of chairside theory to practical experience at local dental schools and community health centers. (Fall only.)

752 (55b) DENTAL CLINIC II (1)

Seven lab hours per week for ten weeks. Prerequisite: D.A. 751 (55a) with a C or better and concurrent enrollment in 742 (54b).

Continuation of applying chairside theory to practical experience at local dental schools and community health center. (Spring only.)

761 (56a) DENTAL RADIOLOGY I (2)

One lecture and three lab hours per week, plus three hours by arrangement. Prerequisite: none.

Study of radiation; history, terminology, legislation, characteristics, effects of exposure, protection and monitoring, types of dental film, developing and processing procedures. Exposing techniques using the parallel technology; mounting and filing of X-Ray and identification and correction of faulty films. (Fall only.)

762 (56b) DENTAL RADIOLOGY II (1½)

One lecture and three lab hours per week, plus three hours by arrangement. Prerequisite: D.A. 761 (56a).

Continuation of D.A. 761. Designed to provide further depth in the areas of dental radiography. Emphasis is placed on the students individual development. Study of pedo-dontic, occlusal and edentulous exposures. The bisection of the angle technique, normal structures, anatomical landmarks and extra oral films. Continued practice in exposing, developing and processing, mounting and evaluation of films. (Spring only.)

771 (61) CORONAL POLISH (½)

Six lecture hours and 6 lab hours per week. Prerequisites: D.A.751 (54a) and 751 (55a).

Instruction in an intra oral function performed after successful completion of the RDA examination which the dental assisting student can write upon completion of the Dental Assisting program. Instruction includes the recognition of stains upon the clinical and anatomical crowns of the teeth and removal of such.

Drafting Technology

Equipment may be required in all Drafting Technology courses.

120 (14) PRINCIPLES OF TECHNICAL DRAWING (3)

Two lecture and four lab hours per week.

Basic mechanical drawing with instruction surveying the field of graphic communications; technical sketching, visualization, descriptive geometry, orthographic projection, geometric construction, pictorial drawing methods, sectional views, auxiliary views, developments, dimensioning, fasteners, welding, electro-mechanical, piping, tooling, structural and architectural drafting principles.

201-202 (52a-52b) TECHNICAL DRAFTING I and II (5-5)

Five three-hour lab periods per week. Prerequisites: 201 (52a) – Concurrent enrollment in D.T. 711 (51a). 202 (52b) – Concurrent enrollment in D.T. 712 (51b), a grade of C or better in D.T. 201 (52a), and completion of D.T. 711 (51a).

201 (52a) — Multi-view drawing, lettering, geometric shape description, sections, descriptive geometry, sketching, dimensioning, reproduction processes, charts and graphs. **202 (52b)** — Working drawing, threads and fasteners, gears, tolerancing, pictorial projections, intersections, developments and assembly drawings.

301-302 (62a-62b) ADVANCED TECHNICAL DRAFTING I and II (5-5)

Five three-hour laboratory periods per week. Prerequisite: Grade C or better in D.T. 201 (52a), 202 (52b).

301 (62a) — Cams, assembly drawings, geometric and true positional tolerances, welding, jigs and fixture design and structural drawings. **302 (62b)** — Topographic drafting, production illustration, electrical and electronic drafting, pneumatics, hydraulics, piping, and documentation with metric values.

400 (63) BASIC TECHNICAL DESIGN (3)

Three lecture hours per week. Prerequisites: Tech. 120 (74), concurrent enrollment in D.T. 301 (62a).

Application of the materials covered in Tech. 120 to the solution of design problems. Topics include problems of producibility, value engineering reliability and metrication; numerically-controlled machines and programs.

680 (48) SELECTED TOPICS IN DRAFTING TECHNOLOGY (1-3)

Hours by arrangement.

Selected topics in Drafting Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Technology Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

711-712 (51a-51b) APPLIED DRAFTING MATHEMATICS I and II (3-3)

Three lecture hours per week. Prerequisite: Concurrent enrollment in D.T. 201 (52a)-202 (52b).

One of the required courses for technical drafting students, including review and instruction in basic arithmetic, elementary algebra, plane geometry, logarithms, practical plane trigonometry and the use of electronic pocket calculators.

721-722 (102a-102b) BASIC TECHNICAL DRAFTING I and II (3-3)

Two lecture and four lab hours per week. Prerequisites: 721 (102a), None; 722 (102b), D.T. 721 (102a) or D.T. 120 (14).

721 (102a) — Sketches, working drawings, shop processes, pictorial projections, intersections, developments, and simplified drafting. **722 (102b)** — Continued practice in preparation of working drawings including tolerancing, assembly drawings, and the use of engineering change notices.

731-732 (112a-112b) TECHNICAL DRAFTING I and II (3-3)

Two three-hour labs per week. Prerequisites: D.T. 731 (112a) – D.T. 721 (102b), 120 (14); 732 (112b) – 721 (102a), 722 (102b), 731 (112a).

731 (112a) — Projections, points, lines, planes, revolutions, intersections, surfaces and sheet metal practices. **732 (112b)** — Gears and cams, with emphasis on calculations and terminology. Dimensioning, tolerancing, quality control, assembly and welding drawings.

740 (122) ELECTRONICS DRAFTING (3)

Two lecture and four lab hours per week. Prerequisites: D.T. 120 (14) or equivalent. Electronics 110 (14) or equivalent.

Techniques of preparing the various types of electronic drawings used in industry.

750 (130) ELEMENTS OF MACHINE DESIGN (3)

Three lecture hours per week. Prerequisite: D.T. 120 (14), or knowledge of drafting fundamentals; Mathematics through Numerical Trigonometry.

Techniques of selection and computations for machine elements and for design for compound.

Drama

101 (1a) HISTORY OF THEATRE ARTS I (3)

Three lecture hours per week.

The Classical period to the 18th century. Plays, physical

theatres, staging, directing and their relationship to existent cultural forces. Use of audio-visual resources and required play attendance.

102 (1b) HISTORY OF THEATRE ARTS II (3)

Three lecture hours per week.

The 18th century to the present. Development and changes in dramatic styles and structure. The 19th century, Ibsen, Chekhov, new stage craft, Brechtian style, theatre of the absurd and living theatre.

140 (10) INTRODUCTION TO THE THEATRE (3)

Three lecture hours per week.

Designed to acquaint the student with the various approaches to a theatre production. Covers nomenclature, duties, responsibilities, traditions, script analysis, approach to a script from the production viewpoint. Lectures and demonstrations covering publicity, music, productions, dance, motion picture and television. Not a performance course.

**200 (14a) FUNDAMENTALS OF ACTING (3)
(Formerly Theory and Practice of Acting)**

Four lecture-critique hours per week.

Introduction to the principles and techniques of acting: pantomime, improvisation, movement, vocal projection, characterization and procedures of rehearsal and performance. Rehearsal scenes are presented on stage.

**201 (14b) PRINCIPLES OF ACTING I (3)
(Formerly Advanced Acting and Fundamentals of Directing)**

Four lecture-critique hours per week. Prerequisite: Drama 200 (14a) or equivalent.

Review of basics of acting, advanced theories and techniques, style, Stanislavsky method, character analysis, preparation for long scenes.

**202 (14c) PRINCIPLES OF ACTING II (3)
(Formerly Advanced Acting and Fundamentals of Directing)**

Four lecture-critique hours per week. Prerequisite: Drama 201 (14b) or equivalent.

Continuation and review of acting theories and techniques introduced in Drama 201.

203 (14d) PRINCIPLES OF ACTING III (3)
(Formerly Advanced Acting and Fundamentals of Directing)

Four lecture-critique hours per week. Prerequisite: Drama 202 (14c) or equivalent.

Continuation and review of acting theories and techniques introduced in Drama 201 and 202.

230 MIME AND MOVEMENT (3)

1½ lecture, 1½ lab hours per week.

The development of expressive body movement for the actor and dancer. Training in coordination, posture, balance, gesture, stage techniques and traditional mime forms.

250 (13) LIGHTING (3)

Two lecture, four lab hours per week.

Methods of lighting for actual plays and musical productions. Theory and practical experience in designing, hanging and working lights for stage productions. One crew assignment required, for which Drama 305 (16) credit is earned. (May be repeated for credit.)

260 (12) DRAMA TECHNOLOGY (3)
(Formerly Stage Craft)

Two lecture and three lab hours per week.

The theory and craftsmanship of building, rigging, painting and otherwise preparing theatrical settings and properties. Practical experience through executing the technical work for the college's dramatic presentations. (May be repeated for credit.)

300 (15) PLAY REHEARSAL/PERFORMANCE (1½-2 per play)
(Formerly Play Production)

Nine lab hours per week for 8 weeks, plus additional production time. Prerequisite: Standard tryout.

Participation in the presentation of a drama department production as an actor or assistant to the director. Each class will be a specific cast for a particular production. (May be repeated for credit.)

305 (16) TECHNICAL PRODUCTION (½-3 per play)
(Formerly Production Crew)

Thirty lab hours per production.

The backstage crew for drama department productions. Scenery movement, props, lighting, sound for mounting a production. Supervised by technical faculty. (May be repeated for credit.)

338 (17) COSTUME WORKSHOP (½-2 per play)

Hours for arrangement.

Provides practical experience for fashion and costume students. Design and execution of costumes for a drama department production. (May be repeated for credit.)

642 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN DRAMA (1-3)

Hours by arrangement.

Selected topics in Drama not covered by regular catalog offerings. Course content and unit credit to be determined by the Fine Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Early Childhood Education

210 (4) EARLY CHILDHOOD EDUCATION PRINCIPLES AND PRACTICES (3)

Two lecture hours and three lab hours per week.

The student will study the history of European and U.S. educational philosophies as they relate to local and national ECED programs. The student will explore his/her own philosophy and goals of early childhood education. The laboratory experience will require assisting in a variety of ECED settings scheduled and supervised by the instructor.

211 (5) EARLY CHILDHOOD EDUCATION CURRICULUM (3)

Two lecture and three lab hours per week.

The course focuses on the theoretical approach to curriculum planning as it relates to the daily and yearly program. Planning creative activities and active participation in all aspects of a nursery school program is required in the demonstration nursery school under the direct supervision of an experienced teacher.

212 (3) CHILD, FAMILY AND COMMUNITY (3)

Two lecture hours and three lab hours per week.

The class will focus on the child's identity, developmental aspects of behavior, cultural and ethnic differences, contemporary family styles, the child within his/her family and the institutions in the community that regulate and provide services to the child and family. The three laboratory hours per week will be scheduled in the demonstration schools under the guidance of a master teacher.

230 (7) CREATIVE ACTIVITIES (3)

Three lecture hours per week.

Directed toward the development of greater sensory awareness of the student through individual participation. By self analysis of experiences, perceptions, and reactions, the creative process will be explored. Field trips and workshops will be interspersed with seminars to foster empathy for the child's feelings and creativity.

**647 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN EARLY CHILDHOOD EDUCATION (1-3)

Hours by arrangement. Selected topics in Early Childhood Education not covered by regular catalog offerings.

Course content and unit credit to be determined by the Health and Service Careers Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field. Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally receive credit for only one Special Project per semester.)

Economics

100 (1a) PRINCIPLES OF MACRO ECONOMICS (3)

Three lecture hours per week.

Capitalism and other economic systems; the role of resources, machines and workers in production; the banking system and the use of money in guiding economic activity; trend of national income and factors in its determination; policies for stabilization and growth in advanced and underdeveloped nations.

102 (1b) PRINCIPLES OF MICRO ECONOMICS (3)

Three lecture hours per week.

Supply and demand, price determination in a market economy; the business firm's costs, revenues and price policies under conditions of competition and monopoly; the determination of wages, rent, interest and profits; international trade and finance; comparative economic systems of other nations.

108 (10) SURVEY OF ECONOMICS PROBLEMS (3)

Three lecture hours per week.

A non-theoretical consideration of the major economic problems which confront the citizen today. Recommended for the general student interested in aspects of consumer economics and current economic problems, and for business and economics majors who desire an introduction to theory courses. (Economics 100 and 102).

**123 (2) INTRODUCTORY STATISTICS (4)
(Formerly Elementary Statistics)**

Four lecture hours per week. Prerequisite: Math 125 (13).

Descriptive statistics, graphic presentation, measures of central tendency, dispersion, index numbers, time series, seasonal indexes. Introduction to statistical inference, hypotheses testing, type I and type II error, and Chi-square goodness of fit test. (Identical to Bus. 123.)

130 (12) ECONOMIC HISTORY OF EUROPE (3)

Three lecture hours per week.

Roots of modern economic society traced to European origins. Includes mercantilism, the market system and modern industrialism. Attention is also given to the 20th Century. (Identical to History 130.)

230 (11) ECONOMIC HISTORY OF THE UNITED STATES (3)

Three lecture hours per week.

Origin and development of the American economy from colonial times to the present. Includes industrial growth, land and resource use, transportation, money and banking, trade

patterns, the rise of organized labor, the economic role of government. (Identical to History 230; with History 201 or 202, fulfills American Institutions requirement.)

250 (15) PUBLIC FINANCE AND TAXATION (3)

Three lecture hours per week. Prerequisite: Econ. 10 (1a) and 102 (1b).

Principal sources of government revenues and the expenditures of these revenues. Concerned with such economic problems as the shifting incidence of taxation and the relativity of fiscal problems to the business cycle and to political situations.

**412 (45) CONSUMER BUYING PROBLEMS (3)
(Formerly Consumer Issues & Buying Problems)**

Three lecture hours per week.

Study of problems facing the consumer; relationship of quality and cost to food, clothing, housing, legislation and agencies protecting the consumer. (Identical to Bus. 412 and H. Ec. 412.)

**661, 662, 663 (20a, b, c) CURRENT ECONOMIC TOPICS
I, II, III (1-1-1)**

Three lecture hours per week for 5½ weeks.

Each module deals with an economic topic of current concern to citizens and assumes no previous knowledge of economics. Each module may be taken independently or in combination with the others. Topics such as: Inflation, Energy; Population; Gold and Dollar Crisis; Socialism; and Women and Employment.

680 (48) SELECTED TOPICS IN ECONOMICS (1-3)

Hours by arrangement.

Selected topics in Economics, not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN ECONOMICS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

880 (51) THE ECONOMICS OF THE AUTOMOBILE (2)

Two lecture hours per week.

How to minimize the cost of automobile ownership. How an automobile works and what tools and procedures are used to maintain its life and reliability. Practical experience in maintaining and evaluating the used car. (Identical to Automotive Technology 880). (Extra supplies may be required.) May be repeated for credit.

Education

100 (1) INTRODUCTION (3)

Three lecture hours per week.

Career opportunities in education, the financial and legal aspects of teaching, the organization of the public school systems, teacher education and teacher certification. Emphasis is placed on planning for a career in education.

**647 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal. The work experience is supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN EDUCATION (1-3)

Hours by arrangement.

Selected topics in Education not covered by regular catalog offerings. Course content and unit credit to be determined by the Health and Service Careers Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Consent of the instructor and Chairman of the Health and Service Careers Division required.

Directed individual work in a specific field or topic. Evidence of accomplishment satisfactory to the instructor supervising the project is required.

Electronics Technology

100 (10) INTRODUCTION TO ELECTRONICS (3)

Three lecture hours per week. (Not open to Electronics Technology majors.)

Basic electronics with a descriptive presentation and a non-mathematical approach. The influence of electronics in all phases of business, science and daily life is stressed, with emphasis on electronic systems.

110 (14) FUNDAMENTALS OF ELECTRONICS (3)

Two lecture and three lab hours per week.

Basic electronic components and circuits are covered using a non-mathematical approach. Laboratory experiences are provided in the use of the basic instruments.

115 ELECTRONICS SOLDERING TECHNIQUES (1)

One lecture hour and three lab hours per week for eight weeks.

Soldering techniques and skills are applied to wire, components and printed circuits. Proper choice, use and care of hand tools will be covered. Emphasis on neatness as well as workmanship will be stressed.

200 PASSIVE CIRCUITS AND DEVICES (5)

Three lecture and six lab hours per week. Prerequisite: One year of high school algebra with a grade of C or better.

Study of the circuit action of significant combinations of resistance, capacitance, and inductance. Experiments and procedures parallel the lecture material presented. The use of basic electronic measuring equipment is stressed. (Extra supplies may be required.)

230 APPLIED ELECTRONIC MATHEMATICS (3)

Three lecture hours per week. Prerequisite: One year of high school algebra with a grade of C or better.

Basic applications of algebra to the solution of problems involving direct-current circuits; elements of trigonometry, logarithms, complex numbers and vector methods as applied to alternating current circuits and high-transmission lines.

250 ACTIVE ELECTRONIC DEVICES & CIRCUITS (5)

Three lecture hours and six lab hours per week. Prerequisite: E.T. 200 and concurrent enrollment in E.T. 252.

Study of the characteristics of active electronic devices such as bi-polar and field-effect transistors, thyristors and vacuum devices. Application of these devices in simple electronic circuits.

252 INSTRUMENTS AND SYSTEMS MEASUREMENTS (2)

One lecture hour, three lab hours per week. Prerequisite: E.T. 200 or equivalent qualification, concurrent enrollment in E.T. 250.

A study of measuring equipment and techniques as applied to electronic devices, linear circuits, audio and other electronic systems.

260 DIGITAL LOGIC CIRCUITS I (3)

Two lecture hours, three lab hours per week. Prerequisites: E.T. 110 or equivalent qualifications.

A study of characteristics of digital electronic circuits that utilize such IC devices as gates, flip-flops and memories.

280 ELECTRICAL/MECHANICAL ASSEMBLY TECHNOLOGY I (2)

One lecture hour, three lab hours per week. Prerequisite: Concurrent enrollment in E.T. 250 or equivalent background.

Basic hand skills required of electronics technicians. Familiarization with fabrication and assembly techniques typical of the electronics industry, with emphasis on quality of workmanship. (Extra supplies required.)

300 ANALYSIS LINEAR CIRCUITS (4)

Two lecture hours, six lab hours per week. Prerequisites: E.T. 250 or equivalent qualifications.

Study of multi-stage linear discrete and IC circuit such as amplifiers. Oscillators and regulators.

302 MODULATION/DEMODULATION AND SIGNAL PROCESSING SYSTEMS (3)

Two lecture hours, three lab hours per week. Prerequisites: E.T. 252 or equivalent qualifications.

Study of the signal processing functions relative to modulation and demodulation of intelligence signals as used in audio and video communications systems.

310 DIGITAL LOGIC CIRCUITS II (3)

Two lecture hours, three lab hours per week. Prerequisite: E.T. 260 or equivalent qualification.

A study of the application of basic logic circuits to digital functions such as counting, encoding/decoding, storing, computing, processing and controlling.

330 ELEC/MECH ASSEMBLY TECH II (2)

One lecture hour, three lab hours per week. Prerequisite: Successful completion of E.T. 280 or equivalent industrial experience.

Familiarization with industrial prototyping techniques. To provide instruction in printed circuit layout including artwork, photography and fabrication. (Extra supplies required.)

350 ADVANCED CIRCUIT APPLICATIONS (4)

Two lecture hours, six lab hours per week. Prerequisite: E.T. 300 or equivalent qualifications.

Study of pulse and switching circuits, active radio-frequency circuits and advanced IC applications.

360 DIGITAL SYSTEMS (3)

Two lecture hours, three lab hours per week. Prerequisite: E.T. 310 or equivalent qualification.

A Study of electronic computing and control systems; the microprocessor, its interfaces and applications.

362 RADIO-FREQUENCY COMMUNICATION (4)

Three lecture hours, three lab hours per week. Prerequisite: E.T. 302 or equivalent qualification.

Study of radio-frequency/microwave transmission and reception principles and techniques, including transmission lines and antennas.

380 PRODUCT DEVELOPMENT (2)

One lecture hour, three lab hours per week. Prerequisite: Successful completion of E.T. 280 and E.T. 330 or equivalent industrial experience.

The student is acquainted with RF prototyping techniques and the various phases of product development and packaging. (Extra supplies required.)

666 (32) CAREER EXPLORATION (1)

Two lecture hours per week for the first 8 weeks of semester.

Introduces students to the industrial field of electronics technology and provides guidance for academic planning in preparation for future electronics employment.

680 (48) SELECTED TOPICS IN ELECTRONICS TECHNOLOGY (1-3)

Hours by arrangement.

Selected topics in Electronics Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Technology Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

710 (102) DC AND AC ELECTRONICS FUNDAMENTALS (4)

Three lecture and three lab hours per week. Prerequisites: E.T. 110 (14) or previous electronics experience.

Theory and practice for advanced study in electronics technology. DC and AC circuit actions of various combinations of resistance, capacitance and inductance. (Extra supplies may be required.)

720 (122) ACTIVE CIRCUITS AND DEVICES (4)

Three lecture and three lab hours per week. Prerequisite: E.T. 710 (102).

Theory and practice in the use of steady-state circuit action of active devices. Significant characteristics and corresponding circuits of solid state devices — resistors, capacitors and/or inductors. (Extra supplies may be required.)

730 (132) APPLIED LINEAR AMPLIFIER ANALYSES (4)

Three lecture and three lab hours per week. Prerequisite: E.T. 720 (122).

Analyses of circuits: review of single stage transistor amplifiers and frequency response, multi-stage direct-coupled amplifiers, negative feedback and amplifiers, operational amplifiers (adders), multipliers, active filters, equalizer tone controls; and power amplifiers, complementary and quasi-complementary.

740 (133) APPLIED ELECTRONICS CIRCUIT ANALYSES (4)

Three lecture and three lab hours per week. Prerequisite: E.T. 730 (132).

Analyses of circuits including power supplier, RF amplifiers, oscillators, non-sine waves and sine waves, FM-AM modulation and integrated circuit applications. (Extra supplies may be required.)

750 (134) DIGITAL CIRCUITS FUNDAMENTALS I (4)

Three lecture and three lab hours per week. Prerequisites: E.T. 110 (14) or E.T. 710 (102).

A basic course in theory and application of basic logic gates, TTL and CMOS logic families, Boolean algebra, arithmetic circuits, etc., to test instruments, computers, minicomputers, and microprocessors. (Extra supplies may be required.)

751 (135) DIGITAL CIRCUITS II (4)

Three lecture and three lab hours per week. Prerequisite: E.T. 750 (134).

Advanced digital computer systems, sub-systems, and input-output interface equipment. The sub-systems to be analyzed include digital voltmeter, memories, digital to analog conversion, processors and data transmission. (Extra supplies may be required.)

760 (143) MICROWAVE PRINCIPLES (3)

Three lecture hours per week. Prerequisites: E.T. 730 (132), or equivalent.

Study of transmission lines, active and passive microwave devices and their applications that operate in the microwave region.

765 (70) TELEVISION FUNDAMENTALS (4)

Three lecture hours, three lab hours per week. Prerequisites: Two semesters of electronics or equivalent experience.

Basic TV systems: modulation techniques and receivers, including CATV systems. Development of skills necessary for employment in electronic communications industries which require knowledge of TV system. (Evening session only.)

770 (105), 771 (106) COMMERCIAL LICENSES I & II (3-3)

Three lecture hours per week. Prerequisite: 770 (105) – E.T. 110 (14) or equivalent. 771 (106) – 770 (105) or equivalent.

770 (105) — The basic material covered in this course will be that outlined by the FCC as a study guide for the examination for the first- and second-class radio-telephone licenses. **771 (106)** — Continuation of preparation for license examination.

Engineering

111-112 (1a-1b) PLANE SURVEYING I AND II (3-3)

Two lecture and three lab hours per week. Prerequisite: 111 (1a) – Math. 130 (21); 112 (1b) – Engin. 111 (1a).

111 (1a) — Theory of measurements with application in surveying; measurements of distance, differential leveling, measurements of angles and directions; field astronomy; systematic random errors, adjustment of observations. **112 (1b)** — Route surveys, topographic surveys, earthwork triangulation, U.S. public land surveys; theory of state plane coordinate systems, municipal surveys; introduction to photogrammetry; legal aspects of surveying.

120 (14) PRINCIPLES OF TECHNICAL DRAWING (3)

See Drafting Technology 120 (14).

150 (16) STATICS (3)

See Architecture 150 (16).

160 (17) STRENGTH OF MATERIALS (3)

See Architecture 160 (17).

200 (20) DESCRIPTIVE GEOMETRY (2)

Six lab hours per week. Prerequisite: Math. 130 (21). Recommended: One year of high school mechanical drawing or Engin. 120 (14).

Fundamental principles of descriptive geometry and their application to engineering problems. Mathematical methods, vectors, truss and space-force polygons. Extra supplies may be required.

220 (22) ENGINEERING GRAPHICS (2)

Six lab hours per week. Prerequisite: Engin. 200 (20); Math. 261 (31) or Math. 241 (23a) (may be taken concurrently.)

Graphic mathematics, data representation, nomography and graphical calculus. Engineering sketches and working drawings. Introduction to engineering design principles and documentation by means of a student-designed apparatus. Extra supplies may be required.

230 (35) ENGINEERING STATICS (3)

Three lecture hours per week. Prerequisite: Math. 261 (31) or Math. 241 (23a). Recommended: Engin. 200 (20).

Plane and space force systems; vector algebra, equilibrium problems covering structures, machines, distributed force systems, friction, moments of inertia, and virtual work.

**644 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

**666 (4) CAREERS IN ENGINEERING (1)
(Credit/No Credit)**

Two lecture hours per week for eight weeks.

An intensive introduction to the problems faced by a beginning engineering student; academic and professional requirements, opportunities, available areas of specialization, alternatives. (Fall only.)

680 (48) SELECTED TOPICS IN ENGINEERING (1-3)

Hours by arrangement.

Selected topics in Engineering not covered by regular catalog offerings. Course content and unit credit to be determined by the Math/Science Division in relation to community-student need and/or available staff. May be offered as a seminar lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field. Independent study in a specific field or topic, directed by an

instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

700 (46) ENGINEERING REVIEW (E.I.T. Exam) (3)

Three lecture hours per week. Prerequisites: One year of engineering calculus and one year of engineering physics or equivalent.

A survey review of subjects from the several engineering disciplines, including topics selected from engineering mathematics, electricity, statics, dynamics, fluids, thermodynamics and engineering economics; with additional discussion of engineering as a profession. Preparation for the Engineer-In-Training examination (first half of the Professional Engineer examination boards). May be repeated for credit.

English

(Also see Literature and Reading.)

English, Literature, and Reading

English Placement Test — Required of all entering freshmen. Students transferring to College of San Mateo with credit in college English (a course equivalent to English 100, Interpretation and Composition) will not be required to take the test. It is designed to determine the entrant's ability in reading, the mechanics of writing, and composition. It is used (in addition to other information) to determine placement of students in English 100 (11) and other college transfer courses in English.

The English Program

The English program consists of transfer and non-transfer courses in composition, language, literature, reading and speech. Entering students should enroll first in one of the following courses in composition:

Transfer Course	Non-Transfer Courses
English 100 (11)	English 800 (A) or English 801 (61)

The English requirement may be completed with an additional three units chosen from the following courses:

Transfer Courses	Non-Transfer Courses
English 110 (12a), 120 (12b), 130 (12c), or 140 (12d)	English 802 (62) English 860 (63) English 880 (65)
Speech 100 (1a)	Reading 802 (66)
Speech 120 (10)	Reading 803 (67) Speech 825 (62)

Note that English 100 (11) is prerequisite for English 110 (12a), 120 (12b), 130 (12c), and 140 (12d). English 800 (A) or English 801 (61) is prerequisite for English 802 (62), 860 (63) and 880 (65). English 800 (A) is prerequisite for English 100 (11) except for students who placed in English 100 (11) on the placement test. Reading 802 (66) and 803 (67) may be taken concurrently with any of the other courses in the English/Literature program.

Other English/Literature transfer courses are those numbered below 800; other English/Literature non-transfer courses are those numbered above 800.

100 (11) COMPOSITION (3)
(Formerly Interpretation and Composition)

Three lecture hours per week. Prerequisite: Engl. 800 (A) or appropriate score on placement test.

Practice in writing based on a study of significant essays, poetry, fiction, drama, song lyrics, films, etc.

110 (12a) INTRODUCTION TO LITERATURE (3)

Three lecture hours per week. Prerequisite: Engl. 100 (11).

Study of literary types: fiction, drama, and poetry. Reading analysis and discussion of selected works; written reports; oral reading, lectures.

120 (12b) INTRODUCTION TO POETRY

Three lecture hours per week. Prerequisite: Engl. 100 (11).

Reading, analysis, and discussion of selected poetry; written reports; oral reading; lectures.

130 (12c) INTRODUCTION TO FICTION (3)

Three lecture hours per week. Prerequisite: Engl. 100 (11).

The short story and novel. Reading, analysis and discussion of selected works; written reports; oral readings; lectures.

140 (12d) INTRODUCTION TO DRAMA (3)

Three lecture hours per week. Prerequisite: Engl. 100 (11).

Reading, analysis, and discussion of selected dramatic works; written reports; oral readings; lectures.

161 (9a) CREATIVE WRITING I (3)

Three lecture hours per week. Prerequisite: Engl. 110 (12a), 120 (12b), 130 (12c) or 140 (12d).

The craft of writing short stories, sketches, and poetry. In the spring semester, members of the class may contribute to the College of San Mateo's annual magazine, *Pendulum*.

162 (9b) CREATIVE WRITING II (3)

Three lecture hours per week. Prerequisite: Engl. 161 (9a).

Further instruction in the craft of writing short stories, sketches, and poetry. In the spring semester, members of the class may contribute to College of San Mateo's annual magazine, *Pendulum*.

Practice in writing based on the reading and study of essays, short stories, and poems. Note: The student will receive one unit of credit for the practicum work; the other three units will appear on the transcript as credit for either English 100 (11) or English 800 (A), depending upon the level of achievement as a writer at the end of the semester.

165 (2) ADVANCED COMPOSITION (3)

Three lecture hours per week. Prerequisite: Engl. 100 (11).

Designed for students who already have some experience with writing both formal and informal essays and want to go further into the techniques of essay and article writing, with particular emphasis on the use of certain devices of fiction: scene-by-scene narration, details, point of view, and dialogue.

**643 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

195 (3) TERM PAPER (1)

Two lecture hours per week for eight weeks.

A short course designed to assist the student who has never had the experience of writing a documented or "research" paper. Emphasizes the process and techniques involved in the actual production of a term paper.

680 (48) SELECTED TOPICS IN ENGLISH (1-3)

Hours by arrangement.

Selected topics in English not covered by regular catalog offerings. Course content and unit credit to be determined by the Language Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

200 (14) ENGLISH LANGUAGE AND LINGUISTICS (3)

Three lecture hours per week. Prerequisite: Engl. 100 (11).

Study of historical changes in language from the view of traditional and modern grammatical systems, including an analysis of linguistic concepts. (Spring only)

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

210 (13) WORD STUDY (3)

Three lecture hours per week. Prerequisite: Engl. 100 (11).

Vocabulary course including principles of semantics. Some specific topics covered include etymology, dialects, roots, and combining forms.

**800 (A) WRITING DEVELOPMENT (3)
(Formerly Basic Interpretation & Composition)**

Three lecture hours per week. Prerequisites: English 801 (61) or appropriate score on placement test.

Intensive review of basic skills necessary for college-level composition. Practice in writing to develop and refine specific, overall composition skills. Development of specific reading skills to reinforce the process of writing expository essays. Designed mainly to prepare students to meet competency standards required for entrance into English 100 (11).

311 (57a) ENGLISH FOR NON-NATIVE SPEAKERS I (1-5)

Five lecture hours per week. Prerequisite: Diagnostic test.

Study of English grammar and composition, drill in oral and written vocabulary, sentence structure, and English idiom.

312 (57b) ENGLISH FOR NON-NATIVE SPEAKERS II (1-5)

Five lecture hours per week. Prerequisite: Engl. 311 (57a).

Further study of English grammar and composition, drill in oral and written vocabulary, sentence structure, and English idiom.

411 (A/11 and A/11X) INTERMEDIATE COMPOSITION (4)

Three lecture hours and two hours of writing practicum per week. Prerequisite: Engl. 801 (61) or appropriate score on placement test.

801 (61) BASIC READING AND COMPOSITION (3)

Three lecture hours per week.

Practice in reading and writing based on a study of essays, poetry, fiction, drama, song lyrics, films, etc.

802 (62) READING—INTERPRETATION (3)
(Formerly Basic Introduction to Literature)

Three lecture hours per week. Prerequisite: English 801 (61) or English 800 (A).

Study of fiction, drama and poetry. Reading, class discussion; oral readings; lectures; written reports.

811 (61/A and 61/AX) INTERMEDIATE READING, INTERPRETING, AND COMPOSITION (4)

Three lecture hours and two hours of writing practicum per week. Prerequisite: Appropriate score on placement test.

Practice in writing based on the reading and study of essays, short stories and poems. Note: The student will receive one unit of credit for the practicum work; the other three units will appear on the transcript as credit for either English 800 (A) or English 801 (61), depending upon the level of achievement as a writer at the end of the semester.

860 (63) VOCABULARY (3)

Three lecture hours per week.

The use of the dictionary, with emphasis on contemporary usage and practical application of vocabulary skills in the mastery of other subjects. Designed to increase and improve the student's word stock.

880 (65) ENGLISH GRAMMAR (3)

Three lecture hours per week.

Study of basic grammar, including such topics as sentence structure, diction, agreement, punctuation, and troublesome verbs.

Ethnic Studies

101 (1a) INTRODUCTION TO ETHNIC STUDIES I (3)

Three lecture hours per week.

A study of the historical and cultural presence of Native Americans and La Raza in the United States, with special emphasis on their contributions to California's social, political and economic institutions. The roots of these groups studied from California and nationwide perspectives. Provides the student with a general background on two of California's oldest ethnic groups, and stimulates dialogue related to contemporary issues in California's institutional processes.

102(1b) INTRODUCTION TO ETHNIC STUDIES II (3)

Three lecture hours per week.

A study of the historical and cultural presence of Blacks and Asians in the United States, with special emphasis on their

contributions to California's social, political, and economic institutions. Their roots in California will be studied and compared from a national perspective. Provides the student with a general background on these two California groups and stimulates dialogue related to contemporary issues in California's institutional processes.

150 (16) SOCIAL DYNAMICS OF PEOPLE OF COLOR (3)

Three lecture hours per week.

Social structure and dynamics of Third World institutions, with emphasis upon development and effectiveness of these institutions among Third World communities in the United States. Concentrations include the family, education, religion and business. (Identical to Sociology 150.)

151 (6a) PATTERNS OF PREJUDICE AND RACISM I (3)

Three lecture hours per week.

Problems of prejudice and racism reviewed from a social-psychological perspective. Topics include how and when prejudiced attitudes are developed and their behavioral manifestations. Examples of sex, national, political, and racial prejudice and discrimination are presented. (Identical to Sociology 151.)

152 (6b) PATTERNS OF PREJUDICE AND RACISM II (3)

Three lecture hours per week.

Prejudice and racism analyzed according to international implications. Topics include imperialism, colonialism, nationalism, and genocide, with special concentration on contemporary issues such as those found in the Middle East, South Africa, Ireland. (Identical to Sociology 152.)

160 (7) PSYCHOLOGY OF PEOPLE OF COLOR (3)

Three lecture hours per week.

The development of psychological theories that provide viable alternative methods of analyzing the ideational and behavioral mechanisms operative among Third World persons. Exploration of methods of treatment of the major mental illnesses affecting each culture.

266 (43) BLACK LITERATURE (3)

Three lecture hours per week. Prerequisite: English 110 (12a), 120 (12b), 130 (12c) or 140 (12d).

Comprehensive survey of Afro-American letters in the United States from 1619 to the present. (Identical to Literature 266.)

288 (44) THE HISTORY OF BLACKS IN FILM (3)

Three lecture hours per week.

Contributions of Blacks in the film industry and their historical relationship to the industry. Extensive use of films, supplemented by lecture and presentations by Black persons involved in the film industry.

261 (33a) AFRICAN-AMERICAN CULTURE I (3)

Three lecture hours per week.

Discusses the relevance of African culture to the study of African-American life, including the African diaspora and its impact on contemporary African-American cultural institutions. (Identical to Social Science 261.)

262 (33b) AFRICAN-AMERICAN CULTURE II (3)

Three lecture hours per week.

Explores the emergence of modern Black social movements in the United States, their leaders and philosophies, and contemporary issues including the Black consciousness movement, Pan-Africanism, counter-cultural forms of expression, and social problems. (Identical to Social Science 262.)

267 (15) AFRO-AMERICAN LANGUAGE (3)

Three lecture hours per week.

Examination of the development of African-American language as a product of cultural contact. Linguistic roots of the language spoken by Black Americans. Innovative teaching methods for Black children and adults are utilized.

270 (41) SURVEY OF BLACK MUSIC (3)

Three lecture hours per week.

Chronological survey of the various styles and salient elements of the music of the Afro-American, encompassing sociological as well as musical factors. (Identical to Music 270.)

275 (42) HISTORY OF JAZZ

Three lecture hours per week.

Study of all jazz since 1900, with emphasis on instrumental styles. The development of jazz since 1940 and contemporary trends. (Identical to Music 275.)

290 (20) CRIME AND THE BLACK COMMUNITY (3)

Three lecture hours per week.

Explores nature and extent of crime among Blacks in the U.S. Seeks to understand crime, suggest methods of control, and predict criminality within the Black community. Topics covered: crimes against person, property, conviction rates among Blacks, and application of penal codes.

300 (3) INTRODUCTION TO LA RAZA STUDIES (3)

Three lecture hours per week.

Analysis of the origin, growth and development of mestizo peoples in the Americas. Introduction to the objectives, philosophies and history of the Chicano-Latino people and their cultural contributions to the United States. Examination of the dynamic and interpersonal dimensions of Chicanismo, utilizing lectures, films and group discussions.

305 (5) INTRODUCTION TO NATIVE AMERICA (3)

Three lecture hours per week.

Emphasizes the aspects of life, thought and culture that characterize the Native American and distinguish him from non-Indian cultures. Differences and similarities among various tribes are studied.

310 (8) CULTURAL CONTRIBUTIONS OF BROWN AND RED PEOPLES (3)

Three lecture hours per week.

Cultural contributions including art, drama, music, dance, and dress patterns intrinsic to the Brown and Red peoples. The significance of each of these art forms to American life and how they have affected the American scene. (Identical to Anthropology 310.)

320 (11) LITERATURE AND LIFE OF BROWN AND RED AMERICANS (3)

Three lecture hours per week.

Emphasizes the writer's contributions to the definition of American life and his/her attempt to articulate the anxieties, joys, frustrations, and sorrows of his people. Investigates his life in changing environment as described by his literary works.

**350 (12a) NATIVE AMERICAN WAY OF LIFE I (3)
(Formerly Castaneda: Native/Latin American Life)**

Three lecture hours per week.

Course concentrates on the teachings and writings of Carlos Castaneda, who presents the Yaqui way of life through an Old Yaqui Indian. Ancient Indian philosophies are taught and discussed, including views on the universe, nature, dignity, and self-esteem. First eight weeks concentrate on *The Teachings of Don Juan* and *A Separate Reality*. Second eight weeks use *Journey to Ixtlan* and *Tales of Power* as primary sources.

351 (12b) NATIVE AMERICAN WAY OF LIFE II (3)

Three lecture hours per week. Prerequisite: Ethnic Studies 350(12a).

Course offers advanced study of ancient ceremonial knowledge of the Brown and Red peoples of America. The material covered is comparable to advanced religions and philosophies of eastern Asiatic cultures, i.e. Zen Buddhism, Judeo-Christian, Hinduism. Focus on the concept of power and the modern pragmatic American mind as compared to the mystical reality of Native America.

425 (4) THE HISTORY OF ASIAN PEOPLE IN THE UNITED STATES (3)

Three lecture hours per week.

Asian-American history from 1840 to the present, with special attention to the contemporary issues and problems that are prevalent in Asian-American communities.

435 (14) THE CHINESE IN THE UNITED STATES (3)

Three lecture hours per week.

Socio-cultural history of the Chinese in America, their migration into urban areas, socialization, and role in American society from the 19th century to the present. Particular attention devoted to the transition of the Chinese family upon arrival in the United States.

450 (25) JAPANESE-AMERICAN RELOCATION CAMPS (3)

Three lecture hours per week.

An introduction to the Japanese-American internment experience during World War II. Anti-Japanese sentiment during the 1930's and its impact on West Coast Japanese. Topics to be explored include the rationale for removal, the evacuation process, life in the camps, generational conflicts, resistance to the camps, and the post-war impact of the camps.

510 (17) AFRICAN LITERATURE (3)

Three lecture hours per week.

Survey of works of contemporary African writers. An introduction course about the peoples and cultures of Africa through their literature, myths, legends, proverbs, and oral tradition as expressed by contemporary authors.

520 (18) GOVERNMENTS AND POLITICS OF AFRICA (3)

Three lecture hours per week.

An introduction to the study of the emergent African states, examining the political factors impinging on their decision-making processes and their geo-political consequences. A comparative analysis of non-Western institutional structures; differences in ideological orientation; and economic interdependence in the context of contemporary world politics. (Identical to Political Science 520.)

**585 (45) THIRD WORLD CINEMA (1)
(Credit/No Credit)**

Three lecture hours per week for six weeks.

An overview of the history of film by and about Third World peoples and their contributions to the development of cinema. Focus on films by and about African people in various parts of the world.

645 (46) SOCIAL INVESTIGATION & RESEARCH IN ETHNIC URBAN COMMUNITY ORGANIZATIONS (3)

Two hours of lecture and three hours of supervised field work per week. Prerequisites: Six units of Ethnic Studies and/or Social Science courses.

Analysis of recent urban and social developments in San Mateo County communities. Theoretical and empirical dimensions of the urban ethnic experience. Participation in a selected community-based organization located in an urban institutional setting. A written report will mark completion of the project.

680 (48) SELECTED TOPICS IN ETHNIC STUDIES (1-3)

Hours by arrangement.

Selected topics in Ethnic Studies not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN ETHNIC STUDIES (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Fire Science

**647 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in the field of fire protection and suppression, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN FIRE SCIENCE (1-3)

Selected topics in science not covered by regular catalog offerings. Course content and unit credit to be determined by the Health and Service Careers Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an

instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

700 (50) FIRE FIGHTING TACTICS (3)

Three lecture hours per week.

Study of facts and probabilities, the firefighter's own situation, decision and plan of operation in combating a variety of emergency fire problems.

705 (51a) FIRE SCIENCE HYDRAULICS (3)

Three lecture hours per week.

Basic mathematics, principles of hydraulics, calculations of engine and nozzle pressures, discharge, fire streams, friction loss and pump operation and characteristics. Application of formulas to hydraulics and water supply problems.

710 (53) COMPANY ADMINISTRATION (3)

Three lecture hours per week.

Introduction to fire service organization, with emphasis on company officers in relation to planning, responsibility, organizing and supervision necessary to meet the needs of the fire service agency.

712 (54) PERSONNEL ADMINISTRATION (3)

Three lecture hours per week.

Organization and administration of fire service personnel; analysis, classification and description of jobs; incentives; evaluation; placement activities; training, safety, medical, grievances, discipline and employee benefits.

715 (55) FIRE PROTECTION AND SUPPRESSION (3)

Three lecture hours per week.

The philosophy and history of fire protection, characteristics and behavior of fire, fire extinguishing agents, and fire protection organization and associated equipment. A brief introduction to the Insurance Service Offices Grading Schedule and its relation to insurance rates.

720 (56) FUNDAMENTALS OF FIRE PREVENTION (3)

Three lecture hours per week.

Fundamentals of fire prevention techniques, procedures, regulation and enforcement; discussions of hazards in ordinary and special occupancies; organization and functions of fire prevention bureaus.

725 (61) FIRE DEPARTMENT APPARATUS AND EQUIPMENT (3)

Three lecture hours per week.

Operation, care and maintenance, specifications, capabilities and effective utilization of fire service apparatus and related equipment.

731-732 (62a-62b) HAZARDOUS MATERIALS I AND II (3-3)

Three lecture hours per week.

731 (62a) — An introduction to the basic fine chemistry and physics. Problems of flammability as encountered by firefighters when dealing with fuels and oxidizers. Elementary fire fighting practices pertaining to hazardous materials in storage and transit. **732 (62b)** — Handling, identification and fire fighting practices involving explosive, toxic and radioactive materials in storage and transit.

740 (63) BUILDING CONSTRUCTION FOR FIRE PROTECTION (3)

Three lecture hours per week.

Fundamentals of building construction as it relates to fire protection, with emphasis on code requirements, utilization of building materials and their fire resistive qualities.

745 (64) FIRE PROTECTION EQUIPMENT AND SYSTEMS (3)

Three lecture hours per week.

A study of water supply systems, portable and fixed fire extinguishing equipment, sprinkler systems, protection systems for special hazards, and fire detection and alarm systems.

750 (65) RELATED CODES AND ORDINANCES (3)

Three lecture hours per week.

Familiarization and interpretation of national, state, and local laws and ordinances which influence the field of fire prevention and safety.

755 (66) RESCUE PRACTICES (3)

Three lecture hours per week.

Fundamentals of rescue practices, use of emergency tools and equipment, vehicle extrication, emergency care of accident victims, cardiopulmonary resuscitation, and emergency first aid.

760 (67) FIRE INVESTIGATION (3)

Three lecture hours per week.

Introduction to arson and incendiarism, arson laws and types of incendiary fires, methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses; procedures in handling juveniles; court procedure and giving court testimony.

771 (68a) FIRE SERVICE TRAINING I (3)

Three lecture hours per week. Prerequisite: F.S. 710 (53), 712 (54), 715 (55).

Designed for fire company officers who conduct in-service training programs. Identification of training needs, use of occupational analysis, identifying course objectives and content, establishing levels of instruction, constructing student performance goals, constructing manipulative lesson plans, preparing supplementary instruction sheets, and teaching manipulative skills.

772 (68b) FIRE SERVICE TRAINING II (3)

Three lecture hours per week. Prerequisite: 771 (68a).

Fundamentals of establishing levels of technical instruction, constructing student performance goals, constructing technical lesson plans, teaching technical subjects, and use of visual teaching aids.

781 (70a) BASIC FIRE ACADEMY I (5)

Four lecture and three lab hours per week.

Designed for pre-service instruction in fire service organizations, fire control, equipment operations and procedures, extinguishers and protective equipment, care and use of hose, nozzles and fittings.

782 (70b) BASIC FIRE ACADEMY II (5)

Four lecture and three lab hours per week. Prerequisite: F.S. 781 (70a).

Lecture and manipulative instruction in basic and advanced hose evolutions, fire service ladders, salvage and overhaul procedures and emergency medical care.

Foreign Language

Students who expect to transfer to a four-year institution are strongly advised to study a foreign language at the college. Please see individual listing for offerings in French, German and Spanish.

French

Language Laboratory and Listening Requirement — Students enrolled in certain courses in foreign language are required to make use of the language laboratory as prescribed by each department. Limitation, response and independent practice are integral features of the study of a foreign language at the college.

110 (1) ELEMENTARY FRENCH (5)

Five lecture hours and two lab hours per week.

Conversation in the language, dictation, reading, study of the fundamentals of grammar and the writing of simple French exercises.

111 (1a) ELEMENTARY FRENCH I (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three lecture hours and one lab hour per week.

Approximately half of the semester's work in French 110 is covered in this course.

112 (1b) ELEMENTARY FRENCH II (3)

May be offered either for eight weeks on a daily basis plus two lab hours, beginning at mid-term, or in a semester-long program for three lecture hours and one lab hour per week. Prerequisite: French 111 (1a) or equivalent.

Approximately the second half of the semester's work in French 110 is covered. French 111 and 112 are equivalent to French 110.

120 (French 2) ADVANCED ELEMENTARY FRENCH (5)

Five lecture hours and two lab hours per week. Prerequisite: Completion of French 110(1) or French 112(1b), with a passing grade, or assignment by the Foreign Language Department on the basis of the Foreign Language Placement Test in French.

Conversation, dictation, further study of grammar and sentence structure; study of cognates, derivatives and idioms, reading of short stories.

121 (2a) ADVANCED ELEMENTARY FRENCH I (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three lecture hours and one lab hour per week. Prerequisite: French 110(1) or 112(1b).

Approximately the first half of the semester's work in French 120 is covered.

122 (2b) ADVANCED ELEMENTARY FRENCH II (3)

May be offered either for eight weeks on a daily basis plus two lab hours, beginning at mid-term, or in a semester-long program for three lecture hours and one lab hour per week. Prerequisite: French 121 (2) or equivalent.

Approximately the second half of the semester's work in French 120 is covered. French 121 and 122 are equivalent to French 120.

130 (3) INTERMEDIATE FRENCH (5)

Five lecture hours and one lab hour per week. Prerequisite: Completion of French 110(1) and 120(2) with a passing grade, or assignment by the Foreign Language Department on the basis of the Foreign Language Placement Test in French. Concurrent enrollment in French 201(8a) is recommended.

Reading of short stories, plays or novels; review of grammar, conversation, composition, dictation.

131 (3a) INTERMEDIATE FRENCH I (3)

May be offered either for eight weeks on a daily basis plus one lab hour, or in a semester-long program for three lecture hours and one-half hour lab per week. Prerequisite: French 120(2) or 122(2b).

Approximately the first half of the semester's work in French 130 is covered.

132 (3b) INTERMEDIATE FRENCH II (3)

May be offered either for eight weeks on a daily basis plus one lab hour, beginning at mid-term, or in a semester-long program for three lecture hours and one-half hour lab per week. Prerequisite: French 131 (3a) or equivalent.

Approximately the second half of the semester's work in French 130 is covered. French 131 and French 132 are equivalent to French 130.

140 (4) ADVANCED INTERMEDIATE FRENCH (3)

Three lecture hours and one lab hour per week. Prerequisite: Completion of French 130(3) with a passing grade, or assignment by the Foreign Language Department on the basis of the Foreign Language Placement Test in French. Concurrent enrollment in French 201(8a) or 202(8b) recommended.

Reading of selections from French literature and reading of a contemporary novel; further practice of conversation and composition; continued review of principles of grammar; analysis of idioms.

161 (25a) READING IN FRENCH LITERATURE I (3)

Three lecture hours and two lab hours per week, or one hour recording and one hour outside reading. Prerequisite: Completion of French 140(4) with a passing grade, or assignment by the Foreign Language Department on the basis of the

Foreign Language Placement Test in French. Concurrent enrollment in French 202(8b) recommended.

Reading and discussion of works of French literature. Continued review of principles of grammar.

162 (25b) READING IN FRENCH LITERATURE II (3)

Three lecture hours and two lab hours per week, or one hour recording and one hour outside reading. Prerequisite: French 161 (25a).

Further reading and discussion of works of French literature. Continued review of principles of grammar.

201 (8a) FRENCH CONVERSATION I (2)

Two lecture hours and one lab hour per week. Prerequisite: French 130(3) or French 140(4), or concurrent enrollment in French 130(3) or equivalent. (Native speakers not eligible.)

Practice in conversation based on French customs and culture. (May be repeated for credit.) (Fall only.)

202 (8b) FRENCH CONVERSATION II (2)

Two lecture hours and one lab hour per week. Prerequisite: French 201(8a) or French 140(4) or 161(25a), or equivalent. (Native speakers not eligible.)

Further practice in conversation based on French customs and culture. (May be repeated for credit.) (Spring only.)

620 (30) INDIVIDUAL READING IN FRENCH (1-2)

Conference periods for oral reports. Time to be arranged. A minimum of three hours of reading per unit of credit is required weekly. Prerequisites: Current enrollment in or completion of French 162(25b).

Reading of French classics, contemporary literature or recent periodicals. (May be repeated for credit.)

680 (48) SELECTED TOPICS IN FRENCH (1-3)

Hours by arrangement.

Selected topics in French not covered by regular catalog offering. Course content and unit credit to be determined by the Director of the Language Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Language Arts Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

**801 (100a) CONVERSATIONAL FRENCH I,
ELEMENTARY (2)
(Credit/No Credit)**

Three lecture hours per week.

A practical course in the French language approached by way of conversation. Intensive drill in the patterns and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. May be considered an excellent preparatory course for students who have not taken a foreign language before. (This course will not fulfill language requirements at California State Colleges or at the University of California.) (May be repeated for credit.)

When student demands is light, French 802, 803 and 804 may be offered as 1.5 hour modules.

**802 (100b) CONVERSATIONAL FRENCH II,
ADVANCED ELEMENTARY (2)
(Credit/No Credit)**

Three lecture hours per week. Prerequisite: French 801(100a) or equivalent.

Further work in conversation following the model of French 801. (This course will not fulfill language requirements at California State Colleges or at the University of California.)

**803 (100c) CONVERSATIONAL FRENCH III,
INTERMEDIATE (2)
(Credit/No Credit)**

Three lecture hours per week. Prerequisite: French 802(100b) or equivalent.

More advanced work in conversation following the model of French 802. (This course will not fulfill language requirements at California State Colleges or at the University of California.) (May be repeated for credit.)

**804 (100d) CONVERSATIONAL FRENCH IV,
ADVANCED INTERMEDIATE (2)
(Credit/No Credit)**

Three lecture hours per week. Prerequisite: French 803(100c) or equivalent.

Further advanced work in conversation following the model of French 803. (This course will not fulfill language requirements at California State Colleges or at the University of California.) (May be repeated for credit.)

Geography

100 (1a) PHYSICAL GEOGRAPHY (3)

Three lecture hours per week plus field trips.

Basic characteristics of physical features and their interrelationships; environmental systems and their interactions with man. Maps, photos, and the regional concept are the primary tools for this study. (Satisfies the General Education requirement for Physical Science.)

110 (1b) CULTURAL GEOGRAPHY (3)

Three lecture hours per week.

Aerial distribution of the most important parts of man's culture. Emphasis on the way he makes a living; the origin and development of man, population distribution and settlement patterns. (Satisfies Social Science requirement in part.)

120 (4) ECONOMIC GEOGRAPHY (3)

Three lecture hours per week.

Investigation and description of basic resources, and the effects of different cultural and physical environments upon the utilization of these resources. Products of various agricultural areas of the world, mineral resources, industry, transportation, communication and power production.

150 (6) WORLD REGIONAL GEOGRAPHY (3)

Three lecture hours per week.

World landscapes and how they have changed under the impact of population, technological and social changes. The problems that have resulted from those changes, and the physical, cultural and economic patterns that have developed. An overview of material covered in Geog. 160 and 170.

160 (5a) WORLD REGIONAL GEOGRAPHY I (3)

Three lecture hours per week.

North and South American landscapes and how they have changed under the impact of population, technological and social change; resulting problems and physical, historical and economic patterns.

170 (5b) WORLD REGIONAL GEOGRAPHY II (3)

Three lecture hours per week.

European, Asian and African landscapes and how they have changed under the impact of population, technological and social change; resulting problems and physical, historical and economic patterns.

680 (48) SELECTED TOPICS IN GEOGRAPHY (1-3)

Hours by arrangement.

Selected topics in Geography not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN GEOGRAPHY (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.
Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

800 (99) HISTORICAL GEOGRAPHY (3)

Three lecture hours per week.
Analysis of selected problems from the historical geography of the United States. Emphasis on small discussion groups. Extensive use of audio-visual materials. (Fulfills American Institutions requirement for students working toward the Associate in Arts degree.) (Identical to History 800.)

Geology

100 (10) SURVEY OF GEOLOGY (3)

Day: Two lecture and one recitation hour per week plus two field trips. Evening: Three hours per week plus two Saturday field trips. Not open to students who have taken or are taking Geology 210 (1a).

Basic principles of igneous, sedimentary and metamorphic geology. Lectures on rocks, minerals and the origin of the earth, continents and mountains. A brief sketch of the geological history of the earth and the evolution of its animal and plant inhabitants.

130 (6) ELEMENTARY MINERALOGY (4)

Two lecture and six lab hours per week, plus one four-day field trip, two one-day field trips and one half-day field trip. Recommended: Elementary Chemistry.

Basic principles of crystallography, crystal chemistry and mineral formation. Laboratory includes mineral and rock identification, plus work on crystal models and the crystal projections. (Offered alternate spring semesters.)

210 (1a) GENERAL GEOLOGY (4)

Three lecture and three lab hours per week plus two field trips. (Not open to students who have taken or are taking Geology 100 (10).)

An introduction to the nature and structure of the materials composing the earth and of the various processes which shape the earth's surface.

220 (1b) HISTORICAL GEOLOGY (4)

Three lecture hours and three lab hours per week, plus one week-end field trip and one day-long field trip. Prerequisite: Geology 210 (1a) or Geology 100 (10).

Geological history of the earth and the evolution of its animal and plant inhabitants. (Offered alternate spring semesters.)

680 (48) SELECTED TOPICS IN GEOLOGY (1-3)

Hours by arrangement.
Selected topics in Geology not covered by regular catalog offerings. Course content and unit credit to be determined by the Math/Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.
Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

German

Language Laboratory and Listening Requirement — Students enrolled in certain courses in foreign language are required to make use of the language laboratory as prescribed by each department. Imitation, response and independent practice are integral features of the study of a foreign language at the College.

110 (1) ELEMENTARY GERMAN (5)

Five lecture hours and 2 lab hours per week.
Study and practice (both oral and written) of basic forms and patterns of German, development of a satisfactory pronunciation, the learning and using of vocabulary of high frequency and the reading of simple German text. The student is required to make extensive use of the listening facilities in the College library and of the language laboratory.

111 (1a) ELEMENTARY GERMAN I (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three lecture hours and one lab hour per week.

Approximately half of the semester's work in German 110 covered in this course. Recommended for those students without any background in foreign language study.

112 (1b) ELEMENTARY GERMAN III (3)

May be offered either for eight weeks on a daily basis plus two lab hours, beginning at mid-term, or in a semester-long program for three lecture hours and one lab hour per week. Prerequisite German 111 (1a) or equivalent.

Approximately the second half of the semester's work in German 110 is covered. German 111 and 112 are equivalent to German 110.

120 (2) ADVANCED ELEMENTARY GERMAN (5)

Five lecture hours and two lab hours per week. Prerequisite: German 110 (1) with a passing grade, or completion of German 112 (1b) with a passing grade; or assignment by the Foreign Language Department on the basis of the Foreign Language Placement Test in German.

Continuation of work begun in German 110 with continued practice in listening, speaking, reading (of more difficult textual material) and writing. (See "Language Laboratory Requirement" above.)

121 (2a) ADVANCED ELEMENTARY GERMAN I (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three lecture hours and one lab hour per week. Prerequisite: German 110 (1) or 112 (1b).

Approximately the first half of the semester's work in German 120 is covered.

122 (2b) ADVANCED ELEMENTARY GERMAN II (3)

May be offered either for eight weeks on a daily basis plus two lab hours, beginning at mid-term, or in a semester-long program for three lectures hours and one lab hour per week. Prerequisite: German 121 (2a) or equivalent.

Approximately the second half of the semester's work in German 120 is covered. German 121 and 122 are equivalent to German 120.

130 (3) INTERMEDIATE GERMAN (5)

Five lecture hours and one lab hour per week. Prerequisite: German 120 (2) with a passing grade, or assignment by the Foreign Language Department on the basis of the Foreign Language Placement Test in German.

Reading of modern writers, advanced grammar and syntax; study of idioms; study of vocabulary through cognates, derivatives and word building.

131 (3a) INTERMEDIATE GERMAN I (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three lecture hours and one lab hour per week. Prerequisite: German 120 (2) or 122 (2b).

Approximately the first half of the semester's work in German 130 is covered.

132 (3b) INTERMEDIATE GERMAN II (3)

May be offered either for eight weeks on a daily basis plus two lab hours, beginning at mid-term, or in a semester-long program for three lecture hours and one lab hour per week. Prerequisite: German 131 (3a) or equivalent.

Approximately the second half of the semester's work in German 130 is covered. German 131 and 132 are equivalent to German 130.

140 (4) ADVANCED INTERMEDIATE GERMAN (3)

Three lecture hours and one lab hour per week. Prerequisite: German 130 (3) with a passing grade, or assignment by the Foreign Language Department on the basis of the Foreign Placement Test in German.

More time and attention are devoted to reading; texts are by German authors, beginning with Goethe to recent times. Study of work families, derivatives, compounds, idioms; practice of patterns; aural practice.

161 (25a) READINGS IN GERMAN LITERATURE I (3)

Three lecture hours per week. Prerequisite: German 140 (4).

Oral and written composition, class reading of works of German literature, extensive collateral reading of varied types of German literature and study of a review of grammar. (May be repeated for credit.)

162 (25b) READINGS IN GERMAN LITERATURE II (3)

Three lecture hours per week. Prerequisite: German 161 (25a).

Continuation of oral and written composition, class reading of works of German literature, extensive collateral reading of varied types of German literature and study of a review of grammar. (May be repeated for credit.)

201 (8a) GERMAN CONVERSATION I (2)

Two lecture hours and one lab hour per week. Prerequisite: Successful completion of two semesters of college-level work in German. Native speakers not eligible.

Conversation based upon German customs, manners, mores, history, newspapers, periodicals, plays and short stories. (May be repeated for credit.)

202 (8b) GERMAN CONVERSATION II (2)

Two lecture hours and one lab hour per week. Prerequisite: Successful completion of three semesters of college-level work in German. Native speakers not eligible.

Further conversation based upon German customs, manners, mores, history, newspapers, periodicals, plays and short stories. (May be repeated for credit.)

620 (30) INDIVIDUAL READINGS—GERMAN (1-2)

One conference period per week or oral report. Prerequisite: Evaluation of previous preparation, usually at least German 140 (4). Minimum requirements: 54 hours of reading for each unit granted. Credits are based on the reading accomplished by each student.

Modern books or recent periodicals. The student's preference determines largely the choice of the reading material. (May be repeated for credit.)

680 (48) SELECTED TOPICS IN GERMAN (1-3)

Hours by arrangement.

Selected topics in German not covered by regular catalog offerings. Course content and unit credit to be determined by the Director of the Language Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

801 (100a) CONVERSATIONAL GERMAN I, ELEMENTARY (2) (Credit/No Credit)

Three lecture hours per week.

A practical course in the German language approached by way of conversation. Intensive drill in the patterns and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. May be considered an excellent preparatory course for students who have not taken a foreign language before. (This course will not fulfill language requirement at California State Colleges or at the University of California.) (May be repeated for credit.)

When student demand is light, German 802 (100b), 803 (100c) and 804 (100d) may be offered as 1.5 hour modules.

802 (100b) CONVERSATIONAL GERMAN II, ADVANCED ELEMENTARY (2) (Credit/No Credit)

Three lecture hours per week. Prerequisite: German 801 (100a) or equivalent.

Further work in conversation following the model of German 801. (This course will not fulfill language requirement at California State Colleges or at the University of California.) (May be repeated for credit.)

803 (100c) CONVERSATIONAL GERMAN III, INTERMEDIATE (2) (Credit/No Credit)

Three lecture hours per week. Prerequisite: German 802 (100b) or equivalent.

More advanced work in German following the model of German 801. (This course will not fulfill language requirement at California State Colleges or at the University of California.) (May be repeated for credit.)

804 (100d) CONVERSATIONAL GERMAN IV, ADVANCED INTERMEDIATE (2) (Credit/No Credit)

Three lecture hours per week. Prerequisite: German 803 (100c) or equivalent.

Further advanced work in conversation following the model of German 803. (This course will not fulfill requirement at California State Colleges or at the University of California.) (May be repeated for credit.)

Guidance

405 (5) DECISIONS (1) (Credit/No Credit)

Three lecture hours per week for six weeks.

Provides students with opportunities to develop the skills involved in making valid decisions and choices, establishing personal values, and investigating personal growth factors and behavior patterns affecting studying and peer relationships. Satisfies elective requirement for the A.A. degree and G.E. transfer. (May be repeated for credit.)

410 (10) COLLEGE AWARENESS (2)

Two hours a week. Open to all students but strongly recommended for entering freshmen enrolled in general courses with an "undecided" major, or for students who wish to verify their career and educational choice.

Acquaintance with campus facilities and activities, improvement of study habits and skills, educational planning toward a

realistic, meaningful goal. Career planning to discover potential talents by means of tests measuring new interests and aptitudes.

411 (11) ORIENTATION TO PEER COUNSELING (1-3)
(Credit/No Credit)

Three lecture hours per week for the first 8 weeks, followed by lectures and field work by arrangement.

An introduction to the functions of Student Services, including counseling/advising, guidance and student activities. Prepares the student for a position as a Student Assistant Counselor-Advisor Aide/Peer Counselor-Advisor Aide. Explores opportunities for career choices in Student Services. (May be repeated for credit.)

430 (30) CAREER EXPLORATION (1)
(Credit/No Credit)

Three lecture hours plus 1 lab hour per week for 6 weeks by arrangement.

A variety of tests is given to appraise aptitudes, interests, personal adjustments and special abilities, and to assist students in making effective educational and vocational plans. Designed for students who are undecided about career goals and who wish to explore their interests, abilities and values in a small-group setting.

431 (31) PERSONALIZING CAREER CHOICES (1)
(Credit/No Credit)

Eighteen lecture plus 6 lab hours by arrangement.

An open-entry, individualized career exploration course designed basically for the mature student who prefers to work independently. Course work may be completed at the student's own pace, and consists of a variety of tests to appraise aptitudes, interests and special abilities.

432 JOB SEARCH STRATEGY (1)
(Credit/No Credit)

Three lecture hours per week for 6 weeks. Prerequisite: Guid. 808 (8), 410 (10), 430 (30) or 431 (31), or equivalent.

Planned to help the student become a successful job applicant. Emphasis on developing the knowledge and skills needed to write a resume', participate in a job interview, complete follow-up techniques and procedures and develop a plan of action. Assistance in setting short- and long-term goals.

680 (48) SELECTED TOPICS IN GUIDANCE (1-3)

Hours by arrangement.

Selected topics in Guidance not covered by regular catalog offerings. Course content and unit credit to be determined in relation to community-student need, and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

808 (8) COLLEGE RE-ENTRY (1-3)
(Credit/No Credit)

Three class hours per week for eight weeks for one unit of credit. Discussion group two hours per week is optional.

Designed for adults whose education has been interrupted. Areas covered include analysis of present abilities and interests, investigation of new directions and objectives, investigation of career opportunities, development of college-level study skills, guidance and counseling for meeting new goals. (May be repeated for credit.)

896 (96) TUTORIALS (1-2)
(Credit/No Credit)

A minimum of 40 hours' work for each unit of credit.

Individual tutorial assistance or small group work with a tutor to fulfill the objectives of a student's course work in progress.

897 (97) TUTORING PRACTICUM (1 unit per 8 weeks)
(Credit/No Credit)

Ten lab hours per week for eight weeks. Prerequisite: G.P.A. 3.0 in subject the student wishes to tutor.

For students with demonstrated academic ability who wish to tutor individuals or small groups under staff supervision.

898 (98) TUTOR TRAINING (1 unit per 8 weeks)
(Credit/No Credit)

Two lecture and two lab hours per week for eight weeks. Prerequisite: Minimum G.P.A. of 3.00 in subject which the student wishes to tutor and demonstration of competency.

Orientation and training course for those conducting individual and small group tutoring in the CSM Learning Center. Introduction to group techniques and programmed materials. (May be repeated for credit.)

899 (99) STUDY SKILLS (2)
(Credit/No Credit)

Five hours per week.

Development of college-level reading and study skills, individualized instruction, group projects which enable the student to become more proficient in information acquisition and the learning process.

Health Science

100 (1) GENERAL HEALTH SCIENCE (2)

Two lecture hours per week. Health Science 100 (1) or equivalent required for A.A. degree (minimum 2 units. Two

units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).

A survey of today's most prevalent health problems, including such topics as heart disease, cancer, venereal disease, birth control, drug abuse, and emotional disorders. Discussions focus primarily on prevention, detection, and treatment of personal health problems and their social implications (This course satisfies the California teaching credential requirement.)

101 (2f) HEREDITY AND BIRTH DEFECTS (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).)

Study of the principles of human genetics and prenatal development, with an overview of many severe hereditary and environment-induced defects.

102 (2a) HUMAN REPRODUCTION (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).)

Overview of the reproductive processes of life forms, with emphasis on the biological aspects of human reproduction and birth control. Designed to provide a factual basis for an understanding of the emotional and behavioral aspects of sex. (This course partially satisfies the California teaching credential requirement.)

103 (2e) DRUGS AND ALCOHOL (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).)

Study of the general categories of drugs; discussion of the beneficial and harmful effects that various and specific drugs have upon the individual and society. (This course partially satisfies the California teaching credential requirement.)

104 (2b) NUTRITION AND FITNESS (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).)

Principles of nutrition and exercise as contributing factors to total fitness. Provides tools for the student to analyze his/her diet and effect positive changes in eating habits and physical activities to improve mental and physical well-being.

105 (2c) COMMUNICABLE DISEASE (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).)

Study of some of the most prevalent and debilitating communicable diseases: causes, social implications, methods of detection, treatment and prevention.

106 (2g) EMOTIONAL HEALTH (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).)

Concepts of personality development, emotional health and emotional disorders, with emphasis on the positive aspects of developing and maintaining emotional stability.

109 (2d) ENVIRONMENTAL HEALTH (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).)

Principles of ecology and critical appraisal of man's effect on the environment. Discussion of several types of environmental hazards and pollutants, with emphasis on how they affect man's health.

111 (2h) HEART DISEASE AND CANCER (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).)

Study of the two leading causes of death in the U.S. today, taking into account their causes, danger signals, methods of prevention, detection and treatment.

112 (2i) CURRENT HEALTH ISSUES (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 101 (2a)-112 (2i) are equivalent to Health Science 100 (1).)

An objective look at the medical, legal, and ethical aspects of the most provocative, controversial health issues making today's news headlines.

160 (11) HOLISTIC HEALTH (2)

Two lecture hours per week.

A practical survey course designed to elevate the student's personal awareness of those forces within and around him which variously enhance or undermine the experience of well-being. Includes direct experience of a variety of health-promoting techniques (yoga, massage, breath exercises, visualization, etc.), as well as information regarding such heal-

ing practices as acupuncture, biofeedback and chiropractic. (Will satisfy 1 unit of the Health Science General Education requirement for an A.A. degree.)

310 (9) NUTRITION: HEALTH/DISEASE (3)

Three lecture hours per week.

Basic concepts of nutrition and their relationship to health of people of all ages, with application to the selection of foods to meet nutritional needs of the individual. (This course is identical to Home Economics 310, and may be used to waive Health Science 104 (2b).)

**644 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN HEALTH SCIENCE (1-3)

Hours by arrangement.

Selected topics in Health Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Math/Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

History

(See Also Humanities)

100 (4a) HISTORY OF WESTERN CIVILIZATION I (3)

Three lecture hours per week.

The rise and decline of the civilization of the ancient world, the rise of Christianity, the growth and decline of Medieval society, the Renaissance, the Reformation and the opening of the modern world.

101 (4b) HISTORY OF WESTERN CIVILIZATION II (3)

Three lecture hours per week.

The rise of modern Europe: The Enlightenment, the French Revolution and the growth of Liberalism. The emergence of modern society; economic problems of industrialization, development of modern ideologies, and the World Wars and international experiments of the 20th century. (History 101-102 (six units) fulfills American Institutions requirement.)

102 (4c) HISTORY OF AMERICAN CIVILIZATION (3)

Three lecture hours per week.

The colonial settlement of North America, the Enlightenment, the age of revolution and the growth of democracy, the problems of industrialization, the emergence of modern society, the effects of the expansion of the 19th and 20th centuries upon the culture of America, and the role of the United States in the modern world. (History 100-102) (six units) fulfills American Institutions requirement.)

110 (5) HISTORY OF ENGLAND (3)

Three lecture hours per week.

A survey course, including in its scope the more important political, constitutional, economic, social and cultural phases of the history of the English people.

130 (12) ECONOMIC HISTORY OF EUROPE (3)

Three lecture hours per week.

The roots of modern economic society traced to its European origins. The rise of mercantilism, the market system, and modern industrialism sketched against the ancient and medieval background. Attention given to 20th century inter-war and postwar developments, including recent movements toward European economic union. (Identical to Economics 130.)

141 (20a) TWENTIETH CENTURY EUROPE I (3)

Three lecture hours per week.

History after 1870, the year of the unification of Germany and Italy, and the events which ushered in the present period of European history. Covers social and intellectual, as well as political and military affairs, through World War I to the settlements of 1919.

142 (20b) TWENTIETH CENTURY EUROPE II (3)

Three lecture hours per week.

History of Europe after the first World War. The brief optimism of the 1920s, followed by the Depression and the period after World War II.

150 (46) HISTORY OF MODERN GERMANY (3)
(Formerly Modern Germany)

Three lecture hours per week.

Impact of the French Revolution and the Napoleonic Wars on Germany; The German Confederation; liberalism and nationalism; the Revolutions of 1848; Bismarck and German unification; the German Empire; William II and the First World War; the Weimar Republic; the Nazi era; World War II and Nazi collapse; the two Germanies; German character and historical heritage.

160 (45) HISTORY OF MODERN RUSSIA (3)

Three lecture hours per week.

Careful analysis of the development of Russia from a loose federation of city-states into an autocratic nation and a modern Soviet state; study of the political, economic and cultural development of 20th century Russia.

201 (17a) UNITED STATES HISTORY I (3)

Three lecture hours per week.

A survey of English colonization along the Atlantic Coast, the westward expansion of the colonists, the Revolution, the formation of the Constitution, the Federalist and Jeffersonian systems, the reign of Andrew Jackson, the slavery issue and Civil War. Economic, political, social and cultural developments of the period are included.

202 (17b) UNITED STATES HISTORY II (3)

Three lecture hours per week.

Continues the work of Hist. 201; explores the reconstruction period, industrial expansion, social and economic development, and the foreign policies of the U.S. to the present. (History 201-202 (6 units) fulfills American Institutions requirement.)

210 (26) 20th CENTURY AMERICAN HISTORY (3)

Three lecture hours per week.

Major economic, political, social and intellectual developments of the United States since the 1920's. (With History 201 and 202, fulfills American Institutions requirement.)

230 (11) ECONOMIC HISTORY OF THE UNITED STATES

Three lecture hours per week.

Origin and development of the American economy from colonial times to the present. Includes the basis for industrial growth, land and resource use, the transportation revolution, the development of money and banking machinery, changing trade patterns, the rise of organized labor, the economic role of government. (Identical to Economics 230; with History 201 or 202, fulfills American Institutions requirement.)

242 (33) THE AFRO-AMERICAN IN U.S. HISTORY (3)

Three lecture hours per week. Recommended: History 201 (17a).

Social, economic and political facts as they relate to the Afro-American. Race relations are analyzed, with special emphasis on the history of the Afro-American. (With History 201 and 202, fulfills American Institutions requirement.)

260 (28) WOMEN IN AMERICAN HISTORY (3)

Three lecture hours per week.

A survey of the role played by American women from Colonial times to the present. The part played by American women of different radical and local origins is explored in depth. Attitudes of women, as well as attitudes about women in America. (With History 201 and 202, fulfills American Institutions requirement.)

270 (35) CIVIL WAR AND RECONSTRUCTION (3)

Three lecture hours per week. Recommended: History 201 (17a) or 202 (17b).

Survey and analysis of the political, social and economic problems of the North and South during the ante-bellum, Civil War and Reconstruction eras. (With History 201 and 202, fulfills American Institutions requirement.)

280 (24) AMERICAN FOREIGN POLICY (3)

Three lecture hours per week.

Historical inquiry into the background of major problems in foreign policy of our day. Special attention given to the period since World War II. (With History 201 and 202, fulfills American Institutions requirement.)

290 (30) THE AMERICAN LABOR MOVEMENT (3)

Three lecture hours per week.

A survey of the history, structure, and institutions of the organized labor movement in the United States, covering developments from the colonial era to the present, with the greatest emphasis on trends since the Civil War. Particular attention paid to labor's role in California and the Bay Area. (Identical to Labor Studies 290; With History 201 and 202, fulfills American Institutions requirement.)

310 (22) CALIFORNIA HISTORY (3)

Three lecture hours per week.

A survey of major trends in California's rapid growth, including the Indian culture; discovery and Spanish colonization; the mission-ranchero era; the American take-over; the Gold

Rush and the vigilante eras; the constitutional; political, and economic growth of the State; and contemporary social and economic problems as the most populous state in the Union. (Satisfies the requirement in California State and Local Government.)

315 (21) HISTORY OF SAN MATEO COUNTY (3)

Three lecture hours per week.

Survey of the County's development to the present. The natural setting; discovery and exploration; mission-rancho era; establishment of county government; pioneers; advent of railroads; lumbering; industry; growth of Bayside and Coast-side communities; airport; industrial parks; population shifts and voting trends. (Satisfies the requirement in California State and Local Government.)

350 (25) THE AMERICAN WEST (3)

Three lecture hours per week.

The movement of Americans west of the Mississippi River, with an emphasis on fur trading, cattle raising, farming, mining, railroad buildings, and community building. Indian problems, and the character and image of the West and Westerners. (With History 201 and 202, fulfills American Institutions requirement.)

360 (32) THE SOUTH IN AMERICAN HISTORY (3)

Three lecture hours per week.

A survey course designed to acquaint the student with the 15 former slave states. Introduces the student to their history from the Colonial period through the National period; the Civil War and Reconstruction; Populism and the "New South;" the 20th century; Southern industrialization; the New Deal; the revolution of the Civil Rights Movement; and the election of Jimmy Carter. (With History 201 and 202, fulfills American Institutions requirement.)

401 (6a) AFRICAN CIVILIZATIONS I (3)

Three lecture hours per week.

The period prior to 1800 — the sources of African history, Africa in ancient times, the spread of Islam, the era of empires and city-states, Africa and the first period of European expansion, kingdoms and the Savannah and forest, coastal tropical Africa and the Atlantic world.

402 (6b) AFRICAN CIVILIZATIONS II (3)

Three lecture hours per week.

The period after 1800 — African civilizations and cultures, political reorganizations, developments in Northern Africa, Nineteenth Century Jihads, interaction of Africa and Europe,

the European scramble for Africa and its partitioning, consolidation of colonial control, and the rise of African nationalism.

421 (8a) HISTORY OF THE AMERICAS (3)

Three lecture hours per week.

General survey of the history of North and South America, from the times of the pre-Columbian Indian civilizations, through the European conquests, to the ages of the revolutions against the European colonizing powers.

422 (8b) MODERN LATIN AMERICA (3)

Three lecture hours per week.

General survey of the history of North and South America, from about 1830 to the present. Emphasis on the larger countries of the Western Hemisphere, and the development during the crucial period which began with the outbreak of World War II and has continued until contemporary times.

450 (44) HISTORY OF THE FAR EAST (3)

Three lecture hours per week.

Introductory survey of the political, social and economic history of the countries of the Far East. The response of Asia to the impact of the western world. An analysis of contemporary trends and problems with particular reference to China and Japan. The historical developments of India, Pakistan and the countries of Southeast Asia.

680 (48) SELECTED TOPICS IN HISTORY (1-3)

Hours by arrangement.

Selected topics in History not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN HISTORY (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

800 (99) HISTORICAL GEOGRAPHY (3)

Three lecture hours per week.

Analysis of selected problems from the historical geography of the United States. Emphasis on small discussion groups. Extensive use of audio-visual materials. (Fulfills American Institutions requirement for students working toward the Associate in Arts degree.) (Identical to Geography 800.)

810 (50) AMERICAN HISTORY AND WORLD AFFAIRS (3)

Three lecture hours per week.

A study of current issues, events and institutional changes in the United States through the analysis of their geographic and historical context, and their relation to events and people at home and abroad. Lecture, films, library, and small discussion groups. (Fulfills American Institutions requirements for students working toward the Associate in Arts degree and not planning to transfer to a four-year institution.) May be repeated for credit.

Home Economics

(Formerly Consumer Arts and Sciences)

110 (CA&S 20) BEGINNING FASHION CONSTRUCTION (3)

Two lecture and three lab hours per week.

Selection and alteration of patterns for individual figure problems; fabric preparation and care properties, with emphasis on construction techniques for fabrics found in yardage stores.

113 (CA&S 22) TEXTILES (3)

Three lecture hours per week.

Study of natural and chemical fibers; yarns and fabric construction and finishes. Care, cost and labeling as related to consumer use.

116 (CA&S 21) ADVANCED CONSTRUCTION TAILORING (3) (Credit/No Credit)

Two lecture and three lab hours per week. Prerequisite: H. Ec. 110 (CA&S 20) or equivalent.

The use of custom details, couturier and tailoring techniques in construction of high quality clothing. Consideration also given to organization and speed techniques.

117 (CA&S 24) FASHION IMAGE (2)

Two lecture hours per week.

Analysis of figure types and problems, coordination of fashionable styles, colors, textures and accessories; individualized assistance for developing a creative wardrobe on a budget.

118 (CA&S 26) FASHION DESIGN (3)

Two lecture and three lab hours per week. Prerequisite: H. Ec. 110, 116 (CA&S 20, 21) or equivalent.

The construction and use of flat pattern as a method of creating a design for the individual with consideration to fabric performance.

151 (CA&S 18) FASHION MERCHANDISING (3)

Three lecture hours per week.

Structure of ready-to-wear apparel industry, including the functions and policies of the various types of retail stores as they relate to the promotion of fashion merchandising; consideration of the various factors which affect the merchandising of fashion apparel. (Identical to Business 151.)

152 (17) FASHION DISPLAY (3)

Two lecture and three lab hours per week. Prerequisite: H. Ec. 151 (CA&S 18) or concurrent enrollment.

Study of the elements of fashion which make for success in fashion, merchandising. Store windows, interior display, sales promotion activities and techniques in displaying fashion. (Identical to Business 152.)

154 (CA&S 15) FASHION AND THE CONSUMER (3)

Three lecture hours per week.

A consideration of the apparel needs of various groups, and of the many forces (economic, sociological; psychological and technological) which influence the consumer and the fashion market. (Identical to Business 154.)

155 (CA&S 46) SALES DEMONSTRATION TECHNIQUES (2)

Two lecture hours per week.

Development of techniques for demonstrating fabrics, equipment, clothing, foods and other subjects of promotional and educational use.

301 (CA&S 1) FOOD SELECTION AND PREPARATION (3)

Two lecture and three lab hours per week.

A study of scientific principles of selection, storage and preparation of food. Presentation and economy are emphasized.

302 (CA&S 2) MEAL MANAGEMENT AND FOREIGN FOODS (3)

Two lecture hours and three lab hours per week. Prerequisite: H. Ec. 301 (CA&S 1).

Food buying, meal preparation and service. Emphasis on

kitchen equipment and organization, quick meals, economical meals and foreign cookery.

303 (CA&S 3) MEALS FOR ONE OR TWO (2)
(Credit/No Credit)

One lecture and three lab hours per week.

Selection of foods to fit the budget of time, equipment, and money. Designed to aid the individual to meet his or her nutritional needs.

305 (CA&S 52) GOURMET FOODS (2)

Two class hours per week. (Not recommended for Home Economics majors.)

Planning, selection and preparation of foods for meals for optimum health. Designed especially for those who wish to serve gourmet, nutritional meals.

310 (CA&S 9) NUTRITION (3)

Three lecture hours per week.

Basic concepts of nutrition and their relationship to health of people of all ages, with application to the selection of foods to meet nutritional needs of the individual. (Identical to Health 310).

320 (CA&S 6) COOKING FOR HEALTH (2)

Two lecture hours per week.

A nutritional survey of the problem of weight control with emphasis on energy metabolism, causes of obesity, treatment for obesity, and critique of fad diets and aids. Also a study of necessary modifications in normal diet to restore and maintain ideal weight.

412 (CA&S 45) CONSUMER ISSUES AND BUYING PROBLEMS (3)

Three lecture hours per week.

Study of problems facing the consumer; relationship of quality and cost to food, clothing, housing; legislation and agencies protecting the consumer. (Identical to Bus. 412/Econ. 412.)

450 (CA&S 40) INTERIOR FURNISHINGS (3)

Two lecture and three lab hours per week.

Selection of furniture, wall treatments, floor coverings and materials from an artistic and practical standpoint. Demonstration techniques include construction of draperies, bedspreads and slip covers.

647 (CA&S 47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

666 (CA&S 5) CAREERS IN HOME ECONOMICS (1)

One lecture hour per week.

Introduction to the range of subject matter to be selected in two- and four-year programs in Home Economics curriculum.

680 (CA&S 48) SELECTED TOPICS IN HOME ECONOMICS (1-3)

Hours by arrangement.

Selected topics in Home Economics not covered by regular catalog offerings. Course content and unit credit to be determined by the Health and Service Careers Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (CA&S 49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Horticulture

647 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN HORTICULTURE (1-3)

Hours by arrangement.

Selected topics in Horticulture not covered by regular catalog offerings. Course content and unit credit to be determined by the Health and Service Careers Division in relation to community-student need and/or available staff. May be offered as seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.
Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Horticulture—Ornamental

701-702 (91a-91b) GENERAL ORNAMENTAL HORTICULTURE I and II (2-2)

Three lecture hours per week.

701 (91a) — Soils, manures and fertilizers, lawn establishment and turf management. **702 (91b)** — Plant propagation, pruning, choice of plant tools and machinery, insecticides, fungicides and weed killers.

705 (93) SOILS AND PLANT GROWING (2)

Three lecture hours per week.

Fundamental principles and soils, soil management, fertility and plant nutrition. Soil types, origins, characteristics; biological relationships. Commercial and natural fertilizers; soil conditioners; growing media, crop rotation, and watering.

706 (94) PLANT PROPAGATION (2)

Three lecture hours per week.

Principles and practices of propagating plants for sale and for landscape use, including laboratory work in making cuttings, grafting and budding, potting, canning. Visits to wholesale and retail nurseries. Seedage, cuttage, layerage, plant breeding and improvement.

711-712 (95a-95b) LANDSCAPE TREES AND SHRUBS I and II (2-2)

Three lecture hours per week.

711 (95a) — Tree classification, description, nomenclature, morphology. The study in class of trees commonly used in California parks and gardens. Emphasis on plant identification. **712 (95b)** — The study of shrubs and ground covers commonly used in California.

721-722 (96a-96b) LANDSCAPE CONSTRUCTION I and II (2-2)

Three lecture hours per week.

Principles of garden construction with emphasis on design appreciation and minimum maintenance. Lien laws and contractors' license laws. Estimates and bills of quantity. Design and installation of sprinkler systems. Visits to outstanding landscape projects.

731-732 (97a-97b) ARBORICULTURE: SHRUBS AND FRUIT I and II (2-2)

Three lecture hours per week.

731 (97a) — Principles and practices of arboriculture emphasizing care and maintenance of landscape trees. **732 (97b)** — The study of the training and management of fruit trees, bush fruits and ornamental shrubs.

741-742 (98a-98b) GLASSHOUSE MANAGEMENT I and II (2-2)

Three lecture hours per week.

741 (98a) — Study of greenhouses, lathhouses and nurseries and the materials used in their construction. Interior layouts. Ventilation, humidity and temperature control. **742 (98b)** — The propagation, and culture of roses, carnations, chrysanthemums, orchids, pot plants and other glasshouse crops. Pest and disease control.

771-772 (90a-90b) PEST CONTROL: ENTOMOLOGY I and II (2-2)

Three lecture hours per week.

Study of the common insect and mite pests which attack horticultural plants in the Bay Area. Identification, classification, life cycles and the latest methods of control.

773-774 (90c-90d) PEST CONTROL: PLANT DISEASES I and II (2-2)

Three lecture hours per week.

Study of the common disease-causing fungi, bacteria, physiological, nematode and virus pests which attack horticultural plants in the Bay Area. Identification, classification, life cycle and the latest methods of control.

775 (90e) PEST CONTROL: INSECTICIDES, FUNGICIDES, EQUIPMENT (2)

Three lecture hours per week.

History and development of pesticides, pest control equipment, insecticides, fungicides, disinfectants and nematocides. Soil fumigants, composition, formulation, uses, compatibilities. California Agriculture Code and pest-control operator's license examination.

776 (90f) PEST CONTROL: WEEDS AND RODENTS (2)

Three lecture hours per week.

Identification, dissemination methods and control of principal

garden, lawn and turf weeds, and weedy grasses. Herbicides, their characteristics and uses; brush control. Chief rodent and other animal pests of landscaped areas, and control methods.

Horticulture—Environmental

311-312 (110a-110b) PLANT AND LANDSCAPE I AND II (3-3)

Two lecture and three lab hours per week.

311 (110a)—Growth habits, cultural requirements and landscape uses of ornamental trees adapted to the climates of California. Proper plant and maintenance techniques. (Fall only.) **312 (110b)** — Growth habits, cultural requirements and landscape; uses of ornamental shrubs and ground covers adapted to the climates of California. Proper planting and maintenance technique. (Spring only.)

315 (111) LANDSCAPE MANAGEMENT (3)

Two lecture and three lab hours per week.

Maintenance and management of turf areas, including golf courses, athletic fields, parks and residential areas. Cultural requirements of trees, shrubs, vines, annuals and ground cover. Operation of landscape maintenance equipment. (Fall only.)

320 (118) INTRODUCTORY PLANT SCIENCE (3)

Three lecture hours per week.

Introduction to scientific principles of higher plant structure, function, and reproduction to serve as a basis for further practical course work in field of Horticulture. (Identical to Biology 320 (8).)

327 (112) PLANT GROWING (3)

Two lecture and three lab hours per week.

Soil, plant and fertilizer relationships. The study of plant propagation, nurse practice and greenhouses. Soil, plant and fertilizer relationships. Practical experience in growing plants in the greenhouse. (Identical to Biology 327 (19).)

330 (114) INSECTS, WEEDS AND DISEASES CONTROL (3)

Two lecture and three lab hours per week.

Symptoms, identification and methods of control of the principal diseases, pests and weeds important in California landscape industry. Chemical, biological and cultural control and prevention. (Spring only.)

340 (115) GARDEN DESIGN (3)

Three lecture and three lab hours per week.

Introductory graphics, drafting, environmental planning and design for the garden landscape. (Identical to Architecture 340.) (Fall only.)

341 (120) LANDSCAPE DESIGN (3)

Two lecture and three lab hours per week. Prerequisite: Horticulture 340 (115) or equivalent.

Advanced graphics techniques, environmental planning and design, planting, structures, engineering, materials, and history of the landscape. (Identical to Architecture 341.) (Spring only.)

342 (113) LANDSCAPE CONSTRUCTION (3)

Two lecture and three lab hours per week.

Planting and construction techniques; design, installation and maintenance of sprinkler systems; cost finding and estimating for the landscape trades, including legal aspects of contracting. (Assists students in preparing for the Landscape Contractor's License Examination — C27.) (Spring only.)

411 (116) BASIC FLORISTRY (3)

Two lecture and three lab hours per week.

The study of floral design using flowers and foliage as related to the florist's style of arrangement. The student is taught the history of floral design, the care and conditioning of cut flowers and foliage.

412 (117) ADVANCED FLORISTRY (3)

Two lecture and three lab hours per week. Prerequisites: Floristry 411 (116) or equivalent.

An advanced study of commercial floral designs, including corsages, wedding bouquets, party decor and funeral tributes. Emphasis on the development of individual creative design skills.

415 (119) RETAIL NURSERY (3)

Two lecture and three lab hours per week.

Practical course of procedures used in the operation of retail nursery and florist shop. Emphasis on the evaluation of nursery stock and cut flowers and on marketing, shop records, shipping, buying, employee relations and quality control of flowers, plants and floral pieces.

Horticulture—Vocational Gardening

801-802 (130a-130b) VOCATIONAL AND PLANT MATERIAL I AND II (1-1)

Three lecture hours per week.

Principles of plant classification and nomenclature. The study of stems, roots, leaves and flowers. Floral families. The identification of plant materials used in California gardens and landscaping. 801 (130a) — Emphasizes the landscape use of trees; 802 (130b) — Emphasizes the landscape use of shrubs and ground covers.

811-812 (132a-132b) GENERAL VOCATIONAL GARDENING I AND II (1-1)

Three lecture hours per week.

811 (132a) — Garden and landscape management with emphasis on soils, fertilizers and soil fertility, leading to the culture of ornamental and sports turf. Culture of annuals and perennials. 812 (132b) — Garden and landscape management with emphasis on pruning and training ornamental trees, fruit trees and shrubs. Horticulture tools, machines and pesticides.

821-822 (135a-135b) VOCATIONAL LANDSCAPE GARDENING I AND II (1-1)

Three lecture hours per week.

821 (135a) — Basic principles of landscape design and design appreciation. Irrigation system design and repair. Visits to outstanding landscapes. 822 (135b) — Landscape construction. Patios, decks, pools, concrete and brickwork. Estimating techniques. Law related to the landscape industry.

Humanities

(See also History and Philosophy)

101 (1) INTRODUCTION TO HUMANITIES: GREECE TO RENAISSANCE (3)

Three lecture hours per week.

The History and Philosophy Departments explore the major cultural and intellectual movements of Western Civilization from Greece to the Renaissance. The development of literature, art, architecture, and music are considered, along with their relationship to mythological, religious, and scientific attitudes towards man, nature, and God.

102 (2) INTRODUCTION TO HUMANITIES: REFORMATION TO PRESENT (3)

Three lecture hours per week.

The History and Philosophy Departments explore the major cultural and intellectual movements of Western Civilization from the Reformation to the present. The development of literature, art, architecture, and music are considered, along with their relationship to mythological, religious, and scientific attitudes towards man, nature, and God.

111 MAN AND HIS PLACE IN THE COSMOS: CLASSICAL CIVILIZATIONS (3)

Three lecture hours per week.

The development of philosophy and consciousness in Classical Greece and Rome with respect to the gods, nature and the cosmos, society (including morality, justice, and social organization), and the self (including the problem of self-affirmation and the attainment of worth). The importance of the irrational as expressed in religion, mythology, and fantasy. Comparisons of these topics to other cultures and historical periods.

112 MAN AND HIS ARTISTIC CREATIONS: THE MIDDLE AGES AND RENAISSANCE (3)

Three lecture hours per week.

The development of art and architecture from the early centuries to the end of the Middle Ages. Course includes: rise of Christianity, church vs. state, Moslem and African art, Medievalism, the Renaissance, and Counter-Reformation.

113 MAN AND NATURE: THE IMPACT OF THE NEW SCIENCE, 17th TO 19th CENTURIES (3)

Three lecture hours per week.

The development of modern science and the impact of the New Science on life and culture in the 17th through 19th centuries are examined from a humanistic perspective. Specific topics include new conceptions of human destiny; the new scientific method and "reality"; the social and ecological effects of industrialization; the impact of technologically advanced Europe on the rest of the world; literary, artistic, philosophical, and political reactions to the new scientific culture; and the limitations of the scientific values and world view.

114 MAN AND MAN: LITERATURE AND FILM AS COMMUNICATION IN THE 20th CENTURY (3)

Three lecture hours per week.

Human communication through drama, literature and film in the 20th century. Central to the course will be an exploration

of the attempt to the 20th century "rebel" to survive the breakdown of traditional forms and to reconstruct a meaningful set of values based on humanistic traditions developed in the past.

125 (25) SCIENCE AND HUMAN VALUES (3)
(Formerly Technology, Contemporary Society, and Human Values)

Three lecture hours per week.

A humanistic analysis of the impact of contemporary technology on the environment, economic and political systems, warfare, education, philosophy, behavior control, and human relations. Reasons for the rise of technological civilization in the West, the phenomenology of modern technology, and the problem of control.

136 CREATIVE WOMEN IN MODERN TIMES (3)

Three lecture hours per week.

Explores the works and projects created by women in the western world from the Renaissance to the present. The achievements of women in statecraft, philosophy, the visual arts, music, photography and filmmaking. Students will become familiar with the extent to which socio-economic conditions have furthered or inhibited the participation of women in the arts and sciences, and with some of the reasons for women's success in gaining recognition for their contributions in certain historical periods and geographical areas.

140 CULTURAL HERITAGE OF SAN FRANCISCO AND ITS ENVIRONS (3)

Three lecture hours per week.

A survey of the literature, art, music and popular culture of San Francisco and its environs, from the Gold Rush era to the present. Contributions of Bay Area residents to American culture.

680 (48) SELECTED TOPICS IN HUMANITIES (1-3)

Hours by arrangement.

Selected topics in Humanities not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN HUMANITIES (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Insurance

110 (BUS 80a) ECONOMIC SECURITY AND INDIVIDUAL LIFE INSURANCE (3)

Three lecture hours per week.

Economic security needs, human behavior, professionalism and ethics in life and health insurance. Individual life, health, and annuity contracts. (Preparation for CLU Examination, HS 301.)

120 (BUS 80b) LIFE INSURANCE LAW AND MATHEMATICS (3)

Three lecture hours per week.

Legal aspects of contract formation, policy provisions, assignments, ownership rights, creditor rights, beneficiary designations and disposition of life insurance proceeds. The mathematics of life insurance. (Preparation for CLU Examination, HS 302.)

130 (BUS 80c) GROUP AND SOCIAL INSURANCE (3)

Three lecture hours per week.

Analysis of group life and health insurance, including products, marketing, underwriting, reinsurance, premiums and reserves. Governmental programs related to the economic problems of death, old age, unemployment, and disability. (Preparation for CLU Examination, HS 303.)

140 (BUS 80d) ECONOMICS OF INSURANCE (3)

Three lecture hours per week.

Economic principles which have an effect on the national economy, national income, price determination, business cycles, money and banking, monetary and fiscal policy and international trade and finance. (Preparation for CLU Examination, HS 304.)

150 (BUS 80e) ACCOUNTING AND FINANCE (3)

Three lecture hours per week.

Basic accounting principles including data accumulation systems, income measurement, valuation of assets and liabilities and financial statement analysis. The accounting process and preparation of financial statements. (Preparation for CLU Examination, HS 305.)

160 (BUS 80f) INVESTMENTS AND FAMILY FINANCIAL MANAGEMENT (3)

Three lecture hours per week.

Investment principles and their application to family finance. Yields, limited income securities, investment markets and common stock. Family budgeting, property and liability insur-

ance, mutual funds, variable annuities and aspects of other investment media. (Preparation for CLU Examination, HS 306.)

170 (BUS 80g) INCOME TAXATION (3)

Three lecture hours per week.

The federal income-tax system with particular reference to the taxation of life insurance and annuities. The income taxation of individuals, sole proprietorships, partnerships, corporations, trusts and estates. (Preparation for CLU Examination, HS 307.)

180 (BUS 80h) PENSION PLANNING (3)

Three lecture hours per week.

Basic features of pension plans, profit-sharing plans and tax-deferred annuities. Also, thrift and savings plans and plans for the self-employed. Employees Retirement Income Security Act of 1974. (Preparation for CLU Examination, HS 308.)

190 (BUS 80j) BUSINESS INSURANCE (3)

Three lecture hours per week.

Business uses of life and health insurance, including proprietorship, partnership and corporation continuation problems. Also other business uses of life and health insurance. (Preparation for CLU Examination, HS 309.)

200 (BUS 80k) ESTATE PLANNING AND TAXATION (3)

Three lecture hours per week.

Estate and tax planning, the use of trusts, life insurance, powers of appointment, wills, lifetime gifts and the marital deduction. (Preparation for CLU Examination, HS 310.)

Japanese

Language Laboratory and Listening Requirements — Students enrolled in certain courses in foreign language are required to make use of the language laboratory as prescribed by each department. Limitation, response and independent practice are integral features of a foreign language at the College.

100 (1) ELEMENTARY JAPANESE (5)

Five lecture hours and one lab hour per week.

Principles of basic patterns of study of the writing system. Emphasis is given to oral expression, reading, and written form of Japanese.

101 (1a) ELEMENTARY JAPANESE I (3)

Three lecture hours plus one lab hour per week.

Approximately half of the semester's work in Japanese 100 is covered in this course.

102 (1b) ELEMENTARY JAPANESE II (3)

Three lecture hours plus one lab hour per week. Prerequisite: Japanese 101 (1a) or equivalent.

Approximately the second half of the semester's work in Japanese 100 is covered. Japanese 101 and 102 are equivalent to Japanese 100.

110 (2) ADVANCED ELEMENTARY JAPANESE (5)

Five lecture hours plus one lab hour per week. Prerequisite: Japanese 100 (1) or 102 (1b) or equivalent.

Further study of basic patterns of Japanese.

111 (2a) ADVANCED ELEMENTARY JAPANESE (5)

Three lecture hours plus one lab hour per week. Prerequisite: Japanese 100 (1) or 102 (1b).

Approximately half of the semester's work in Japanese 110 is covered in this course.

112 (2b) ADVANCED ELEMENTARY JAPANESE II (3)

Three lecture hours plus one lab hour per week. Prerequisite: Japanese 111 (1a) or equivalent.

Approximately the second half of the semester's work in Japanese 110 is covered. Japanese 111 and 112 are equivalent to Japanese 110.)

Journalism

110 (1) INTRODUCTION TO JOURNALISM (3)

Three lecture hours per week.

A study of the historical background and modern functioning of the press (newspaper, radio, magazine, television) in a democratic society, and the values and shortcomings of each. The rights and duties of journalists, and the legal limits of the liberty of the press are studied.

120 (2) NEWSWRITING (3)

Two lecture and two lab hours per week. Prerequisite: Journalism 110 (1).

Techniques of news gathering, judging news values, and writing the news story. For practical experience, the students write for the college paper, "The San Matean," thus preparing them for future newspaper work.

300 (15) NEWSPAPER PRODUCTION (2)

Four lecture hours per week. Prerequisite: Journalism 120 (2) (may be taken simultaneously).

Production of the student newspaper, "The San Matean." Discussion and criticism of staff organization and newspaper content. (May be repeated for credit.)

310 (16) MAGAZINE PRODUCTION (2)

Four lecture hours per week.

Production of the student magazine, "Pendulum." Discussion of techniques of publishing and production especially applied to school publications. (May be repeated for credit.)

680 (48) SELECTED TOPICS IN JOURNALISM (1-3)

Hours by arrangement.

Selected topics in Journalism not covered by regular catalog offerings. Course content and unit credit to be determined by the Language Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Labor Studies

110 (11) LABOR LAW AND MINORITY RIGHTS (3)

Three lecture hours per week.

The development of the basic legal framework and doctrines governing labor-management relations, and the rights of minorities in the context of the labor movement.

120 (12a) LABOR RELATIONS LAW (3)

Three lecture hours per week. Prerequisite: None. Labor Studies 110 (11) is recommended.

An examination of the legal and administrative policies and practices followed in establishing and maintaining collective bargaining relationships. Emphasis on national labor-management relations law in the private sector, with added discussion of emerging labor relations in the public sector.

125 (12b) COLLECTIVE BARGAINING (3)

Three lecture hours per week. Prerequisite: None. Labor Studies 120 (12a) is recommended.

Examines the collective bargaining process, with special attention to the sources and uses of basic data, and to the dynamics of the process, both in private and public sectors.

140 (14) GRIEVANCES AND ARBITRATION (3)

Three lecture hours per week.

A practical, applied study of grievance handling as a continuation of the collective bargaining process, emphasizing arbitration as the final step in resolving grievances. Utilizes role-playing techniques of instruction.

150 (15) RESPONSIBILITIES AND PSYCHOLOGY OF LEADERSHIP (3)

Three lecture hours per week.

A non-technical exploration of interpersonal relationships affecting the ability of individuals to function effectively in leadership roles, with emphasis on understanding social behavior and group conflict. Role-playing techniques are used to demonstrate ways of handling problems related to the functions of leaders of unions and community groups.

200 (20) LABOR AND POLITICS (3)

Three lecture hours per week.

An historical survey of the philosophy, organization and activities of labor unions and their members in the American political process, with special consideration of contemporary aspects. Introduction to organized labor's interests and involvement in American politics, with emphasis on the relationship between labor's legislative-political goals and collective bargaining.

290 (10) THE AMERICAN LABOR MOVEMENT (3)

Three lecture hours per week.

A survey of the history, structure and institutions of the organized labor movement in the United States, covering developments from the colonial era to the present, with the greatest emphasis on trends since the Civil War. Particular attention is given to labor's role in California and the Bay Area. (Identical to History 290, with Hist. 201 or 202, fulfills American Institutions requirement.)

680 (48) SELECTED TOPICS IN LABOR STUDIES (1-3)

Hours by arrangement.

Selected topics in Labor Studies, not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN LABOR STUDIES (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field. Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally receive credit for only one Special Project per semester.)

Learning Center

(See Guidance)

Library Science

100 (1) INTRODUCTION TO LIBRARY RESOURCES (2)

Two hours per week.

Skill in the use of the Library with use of the card catalog, periodical indexes and reference sources emphasized. Help is given with the organization of term papers.

Life Sciences

(See Biology)

Literature

101 (ENGL 27) CONTEMPORARY LITERATURE (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of selected fiction, poetry and drama of the 20th Century. Lectures, discussions, related reading, writing of critical papers. (Spring only.)

105 (ENGL 22) THE BIBLE AS LITERATURE (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of the significant writings of the Old and New Testaments and of the Apocrypha.

111 (ENGL 21) THE SHORT STORY (2)

Two lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of short stories. Class discussion and reports; lectures.

113 (ENGL 26) THE NOVEL (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of novels of the late 19th and 20th Centuries and of various aspects of literary criticism. Reading, discussion and critical papers.

115 (ENGL 23) INTRODUCTION TO POETRY (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Lectures concerning the various elements of and approaches to poetry. Intensive and extensive reading, discussion, critical papers. (Spring only.)

143 (ENGL 24) MODERN DRAMA (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study, from a theatrical as well as a literary point of view, of the outstanding masterpieces of the modern theatre. Lectures; discussion; recordings by professional actors.

151 (ENGL 25) SHAKESPEARE I

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Emphasis upon Shakespeare's poetic and dramatic growth as a writer through a study of representative plays and poems. Reading, discussion, critical papers.

200 (ENGL 30) MAJOR FIGURES IN AMERICAN LITERATURE

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of the writings of some of the major figures in American literature. Intensive reading, lectures, discussion, papers. (May be repeated for credit.)

201 (ENGL 31a) AMERICAN LITERATURE I (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of American literature from the beginning through the period of Mark Twain. Lectures; reading, analysis and discussion of selected works, papers.

202 (ENGL 31b) AMERICAN LITERATURE II (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of American literature since Mark Twain. Lectures, reading, analysis and discussion of selected works, papers.

231 (ENGL 46a) SURVEY OF ENGLISH LITERATURE I (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of the typical works of major English writers from Chaucer to the end of the 18th Century. Lectures, discussions, recordings. (Recommended for English majors.)

232 (ENGL 46b) SURVEY OF ENGLISH LITERATURE II (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of the typical works of major English writers of the 19th and 20th Centuries. Lectures, discussions, recordings. (Recommended for English majors.)

251 (ENGL 29) WOMEN AND LITERATURE (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Survey images of women in literature from 1600 to present. Study of selected women writers. Reading, discussion and critical papers.

266 (ENGL 43) BLACK LITERATURE (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Comprehensive survey of the Afro-American letters in the United States from 1619 to the present. (Identical to Ethnic Studies 266.)

301 (ENGL 42a) WORLD LITERATURE MASTERPIECES I (3) (Formerly Masterpieces of European Literature)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of various works of European literature from the classical period to the 17th Century. Reading, analysis and discussion of selected works; written reports; lectures.

302 (ENGL 42b) WORLD LITERATURE MASTERPIECES II (3) (Formerly Masterpieces of European Literature)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

Study of various works of European literature from the 17th

Century to the present, with emphasis on European prose. Readings, analysis and discussion of selected works; written reports, oral readings and lectures.

430 (ENGL 20) MYTHOLOGY AND FOLKLORE (3)

Three lecture hours per week. Prerequisite: ENGL 110 (12a), 120 (12b), 130 (12c), or 140 (12d) or equivalent.

A survey of major gods and heroes, recurring mythological themes, and relationships between man and his gods, primarily in the Greek and Roman cultures.

451 (ENGL 16a) FILM HISTORY I (3)

Three lecture and two lab hours per week.

A survey of the evolution of the motion picture from the earliest efforts to European and American filmmakers through post-World War II productions. Emphasis on film appreciation, on the language of film, and on analysis for full film enjoyment. (Identical to Art 451.)

452 (ENGL 16b) FILM HISTORY II (3)

Three lecture and two lab hours per week. Prerequisite: Lit. 451 (ENGL 16a).

Further study of the evolution of the motion picture. Emphasis on film appreciation, on the language of film, and on analysis for full film enjoyment. (Identical to Art 452.)

461 (ENGL 15a) FILMMAKING I (4)

Three lecture and six lab hours per week.

Introduction of film theory, aesthetics, and 8mm production; includes screenplay writing and critical writing as well as crew work on videotape productions and super-8mm motion picture. (Identical to Art 461.)

462 (ENGL 15b) FILMMAKING II (4)

Three lecture and six lab hours per week. Prerequisite: Lit. 461 (ENGL 15a).

Advanced theory, aesthetics and 8mm production. Students will work on a production crew as well as writing and producing their own motion pictures. (Identical to Art 462). (May be repeated for credit.)

**643 (ENGL 47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (ENGL 48) SELECTED TOPICS IN ENGLISH (1-3)

Hours by arrangement.

Selected topics in English not covered by regular catalog

offerings. Course content and unit credit to be determined by the Language Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (ENGL 49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

841 (ENGL 75) FILM STUDY: THE CINEMA (2)

One lecture and two lab hours per week.

Viewing of a number of significant motion pictures; analyzing, interpreting and evaluating these films; discussion of specific pictures and cinema in general.

Machine Tool Technology

100 APPLIED MACHINE TOOL MATHEMATICS (3)

Three lecture hours per week. Prerequisites: None.

Practical applications of basic arithmetic, algebra, geometry and trigonometry, volumetric calculations and tables as applied to machine tool problems. Use of electronic calculators and Machinery's Handbook.

110-120 MACHINE TOOL THEORY FOR THE LATHE I AND II (1½, 1½)

Three lecture hours per week for eight weeks. Prerequisite: M.T.T. 110 – concurrent enrollment in M.T.T. 111; M.T.T. 120 – concurrent enrollment in M.T.T. 121.

Basic theory of metal removal with emphasis on lathe operation. Safety and other related subjects are covered.

111-121 MACHINE TOOL PRACTICE FOR THE LATHE I AND II (1½, 1½)

Nine lab hours per week for eight weeks. Prerequisite: M.T.T. 111 – concurrent enrollment in M.T.T. 110; M.T.T. 121 – concurrent enrollment in M.T.T. 120.

Laboratory experience in lathe operations and set-ups with emphasis on precision measurement, finishes, thread cutting, machine maintenance, shop practices and other related subjects. Students will be required to purchase personal tools.

210-220 MACHINE TOOL THEORY FOR THE MILL I AND II (1½, 1½)

Three lecture hours per week for eight weeks. Prerequisite: M.T.T. 210 – concurrent enrollment in M.T.T. 211; M.T.T. 220 – concurrent enrollment in M.T.T. 221.

The basic theory of metal removal with emphasis on milling machine operation. Bench metals, layout, measurement and other subjects are also covered.

211-221 MACHINE TOOL PRACTICE FOR THE MILL I AND II (1½, 1½)

Nine lab hours per week for eight weeks. Prerequisite: M.T.T. 211 – concurrent enrollment in M.T.T. 210; M.T.T. 221 – concurrent enrollment in M.T.T. 220.

Machine operations and other laboratory activities with emphasis on the use of milling machines, set-up, layout, precision measurement, applied metallurgy and heat-treating, machine maintenance.

230 BLUEPRINT READING (1)

Two lecture hours per week for eight weeks. Prerequisite: None.

This course is to provide the machinist with the skills needed to read shop drawings. Views, projections, dimensioning, symbols, tolerances, sketching and other related topics are covered.

680 (48) SELECTED TOPICS IN MACHINE TOOL TECHNOLOGY (1-3)

Hours by arrangement.

Selected topics in Machine Tool Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Technology Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

700 NUMERICAL CONTROL MACHINE (1)

One lecture and three lab hours per week for eight weeks. Prerequisite: None.

Basic principles and practices of manual programming with emphasis on machine set-ups, absolute and incremental pro-

gramming, control systems, numerical systems and codes. Recommended for students enrolled in machine program or for those with prior machining experience.

710 GRINDING PROCESSES (1)

One lecture and three lab hours per week for eight weeks. Prerequisite: None.

Basic principles of grinding including wheel nomenclature, abrasives applications and grinding machines. Geometry of cutters and other tool grinding applications. Surface finishes and inspection techniques. Recommended for those with prior machining experience or students enrolled in the machine tool program.

712 MACHINE TOOL BASIC LAB (½)

One lab hour per week, by arrangement, for eight weeks and/or completion of prescribed program. Prerequisites: None.

This self-paced program is an audio-visual presentation that allows the student to learn the basics of machine tool processes at his/her individual rate. By completing the prescribed program, the student may enter the machine tool program at specified half-semester points. Concurrent enrollment in M.T.T. 100 and M.T.T. 230 is suggested.

720 TOOL AND DIE THEORY AND PRACTICE (1)

One lecture and three lab hours per week for eight weeks. Prerequisite: None.

Fundamentals of tool and die manufacturing with emphasis on nomenclature, die design for the basic processes: i.e., punches, blanking, piercing and bending. Recommended for those with prior machining experience or students enrolled in the machine tool program.

750 (102a) MACHINE TOOL THEORY AND PRACTICE I (2)

One lecture and three lab hours per week.

Survey of machine tool processes. Recommended for the engineer, draftsman, technician and machinist trainee. Subjects covered: bench work, measurement, threads, cutting tools, lathe, mills, grinding, saws and others. (Extra supplies may be required.)

755-760 (102b-102c) MACHINE TOOL THEORY AND PRACTICE II AND III (2-2)

One lecture and three lab hours per week. Prerequisite: M.T.T. 750 (102a).

Intermediate and advanced studies in machine tool. Allows student to develop skill in individual areas of interest — tool and cutter grinding, E.D.M., tool design, numerical control programming, thread cutting and others. (Extra supplies may be required.)

770 (140) MANUAL NC PARTS PROGRAMMING (3)

Three lecture hours per week. Prerequisite: Post-high school machine tools course or equivalent.

Actual training programming NC tools. Concentrates on point-to-point machine tools with some exposure to contouring.

Management

100 (99) INTRO TO BUSINESS MANAGEMENT (3)

Three lecture hours per week.

Survey of business principles and practices, problems and procedures, background of American business, organization, ownership, financing, production and distribution of goods. (Satisfies Bus. 100 (10) requirements for A.A. degree in Business and is required for Management certificate.)

105 (50) FINANCIAL MANAGEMENT (3)

Three lecture hours per week.

Designed to acquaint the beginning student with many of the concepts of financial management (analysis of accounting statements, acquisition of funds, use of leverage, time value of money, management of cash, etc.). Planning, analysis and control fundamentals for decision-making.

110 (52) REPORT WRITING (3)

Three lecture hours per week.

A study of the principles of effective communication in a variety of business and industrial applications; clarity, accuracy and logic are emphasized in the presentation of written, verbal and statistical materials.

120 (54) MANAGEMENT COMMUNICATIONS (3)

Three lecture hours per week.

The communication process — both verbal and written. Lectures, discussion, case studies and oral presentations on such topics as the relationship between communication and the organizational climate, perception, motivation and the causes and patterns of mis-communication.

125 (55) GROUP COMMUNICATIONS DYNAMICS (3)

Three lecture hours per week. Prerequisite: Mgmt. 120 (54).

Development of understanding and skill in interpersonal communication in business and industrial groups. Students work in problem-solving groups for experiential learning. Group process theory discussed.

130 (61) INDUSTRIAL RELATIONS (3)

Three lecture hours per week.

Employer and union policies affecting the labor market, emphasizing: wage systems, living conditions, productivity, unemployment, union organizations and collective bargaining. Industrial conflicts from the point of view of wage earner, employer and government.

135 (63) PLANNING, BUDGETING AND CONTROL FOR SUPERVISORS (3)

Three lecture hours per week.

Planning, budgeting and control for supervisors and managers: project planning, work breakdown, project goals, scheduling systems (Gantt charts, PERT, CPM), cost estimating and cost curve displays; initiating action; performance reporting; corrective action techniques.

140 (65) BUSINESS AND INDUSTRIAL ECONOMICS (3)

Three lecture hours per week. (Econ. 100 (1a) and 102 (1b) may be substituted.)

Supply and demand concepts and their operation in the market place. The overall effect of GNP, population trends, savings, investment, full employment and inflation, production decision-making, revenue estimating and profit maximization.

200 (71) MATERIALS MANAGEMENT (3)

Three lecture hours per week.

Planning and scheduling, material and inventory planning, flow control, mechanical tabulation, identification systems. Designed to show how large and small businesses plan and control production in order to achieve competitive pricing of goods and services.

205 (72) MOTION STUDY AND METHODS ANALYSIS (3)

Three lecture hours per week.

Techniques for finding the most economical way of doing a manual task and for measuring labor accomplishment. Application of time and motion study to lower cost production through better methods, procedure, tooling, product design and the elimination of wasteful practices.

210 (77) INDUSTRIAL ENGINEERING METHODS (3)

Three lecture hours per week.

Overall view of manufacturing management. Fundamentals of organization, capital costs and budgets, motion and time study, industrial statistics, operations, research.

215 (80) MANAGEMENT OF HUMAN RESOURCES (3)

Three lecture hours per week.

An introductory course designed for line supervision to develop understanding of the personnel function as it relates to industry; selection and placement; wage and salary procedures; training and evaluation.

220 (85) ORGANIZATIONAL BEHAVIOR (3)

Three lecture hours per week.

Individual motivation, interpersonal communication, organizational influence, group dynamics, and decision-making in the organization; the relationship between culture, structure and technology; leadership and the managing of organization conflict.

225 (90) OFFICE MANAGEMENT (3)

Three lecture hours per week.

Organization and planning of office services, office environment and equipment; human relations and behavioral concepts; new dimensions of information management. Review and update preparatory to Certified Administrative Manager examination.

230 (91) SALES MANAGEMENT (3)

Three lecture hours per week.

Organization of the sales force; operating a sales force including selecting, training, compensating, supervising and stimulation. Planning sales force activities; operations including forecasting, budgeting, establishing territories, and quotas. Analysis of sales operations and evaluation of productivity.

235 (92) TECHNIQUES OF SUPERVISION (3)

Three lecture hours per week.

Role of the manager, understanding and motivating employees, leadership, communications, problem-solving and decision-making, employee training, performance evaluation, labor relations, supervising different types of workers, delegation, improving work methods and reducing costs, planning and managing time.

240 (93) ORGANIZATIONAL LEADERSHIP (3)

Three lecture hours per week.

Introduction to the motivational aspects of leadership. Examines how individuals react to different styles of leadership. Students will examine their own management practices and beliefs, and gain insights into how these might be improved.

245 (96) ORGANIZATION FOR MANAGEMENT (3)

Three lecture hours per week.

A study of the principal functions of modern management

such as planning, organizing, staffing, actuating, controlling, and decision-making.

300 (BUS 30) PRINCIPLES OF BANK OPERATIONS (3)

Three lecture hours per week.

Survey of the fundamentals of bank functions and operations, including bookkeeping operations of day-to-day activity, bank services related to loans, savings, trusts. Federal Reserve System as related to bank operations.

301 (BUS 31) INSTALLMENT CREDIT (3)

Three lecture hours per week.

Study of the broad field of installment credit and lending from the standpoint of both the public relations and profit position.

303 (BUS 32) FINANCIAL STATEMENT ANALYSIS (3)

Three lecture hours per week.

Study of financial statement analysis: balance sheet, profit and loss statement, analysis of working capital changes and inventories, relating balance sheet accounts to sales.

680 (48) SELECTED TOPICS IN MANAGEMENT (1-3)

Hours by arrangement.

Selected topics in Management not covered by regular catalog offerings. Course content and unit credit to be determined by the Business Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Mathematics

See also Business 810 (50), 115 (51)

The normal sequence of mathematics courses at CSM is 110 (11), 115 (12), 121 (19b), 130 (21), 220 (28), 260 (30), 261 (31), 262 (32), 263 (33), 275 (34). A student who qualifies for a particular mathematics course is eligible for any course lower in sequence. If the student has not taken a mathematics course during the previous two years, it is strongly recommended that the student enroll in a course below the one for which he/she would normally be eligible.

105 (16) ELEMENTARY SCHOOL MATHEMATICS (3)

Three lecture hours per week.

Development of the real number system, logic, axiomatics, systems of numeration, history and development of arithmetic, arithmetic processes, inductive and deductive reasoning.

110 (11) ELEMENTARY ALGEBRA (5)

Day – five lecture hours per week. Evening – six lecture hours per week.

Elementary Algebra through quadratic equations.

111-112 (11a-11b) ELEMENTARY ALGEBRA I AND II (3-3)

Three lecture hours per week.

A two-semester study of Elementary Algebra through quadratic equations.

115 (12) GEOMETRY (5)

Day – five lecture hours per week. Evening – six lecture hours per week. Prerequisite: Math 110 (11) with grade C or better, or one year of high school Algebra with grade C or better.

Study of the properties of plane and solid figures, using formal logic and the real number system. Some non-Euclidean, projective and topological elements are included.

119 REVIEW OF ALGEBRA (3)

Three lecture hours per week. Prerequisite: Math 110 (11) with grade C or better.

A comprehensive review of elementary algebra with certain topics studied in greater depth.

120 (19) INTERMEDIATE ALGEBRA WITH REVIEW (5)

Day – five lecture hours per week. Evening – six lecture hours per week. Prerequisite: Math 110 (11) with grade C or better. Recommended: Math 115 (12) with grade C or better, or one year of high school Geometry with grade C or better.

A comprehensive review of elementary algebra with certain topics studied in greater depth. Extension of fundamental algebraic concepts and operations, equations in two variables, graphs, systems of equations, exponential and log functions, sequences and series.

121 INTERMEDIATE ALGEBRA (3)

Three lecture hours per week. Prerequisite: Math 119 with grade C or better, or passing score on qualifying examination.

Extension of fundamental algebraic concepts and operations, equations in two variables, graphs, systems of equations, exponential and log functions, sequences and series.

125 (13) ELEMENTARY FINITE MATHEMATICS (3)

Three lecture hours per week. Prerequisite: Math 120 (19) with grade C or better, or 1½ years of Algebra and one year Geometry with grade C or better.

An introduction to finite mathematics including set theory, logic, combinatorial techniques, elementary probability, systems of linear equations, matrices and linear programming. A variety of business applications is included.

130 (21) ANALYTIC TRIGONOMETRY (3)

Three lecture hours per week. Prerequisites: Math 115 (12) and Math 120 (19) with grades of C or better; or high school preparation including 1½ years of Algebra and one year Geometry with grade C or better.

Trigonometric functions of real numbers and angles, their graphs and periodicity; reduction formulas; function of multiple angles; identities and equations; radian measure; inverse functions; logarithms; solution of triangles.

151-152 (24a-24b) MINICOMPUTER PROGRAMMING I AND II (1½-1½)

Two lecture plus 2 lab hours per week by arrangement for seven weeks. Prerequisite: Math 120 (19) with grade C or better, or high school preparation including 1½ years of Algebra with grade C or better.

151 (24a) — Introduction to BASIC language, elementary programming techniques with special emphasis on interactive programs, elementary applications through BASIC programs.

152 (24b) — Continuation of 151 (24a) with emphasis on file-handling, string manipulation and special programming techniques.

162 (25) FORTRAN PROGRAMMING WITH AN INTRODUCTION TO NUMERICAL AND STATISTICAL METHODS (3)

Day — Two lecture and three lab hours per week. Evening — Two lecture and one lab hour plus two lab hours by arrangement per week. Prerequisite: Math 130 (21) with grade C or better, or high school preparation including two years of Algebra, one year of Geometry and one semester of Trigonometry with grade C or better.

FORTRAN IV programming; numerical methods for approximation of roots, solution of systems of equations, Newton's approximation, descriptive statistics, matrix manipulations and simulation through the use of random numbers. Students write and test a variety of computer programs. Extra supplies may be required. (Identical to D.P. 162.)

200 (22) ELEMENTARY PROBABILITY AND STATISTICS (4)

Day — four lecture hours per week. Evening — five lecture hours per week. Prerequisite: Math. 120 (19) or equivalent

with grade C or better, or high school preparation including 1½ years of Algebra with C or better.

Treatment of use/misuse of data, measures of central tendency and dispersion, probability, sampling distributions, statistical inference, regression and correlation, contingency tables, time series analysis, index numbers.

210 (17) INTRODUCTION OF SYMBOLIC LOGIC (3)

See Philosophy 210 (12).

219 (27) COLLEGE ALGEBRA WITH TRIGONOMETRY REVIEW (5)

Day — Five lecture hours per week. Evening — six lecture hours per week. Prerequisite: Math 130 (21) with grade C or better, or high school preparation including 1½ years of Algebra, one year of Geometry and one semester of Trigonometry with grade C or better.

Covers the same course material as Math. 220 (28) but includes a review of Trigonometry.

220 (28) COLLEGE ALGEBRA (3)

Three lecture hours per week. Prerequisite: Math. 130 (21) with grade C or better, or high school preparation including 1½ years of Algebra, one year of Geometry and one semester of Trigonometry with grade C or better.

Study of more advanced algebra, including such topics as theory of equations, complex numbers, logarithmic and exponential functions, vectors, matrices, binomial theorem, sequences.

241-242 (23a-23b) APPLIED ANALYTIC GEOMETRY AND CALCULUS I AND II (5-3)

Day — Five lecture hours per week. Evening six lecture hours per week. Prerequisites: 241 (23a) Math. 130 (21) with grade C or better, or high school preparation including 1½ years of Algebra, one year of Geometry, and one semester of Trigonometry with grade C or better. 242 (24b) — Three lecture hours per week. Prerequisite: Math 241 (23a) with grade C or better.

241 (23a) — Selected topics from analytic geometry, plus basic techniques of both differential and integral calculus. (This sequence may not be substituted for the Math. 30 sequence for mathematics, physics or engineering majors.)

242 (23b) — Further work in differentiation and integration, calculus of functions of several variables, and selected topics from differential equations.

260 (30) ANALYTIC GEOMETRY (4)

Day — four lecture hours per week. Evening — five lecture hours per week. Prerequisite: Math. 130 (21) and 219 (27) or 220 (28) with grades of C or better, or high school prepara-

tion including two years of Algebra, one year of Geometry, and one semester of Trigonometry with grade C or better.

Elements of plane and solid analytic geometry.

261 (31) CALCULUS I (4)

Day – four lecture hours per week. Evening – five lecture hours per week. Prerequisite: Math. 260 (30) or equivalent with grade C or better.

Development of the basic theory and techniques of differential and integral calculus.

262 (32) CALCULUS II (4)

Day – four lecture hours per week. Evening – five lecture hours per week. Prerequisite: Math. 261 (31) or equivalent with grade C or better.

Additional topics of differential and integral calculus including techniques of integration, indeterminate forms and improper integrals.

263 (33) CALCULUS III (4)

Day – four lecture hours per week. Evening – five lecture hours per week. Prerequisite: Math. 262 (32) or equivalent with grade C or better.

Additional topics of differential and integral calculus including series, vectors and functions of several variables.

270 (35) LINEAR ALGEBRA (3)

Three lecture hours per week. Prerequisite Math. 261 (31).

Vectors and matrices applied to linear equations and linear transformations; real and inner product spaces.

275 (34) ORDINARY DIFFERENTIAL EQUATIONS (3)

Three lecture hours per week. Prerequisite: Math. 263 (33) with grade C or better. When approved by the instructor, may be taken concurrently with Math. 263 (33).

Differential equations of first, second and higher order; simultaneous, linear, homogeneous equations; solutions by power series; numerical methods, Fourier series, Laplace transforms, and applications.

**414 (4) TECHNICAL ALGEBRA I (1-3)
(Credit/No Credit)**

Three hours per week – individualized instruction.

An informal, intuitive, numerical approach to understanding algebra. Content chosen on the basis of its relevance to basic science and technology. Topics include signed numbers, fractions, equations, graphing, formula rearrangement and system of equations.

**415 (5) TECHNICAL ALGEBRA II (1-3)
(Credit/No Credit)**

Three hours per week – individualized instruction. Prerequisite: Math. 414 (4) or equivalent.

Includes radicals, radical equations, quadratic equations, fractional exponents, logarithmic and exponential formulae and semi-log and log-log graphs.

**416 (6) TECHNICAL TRIGONOMETRY (1-3)
(Credit/No Credit)**

Three hours per week – individualized instruction. Prerequisite: Math. 415 (5) or equivalent.

Study of right triangles and trigonometric ratios; vectors, trigonometric ratios of standard-position angles; oblique triangles; applied geometric problems; identities and interpolation; sine wave analysis; complex numbers.

**417 (7) CALCULATOR USAGE (1-3)
(Credit/No Credit)**

Three hours per week – individualized instruction. Prerequisites: For 1 unit–none; for 2 – 3 units Math. 130 (21) or equivalent.

Hands-on course in calculator usage, principally the pocket-calculator type. Calculators are available or a student may use his own. Designed to cover the capabilities of the machines available. Among the tasks to be mastered are the fundamental operations of real numbers, evaluating selected algebraic, trigonometric, logarithmic and exponential function values and programming techniques.

680 (48) SELECTED TOPICS IN MATHEMATICS (1-3)

Hours by arrangement.

Selected topics in Mathematics not covered by regular catalog offerings. Course content and unit credit to be determined by Math/Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

**811 (1) PRE-ALGEBRA MATHEMATICS (1-3)
(Credit/No Credit)**

Three hours per week – individualized instruction.

Basic arithmetic facts and operations of whole numbers,

fractions and decimals with applications. May be repeated for a total of 3 semester units.

812 (2) ELEMENTARY ALGEBRA REVIEW (1)
(Credit/No Credit)

Three hours per week – individualized instruction. Prerequisite: Elementary Algebra.

A review of Elementary Algebra.

813 (3) METRICS (1)
(Credit/No Credit)

Three hours per week – individualized instruction.

The metric system and its relationship to the English system.

Medical Assisting

(For Program Planning and Suggested Curricula see Business — Medical Assisting)

100 (M.A. 59) INTRODUCTION TO MEDICAL OFFICE TRAINING (3)

Three lecture hours per week.

Duties and responsibilities of a medical assistant in a physician's office, clinic, hospital or other medical facility. Emphasis on desirable personality traits and human relationships as well as on medical ethics, specialties in the medical field and office maintenance.

110 (M.A. 57a) BASIC MEDICAL TERMINOLOGY (3)

Three lecture hours per week.

Development of a medical vocabulary through the study of the principles of word construction and word analysis, with emphasis on spelling and pronunciation. Medical abbreviations and symbols.

111 (M.A. 57b) ADVANCED MEDICAL TERMINOLOGY (3)

Three lecture hours per week. Prerequisite: MEDA 110 (M.A. 57a).

Terminology in medical specialties as it relates to body structure, pathological conditions and diseases; operative terms and techniques, laboratory and radiological diagnostic procedures.

120 (M.A. 60) CLINICAL PROCEDURES (3)

Two lecture and three lab hours per week. Prerequisite: Biol. 130 (7).

Examination room techniques; sterilization procedures; medical emergencies; laboratory procedures; pharmacology. (Fall only.)

130 (M.A. 70b) MEDICAL ASSISTING REVIEW, CLINICAL (3)

Three lecture hours per week. Prerequisites: MEDA 110 (M.A. 57a), 100 (M.A. 59) and 120 (M.A. 60) or employment as a medical assistant and/or medical secretary.

Medical terminology and clinical procedures. Comprehensive review of medical terminology and the anatomical systems. Review of the clinical duties peculiar to a medical office, including sterilization techniques, laboratory and x-ray studies and physical examinations. Medical ethics.

140 (M.A. 94) MEDICAL TRANSCRIPTION (2)

Four lecture hours per week. Prerequisites: Intermediate Typing or equivalent; MEDA 110 (M.A. 57a) (Biology 130 (7) recommended).

Machine transcription of medical reports. (Spring only.)

150 M.A. (100) MEDICAL OFFICE PROCEDURES (3)

Four lecture hours per week, plus 1 hour by arrangement. Prerequisites: MEDA 110, 100 (M.A. 57a, 59). Intermediate Typing or equivalent and enrollment in or completion of one course in college English.

Fundamental office procedures applied to the medical field. Medical office simulations require decision-making in setting priorities, finding information, coping with interruptions, producing under pressure. (Fall only.)

160 (M.A. 95) MEDICAL INSURANCE PROCEDURES (2)

Four lecture hours per week. Prerequisites: MEDA 100 (M.A. 59), Intermediate Typing or equivalent.

Blue Cross, Blue Shield, Medicare, Medi-Cal, Workmen's Compensation and other insurance programs are presented. Coding resources utilized in claims preparation. Billing and bookkeeping methods. (Fall only.)

170 (M.A. 108) MEDICAL ASSISTING EXTERNSHIP (4)

Two lecture hours per week plus 10 hours per week of supervised training in medical office. Prerequisites: Completion of or enrollment in Medical Assisting 120 (M.A. 60), 140 (M.A. 94), 160 (M.A. 95), 150 (M.A. 100).

Practical experience, under supervision, in a physician's office or clinic and/or hospital, with weekly seminar.

180 (M.A. 70a) MEDICAL ASSISTING REVIEW, ADMINISTRATIVE (3)

Three lecture hours per week. Prerequisite: MEDA 110 (M.A. 57a), 100 (M.A. 59), 160 (MA. 95), 150 (M.A. 100) or employment as a medical assistant and/or medical secretary.

Clerical office procedures. General review of administrative office duties performed in a medical office, including correspondence, transcription, insurance, telephone, basic book-keeping, medical ethics and legal aspects.

Meteorology

100 (1) ELEMENTARY METEOROLOGY (3)

Three lecture hours per week.

A basic course in descriptive meteorology. It includes the atmosphere's structure, the earth's heat budget, cloud forms and precipitation, pressure systems and wind, and air mass and frontal weather. This course leads to a better understanding of the obvious and subtle ways of the weather.

110 (10) AVIATION WEATHER (3)

Three lecture hours per week. Prerequisite: Aero. 100 (20).

An introductory course in descriptive meteorology emphasizing applications to aviation. Designed to help the pilot appreciate good weather, recognize marginal and hazardous weather, and make intelligent decisions in flight planning. Prepares student for meteorology portion of FAA examination.

680 (48) SELECTED TOPICS IN METEOROLOGY (1-3)

Hours by arrangement.

Selected topics in Meteorology not covered by regular catalog offerings. Course content and unit credit to be determined by the Math/Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN METEOROLOGY (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Military Science

(Reserve Officers Training Corps)

1a-1b FUNDAMENTALS OF LEADERSHIP; THE U.S. DEFENSE ESTABLISHMENT (2-2)

One lecture hour and one leadership lab bi-weekly.

First year basic course. Provides orientation concerning organization, management, and leadership fundamentals in formal organizations. Role of the citizen-soldier; foundations of national power, and causes of conflict are examined. Oral reports and written requirements enhance communicative abilities.

12a-12b MAP AND AERIAL PHOTOGRAPH READING; APPLIED LEADERSHIP AND MANAGEMENT (2-2)

One lecture hour and one leadership lab bi-weekly. Prerequisite: Military Science 1a-1b.

Second year basic course. The functions, duties, and responsibilities of junior leaders; mission, organization, and composition of the basic military team; study of the basic principles of map and aerial photograph reading to include military geography, map symbols, military grid systems, resection techniques, and use of compass. Instruction in military operations and basic tactics; continuing development of leadership through practical exercises.

Music

The following Music courses may be taken for credit four times: Music 150 (17), 170 (16), 304 (15), 320 (24), 340 (25), 360 (26), 372 (18b), 430 (23), 440 (21), 445 (22), 450 (28), 451 (29), 460 (27), 470 (33), 480 (34), 490 (35), and 495 (40).

100 (9) FUNDAMENTALS OF MUSIC (3)

Three lecture hours per week.

Designed for the student who wishes to learn how to read music and perform it at sight. Recommended for students with limited musical background who wish to begin the formal study of music theory. Also recommended for education majors.

101 (1a) MUSICIANSHIP I (3)

Three lecture hours per week. Prerequisite: Music 100 (9) or equivalent; concurrent enrollment in Music 131 (4a).

Study of notations, keys and intervals. Performance at sight of melodic and rhythmic examples. Dictation of melodic, harmonic and rhythmic examples. Fundamentals of keyboard harmony.

102 (1b) MUSICIANSHIP II (3)

Three lecture hours per week. Prerequisite: Music 101 (1a); concurrent enrollment in Music 132 (4b).

Continuation and advanced study of topics introduced in Music 101. (Nine units of Musicianship are recommended for students majoring in Music.)

103 (2a) MUSICIANSHIP III (3)
(Formerly Advanced Musicianship)

Three lecture hours per week. Prerequisite: Music 101 (1a) and 102 (1b), or equivalent; concurrent enrollment in Music 133 (5a).

Continuation of Music 101-102.

104 (2b) MUSICIANSHIP IV (3)
(Formerly Advanced Musicianship)

Three lecture hours per week. Prerequisite: Music 103 (2a); concurrent enrollment in Music 134 (5b).

Continuation of Music 103.

131 (4a) HARMONY I (3)

Three lecture hours per week. Prerequisite: Music 100 (9), 101 (1a) and 102 (1b) or equivalents; or concurrent enrollment.

Principles of scale, mode and interval construction; Triads in first, second and third inversions; melodic and harmonic rhythm; root progressions and voice leading; seventh chords and secondary dominants; introduction to common harmonic practice through exercises, analysis and creative work.

132 (4b) HARMONY II (3)

Three lecture hours per week. Prerequisite: Music 131 (4a).

Continuation and advanced study of topics introduced in Music 131.

133 (5a) HARMONY III (3)
(Formerly Advanced Harmony)

Three lecture hours per week. Prerequisite: Music 131 (4a) and 132 (4b); concurrent enrollment in Music 103 (2a).

Continuation of the study of tonal and formal procedures; the contextual investigations of diminished seventh, neopolitan sixth and augmented sixth chords; tonicization, modulation and sequence; introduction to Impressionism and to 20th century melody, harmony and form.

134 (5b) HARMONY IV (3)
(Formerly Advanced Harmony)

Three lecture hours per week. Prerequisite: Music 133 (5a); concurrent enrollment in Music 104 (2b).

Continuation and advanced study of topics introduced in Music 133.

150 (17) COMPOSERS WORKSHOP (2)

Three lecture hours per week. Prerequisite: Music 131 (4a) and 132 (4b) or equivalent.

Study of compositional style from Schoenberg to the present, with particular emphasis on dodecaphonic, electronic and aleatory techniques. Performance of student works is an integral part of the course. (May be repeated for credit.)

170 (16) IMPROVISATION (3)

One lecture and two lab hours per week. Prerequisite: Music 131 (4a) or equivalent.

Study of improvisatory styles and techniques and the historical perspective of the practices; rhythmic, harmonic and melodic foundations; and improvisatory ensemble. (May be repeated for credit); Applicable to a major in music.

202 (6) MUSIC LITERATURE AND APPRECIATION (3)

Three lecture hours plus three hours required listening per week.

A survey of the music of Western Civilization, emphasizing the techniques of listening and understanding of the art. Text, illustrated lectures and directed listening in the library.

270 (7) SURVEY OF BLACK MUSIC (3)

Three lecture hours per week.

Chronological survey of the various styles and salient elements of the music of the Afro-American, encompassing sociological as well as musical factors. (Identical to Ethnic Studies 270.)

275 (8) HISTORY OF JAZZ (3)

Three lecture hours per week.

Study of jazz since 1900, with emphasis on instrumental styles; the development of jazz since 1940 and contemporary trends. (Identical to Ethnic Studies 275.)

301 (12) PIANO I (1)
(Formerly Elementary Piano)

Three class lab hours plus two individual lab hours per week.

Study in the techniques of piano playing. Individual attention, assignments and performance in a class situation.

302 (13) PIANO II (1)
(Formerly Advanced Elementary Piano)

Three class lab hours plus two individual lab hours per week.
Prerequisite: Music 301 (12) or equivalent.

Continuation of study in the techniques of piano playing. Individual attention, assignments and performance in a class situation.

303 (14) PIANO III (1)
(Formerly Intermediate Piano)

Three class lab hours plus two individual lab hours per week.
Prerequisite: Music 302 (13) or equivalent.

Continuation of study in the techniques of piano playing. Individual attention, assignments and performance in a class situation.

304 (15) PIANO IV (1)
(Formerly Advanced Piano)

Three class lab hours plus two individual lab hours per week.
Prerequisite: Music 303 (14) or equivalent.

For advanced students. Recital performance is part of the course. (May be repeated for credit.)

320 (24) STUDY OF BRASS INSTRUMENTS (1)

Three class lab hours plus two individual lab hours per week.
Techniques of playing the instrument of the student's choice, with individual and class instruction. (May be repeated for credit.)

340 (25) STUDY OF WOODWIND INSTRUMENTS (1)

Three class lab hours plus two individual lab hours per week.
Technique of playing the instrument of the student's choice, with individual and class instruction. (May be repeated for credit.)

360 (26) STRINGED INSTRUMENTS (1)

Three class lab hours plus two individual lab hours per week.
Technique of playing the violin, viola, cello or string bass, with individual and class instruction. (May be repeated for credit.)

371 (18a) CLASSICAL GUITAR I (1)

Three class lab hours plus two individual lab hours per week.
Study in the techniques of guitar performance and reading music to a degree which will enable the student to play accompaniments to compositions written for the guitar. Students must supply their own instruments.

372 (18b) CLASSICAL GUITAR II (1)

Three class lab hours plus two individual lab hours per week.
Prerequisite: Music 371 (18a).

Continuation of Music 371 with emphasis on solo performances. (May be repeated for credit.)

402 (37) SOLO VOICE I (1)
(Formerly Elementary Solo Voice)

Three class lab hours plus two individual lab hours per week.
Elementary vocal problems analyzed and corrected through exercises and songs. (May be repeated for credit.)

403 (38) SOLO VOICE II (1)
(Formerly Intermediate Solo Voice)

Three class lab hours plus two individual lab hours per week.
Prerequisite: Music 402 (37) or equivalent.

Advanced songs and recital performance as ability merits. (May be repeated for credit.)

430 (23) SYMPHONIC BAND (1)

Three lecture-critique hours per week. Prerequisite: Music 320 (24), 340 (25), 360 (26) as applicable, or equivalent.
Demonstration of proficiency.

Study and performance of music for concert band. Performance is required. Band does not perform at athletic events. (May be repeated for credit.)

440 (21) SYMPHONY ORCHESTRA (1)

Three lecture-critique hours per week. Prerequisite: Music 320 (24), 340 (25), 360 (26) as applicable, or equivalent.
Demonstration of proficiency.

The study and performance of orchestral literature appropriate for a large orchestra. Each semester is concerned with works differing from the previous semester's, providing a succession of new curriculum. (May be repeated for credit.)

445 (22) ORCHESTRA (1)

Three lecture-critique hours per week. Prerequisite: Music 320 (24), 340 (25), 360 (26) as applicable, or equivalent.
Demonstration of proficiency.

Study and performance of standard and contemporary literature for chamber and symphonic ensembles. Performance is required. (May be repeated for credit.)

450 (28) JAZZ BAND (2)

Five lecture-critique hours per week. Prerequisite: Music 451 (29) or equivalent. Demonstration of proficiency.

Advanced course which includes organization, training procedures, arranging, vocals and other phases of dance band work. Performance is required. (May be repeated for credit.)

451 (29) JAZZ WORKSHOP (1)

Three lecture-critique hours per week.

A workshop for the musician who wishes to learn jazz interpretation and styles. Ensemble experience from "Blues" to present-day jazz. (May be repeated for credit.)

460 (27) INSTRUMENTAL ENSEMBLE (1)

Three lecture-critique hours per week.

An ensemble class to provide group experience for various kinds of instruments in a variety of combinations. (May be repeated for credit.)

**470 (33) CHOIR (1-2)
(Formerly A Cappella Choir)**

Five lecture-critique hours per week (daily), or three hours per week (MWF). Prerequisite: Music 402 (37) or the equivalent. Demonstration of proficiency.

Study and performance of choral literature for accompanied and unaccompanied choir. Performance is required. (May be repeated for credit.)

**480 (34) CHAMBER CHOIR (1)
(Formerly College Chorale)**

Three lecture-critique hours per week. Prerequisite: Concurrent enrollment in Music 470 (33). Demonstration of proficiency.

An advanced ensemble which specializes in the performance of choral literature appropriate for small choir. Members are selected by audition from the enrollment of the Music 470 Choir. Performance is a part of the course. (May be repeated for credit.)

490 (35) MASTERWORKS CHORALE (1)

Three lecture-critique hours per week. Prerequisite: Music 470 (33) or equivalent. Demonstration of proficiency.

The study and performance of chorale literature appropriate for a large chorus. Each semester is concerned with works differing from the previous semester's, providing a succession of new curriculum. (May be repeated for credit.)

**495 (40) MUSICAL THEATRE (1-3)
(Formerly Musical Productions)**

Hours by arrangement. Prerequisite: Demonstration of proficiency.

Training in solo and chorus work for staging a musical production. (May be repeated for credit.)

496 (41) MUSICAL RECITALS (½)

One lecture hour per week.

A performing and listening course to provide recital experience and acquaintance with performance practices and musical styles. (Music majors are required to complete four semesters.)

**642 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

680 (48) SELECTED TOPICS IN MUSIC (1-3)

Hours by arrangement.

Selected topics in Music not covered by regular catalog offerings. Course content and unit credit to be determined by the Fine Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Nursing

The courses described are open only to those students accepted in the nursing program (see admission requirements on Page 95). A grade C or higher is necessary for progression in the sequence. Upon graduation, the candidate receives an Associate in Science degree and is eligible to write the California Board of Registered Nursing licensing examination. Please contact the Nursing Department for information.

**100 (60) NURSING ASSISTANT—HOME HEALTH AIDE
(8)**

A 240-hour program consisting of 80 hours of theory lecture and 160 hours of practical lab experience correlated with clinical experience in acute hospitals, skilled nursing facilities and patients' homes.

Designed to teach the student basic nursing skills to be able

to function safely and effectively under a nurse's supervision in a health agency, extended care facility or in the home. The successful completion of this program results in a certificate as both Nursing Assistant and Home Health Aide.

110 (51) MEDICAL/SURGICAL NURSING I (11)

Seven lecture and twelve lab hours per week. Prerequisite: Registration in Vocational Nursing curriculum and concurrent enrollment in or satisfactory completion (with grade C or better) of Biology 130 (7) and Psychology 100 (1a).

Correlation of theory and laboratory experience in chronic and subacute medical and surgical conditions of adults. Principles of mental health are included.

120 (52a) MEDICAL/SURGICAL NURSING II (13)

Five lecture and 24 lab hours per week. Prerequisite: Nursing 110 (V.N. 51), Biology 130 (7) and Psychology 110 (1a), all with grade C or better, and concurrent enrollment in or satisfactory completion (with grade C or better) of Biology 425 (52).

Continuation of Nurs. 110 (V.N. 51) with experience in more complex medical-surgical nursing situations, including the care of the mother and newborn. The role of the vocational nurse as a member of the health team is emphasized.

130 (52b) MEDICAL/SURGICAL NURSING III (13)

Five lecture and 24 lab hours per week. Prerequisite: Vocational Nursing 120 (52a) and Biology 425 (52) both with grade C or better.

This final course provides the V.N. student with additional theory and concurrent clinical experience in complex medical/surgical conditions, including multiple assignments in a variety of health agencies. (Completion of course with grade C or better is required for certification and eligibility for license examination.)

210 (1) FUNDAMENTALS OF NURSING (9)

Four lecture hours and fifteen lab hours, which includes three Skills lab hours per week. Prerequisites: Registration in the Associate in Science Degree Nursing Program and either concurrent enrollment in or satisfactory completion (grade C or better) of Biology 410 (41) and Psychology 100 (1a).

Principles and practices in the fundamentals of nursing common to all patient conditions. Common needs of normal and ill individuals are considered. Introduction to mental health, communication skills, geriatric and rehabilitation nursing are included. Correlated clinical practice with the subacute and chronically ill and Skills Lab are offered concurrently with the lectures. (Completion of this course with grade C or better waives one unit of Health Science requirement.)

221 (2) PEDIATRIC NURSING (4½)

Five lecture hours and twelve lab hours per week for eight weeks. Prerequisites: Nursing 210 (1), Biology 410 (41) and Psychology 100 (1a) all with grade C or better, and concurrent enrollment in or satisfactory completion (with grade C or better) of Biology 420 (42) and Psychology 201 (5).

Growth and development of the child and family: The focus is on nursing care related to the adaptations to stress during infancy, childhood and adolescence. Principles of growth and development, homeostasis, nutrition and pharmacology are integrated. Aspects of mental health and human sexuality are also included. Theory and clinical experience are correlated.

222 (2,3) MATERNITY NURSING (4½)

Five lecture hours and twelve lab hours per week for eight weeks. Prerequisites: Nursing 221 (2) with grade C or better, and concurrent enrollment in or satisfactory completion of (grade C or better) Biology 420 (42) and Psychology 100 (1a).

The focus is on nursing care related to the maternity cycle. Principles of growth and development, homeostasis, nutrition and pharmacology are integrated. Aspects of mental health and human sexuality are also included. Theory and clinical experience are correlated. (Completion of Nursing 121 and Nursing 122 both with grade C or better waives one unit of Health Science requirement.)

231 (3,4) PSYCHIATRIC NURSING (5)

Five lecture hours and 15 lab hours per week for eight weeks. Prerequisites: Nursing 222 (2), Biology 420 (42) and Psychology 201 (5), all with grade C or better.

Focus is on psychiatric nursing theory and practice. The student will care for people with emotional illnesses in a variety of community facilities. Pharmacological, nutritional, therapeutic and rehabilitative aspects of these conditions are included. Theory and clinical experience are correlated. Growth and development are integrated.

241 (4) ADVANCED MEDICAL/SURGICAL NURSING I (5)

Five lecture hours and 15 lab hours per week for eight weeks. Prerequisites: Nursing 231 (3,4) with grade C or better.

The focus is on the care of adult patients with illnesses requiring medical/surgical interventions, and preventative therapeutic, pharmacological, nutritional and rehabilitative aspects of these conditions. Principles of growth and development, mental health, homeostasis and human sexuality are correlated. Theory and clinical experience are correlated.

242 (5) ADVANCED MEDICAL/SURGICAL NURSING II (10)

Five lecture hours and 15 lab hours per week. Prerequisite: Nursing 241 (4) with grade C or better.

The focus is on the care of patients with acute conditions

requiring medical/surgical intervention, long term care and rehabilitation. Included are preventive, therapeutic, pharmacological and nutritional aspects of these conditions. Principles of growth and development, mental health, homeostasis and human sexuality are correlated. Experiences in critical care, leadership and legal aspects of nursing practice are included. Theory and clinical experience including afternoon rotations are correlated. (Completion of course with grade C or better is required for graduation and eligibility for licensure examination.)

647 (47) COOPERATIVE EDUCATION (1-4)

Work experience in a field related to career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

680 (48) SELECTED TOPICS IN NURSING (1-3)

Hours by arrangement. Prerequisite: Nursing 5 or equivalent, or current R.N. License.

Selected topics in Nursing not covered by regular catalog offerings. Course content and unit credit to be determined by the Health and Service Careers Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field. Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

**810 (41) REVIEW — FUNDAMENTALS OF NURSING (5)
(Credit/No Credit)**

Five lecture hours per week. Prerequisites: Completion of Nursing 242 (5) or equivalent.

Review for nurses of principles and practices in the fundamentals of nursing common to all patient conditions. Common needs of normal and ill individuals are considered. Introduction to mental health, communication skills, geriatric and rehabilitation nursing are included.

**821 (42) REVIEW—PEDIATRIC NURSING (2½)
(Credit/No Credit)**

Five lecture hours per week for eight weeks. Prerequisites: Completion of Nursing 242 (5) or equivalent.

Review for nurses of growth and development of the child and family. The focus is on nursing care related to the

adaptations of stress during infancy, childhood and adolescence. Principles of growth and development, homeostasis, nutrition and pharmacology are integrated. Aspects of mental health and human sexuality are also included.

**822 (42) REVIEW—MATERNITY NURSING (2½)
(Credit/No Credit)**

Five lecture hours per week for eight weeks. Prerequisites: Completion of Nursing 242 (5) or equivalent.

Review for nurses of nursing care related to the maternity cycle. Principles of growth and development, homeostasis, nutrition and pharmacology are integrated. Aspects of mental health and human sexuality are also included.

**831 REVIEW—PSYCHIATRIC NURSING (2½)
(Credit/No Credit)**

Five lecture hours per week for eight weeks. Prerequisites: Completion of Nursing 242 (5) or equivalent.

Review for nurses on psychiatric nursing theory. Pharmacological, nutritional, therapeutic, rehabilitative aspects of emotional illnesses are included.

**841 (44) REVIEW—ADVANCED
MEDICAL/SURGICAL NURSING I (5)
(Credit/No Credit)**

Five lecture hours per week. Prerequisites: Completion of Nursing 242 (5) or equivalent.

Review for nurses in the care of adult patients with illnesses requiring medical/surgical interventions, and preventive, therapeutic, pharmacological, nutritional and rehabilitative aspects of these conditions. Principles of growth and development; mental health, homeostasis and sexuality are correlated.

**842 (45) REVIEW—ADVANCED
MEDICAL/SURGICAL NURSING II (5)
(Credit/No Credit)**

Five lecture hours per week. Prerequisites: Satisfactory completion of Nursing 242 (5) or equivalent.

Review for nurses of care of patients with acute conditions requiring medical/surgical intervention, long term care and rehabilitation. Included are preventive, therapeutic, pharmacological and nutritional aspects of these conditions. Principles of growth and development, mental health, homeostasis and human sexuality are correlated.

**850 (46) NURSING SEMINAR (1-2)
(Credit/No Credit)**

Two lecture hours per week. Prerequisite: Concurrent enrollment in the Nursing Program.

Discussion of nursing theory and its application concurrent with content of Nursing 210 (1), 221 (2), 222 (2,3), 231 (3, 4), 241 (4) and 242 (5), focus on study habits, test taking, developing and evaluating nursing care plans. (May be repeated three times for credit.)

Intended to help students clarify their own thinking about such questions, through learning and discussing how philosophers have dealt with them.

**101 (6a) INTRODUCTION TO SOCIAL
AND POLITICAL PHILOSOPHY (3)**

Three lecture hours per week.

A course intended to help students understand some basic philosophical issues and use the critical methods of philosophy, through consideration of selected social and political theories, both ancient and modern. Differing political perspectives, including modern American democracy, are discussed and compared.

Oceanography

100 (10) OCEANOGRAPHY (3)

Three lecture hours per week plus two field trips.

Introduction to marine geology, chemistry and biology. Includes the hydrologic cycle, properties of sea water and marine organisms; currents, waves, tides, coastal processes and ecology of the ocean; continental drift and sea floor spreading.

**105 (6b) INTRODUCTION TO THEORY OF
KNOWLEDGE (3)**

Three lecture hours per week.

A critical study of the possible sources and limits of human knowledge; the ability of sense experience, reason, faith and intuition to provide reliable information about reality and ourselves, with primary emphasis on consciousness as the means of "knowing." In addition to studying traditional Western philosophy, the course examines recent trends in psychology, parapsychology, biofeedback, and varieties of meditation techniques.

Paleontology

110 (1) GENERAL PALEONTOLOGY (3)

Two lecture and two recitation hours per week, plus one weekend field trip and one-day long field trip.

Survey of the history and classification of plants and animals; methods of interpretation of the fossil record; fossils as evidence of the history of life; evolution of form and structure in plants and animals; sequence of floras and faunas in the rocks, including a brief summary of fossil men and human evolution.

**160 (20a) HISTORY OF PHILOSOPHY:
ANCIENT/MEDIEVAL (3)**

Three lecture hours per week.

A study of Greek philosophy with emphasis on pre-Socratic philosophers, Socrates, Plato and Aristotle; philosophy of the Roman world, and the beginning of Christian philosophy in the Middle Ages.

**170 (20b) HISTORY OF PHILOSOPHY: 16th-18th
CENTURIES**

Three lecture hours per week.

A study of the thought of the Renaissance; the rise of modern science; continental rationalism in Descartes, Leibniz, Spinoza; the opposing tradition of British empiricism and the critical philosophy of Kant.

Philosophy

See also Humanities.

100 (1) INTRODUCTION TO PHILOSOPHY (3)

Three lecture hours per week.

An introductory survey of philosophical questions and points of view for students not planning to major in philosophy. Problems about the nature of the world and human life and thought are discussed, including specific modern questions such as the right to die and other issues of morality and belief.

190 (20c) CONTEMPORARY PHILOSOPHY (3)

Three lecture hours per week.

A study of philosophical positions of 19th and 20th century philosophers and their approaches to problems in the fields of politics, ethics, religion, psychology and science. Major philosophers such as Nietzsche, Marx, Mill, Russell, Sartre and Wittgenstein will be studied.

200 (7) INTRODUCTION TO LOGIC (3)

Three lecture hours per week.

Conditions of clear statements; procedures and criteria for evaluating arguments with attention to both their content and form; questions of the adequacy and relevance of statements used to support conclusions.

210 (12) INTRODUCTION TO SYMBOLIC LOGIC (3)

Three lecture hours per week.

A study of the logical structure of language and the validity of arguments expressed symbolically. Introduction to the logic of classes and relations. Introduction to the logic of mathematics. (Identical to Math 210.)

240 (23) INTRODUCTION TO ETHICS (3)

Three lecture hours per week.

A study of the leading theories of moral principles and ideals, and their application to typical problems of institutional behavior, life, property, and the family. Contemporary moral issues such as the right to life, the right to die and sexual preferences and practices are discussed.

300 (24a) INTRODUCTION TO WORLD RELIGIONS (3)

Three lecture hours per week.

An introductory course describing the content and meaning of the great religions of the world; their cultural background, history and development, cultic practices, basic moral-religious tenets, literature and art and their impact on the society and culture of which they are a part.

320 (35) ASIAN PHILOSOPHY (3)

Three lecture hours per week.

An introduction to the major moral, political and religious philosophies of India, China and Japan, and their approaches to problems of knowledge. Examination of major Asian philosophic traditions and their contemporary approaches to problems of man and society.

340 (24b) INTRODUCTION TO THE PHILOSOPHY OF RELIGION (3)

Three lecture hours per week.

An investigation of the questions relating to the existence of God, including appeals to rational arguments, revelation, miracles, authority, faith, mystical experience; the nature of God and the problem of evil; the relationship between religion and moral convictions, and between religion and science; the problem of immortality.

395 (37) PHILOSOPHICAL THEORIES OF CONSCIOUSNESS (3)

Three lecture hours per week.

A course aimed at providing students with the means of following the perennial injunction of philosophy: "Know Thyself." The nature of consciousness and the relation of the self to the world. A survey of some of the methods of self-awareness and meditation, and the part played by consciousness in a variety of traditions, including Yoga, Buddhism, Sufism and Christian mysticism.

680 (48) SELECTED TOPICS IN PHILOSOPHY (1-3)

Hours by arrangement.

Selected topics in Philosophy not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN PHILOSOPHY (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Physical Education

The Physical Education Division offers a wide variety of physical activities in which individual students can choose to participate in accordance with their interest and needs, and which have carry-over value for the students' leisure time, now and in future years. Instruction is provided in progressive levels of competency, offering the opportunity for specialization in a given activity. See page 62 for physical education requirements.

AQUATICS (AQUA)

100 (CPE 2) BEGINNING/INTERMEDIATE/ADVANCED SWIMMING (1)

Two lab hours per week.

Instruction in water adjustment, treading, floating, breathing techniques, crawl, breaststroke, sidestroke, backstroke, and elementary diving; also personal water safety procedures.

Class is divided by levels of ability. (Offered Summer Session only.)

109 (CPE 2) INTERMEDIATE SWIMMING AND BEGINNING WATER POLO (1)

Two lab hours per week. Prerequisite: Ability to swim comfortably in deep water.

Instruction in the basic swimming strokes plus basic water polo fundamentals and actual competitive scrimmages with men and women competing against members of their own sex. Progressive skill development in picking up the ball in water; passing, receiving, shooting, dribbling and playing the game of water polo. Knowledge of water polo rules. For students with no previous water polo experience.

120 (CPE 2) AQUATIC FITNESS (1)

Two lab hours per week. Prerequisite: Ability to swim 200 yards continuously, demonstrate the crawl stroke.

Endurance swimming is stressed, based on an interval training system. A class goal is the ability to swim one mile within a 40-minute time period.

130 (CPE 2) DIVING (1)

Two lab hours per week. Prerequisite: Demonstration of competency.

Open to all divers. Students will be challenged by dives suited to their level of ability. Dives will be taught from one- and three-meter boards as well as from the mini-tramp.

201 (MPE 1) BEGINNING WATER POLO (1)

Two lab hours per week. Prerequisite: Ability to swim 50 yards using a "head high" crawlstroke, to swim 50 yards using the breaststroke, to tread water for 4 minutes, and to tread water for 1 minute with the hands out of the water.

Progressive skill development in picking up the ball in the water, passing, receiving, shooting, dribbling and playing the game of water polo. Knowledge of water polo rules. Practical assignments involving officiating responsibilities for home contests. For students with no previous organized water polo experience.

204 (MPE 1) INTERMEDIATE/ADVANCED WATER POLO (1)

Two lab hours per week. Prerequisite: Demonstration of competency.

Review of shooting skills, defensive techniques, and goal tending. Introduction to team defense and techniques utilizing the extra man. Participation in intra-class league games.

210 (MPE 1) THEORY AND STRATEGY OF WATER POLO (1)

Two lab hours per week. Prerequisites: Completion of at least 1 year of high school water polo, and/or satisfactory demonstration in a testing situation of elementary skills; passing,

receiving, shooting and dribbling, as well as demonstration of ability to swim 500 yards continuously within 7 minutes.

Course is designed to preview various offensive and defensive styles, as well as to provide knowledge regarding the techniques and psychology of goal tending. (Offered during Summer Session only.)

300 (CPE 2) LIFE SAVING (1)

Two lab hours per week. Prerequisite: Ability to swim 400 yards continuously, demonstration of the crawl, side and breaststrokes, standing front dive; surface dive to six-foot depth and swim two body lengths under water; floating required.

Progressive skill development in take-offs, approaches, carries, defensive mechanism, shallow water carries, water safety knowledge and artificial respiration.**

**American Red Cross Certificate is granted upon successful completion of course requirements.

310 (CPE 2) WATER SAFETY INSTRUCTOR (1½)

One lecture and two lab hours per week. Prerequisite: Possession of valid certification in advanced lifesaving or concurrent enrollment in life saving.

Development of effective performance in the basic swimming strokes and various life saving and water safety skills. Teaching techniques, methods and knowledge necessary to teach American Red Cross swimming and life saving courses. Certification as a Red Cross Water Safety Instructor is granted with successful completion of course requirements.

401 (CPE 2) BEGINNING SKIN AND SCUBA DIVING (2)

Two lecture hours and four lab hours per week for eight weeks. Prerequisite: The same as Life Saving; Medical clearance from physician required before student can start scuba.

Elements of skin diving are covered, as well as complete swimming pool training with scuba gear. Students who successfully complete this course may proceed to take their "ocean dives" from licensed scuba operators at a nominal cost. All scuba equipment utilized in CSM pools is provided by the College.

**COMBATIVES
(COMB)**

101 (CPE 2) BEGINNING JUDO (1)

Two lab hours per week. Beginners only permitted.

Judo for the beginning student. Consideration is given to the rules, procedures, techniques of falling, unbalancing, throwing techniques, combination techniques as related to physical development. Emphasis is on judo as a sport.

104 (CPE 2) INTERMEDIATE/ADVANCED JUDO (1)

Two lab hours per week. Prerequisite: Demonstration of ability. Elementary Judo class or equivalent.

A continuation of skills learned in elementary Judo. Advanced attacks and defenses are practiced. Consideration is given to Judo as an "art," with emphasis on maximum use of the mind and body.

201 (CPE 2) BEGINNING KARATE (1)

Two lab hours per week.

Orientation in the philosophy, history and physical aspects of the Tae-Kwon-Do. Fundamental kicking, blocking and striking techniques are studied. Upon completion students will be eligible for promotion to next highest grade (8th keop).

302 (MPE 1) INTERMEDIATE WRESTLING (1)

Two lab hours per week.

Introduction to intercollegiate wrestling through instruction in the rules, scoring system, and skills. Fundamental stances, takedowns, escapes, reversals, breakdowns, rides and pinning combinations. After learning these skills, the student will be able to apply them in short periods of wrestling. More advanced skills as applied to intercollegiate wrestling. Dual competition within the class.

305 (MPE 1) ADVANCED WRESTLING (2)

Four lab hours per week. Recommended for Varsity Wrestling.

Combination of advanced wrestling instruction in: (1) Advanced Wrestling skills; (2) Competition; (3) Circuit Training; (4) Running.

308 (MPE 1) FREESTYLE AND COLLEGIATE WRESTLING (1)

Advanced training in wrestling skills with emphasis on competition in Freestyle and Collegiate Tournaments. Open to the general public including high school wrestlers.

DANCE

Descriptions of the following courses may be found on page 137 under DANCE. Students may enroll in either Dance or Physical Education courses, but not both.

- 180 (CPE2) Folk/Square Dance (1)
- 360 (CPE2) Movement and Body Awareness (1)
- 148 (CPE2) Beginning Ballet and Modern Dance (1)
- 380 (CPE2) Theatre Dance and Movement (2)
- 141 (CPE2) Beginning Ballet (1)
- 143 (CPE2) Intermediate Ballet (1)
- 121 (CPE2) Contemporary Modern Dance I (1)
- 122 (CPE2) Contemporary Modern Dance II (1)

- 130 (CPE2) Jazz Dance (1)
- 411 (CPE2) Dance Production I (1)
- 412 (CPE2) Dance Production II (2)

FITNESS (FITN)

100 (CPE 2) ADULT FITNESS (1)

Two lab hours per week.

A course designed to re-acquaint the adult with exercise and to increase cardiovascular fitness. Exercise for flexibility, strength and agility; jogging for conditioning of the vascular and respiratory systems; and relaxation for release of tension.

110 (CPE 2) ADULT CONDITIONING ACTIVITIES (1)

Three lab hours per week.

A program of exercise designed to increase flexibility as well as promote cardiovascular and respiratory fitness. Participation in recreational activities including badminton and volleyball. (Summer session class meets 36 hours for one student unit.)

120 (CPE 2) FITNESS ACTIVITIES (1)

Two lab hours per week.

Exercises ranging from mild to very active, individual fitness evaluation and all-around endurance. Designed to help the individual understand the need for the benefits of physical fitness.

130 (CPE 2) BIODYNAMICS (1)

Two lab hours per week.

Stress is placed on improvement of posture and fitness. The course offers measurement in strength, flexibility and coordination, and an evaluation of one's posture.

150 (WPE 3) SLIM/TRIM (1)

Two lab hours per week.

Designed to study, achieve and maintain long-term proper weight through an individualized program of diet and exercise. Course includes assessment of food habits, quantity and quality of food intake; aerobic, flexibility and strength exercises.

201 (CPE 2) BEGINNING WEIGHT CONDITIONING (1-1½)

Two or three lab hours per week.

A basic course of weight conditioning designed to build and strengthen the body, to increase flexibility, and to add agility; instruction in various exercises and associated safety procedures utilizing free weights and/or weight machine.

203 (CPE 2) INTERMEDIATE WEIGHT CONDITIONING (1)

Two lab hours per week. Prerequisite: Successful completion of elementary weight conditioning or equivalent.

Progressive skill and weight development in various weight conditioning exercises; opportunities to specialize in different areas of the body; development of individual programs. Free weights and weight machines are used.

210 (CPE 2) INDIVIDUAL PROGRAMS IN WEIGHT CONDITIONING (2)

Four and one-half hours per week. Evening class meets once a week for two hours (1 unit). Prerequisite: Demonstration of competency.

Vigorous weight training in an individual program of exercises designed to build specific strength with regard to each student's goal. Weight lifting machine utilized.

211 (CPE 2) WEIGHT CONDITIONING FOR WEIGHT WATCHERS (1)

Two lab hours per week.

Dynamic exercise program for weight watchers. Use of exercise equipment for cosmetic improvement and developing the overall condition of the body.

212 (CPE 2) CIRCUIT WEIGHT CONDITIONING (1½)

Three lab hours per week.

Designed to promote overall physical fitness for men and women. Use of weight training machines in an exercise circuit created to develop and/or maintain muscle tone and increase flexibility. Circuit participation is preceded by stretching calisthenics and followed by light period of jogging activity.

213 (MPE 1) WEIGHT CONDITIONING FOR BASEBALL (1)

Two lab hours per week.

Designed to develop additional strength and flexibility through the use of circuit training machines; for those students interested in improving their proficiency in baseball.

214 (MPE 1) WEIGHT CONDITIONING FOR CROSS COUNTRY (2)

Four lab hours per week. Prerequisite for student athletes who will be participating as members of the Varsity Cross Country team.

A weight conditioning course designed for the development of the long distance or cross-country runner.

215 (MPE 1) WEIGHT CONDITIONING FOR TRACK (2)

Four lab hours per week. Prerequisite for student athletes who will be participating as members of the Varsity Track team.

A Weight conditioning course designed for the individual development of the 18 different events in Track and Field.

216 (WPE 3) CONDITIONING FOR THE WOMAN ATHLETE (1½)

Three lab hours per week.

A vigorous conditioning program designed to assist the woman athlete in overcoming individual muscular weakness as related to specific sports. Progressive work with weight machine and with interval training is utilized.

218 (CPE 2) CIRCUIT TRAINING (1-1½)

Two or three lab hours per week.

Vigorous weight training exercises set up in training "stations." Individuals rotate from station to station on a specific time schedule. Emphasis is on strength and overall body conditioning. Weight machines are utilized.

220 (MPE 1) WEIGHT CONDITIONING FOR FOOTBALL (1½)

Three lab hours per week. Prerequisite: Varsity Football candidate.

Course is designed to teach students to use overload weight training to build bulk and strength. Students will work on major muscle groups, with emphasis on legs and upper body development.

300 (CPE 2) JOGGING (1-2)

Two to four lab hours per week.

Exercise periods in preparation for running and a program of jogging. Objective is to bring about an increase in cardiovascular efficiency and neuro-muscular strength through running.

331 (CPE 2) BEGINNING YOGA (1)

Two lab hours per week.

Basic course in Hatha Yoga — basic postures, breathing, principles of diet, and understanding of the way Yoga unites the mind and body through passive exercise and energy release.

333 (CPE 2) INTERMEDIATE YOGA (1)

Two lab hours per week.

Individualized programs designed for the student's level of physical competence in Hatha Yoga. Pranayama Yoga and Jnana Yoga are explored, as are diet, nutrition, massage and meditation.

341 (CPE 2) BEGINNING MASSAGE (1)

Two lab hours per week.

How to give and receive a massage. Emphasis on relaxation and well-being. Content includes history, study of the skeletal and muscular structure, and circulatory system; basic massage strokes, basic preparation, practice, massage systems, tension and relaxation.

343 (CPE 48) INTERMEDIATE MASSAGE (1)

Two lab hours per week. Prerequisite: Beginning Massage.

Practice in adapting basic massage strokes to a personalized rather than mechanized style that will accommodate the needs of the receiver. The psychological effects of massage; the use of "deep" massage to perceive and relieve, chronic and acute tension. Includes lectures and demonstrations on specialized body systems such as physical therapy, osteopathy, cosmetology, shiatsu, foot reflexology, Roling, and polarity.

**INDIVIDUAL SPORTS
(INDV)**

101 (CPE 2) BEGINNING ARCHERY (1)

Two lab hours per week.

Fundamentals of target archery. Individual and team competition in the Scholastic, Junior Columbia, and P.A.A. Rounds safety rules, scoring, terminology, and care and selection of equipment.

110 (CPE 2) BACKPACKING (2)

Ten lecture hours and two field trips. Prerequisite: Student must be at least 18 years old.

Acquaints students with necessary skills for backpacking. Lectures cover equipment, food, safety standards, and map and compass reading. Transportation is not provided. Equipment and/or equipment rental is required.

121 (CPE 2) BEGINNING BADMINTON (1)

Two lab hours per week.

The rules and strategies of badminton, as well as the fundamentals of grip, strokes, footwork and court coverage through drills and competition; testing program in the various techniques taught; tournaments in singles and doubles are held within the class period.

123 (CPE 2) INTERMEDIATE BADMINTON (1)

Two lab hours per week. Prerequisite: Elementary Badminton.

Emphasis on strategy, tactics, footwork, doubles teamwork and the singles game. Tournaments in singles and doubles.

125 (CPE 2) ADVANCED BADMINTON (1)

Two lab hours per week. Prerequisite: Completion of the elementary course in the top ability group.

Advanced techniques of strategy and tournament play. Tournament of different types will be played in class. Students are encouraged to enter outside tournaments.

142 (CPE 2) BEGINNING/INTERMEDIATE BOWLING (1)

Two lab hours per week.

An opportunity to learn the techniques of bowling or to refresh current knowledge and improve to a more advanced level. Classes will be listed by skill levels in the schedule. (Elem., Intermed., Intermed./Advan., Advanced and League.) Approx. \$2/day is required at off-campus facility. Students must provide own transportation.

150 (CPE 2) BEGINNING/INTERMEDIATE/ADVANCED FENCING (1)

Two lab hours per week.

Techniques and practice in form, attacks, parries, counterattacks, bouting, timing, strategy, history, safety, etiquette, rules, terminology, judging, directing, scorekeeping, and tournament.

161 (CPE 2) BEGINNING GOLF (1)

Two lab hours per week.

Instruction in techniques, rules, etiquette and philosophy for the beginning golfer; stance, grip, swing as associated with iron and wood shots. Outside assignments include playing at least 9 holes of golf. (Approximately \$5-\$7 per semester is required at off-campus facility for green fees, golf balls, and necessary equipment rental.)

170 (CPE 2) HIKING (1)

Hours by arrangement.

Basic skills, rules of trail safety, and equipment for hiking. Hikes are scheduled to nearby areas as well as one all-day hike. Students must provide their own transportation.

201 (CPE 2) BEGINNING HANDBALL (1)

Two lab hours per week.

Basic handball skills involving serving and strokes. Features in doubles cutthroat and singles competition, including theory and strategy. Rules pertaining to one-wall handball will be stressed.

220 (CPE 2) RACQUETBALL (1)

Two lab hours per week.

Offers rules, fundamentals, techniques, and philosophy of four-wall racquetball. Provides opportunity for increased car-

diovascular fitness, hand-eye coordination and overall body quickness. Class offered off-campus. Students must furnish their own transportation.

251 (CPE 2) BEGINNING TENNIS (1)

Two lab hours per week.

Instruction in the fundamental skills of the service, forehand and backhand strokes; court strategy and the rules of play; testing program in all tennis skills and rules.

253 (CPE 2) INTERMEDIATE TENNIS (1)

Two lab hours per week. Prerequisite: Elementary tennis or demonstration of ability in forehand, backhand and service.

Emphasis on net play and doubles and singles strategy. Includes volley, lob, and smash. Singles and doubles tournaments are included.

255 (CPE 2) ADVANCED TENNIS (1-1½)

Two or three lab hours per week. Prerequisites: Beginning and Intermediate Tennis, or equivalent.

Advanced aspects of tennis plan. Instruction in advanced strategy, philosophy, and techniques; tournament play in singles and doubles; testing program in skills, techniques, and rules.

257 (CPE 2) TOURNAMENT TENNIS (1)

Two lab hours per week.

Designed for the advanced tennis student who desires strong competition. Singles, doubles, mixed doubles, tournaments and ladder tournaments are offered.

320 (CPE 2) GYMNASTICS/TUMBLING/TRAMPOLINE (1)

Two lab hours per week.

A combination of gymnastic activities including trampoline, tumbling and the traditional gymnastic apparatus. Students may receive instruction in all areas or specialize in one area of interest.

330 (CPE 2) TRAMPOLINE (1)

Two lab hours per week.

Trampoline activity for elementary, intermediate and advanced students. Safety skills and fundamental processes of trampolining.

**TEAM SPORTS
(TEAM)**

101 (MPE 1) BEGINNING BASEBALL (1)

Two lab hours per week.

Activity in the basic skills of baseball. Rules of play and team strategies are stressed.

105 (MPE 1) ADVANCED BASEBALL (2)

Six lab hours per week. Prerequisite: High school baseball or equivalent.

Designed as a training class for students seeking to participate in Varsity Baseball. Advanced skills and techniques in baseball. Written and practical testing.

111 (CPE 2) BEGINNING BASKETBALL (1)

Two lab hours per week.

Basic skills, strategy, theory and practice in basketball. Skills include dribbling, shooting, guarding and passing. Also included are the theory, use, and practice of team play and strategy; Round Robin team play.

115 (CPE 2) ADVANCED BASKETBALL (1)

Two lab hours per week. Prerequisite: Playing experience in high school on either "B" or varsity level, or equivalent.

Advanced skills of basketball play; some continuation of elementary skills; advanced techniques of offensive and defensive play; Round Robin team play.

118 (WPE 3) ADVANCED BASKETBALL FOR WOMEN (2)

*Six lab hours per week. Required class for women wishing to compete on Women's Varsity (formerly Women's Intercollegiate) team.*Beginning of school in September until the last class in December.*

Advanced skills of basketball play; advanced techniques of offensive and defensive play; development of team play.

135 (MPE 1) ADVANCED FOOTBALL AND CONDITIONING (2)

Four hours per week. Prerequisite: Varsity football experience in high school or college, or equivalent.

Review of basic skills and introduction to advanced techniques and strategies in offensive and defensive football. Stresses conditioning necessary to play the game and for life-long health goals. Weight training included.

140 (CPE 2) SOCCER (1)

Two lab hours per week. Prerequisite: Demonstration of competency.

Basic fundamentals of individual play such as dribbling, heading, shooting, trapping, passing and defensive tactics; participation in game situations; testing program in all soccer skills and knowledge of rules; league play.

145 (CPE 2) ADVANCED SOCCER (1-1½)

Two or three lab hours per week. Prerequisite: Demonstration of competency.

Advanced soccer techniques; written and practical testing program; league play.

151 (CPE 2) BEGINNING SOFTBALL (1)

Two lab hours per week.

Activity in the basic skills, strategy and practice in softball. Skills include batting, catching and throwing. Also included are the rules of play and team strategy through Round Robin competition.

158 (WPE 3) ADVANCED SOFTBALL FOR WOMEN (2)

Four lab hours per week. Prerequisite to Women's Varsity Softball.

Designed as a training class for women interested in participating on the Women's Varsity Softball team. Advanced skills of softball play. Emphasis on team play, offense and defense.

165 (MPE 1) ADVANCED TRACK AND FIELD (2)

Four and one half hours per week.

Designed to increase conditioning through weight training, with emphasis on individual needs in specific track events. Running and instruction in all aspects of track and field are included.

171 (CPE 2) BEGINNING VOLLEYBALL (1)

Two lab hours per week.

Fundamentals of serving, passing, setting and spiking; team competition under national and international rules of play. Strong emphasis on knowledge of rules.

173 (CPE 2) INTERMEDIATE VOLLEYBALL (1)

Two lab hours per week. Prerequisite: Elementary Volleyball. Continuation of fundamental skills in tournament play. Team competition.

175 (CPE 2) ADVANCED VOLLEYBALL (1)

Two lab hours per week. Prerequisite: Demonstration of competency.

Volleyball play for advanced volleyball students of superior ability; continuation of the fundamental skills; emphasis on team play and advanced strategy. Tournament play is offered.

178 (WPE 3) ADVANCED VOLLEYBALL FOR WOMEN (2)

Four lab hours per week. Prerequisite: Knowledge, skill, and desire to try out for Varsity Volleyball team.

Designed to assist the potential varsity player in maintaining and improving physical ability and condition; developing and improving basic and advanced individual skills; and learning and understanding the concepts of offense and defense.

200 (CPE 2) PEP SQUAD (1)

Two lab hours per week. Prerequisite: Demonstration of competency. Must be a member of CSM Pep Squad.

Designed to teach the skills and techniques necessary for performing as a cheerleader or pompon girl. Routines are taught during scheduled meetings, and members perform at athletic contests.

**INTERCOLLEGIATE SPORTS
(VARS)**

These courses are designed for those students who wish to compete in intercollegiate athletics and may be limited to those who demonstrate the necessary physical and mental fitness. Sufficient skill to reduce the likelihood of injury is also required. The passing of medical and physical examinations and the consent of the coach are necessary before enrollment.

Most varsity sports entail practice from 2-5 p.m. daily.

100 (MPE 8) VARSITY BASEBALL (1-2)

Fifteen hours per week by arrangement. Prerequisite: Demonstration of competency.

Intercollegiate varsity baseball competition in the Golden Gate Conference tournament and with other community colleges in the area.

110 (MPE 5) VARSITY BASKETBALL (1-2)

Fifteen hours per week by arrangement. Prerequisite: Demonstration of competency.

Intercollegiate varsity basketball competition in the Golden Gate Conference; participation in regional tournaments.

120 (MPE 4) VARSITY CROSS COUNTRY (1-2)

Fifteen hours per week by arrangement. Prerequisite: High school track or cross country experience, or equivalent.

Men — Cross country and distance running competition on an intercollegiate level in the Golden Gate Conference, participation in Conference meets, invitational meets, Northern California meets and State Championship for those who qualify. Racing distance is 4 miles. Candidates should also enroll in Weight Conditioning for Cross Country (2 units.)

130 (MPE 12) VARSITY FOOTBALL (1-2)

Fifteen hours per week by arrangement. Prerequisite: Demonstration of competency.

Intercollegiate varsity football competition in the Golden Gate Conference. Student athlete must be ready to start practice in late August before the fall semester begins. Student can also participate if enrolled in 12 or more units at either Skyline or Canada College.

140 (CPE 10) VARSITY GOLF (1-2)

Fifteen hours per week by arrangement. Prerequisite: Demonstration of competency.

Intercollegiate varsity golf competition in the Golden Gate Conference; participation in the Golden Gate Conference Tournament, Northern California Tournament, and State championships for those who qualify.

170 (MPE 9) VARSITY TENNIS (1-2)

Fifteen hours per week by arrangement. Prerequisite: Demonstration of competency.

Intercollegiate varsity tennis competition in the Golden Gate Conference; participation in the Conference championships, and participation in the Northern California and State championships for those who qualify.

180 (MPE 7) VARSITY TRACK AND FIELD (1-2)

Fifteen hours per week by arrangement. Prerequisite: High school track or cross country experience, or equivalent.

Men — Track and field competition in the Golden Gate Conference on an intercollegiate basis; participation in Conference meets, invitational meets, Northern California Finals and the State meets for those who qualify. Candidates should also enroll in Weight Conditioning for Track 2 (2 units.)

200 (MPE 6) VARSITY WRESTLING (1-2)

Fifteen hours per week by arrangement. Prerequisite: Wrestling experience in high school or college, or demonstration of ability.

Intercollegiate competition in dual matches in the Golden Gate Conference; competition in four tournaments each year including the California State Community College Tournament; instruction in advanced skills of wrestling.

300 (WPE 22) WOMEN'S VARSITY BASKETBALL (1-2)

Fifteen hours per week minimum. Prerequisite: Demonstration of competency.

Intercollegiate competition in the Golden Gate Conference, Northern California, and State Championships.

310 (WPE 4) WOMEN'S VARSITY CROSS COUNTRY (1-2)

Fifteen hours per week by arrangement. Prerequisite: High school track or cross country experience, or equivalent.

Cross-country and distance running competition on an intercollegiate level in the Golden Gate Conference; participating in conference meets, invitational meets, Northern California meets and State Championship meets for those who qualify. Racing distance is 3 miles. Candidates should also enroll in Weight Conditioning for Cross Country (2 units.)

320 (WPE 23) WOMEN'S VARSITY SOFTBALL (1-2)

Fifteen hours per week minimum. Prerequisite: Demonstration of competency.

Intercollegiate competition in the Golden Gate Conference, Northern California, and State Championships.

330 (WPE 24) WOMEN'S VARSITY TENNIS (1-2)

Fifteen hours per week minimum. Prerequisite: Demonstration of competency.

Intercollegiate competition in the Golden Gate Conference, Northern California, and State Championships.

340 (WPE 21) WOMEN'S VARSITY VOLLEYBALL (1-2)

Fifteen hours per week minimum. Prerequisite: Demonstration of competency.

Intercollegiate competition in the Golden Gate Conference, Northern California, and State Championships.

380 (WPE 7) WOMEN'S VARSITY TRACK AND FIELD (1-2)

Fifteen hours per week by arrangement. Prerequisite: High school track or cross country experience or equivalent.

Track and field competition in the Golden Gate Conference on an intercollegiate basis; participation in Conference meets, invitational meets, Northern California Finals and State meets for those who qualify. Candidates should also enroll in Weight Conditioning for Track (2 units). Course is identical to Vars. 180 except lighter shot, discus and javelin are used.

**THEORY
(P.E.)**

100 (CPE 40) THE NATURE AND SCOPE OF PHYSICAL EDUCATION (2)

Two lecture hours per week.

Detailed treatment of academic and professional requirements for physical education, development of aims, objectives and philosophies. Students are required to prepare a term paper and participate in panel discussions, symposiums and subjective testing.

131-132 (CPE 43a-43b) SPORTS OFFICIATING I-II (2-2)

Two lecture hours per week plus lab hours by arrangement. Offered in the evenings only.

A course designed for men and women Physical Education/Recreation majors. Officiating procedures for a variety of activities.

200 (CPE 2) INTRAMURALS

Supervised intramural sports are scheduled throughout the semester on Tuesday and Thursday at 11 a.m., for one half unit of college credit on a Credit/No Credit basis. Competition in selected seasonal activities for all students.

Men — Basketball, handball, paddleball, soccer, touch football.

Women — Basketball, touch football, handball.

Co-ed — Badminton, softball, table tennis, tennis, and volleyball. Sports Days: Festive occasions on which CSM students participate in a number of activities — pie-eating contest, frisbee throw, faculty-student softball, etc.

**646 (CPE 47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)**

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

**680 (CPE 48) SELECTED TOPICS IN PHYSICAL
EDUCATION (1-3)
(Credit/No Credit)**

Hours by arrangement.

Selected topics in Physical Education not covered by regular catalog offerings. Course content and unit credit to be determined by the Physical Education Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (CPE 49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Physical Science

**100 (10) INTRODUCTION TO THE PHYSICAL
SCIENCES (3)**

Three lecture hours per week. Open to all students except

those who are currently enrolled in or have completed a college course in physics, astronomy or chemistry.

Survey of topics in physics, astronomy and chemistry. Interdisciplinary aspects of science are emphasized. (Intended for non-science majors.)

Physics

100 (10) DESCRIPTIVE INTRODUCTION TO PHYSICS (3)

Three lecture hours per week. Prerequisite: None; the equivalent of at least one semester of high school-level Algebra is recommended. Open to all students except those who have had or are taking Physics 210 (2a) or 220 (2a).

A description with experimental demonstrations of the more important phenomena of physics.

210-220 (2a-2b) GENERAL PHYSICS I and II (4-4)

Three lecture and three lab hours per week. Prerequisite: 210 (2a) – Elementary Algebra and Plane Geometry; 220 (2b) – Physics 210 (2a).

210 (2a) — Mechanics, heat and sound. **220 (2b)** — Magnetism, electricity, light and modern Physics. (Designed for students majoring in some field of letters and science; required for those planning to enter Medicine, Dentistry, Pharmacy, Optometry, Agriculture or Forestry.)

**250-260-270 (4a-4b-4c) PHYSICS WITH CALCULUS I, II
AND III (4-4-4)**

Three lecture and three lab hours per week. Prerequisite: 250 (4a) – Math 261 (31) and concurrent enrollment in Math 262 (32); 260 (4b) – Physics 250 (4a), Math 261 (31) and 262 (32) and concurrent enrollment in Math 263 (33); 270 (4c) – same as 260. Students whose majors required only Math 241-242 (23a-23b) should consult the instructor.

250 (4a) — Mechanics, wave motion and special relativity.

260 (4b) — Electricity and magnetism. **270 (4c)** — Heat, light and modern physics. (250-260-270 constitute a three-semester program designed to give the student majoring in Engineering, Physics or Chemistry a thorough foundation in the fundamentals of physics.)

680 (48) SELECTED TOPICS IN PHYSICS (1-3)

Hours by arrangement.

Selected topics in Physics not covered by regular catalog offerings. Course content and unit credit to be determined by the Math/Science Division in relation to community-student need and/or available staff. May be offered as a seminar lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for one Special Project per semester.)

Political Science

100 (1) INTRODUCTION TO POLITICAL SCIENCE (3)

Three lecture hours per week.

An introductory survey designed to introduce the student to the nature of politics and to Political Science as a field of study. The scope of the course includes examination of the nature of the state, forms of government and political institutions, political theory and ideology, public law and administration, and international relations. (Fall only.)

110 (2) CONTEMPORARY FOREIGN GOVERNMENTS (3)

Three lecture hours per week. Prerequisite: One of the following: Pol. Sc. 100 (1), 150 (5), 200 (25), 210 (21), or 220 (22).

An introduction to representative foreign political systems. A comparative analysis of how varied governments reconcile stability and change, power and responsibility, freedom and efficiency. The course stresses interrelationships of social patterns, ideology, and political institutions.

130 (3) INTERNATIONAL RELATIONS (3)

Three lecture hours per week.

An introductory survey of the nature of relations among states, focusing on the analysis of the basic forces affecting the formulation of foreign policy and the dynamics of international politics. The scope of the course includes examination of the nation-state system, sources of national power, instruments of national policy, and the attempt to resolve international conflict by peaceful methods. (Spring only.)

150 (5) INTRODUCTION TO POLITICAL THEORY (3)

Three lecture hours per week. Prerequisite: Successful completion of at least 12 semester units of college work.

A study of classical and modern political thought designed to develop student understanding of various theoretical approaches to politics, basic political problems and proposed solutions to these problems.

200 (25) NATIONAL, STATE AND LOCAL GOVERNMENT (5)

Five lecture hours per week. Not open to students who have had Pol. Sci. 210 (21) or 310 (23), or a comparable course in American or state institutions. Established primarily for students whose majors are Political Science, Pre-Law, Criminology and allied behavioral and social sciences.

Introduction to the principles and problems of American government at the national, state and local levels. Inter-governmental relationships examined from a functional point of view. Major areas of emphasis are American federalism, judicial review, the political process in nation and state, civil liberties, foreign policy and the role of the citizen at all levels of government. (Satisfies the American Institutions and the California State and Local Government requirements.)

205 (27) AMERICAN SOCIETY (5)

Five lecture hours per week. Limited to foreign students or recent immigrants.

An orientation course in American society and culture, encompassing social, political and economic institutions as well as history. Particular emphasis on aspects of American life and historical development that are unique — ethnic history, patterns of voluntary association, political and non-political, educational trends, cultural characteristics. (Satisfies American Institutions and California State and Local Government requirements.)

210 (21) AMERICAN POLITICS (3)

Three lecture hours per week.

Thorough study of the Constitution, a survey of the organization and functions of the branches of the Federal government, and an examination of the dynamics of the American political process. (Satisfies the American Institutions requirement.)

215 (30) CONTEMPORARY ISSUES IN AMERICAN POLITICS (3)

Three lecture hours per week.

An exploration of current issues of import to well-informed citizens in a democracy — goals and tactics of American foreign policy; civil rights; the economy; executive power and its abuses; and the politics of energy and the environment. (Satisfies the American Institutions requirement.)

220 (22) THE AMERICAN PRESIDENCY

Three lecture hours per week.

A comparative critical analysis of the Executive branch of American government from Franklin Roosevelt's administration to the present. Variations in policy-making, political activity, administrative leadership, and Executive-Legislative

branch relationships are scrutinized. (Satisfies the American Institutions requirement.)

250 (7) CIVIL LIBERTIES AND CIVIL RIGHTS (3)

Three lecture hours per week.

A survey and analysis of the issues and problems considered by the U.S. Supreme Court in the area of civil liberties and civil rights. The rights of racial, political and religious minorities, and of criminal defendants; the concepts of due process and equal protection of the law; the interaction of the Supreme Court with the President, Congress, political parties and interest groups. (Satisfies the American Institutions requirement.)

255 (28) WOMEN, POLITICS AND POWER (3)

Three lecture hours per week. Prerequisite: None. Political Science 210 (21) or 310 (23) strongly recommended.

An examination of the changing roles of women in the political process. Emphasis is on methodology, rationale and effects of women's participation on several levels of political activity. (Satisfies the American Institutions requirement.)

260 (9) CONTEMPORARY ETHNIC POLITICS IN THE U.S.

Three lecture hours per week.

A survey of the political perspectives, goals, and strategies of Black, Asian, Hispanic and Native American minorities within the context of American and Third World politics. Includes analysis of traditional and alternative approaches to liberation and political ascendancy, with particular emphasis on the movements of the 1960's and 1970's. (Satisfies the American Institutions requirement.)

300 (12) STATE AND URBAN GOVERNMENT (3)

Three lecture hours per week.

The structure and dynamics of urban democracy with special reference to city and state government in California. Emphasis on the problems of urban and metropolitan communities in such areas as law enforcement, ghetto conditions, school integration, welfare problems, and other related problems. The course includes an examination of the process of decision-making within the context of local and community politics. (Satisfies State and Local Government requirement.)

310 (23) CALIFORNIA STATE AND LOCAL GOVERNMENT (2)

Two lecture hours per week.

Designed to acquaint the student with the institutions and problems of state and local government in California. (Satisfies the California State and Local Government requirement.)

520 (18) THE GOVERNMENTS AND POLITICS OF AFRICA (3)

Three lecture hours per week.

An introduction to the study of the emergent African states, examining the political factors impinging on their decision-making processes and their geo-political consequences. A comparative analysis of non-Western institutional structures; differences in ideological orientation; and economic interdependence in the context of contemporary world politics. (Identical to Ethnic Studies 520.)

550 (39) INTERNATIONAL ORGANIZATION: UNITED NATIONS (3)

Hours by arrangement.

An analytical study of the institutional structure of the United Nations as well as the operative political forces within the organization. Includes extensive research into actual issues before the United Nations. A simulation exercise is conducted through participation in the Model United Nations of the Far West. Delegates are selected during the fall semester. (May be repeated for credit.)

590 (40) STUDENT GOVERNMENT (1)

Attendance at scheduled meetings and individual work by arrangement.

Designed to further the educational value of experience in student government. Open to students holding elective or appointive positions in student government or on student-faculty committees. Specialized reading and research topics will be selected for individual study. (May be repeated for credit.) (Not offered 1979-80.)

680 (48) SELECTED TOPICS IN POLITICAL SCIENCE (1-3)

Hours by arrangement.

Selected topics in Political Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN POLITICAL SCIENCE (3)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Psychology

100 (1a) GENERAL PSYCHOLOGY (3)

Three lecture hours per week.

Introduction to psychology, including such topics as perception, motivation, emotion, learning and thinking, the observation of behavior, and the methods of measuring individual differences. Emphasis on experimental evidence.

105 (1b) EXPERIMENTAL PSYCHOLOGY (3)

Three lecture hours per week. Prerequisite: Psych. 100 (1a) with a minimum grade of C. Recommended: Psych. 121 (7).

Philosophy and aims of scientific inquiry and how it can be applied to answer questions in psychology. Students carry out experiments to familiarize themselves with the methods discussed.

108 (10) PSYCHOLOGY IN PRACTICE (3)

Three lecture hours per week.

Application of psychological principles to problems of everyday living rather than the technical-scientific approach of Psych. 100. Intended for those who wish a general picture of human psychology, but who are not psychology majors. (May not be taken for credit following Psych. 100.)

110 (4) COURTSHIP, MARRIAGE AND THE FAMILY (3)

Three lecture hours per week.

History and development of marriage; dating; courtship; personality adjustment in marriage; parenthood; the problem of divorce, mate-selection; love; the family; anatomic, physiologic, psychologic and sociologic aspects of sex; children; religious factors; marriage as a social institution. (Identical to Sociology 110.)

121 (7) BASIC STATISTICAL CONCEPTS (3)

Three lecture hours per week. Prerequisite: Math 125 (13) or four semesters of high school level Algebra with a C average; Psych. 100 (1a) or Soci. 100 (1) or Anth. 110 (2). Recommended: Psych. 100 (1a).

Introduction to the basic descriptive techniques and statistical inferences used in the behavioral sciences. (Spring only.)

~~201~~ 240 (5) CHILD DEVELOPMENT (3)

Three lecture hours per week. Prerequisite: Psych. 110 (1a).

Consideration of perceptual, cognitive, social and emotional development extending from birth through adolescence, with an emphasis on current research.

250 (28) PSYCHOLOGY OF WOMEN (3)

Three lecture hours per week.

An examination of the ways in which culture influences feminine and masculine role behavior within the framework of standard psychological concepts. Consideration of the demands placed on men and women by a rapidly changing society.

300 (6) SOCIAL PSYCHOLOGY (3)

Three lecture hours per week. Prerequisite: Psych. 100 (1a) or Sociology 100 (1).

The study of human interaction, with emphasis on social patterning and process of perception, identity, roles and attitudes. (Identical to Sociology 300.)

340 (39) PSYCHOLOGY OF HUMAN SEXUALITY (3)

Three lecture hours per week.

Human sexuality considered from a psychological, physiological and cultural perspective, with a review of sex research. Topics include: reproductive process; dimensions of sexuality; sexual arousal and response; sexual inadequacies and deviations; drugs and sexuality.

355 (14) GROUP DYNAMICS (2) (Credit/No Credit)

Three hours of group discussion per week. (May be repeated for credit.)

Group interaction in an unstructured situation, with a climate of maximum freedom for personal expression, exploration of feelings, and interpersonal communication. Emphasis on experience rather than theoretical and academic explanation of group process.

358 (40) GROUP FACILITATOR TRAINING (2) (Credit/No Credit)

Two lecture hours per week. Prerequisite: Psychology 355 (14) or equivalent.

Methods and theories of small group facilitation. Emphasis on experience and application of techniques from humanistic psychology. (May be repeated for credit.)

400 (33) PSYCHOLOGY OF ADJUSTMENT (3)

Three lecture hours per week. Prerequisite: Psych. 100 (1a).

Study of the ways people adjust to their environments. Emphasis on the ways personality develops and changes. Case illustrations and different theories of personality are presented.

410 (34) ABNORMAL PSYCHOLOGY (3)

Three lecture hours per week. Prerequisite: Psychology 100 (1a) or 400 (33).

Elaboration on the study of abnormal behavior and personality introduced in previous courses. Topics include neuroses, psychoses and other psychological problems, along with their etiology, dynamics, principal symptoms and treatments. The relationship between theory of personality and psychotherapy is explored.

480 (13) INTRODUCTION TO PARAPSYCHOLOGY (3)

Three lecture hours per week. Prerequisite: Any course in Psychology, Sociology, Anthropology, or a physical or biological science.

Introduction to parapsychology including the study of extrasensory perception (ESP) and psychokinesis; reports of spontaneous phenomena and laboratory research. Emphasis on understanding current developments, methods of investigation, and philosophical and scientific implications of psychological research.

680 (48) SELECTED TOPICS IN PSYCHOLOGY (1-3)

Hours by arrangement.

Selected topics in Psychology not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN PSYCHOLOGY (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Reading

802 (ENGL 66) READING: BASIC PHONIC SKILLS (3)

Three lecture hours per week plus one to two hours per week with a tutor or in the reading laboratory.

Introduction to the study of basic speech sounds and practice in pronouncing any word met in reading. Review of dictionary symbols, diacritical marks, syllabication, and fundamental phonic generalizations. (May be repeated up to three times for credit.)

**803 (ENGL 67) READING IMPROVEMENT I (1-3)
(Credit/No Credit)**

Three lecture hours plus two hours in reading lab per week. Course may be offered five hours per week for eight weeks.

Reading techniques designed to improve rate and comprehension on various types of material, fiction and nonfiction. Introduction to and practice with various machines, programmed materials and texts. Individual evaluation to discover strengths and help student deal with his weaknesses. (May be repeated once for credit.)

Real Estate

(R.E.)

100 (BUS. 83a) REAL ESTATE PRINCIPLES (3-4)

Three lecture hours per week. Prerequisites: None. Concurrent enrollment in Bus. 810 (50) or 115 (51) and R.E. 105 (Bus. 84) is recommended.

Property, contracts, agency, financing, recordation, liens and encumbrances, taxes, escrows, land description and real estate math. (Meets State requirements for the broker's examination.)

105 (BUS. 84) REAL ESTATE VALUATION, INVESTMENT AND MANAGEMENT (3)

Three lecture hours per week. Recommended: Concurrent enrollment in R.E. 100 (Bus. 83a).

Development of California real estate principles, measuring changing value of money. Estimating: costs, depreciation, taxes, maintenance, return on investment. Accounting: rules — capital gains and losses, accelerated methods of calculating depreciation charges. (Meets the State requirements for the broker's examination.)

110 (BUS. 8) REAL ESTATE PRACTICE (3)

Three lecture hours per week. Prerequisite: R.E. 100 (Bus. 83a), R.E. 105 (Bus. 84) or equivalent.

Comprehensive presentation of real estate brokerage skills in the State of California with emphasis on the daily activities of salesmen and brokers. (Meets the State requirements for the broker's examination.)

121 (BUS. 87) LEGAL ASPECTS OF REAL ESTATE I (3)

Three lecture hours per week. Prerequisite: R.E. 100 (Bus. 83a), R.E. 105 (Bus. 84), R.E. 110 (Bus. 85), or concurrent enrollment, or equivalent.

The legal aspects of real estate brokerage, real estate sales, property management, real estate ownership, the manage-

ment of the building of an estate and related topics, along with a study of the facts and principles of California Real Estate Law. (Meets the State requirements for the broker's examination.)

122 (BUS. 112) LEGAL ASPECTS OF REAL ESTATE II (3)

Three lecture hours per week. Prerequisite: R.E. 121 (Bus. 87) or equivalent.

An in-depth study of contracts, security transactions and current developments in law. Course materials will be edited selections of California appellate court decisions. This course is for the serious student who will devote the required time of approximately six hours of study each week. (Meets the State requirements for the broker's examination.)

131 (BUS. 88) REAL ESTATE FINANCE I (3)

Three lecture hours per week. Prerequisite: Salesman's or broker's license, or completion of R.E. 100 (Bus. 83a) and 105 (Bus. 84). Completion of R.E. 110 (Bus. 85), or may be taken concurrently.

Practices, customs and laws relating to mortgage lending and the financing of real estate, with emphasis on financing private houses. (Meets the State requirements for the broker's examination.)

132 (BUS. 113) REAL ESTATE FINANCE II (3)

Three lecture hours per week. Prerequisite: R.E. 131 (Bus. 88), or equivalent.

Financing of commercial, industrial, and special-purpose properties. Financing mathematics, financial analysis, construction financing, feasibility studies, creative financing, and government participation through social-action programs. (Meets the State requirements for the broker's examination.)

141 (BUS. 134) REAL ESTATE APPRAISAL (BASIC) (3)

Three lecture hours per week. Prerequisite: R.E. 100 (Bus. 83a) and R.E. 105 (Bus. 84), or equivalent.

Basic real estate appraisal which considers the analysis of residential and commercial properties. Techniques for determination of loan, market and insurance values. (Meets the State requirements for the broker's examination.)

143 (BUS. 135) REAL ESTATE APPRAISAL (URBAN) (3)

Three lecture hours per week. Prerequisite: R.E. 141, (Bus. 134) or equivalent.

Advanced real estate appraisal of multi-family dwellings, apartment houses, commercial and special purpose property. (Meets the State requirements for the broker's examination.)

145 (BUS. 136) REAL ESTATE APPRAISAL (RURAL) (3)

Three lecture hours per week. Prerequisite: R.E. 141 (Bus. 134) or 143 (Bus. 135), or equivalent.

Advanced course in real estate appraisal of rural properties, covering three types: row crop, orchard and livestock properties. (Meets the State requirements for the broker's examination.)

200 (BUS. 131) REAL ESTATE ECONOMICS (3)

Three lecture hours per week. Prerequisites: R.E. 100 (Bus. 83a) or R.E. 105 (Bus. 84), 110 (Bus. 85), 121 (Bus. 87), 131 (Bus. 88), 141 (Bus. 134), or equivalent.

Study of the economic aspects of real estate designed to provide a grasp of the dynamic economic conditions and related factors underlying the real estate business. (Meets the State requirements for the broker's examination.)

205 (BUS. 140) REAL ESTATE MATHEMATICS (3)

Three lecture hours per week.

Review of the fundamentals of mathematics as they apply to real estate practice, with problems in the area of amortization, appraising, broker's trust fund accounts, interest calculations and capitalization techniques.

210 (BUS. 138) REAL ESTATE EXCHANGES AND TAXATION (3)

Three lecture hours per week. Prerequisites: R.E. 100 (Bus. 83a) or R.E. 105 (Bus. 84), R.E. 110 (Bus. 85), R.E. 121 (Bus. 87), R.E. 131 (Bus. 88) and R.E. 141 (Bus. 134); or equivalent.

Advanced course for real estate brokers and investors with experience in residential and commercial transactions. Primary emphasis on developing and analyzing exchange transaction, practical and technical aspects of completion, the correlation of exchanges and tax matters. (Meets the State requirements for the broker's examination.)

215 (BUS. 139) COMMERCIAL AND INVESTMENT PROPERTY (3)

Three lecture hours per week. Prerequisites: R.E. 100 (Bus. 83a) or R.E. 105 (Bus. 84), R.E. 110 (Bus. 85), R.E. 121 (Bus. 87), R.E. 131 (Bus. 88), and R.E. 141 (Bus. 134); or equivalent.

For licensed real estate brokers and salesmen, financing officials and investors. Emphasizes the process of selecting various properties for investment, including analyzing income, operating expenses and income tax implications. (Meets the State requirements for the broker's examination.)

220 (BUS. 141) REAL ESTATE PROPERTY MANAGEMENT (3)

Three lecture hours per week. Prerequisite: R.E. 110 (Bus.

85), R.E. 121 (Bus. 87), and 131 (Bus. 88), or license equivalent.

Survey course on the basic elements of investment property management. Topics include cash flow projection and valuation, merchandising, maintenance and evictions. Emphasis on apartment property.

225 (BUS. 114) REAL ESTATE OFFICE ADMINISTRATION (3)

Three lecture hours per week. Prerequisite: R.E. 100 (Bus. 83a), or 105 (Bus. 84) and 110 (Bus. 85), 121 (Bus. 87), 131 (Bus. 88) and 141 (134) or equivalent.

An introduction to management; research, personnel and market management decisions; transition from sales associate to manager; personnel training, counseling and compensation; future trends in the industry and their implications for management. (Meets the State requirements for the broker's examination.)

230 (BUS. 142) REAL ESTATE INTERNSHIP (4)

Two lecture hours and ten laboratory hours per week. Prerequisites: R.E. 100 (83a) and R.E. 105 (Bus. 84) or equivalent. R.E. 110 (Bus. 85) may be taken concurrently.

Supervised work experience and seminar. A practical application of skills and understandings learned in the academic classroom as applied to areas of specialization to be selected by the student. Intended to assist the student enrolled in the Work Experience Education program.

**235 (BUS. 111) REAL ESTATE SALESMANSHIP (3)
(Formerly Fundamentals of Real Estate Salesmanship)**

Three lecture hours per week. Prerequisite: R.E. 100 (Bus. 83a) and R.E. 105 (Bus. 84), or equivalent.

Specialized techniques required to promote an effective sales record. Coordinates the theoretical background required for State examinations into the area of property merchandising.

301 (BUS. 145b) ESCROW PROCEDURES (BASIC) (3)

Three lecture hours per week.

A basic course in the methods and techniques of escrow procedure for various types of business transactions with emphasis on real estate. (Meets the State requirements for the broker's examination.)

303 (BUS. 145d) ESCROW PRACTICES (INTERMEDIATE) (3)

Three lecture hours per week. Prerequisite: R.E. 301 (Bus. 145b) or equivalent.

An advanced course covering more unusual and different types of escrow and evaluating possible solutions. (Meets the State requirement for the broker's examination.)

305 (BUS. 145e) ESCROW PROBLEMS (ADVANCED) (3)

Three lecture hours per week. Prerequisite: R.E. 303 (Bus. 145d) or equivalent.

Further study of more unusual and difficult types of escrows. Actual case problems are presented and discussed. Conflicts and disputes in escrow are studied. (Meets the State requirement for broker's examination.)

311 (BUS. 145a) TITLE EXAMINING PROCEDURES I (3)

Three lecture hours per week.

Compiling and interpreting data from various official sources leading to the production of evidence of ownership of real estate.

313 (BUS. 145c) TITLE EXAM PROCEDURES II (3)

Three lecture hours per week.

Comprehensive study of map reading and easements. A study of abandonments, including vesting and effects. Procedure for examining court proceedings relating to divorce, probate, foreclosures, etc. Detailed studies of property problems.

Recreation Education

100 (RCED 40) INTRODUCTION TO RECREATION (2)

Two lecture hours per week with assigned laboratory meetings. For major and minor students in Physical Education and Recreation Education.

A study of recreation as a profession, including history, principles and current trends. Analysis of the basic philosophies, skills and knowledge. Students are required to prepare a term paper, participate in panel discussions, symposiums, laboratory and field experience.

110 (RCED 41) RECREATIONAL LEADERSHIP (3)

Two lecture hours and two lab hours per week.

Principles of human dynamics as they apply to effective face-to-face and group leadership. Emphasis on the identification of various types of groups and the application of leadership techniques. These techniques are applied to an active laboratory situation providing the student with a realistic format for application.

Secretarial Science

SEC. 100 (BUS. 92.1, 92.3, 92.4) BEGINNING TYPING (1-3) OPEN ENTRY/ OPEN EXIT

Five lecture hours and one lab hour a week.

Introduction to the keyboard; an elementary course to develop correct typing techniques, including the study of simple business letters, manuscripts, and tabulated reports.

**110 (BUS. 92.5, 92.6, 92.7) INTERMEDIATE TYPING
(1-3) OPEN ENTRY/
OPEN EXIT**

Five lecture hours and one lab hour a week. Prerequisites: Ability to type 30 words a minute and Beginning Typing or equivalent.

An intermediate course to improve typing skills, to develop working knowledge of business papers through training in production typing of letters, reports and tabulated material. Designed to prepare the student to meet entry-level employment standards.

**120 (BUS. 92.8, 92.9, 92.10) ADVANCED TYPING
(1-3) OPEN ENTRY/
OPEN EXIT**

Five lecture hours and one lab hour a week. Prerequisites: Ability to type 40 words a minute and Intermediate Typing or equivalent.

Typing a variety of documents with specialized forms and vocabulary; instruction in the operation of the proportional-spaced typewriter. Designed to prepare the student to meet high-level employment standards.

145 (BUS. 92.2) TYPING SKILL BUILDING (1)

Five lecture hours and two lab hours a week for 5½ weeks. Prerequisite: Knowledge of keyboard. May be taken twice for credit.

Speed and accuracy development individualized for all levels of competency. May be taken concurrently with all typing courses except Sec. 100 (Bus. 92.1).

**200 (BUS. 90.1, 90.2) BEGINNING GREGG SHORTHAND
(1 or 4 or 5) (Offered in two
modules)**

Module 1=4 units

Five lecture hours and one lab hour a week by arrangement for eleven weeks. Prerequisites: Enrollment in or completion of Sec. 400 (Bus. 91); enrollment in or completion of three units of beginning typing or equivalent.

Foundation course in Gregg Shorthand Series 90 theory.
Module 2=1 unit

Five lecture hours and one lab hour a week by arrangement for 5½ weeks. Prerequisites: Completion of basic shorthand theory; enrollment in or completion of three units of beginning typing; enrollment in or completion of Sec. 400 (Bus. 91.)

Intensive dictation and theory reinforcement to achieve a minimum of 60 words a minute for three minutes.

205 (BUS. 90P) ALPHABETIC SHORTHAND (2-3)

Three lecture hours and two lab hours per week by arrangement for 11 weeks.

Foundation course in alphabetic shorthand — principles, dictation, transcription. Personal or vocational use.

**210 (BUS. 90.3) INTERMEDIATE SHORTHAND (1)
(Formerly Shorthand Speed Building)
OPEN ENTRY/OPEN EXIT**

Five lecture hours and two lab hours a week by arrangement for 5½ weeks. May be taken twice for credit. Prerequisites: Ability to take dictation at 60 words a minute for three minutes; completion of or enrollment in three units of beginning typing or equivalent; enrollment in or completion of Sec. 400 (Bus. 91) equivalent.

Speed development individualized for all levels of competency. May be taken concurrently with Sec. 211 (Bus. 90.4)

**211 (BUS. 90.4) INTERMEDIATE SHORTHAND I (4)
OPEN ENTRY/OPEN EXIT**

Six lecture hours and two lab hours a week by arrangement for eleven weeks. Prerequisites: Ability to take dictation at 60 words a minute for three minutes; enrollment in or completion of three units of intermediate typing (Sec. 110 (Bus. 92.5.6.7), or equivalent; Sec. 400 (Bus. 91) or equivalent. Integration of English, typing, and shorthand skills to produce mailable copy. Individualized for all levels of competency.

**230 (BUS. 90.5) INTENSIVE SHORTHAND DICTATION
AND TRANSCRIPTION (2)**

Four lecture hours and one lab hour per week. Prerequisites: Sec. 211 (Bus. 90.4); ability to take dictation at 70 words per minute for three minutes; Sec. 400 (Bus. 91); enrollment in or completion of three units of intermediate typing. (Sec. 110) or equivalent.

Production transcription with emphasis on employment standards.

250 (BUS. 90L) LEGAL SHORTHAND AND TRANSCRIPTION (2)

Four lecture and one lab hour per week. Prerequisite: Sec. 211 (Bus. 90.4) or ability to take dictation at 70 words per minute. Enrollment in or completion of three units of intermediate typing (Sec. 110) or equivalent.

Intensive dictation and transcription of legal correspondence, records and documents. Emphasis on shorthand speed, transcription accuracy and development of legal terminology commonly used in law offices.

**300 (BUS. 94) WORD PROCESSING MACHINE
TRANSCRIPTION (2-4)
OPEN ENTRY/OPEN EXIT**

Four lecture hours per week. Prerequisite: Typing speed of 40 wpm; Sec. 400 (Bus. 91).

A foundation course in machine transcription to develop a student's skill in transcribing mailable copy. Instruction is audio-visual-tutorial.

**305 (BUS. 102) WORD PROCESSING-KEYBOARD (1-4)
OPEN ENTRY/OPEN EXIT**

Four lab and six lecture hours per week. Prerequisites: Typing 50 words per minute; Sec. 400 (Bus. 91) or equivalent; Sec. 300 (Bus. 94) or concurrent enrollment.

Beginning and advanced training in operation of programmable word processing equipment for purpose of meeting general job requirements in the area of word processing.

**400 (BUS. 91) BUSINESS ENGLISH AND
COMMUNICATIONS I (1-3)**

Three lecture hours per week.

Grammar, punctuation, spelling and word usage for business.

**401 (BUS. 56) BUSINESS ENGLISH AND
COMMUNICATIONS II (3)**

Three lecture hours per week. Prerequisites: Beginning typing (3 units) or equivalent; Sec. 400 (Bus. 91) or successful completion of the challenge exam. (Fall only.)

The focus of this course is to identify, explain and develop the communications skills and tools that contribute to effective verbal and written communications and to their effective use.

410 (BUS. 100a) OFFICE PROCEDURES (3)

Four lecture hours per week plus one hour by arrangement. Prerequisites: Sec. 400 (Bus. 91) or successful completion of proficiency exam; completion of three units of Intermediate. Typing or equivalent; Sec. 412 (Bus. 96) or equivalent; Sec. 401 (Bus. 56).

Intensive course in application of skills in the wide range of activities performed in secretarial and office administration. (Spring only.)

**412 (BUS. 96) FILING AND RECORDS MANAGEMENT (2)
OPEN ENTRY/OPEN EXIT**

Two lecture hours per week.

Principles to be applied and procedures to be followed in setting up and using various types of filing systems; transfer, storage and retention of records.

418 (BUS. 100b) OFFICE ADMINISTRATION (3)

Five lecture hours per week. Prerequisite: Sec. 410 (Bus. 100a) or equivalent.

Integration of training through simulated office experience with emphasis on techniques of administration.

**400 (BUS. 59L) INTRODUCTION TO LEGAL OFFICE
TRAINING (3)**

Three lecture hours per week. Enrollment in or completion of three units of beginning typing. (Fall only.)

Duties and responsibilities of a legal secretary in various law offices — general, corporate, domestic relations, probate, patent, Introduction to legal records, statutes and codes, library work, filing, calendaring and bookkeeping procedures as related to a law office.

444 (BUS. 94L) LEGAL MACHINE TRANSCRIPTION (2)

Four lecture hours per week. Prerequisite: Sec. 440 (Bus. 59L); typing speed of 45 words per minute.

Transcription of legal documents: client, court; and general; correspondence and report.

**448 (BUS. 100L) LEGAL SECRETARIAL PROCEDURES
AND OFFICE ADMINISTRATION (3)**

Four lecture hours per week. Prerequisites: Sec. 440 (Bus. 59L), Sec. 444 (Bus. 94L).

Intensive course in specialized procedures applicable to the secretarial duties in law offices. General reference is made to legal duties per se; specific instruction in legal secretarial routines and documents operative in California. (Spring only.)

**495 (BUS. 99) CERTIFIED PROFESSIONAL SECRETARY
REVIEW (3)**

Three lecture hours per week. Prerequisite: Demonstrated proficiency in typing and shorthand.

An intensive review course designed to prepare secretaries for the National Secretaries Association's Certified Professional Examination. Specialists review the areas of office procedures, business and public policy, economics of management, financial analysis and the mathematics of business, communications and decision making and environmental relationships.

Social Science

130 (10a) - 134 (10e) CALIFORNIA — AN INTERDISCIPLINARY APPROACH (2-3)

Two or three class hours per week.

A Study of California within the context of historical evolution, social patterns, geographic influence, economic development and political issues and institutions. All of the following courses satisfy the California State and Local Government requirement.

130 (10a) Historical Geography of California

Analysis of the interacting relationships between time and space in the evolution of the California landscape.

131 (10b) Politics/Sociology in California (Formerly Politics and Society in California)

Contemporary social problems examined in the context of their relationship to political institutions and processes.

132 (10c) Economic History of California

Investigation of the role of land and resource use, patterns and shifts in population and labor supply, and capital inflow in shaping the agricultural, industrial and commercial profile of the state.

133 (10d) Political Economy of California

Interaction between economic forces and political power brought to bear on the evolution and functioning of governmental services.

134 (10e) Environmental Problems in California

Examination of the impact of a growing population coupled with an increasingly sophisticated technology on a fixed resource base. Relationships of geographic conditions to political factors and resulting environmental problems.

185 (20) CURRENT ISSUES FOR INTERNATIONAL STUDENTS (1) (Credit/No Credit)

Analysis and interpretation of current problems of immediate interest and concern to recent arrivals to the country. The course is designed to give students of the United States a chance to discuss problems with students from other countries. (May be repeated for credit.)

261 (33a) AFRICAN/AMERICAN CULTURE I (3)

Three lecture hours per week.

Discusses the relevance of African culture to the study of African-American life, including the African diaspora and its impact on contemporary African-American cultural institutions. (Identical to Ethnic Studies 261.)

262 (33b) AFRICAN-AMERICAN CULTURE II (3)

Three lecture hours per week.

Explores the emergence of modern Black social movements in the United States, their leaders and philosophies, and contemporary issues including the Black consciousness movement, Pan-Africanism, counter-cultural forms of expression, and social problems. (Identical to Ethnic Studies 262.)

648 (47) COOPERATIVE EDUCATION (1-3) (Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN SOCIAL SCIENCE (1-3)

Three class hours per week.

An experimental course interdisciplinary in nature designed to explore a series of current and urgent human concerns. The theme and content of each offering will be publicized in time for registration for the semester in which the course is to be offered. See counselors for current offering. (May be repeated for credit.)

690 (49) SPECIAL PROJECTS IN SOCIAL SCIENCE (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Sociology

100 (1) INTRODUCTION TO SOCIOLOGY (3)

Three lecture hours per week.

Analysis of processes of group behavior and interaction between the individual and society; personality development

in different cultures as shaped by learned customs, attitudes and values. Study of family, politico-economic and religious behavior; social movements; "mass society" and communications; community structure; social class and status, ethnic minorities, and race relations.

105 (2) SOCIAL PROBLEMS (3)

Three lecture hours per week.

Theories of social problems involving sociological and psychological approaches. Theoretical and descriptive studies of specific problem areas of crime and delinquency, mental illness, drug use and suicide, and the social problem areas of mass society.

110 (4) COURTSHIP, MARRIAGE AND THE FAMILY (3)

Three lecture hours per week.

History and development of marriage; dating; courtship; personality adjustment in marriage; parenthood; the problem of divorce; mate-selection; love; the family; anatomic, physiologic, psychologic and sociologic aspects of sex; children; religious factors; marriage as a social institution. (Identical to Psych. 110.)

141 (3) RACIAL & CULTURAL MINORITIES (3)

Three lecture hours per week.

Sociology of inter-ethnic contact with emphasis on the experience of minorities in the United States. An examination of the dual themes of racism and equality in American society, and consideration of the patterns of prejudice and discrimination.

150 (16) SOCIAL DYNAMICS OF PEOPLE OF COLOR (3)

Three lecture hours per week.

Social structure and dynamics of Third World institutions, with emphasis on development and effectiveness of these institutions among Third World communities in the United States. Concentrations include the family, education, religion, and business. (Identical to Ethnic Studies 150.)

151 (40a) PATTERNS OF PREJUDICE AND RACISM I (3)

Three lecture hours per week.

Problems of prejudice and racism reviewed from a social-psychological perspective. Topics include how and when prejudiced attitudes are developed and their behavioral manifestations. Examples of sex, national, political, and racial prejudice and discrimination are presented. (Identical to Ethnic Studies 151.)

152 (40b) PATTERNS OF PREJUDICE AND RACISM II (3)

Three lecture hours per week.

Prejudice and racism analyzed according to international implications. Topics include imperialism, colonialism, nationalism, and genocide, with special concentration on contemporary issues such as those found in the Middle East, South Africa, Ireland. (Identical to Ethnic Studies 152.)

200 (12) URBAN SOCIOLOGY (3)

Three lecture hours per week. Prerequisite: Three units of Sociology or other Social Science or Architecture courses.

Analysis of patterns and processes of the developing urban regions; community typology, ecology, patterns of growth, urbanism as a way of life, social class and racial trends, planning, conservation and experimental solutions. (Satisfies the California State and Local Government requirement.)

300 (6) SOCIAL PSYCHOLOGY (3)

Three lecture hours per week. Prerequisite: Sociology 100 (1) or Psychology 100 (1a).

The study of human interaction, with emphasis on social patterning and processes of perception, identity, roles and attitudes. (Identical to Psych. 300.)

680 (48) SELECTED TOPICS IN SOCIOLOGY (1-3)

Hours by arrangement.

Selected topics in Sociology not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Science Division in relation to Community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS IN SOCIOLOGY (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Spanish

Language Laboratory and Listening Requirement — Students enrolled in certain courses in foreign language are required to make use of the language laboratory as prescribed by each

department. Imitation, response and independent practice are integral features of the study of a foreign language at the College.

110 (1) ELEMENTARY SPANISH (5)

Five lecture hours and two lab hours per week.

Spanish structures and active vocabulary based on oral and written pattern drills. Conversation based on short readings containing only structures already practiced.

111 (1a) ELEMENTARY SPANISH I (3)

May be offered either for eight weeks on a daily lecture basis plus two lab hours, or in a semester-long program for three lecture hours and one lab hour per week.

Approximately half of the semester's work in Spanish 110 is covered in this course.

112 (1b) ELEMENTARY SPANISH II (3)

May be offered either for eight weeks on a daily lecture basis plus two lab hours, beginning at mid-term, or in a semester-long program for three lecture hours and one lab hour per week. Prerequisite: Spanish 111 or assignment on the basis of a foreign language placement test in Spanish.

Approximately the second half of the semester's work in Spanish 110 is covered. (Spanish 111 and 112 are equivalent to Spanish 110.)

120 (2) ADVANCED ELEMENTARY SPANISH (5)

Five lecture hours and two lab hours per week. Prerequisite: Completion of Spanish 111(1a), 112 (1b) with a passing grade; or assignment by the Foreign Language Department on the basis of a foreign language placement test in Spanish.

Continuing of Spanish 110. Reading of Spanish short stories to serve as a basis for classroom conversation.

121 (2a) ADVANCED ELEMENTARY SPANISH I (3)

May be offered either for eight weeks on a daily lecture basis plus two lab hours, or in a semester-long program for three lecture hours and one lab hours per week. Prerequisite: Spanish 110 (1) or 112 (1b) or assignment on the basis of a foreign language placement test in Spanish.

Approximately half of the semester's work in Spanish 120 is covered.

122 (2b) ADVANCED ELEMENTARY SPANISH II (3)

May be offered for either eight weeks on a daily lecture basis plus two lab hours, beginning at mid-term, or in a semester-long program for three lecture hours and one lab hour per week. Prerequisite: Spanish 121 (2a) or assignment on the basis of a foreign language placement test in Spanish.

Approximately the second half of the semester's work in Spanish 120 is covered. (Spanish 121 and 122 are equivalent to Spanish 120.)

130 (3) INTERMEDIATE SPANISH (5)

Five lecture hours and one lab hour per week. Prerequisite: Spanish 120 (2) or 122 (2b) with a passing grade or assignment on the basis of a foreign language placement test in Spanish.

Practice of conversation and composition; review of grammar; class and collateral reading of Spanish and Spanish-American literature.

131 (3a) INTERMEDIATE SPANISH I (3)

Three lecture hours and one lab hour per week. Prerequisite: Spanish 120 (2) or 122 (2b) with a passing grade or assignment on the basis of a foreign language placement test in Spanish.

Approximately half of the semester's work in Spanish 130 is covered.

132 (3b) INTERMEDIATE SPANISH II (3)

Three lecture hours and one lab hour per week. Prerequisite: Spanish 131 (3a) with a passing grade or assignment on the basis of a foreign language placement test in Spanish.

Approximately the second half of the semester's work in Spanish 130 is covered.

140 (4) ADVANCED INTERMEDIATE SPANISH (3)

Three lecture hours and one lab hour per week. Prerequisite: Spanish 130 (3) or 132 (3b) or assignment on the basis of a foreign language placement test in Spanish.

Further practice of conversation and composition based on class reading of works of modern Spanish and Latin-American authors; review of grammar; collateral reading of Spanish and Spanish-American literature.

161 (25a) READING IN SPANISH LITERATURE I (3)

Three lecture hours per week. Prerequisite: Spanish 140 (4).

Oral and written composition, class reading of works of Spanish and Spanish-American literature, extensive collateral reading of varied types of Spanish and Spanish-American literature, and review of grammar.

162 (25b) READING IN SPANISH LITERATURE II (3)

Three lecture hours per week. Prerequisite: Spanish 161 (25a)

Further oral and written composition, class reading of works of Spanish and Spanish-American literature, extensive collateral reading of varied types of Spanish and Spanish-American literature, and review of grammar.

201 (8a) SPANISH CONVERSATION I (2)

Two lecture hours and one lab hour per week. Prerequisite: Successful completion of Spanish 130 (3) or higher. May be taken concurrently with Spanish 130 (3) with permission of the instructor.

Practice in conversation based on Spanish customs and culture.

202 (8b) SPANISH CONVERSATION II (2)

Two lecture hours and one lab hour per week. Prerequisite: Successful completion of Spanish 201 (8a.)

Further practice in conversation based on Spanish customs and culture.

251 (29) HISPANOAMERICA CONTEMPORANEA (3)

Three lecture hours per week. Prerequisites: Spanish 140 (4) or Spanish-speaking background.

A study of contemporary Latin-American culture, its problems and concerns, as revealed in contemporary literature; short story, drama and novel. Conducted in Spanish.

620 (30) INDIVIDUAL READINGS (1-2)

Conferences for oral reports. Time to be arranged. A minimum of three hours of reading per unit per week is required. Prerequisite: Spanish 162 (25b).

Reading of Spanish and Latin-American representative 19th and 20th Century literature. (May be repeated for credit.)

680 (48) SELECTED TOPICS IN SPANISH (1-3)

Hours by arrangement.

Selected topics in Spanish not covered by regular catalog offerings. Course content and unit credit to be determined by the Director of the Language Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field. Independent study in a specific field or topic, directed by an instructor and supervised by the Director of the Language Arts Division. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

801 (100a) CONVERSATIONAL SPANISH I, ELEMENTARY (2) (Credit/No Credit)

Three lecture hours per week.

Intensive drill in the patterns and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. May be considered an excellent preparatory course for students who have not taken a foreign language before. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

802 (100b) CONVERSATIONAL SPANISH II, ADVANCED ELEMENTARY (2) (Credit/No Credit)

Three lecture hours per week. Prerequisite: Spanish 801 (100a) or equivalent.

Further work in conversation following the model of Spanish 801. (This course does not fulfill language requirement of California State Colleges or at the University of California.)

803 (100c) CONVERSATIONAL SPANISH III, INTERMEDIATE (2) (Credit/No Credit)

Three lecture hours per week. Prerequisite: Spanish 802 (100b) or equivalent.

More advanced work in conversation following the model of Spanish 802. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

804 (100d) CONVERSATIONAL SPANISH IV, ADVANCED INTERMEDIATE (2)

Three lecture hours per week. Prerequisite: Spanish 803 (100c) or equivalent.

Further advanced work in conversation following the model of Spanish 803. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

When student demand is light, Spanish 802, 803, and 804 may be offered as 1.5 hour modules.

Speech

The Speech program consists of courses in public speaking, interpersonal communication, oral interpretation of literature, debate and discussion. The English requirement may be partially satisfied by 3 units of Speech 100 (1a) or Speech 120 (10).

100 (1a) FUNDAMENTALS OF SPEECH AND PERSUASION (3)

Three lecture hours per week.

Practice in delivering extemporaneous speeches; study of basic principles of effective communication; techniques of organizing and outlining; structure and content of basic speech types; development of critical listening; analysis and evaluation of speeches.

111 (2a) ORAL INTERPRETATION I (3)

Three lecture hours per week.

Oral Reading of different forms of literature (poetry, short story, drama); analysis of meaning; analysis of voice quality; enunciation, pronunciation and expressiveness; performances for audiences and recording.

112 (2b) ORAL INTERPRETATION II (3)

Three lecture hours per week. Prerequisite: Speech 111 (2a).

Continuation of oral reading of different forms of literature (poetry, short story, drama); analysis of meaning; analysis of voice quality; enunciation, pronunciation and expressiveness; performances for audiences and recording.

120 (10) INTERPERSONAL COMMUNICATION (3)

Three lecture hours per week.

Interpersonal communication, rational dialogue and cooperative analysis of communicative events. Provides for study of communicative interactions, the symbolic process, reasoning and advocacy, and the effects of communication on man and society.

130 (33) VOICE AND ARTICULATION (3)

Three lecture hours per week.

Exploration of various modes of communicating ideas, emotions and values through a meaningful use of the voice. Lessons in vocal variety, expressiveness, resonance, articulation and pronunciation.

680 (48) SELECTED TOPICS IN SPEECH (1-3)

Hours by arrangement.

Selected topics in Speech not covered by regular catalog offerings. Course content and unit credit to be determined by the Language Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Language Arts Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

811 (57a) SPEECH FOR NON-NATIVE SPEAKERS I (3)

Three lecture hours per week.

Practice in pronunciation and diction, usage; extemporaneous speaking.

812 (57b) SPEECH FOR NON-NATIVE SPEAKERS II (3)

Three lecture hours per week.

Continued practice in pronunciation and diction, usage; extemporaneous speaking.

825 (62) BASIC COMMUNICATION (3)

Three lecture hours per week.

Understanding the nature of communication through frequent exercises in interpersonal communication, extemporaneous speaking, and correlation between speaking and writing well. Emphasis is on individual needs and abilities in meeting situations in daily life: at home, at work, at college.

Technical Art/Graphics

Extra supplies may be required in all Technical Art/Graphics courses.

201-202 (52a-52b) TECHNICAL ILLUSTRATION I AND II (6-6)

Three lecture and nine laboratory hours per week. Prerequisites: 201 (52a) – concurrent enrollment in T.A.G. 210 (54); 202 (52b) – 201 (52a).

201 (52a) — Basic practices and procedures used in technical drawing with emphasis on ink line techniques and the systems of projection used in technical illustration. **202 (52b)** — Working from sketches, blueprints, photographs, and objects, students prepare technical illustrations and develop a professional portfolio.

210 (54) GRAPHIC DESIGN (4)

Two lecture and six laboratory hours per week. Prerequisite: Concurrent enrollment in T.A.G. 201 (52a).

Development of the creative approach to graphic design in technical art. Application of various systems of drawing and design principles to practical graphic problems, which range from simple one-sheet layouts to complete color presentations.

220 (55) VISUAL PRESENTATION (4)

Two lecture and six laboratory hours per week. Prerequisite: Concurrent enrollment in T.A.G. 202 (52b).

Application of the student's creative ability and drawing skills to the development of visual presentations. Emphasis on charts, graphs, and transparencies for the overhead projector and 35mm slides. Each student will prepare and present before his class, a sequence of visuals on a designated subject.

300 (63) GRAPHIC REPRODUCTION (2)

One lecture and three laboratory hours per week. Prerequisite: T.A.G. 201 (52a).

Study of the basic practices and procedures used in industry to reproduce technical art and publications. Emphasis will be on the offset printing process. Instruction on stencil, mimeo, diazo and convenience copiers will be included.

310 (64) INDUSTRIAL DESIGN (4)

Two lecture and six laboratory hours per week. Prerequisites: T.A.G. 201 (52a), 202 (52b).

Introduction to the design sequence. Execution of concept drawings and models involved in producing an industrial design. Laboratory experience in idea interpretation and finished presentation drawings.

351-352 (65a-65b) PHOTO LITHOGRAPHY I AND II (2-4)

351 (65a) - One lecture and three laboratory hours per week; 352 (65b) - Two lecture and six laboratory hours per week. Prerequisites: 351 (65a) - T.A.G. 300 (63); 352 (65b) - T.A.G. 351 (65a).

351 (65a) - Designing original, continuous tone camera-ready art work and reproducing the subject of the offset method on metal plates. 352 (65b) - Planning multi-color camera-ready art work and reproducing the subject on high-production offset equipment with emphasis on finishing procedures.

400 (66) ADVANCED PROJECT (1)

Three lab hours per week. Prerequisites: Completion of three semesters of T.A.G. curriculum.

Students will initiate, develop and complete substantial indi-

vidual projects in consultation and under the direction of the instructor. Emphasis on initiative, innovation and perseverance in the completion of these projects.

680 (48) SELECTED TOPICS IN TECHNICAL ART/GRAPHICS (1-3)

Hours by arrangement.

Selected topics in Technical Art/Graphics not covered by regular catalog offerings. Course content and unit credit to be determined by the Technology Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

710-714 GRAPHIC COMMUNICATIONS (1½ each)

Two lecture and three lab hours per week for eight weeks. No prerequisite for any course.

Self-paced graphic communication classes are designed to allow students to study basic skill areas which are repeated at progressively higher levels of competency. The cores are intensifications of informational blocks and skill areas.

710 - Core A - Design; B - Paste-up; C - Composition and photo conversion.

711 - Core B - Paste-up; C - Composition and photo conversion; D - Plate making and stripping.

712 - Core C - Composition and photo conversion; D - Plate making and stripping.

713 - Core D - Plate making and stripping; E - Press operation; F - Bindery.

714 - Cores A, B, C, D, E, and F.

715 GRAPHIC ARTS FOR BUSINESS (1½)

Three lecture hours per week.

A study of the concepts needed by business persons to communicate with graphic arts professionals. Topics covered show the graphic arts process, from concept to printed material; lettering, typography, photography, illustration, color separation, plate making, paper, printing and bindery operations.

Technology

100 (71) SCIENCE FOR TECHNICIANS (3)

Three lecture hours per week.

Study of applied physics phenomena as related to simple devices including forces, stress, moments acceleration, velocity, friction, energy and basic thermodynamics.

110 (72) INDUSTRIAL MATERIALS (2)

Two lecture hours per week. Recommended: Concurrent enrollment in Tech. 120 (74).

Study of metals common to industry, basic mining techniques, structures, physical and chemical properties and uses; lattice structure, alloy systems, mechanical tests and characteristics of strength, elasticity, ductility, malleability, heat treatment and surface coatings.

120 (74) INDUSTRIAL PROCESS (3)

Three lecture hours per week.

Processing of common industrial materials, including the removing, shaping and joining of metals, as well as the processing of plastics, rubber, glass and some exotic materials currently in use in local industries.

200 (76) MACHINE SHOP FOR TECHNOLOGY (2)

One lecture and three lab hours per week.

A survey course for the technology student who requires a generalized experience in Machine Tools. Subjects covered: bench work, measurement, threads, cutting tools, lathe, mill, grinding, saws and others. (Extra supplies may be required.)

649 (47) COOPERATIVE EDUCATION (1-4) (Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135.)

680 (48) SELECTED TOPICS IN TECHNOLOGY (1-3)

Hours by arrangement.

Selected topics in Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Technology Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

700 (73) TECHNICAL REPORTING (3)

Three lecture hours per week.

Study and preparation of communications: memoranda, letters, technical reports, specifications, monographs and technical oral presentations; research for technical reporting.

Telecommunications

110 (51) INTRODUCTION TO BROADCASTING (3)

Three lecture hours per week.

Introduction to the radio and television broadcasting industry: its nature, organization, history, operation, regulation, programming and business procedure.

115 (66) BROADCAST ANNOUNCING (3)

Three lecture hours per week.

Introduction to the basics of announcing skills, effective speaking and critical listening. Practice in analysis and evaluation of speeches, reading typical radio copy, speaking ad lib. Announcing and microphone techniques, developed through regular use of the studio facilities.

131 (52a) RADIO STUDIO TECHNIQUES I (3)

One lecture hour and six lab hours per week by arrangement. Prerequisite: Concurrent enrollment in Tele. 190 (65) or valid third-class license with broadcast endorsement.

Study of the basic practices and procedures in radio broadcasting. The proper use of microphones, operation of audio mixing consoles, tape recorders and other common broadcast equipment, with emphasis on combo- and engineering-announcer types of programs.

132 (52b) RADIO STUDIO TECHNIQUES II (3)

One lecture hour and six lab hours per week by arrangement. Prerequisite: Tele. 131 (52a), plus demonstration of acceptable operational ability.

Continuation of Tele. 131. Advanced students operate the radio broadcast station KCSM-FM as part of their laboratory assignment.

135 (53) ADVANCED RADIO OPERATIONS (3)

One lecture hour and six lab hours per week by arrangement. Prerequisite: Tele. 132 (52b) or equivalent, plus demonstration of operational ability.

Instruction in the area of radio broadcast production/operations, including assuming responsibility for remote broadcasts, recording out-of-studio activities and events, compiling and producing weekly station promotional materials and assisting students in Telecommunications 195 (67) in producing weekly programs.

190 (65) COMMERCIAL LICENSE (3)

Three lecture and three lab hours per week. Recommended: Electronics Technology 110 (14.)

Communication procedures, regulations, and electronic theory in the area outlined by the Federal Communications Commission study guide, with attainment of the first- or second-class commercial telephone license as the final goal. (May be repeated for credit.)

192 (68) BROADCAST TIME SALES (3)

Three lecture hours per week.

All functions of the radio and television stations pertaining to sales; ratings, formats, basics of selling, the advertising agency, and the sales presentation.

194 (71) RADIO AND TELEVISION NEWS EDITING AND WRITING (3)

Three lecture hours per week.

Wire copy, rewriting, oral writing style, putting the newscast together for air, good taste in reporting, libel and slander laws, use of the tape recorder and the "beeper" telephone and writing for still pictures and film.

**195 (67) PROJECTS IN RADIO (3)
(Formerly Radio Production Projects)**

One lecture hour and six lab hours per week to be arranged. Prerequisite: Tele. 115 (66) or equivalent, plus demonstration of operational ability.

Instruction in the area of broadcast production, with major emphasis on researching a given subject or area, producing a series of half-hour or quarter-hour programs on the subject or area, and broadcasting the series on the college's FM station, KCSM-FM. Particular emphasis is placed on writing and the final vocal delivery involved in the series. Programs may be aired on KCSM-FM.

231 (60a) TELEVISION STUDIO TECHNIQUES I (3)

One lecture hour and six lab hours per week.

Study of the equipment used in a television studio, with emphasis on lighting, camera operation, audio control, video mixing and production work.

232 (60b) TELEVISION STUDIO TECHNIQUES II (3)

One lecture hour and six lab hours per week.

Continuation of Tele. 231. Television studio operation and production training.

241 (61a) PROJECTS IN TELEVISION I (3)

One lecture hour and six lab hours per week by arrangement. Prerequisite: Tele. 231 (60a) and 232 (60b) or 301 (101a) and 302 (101b).

Introduction to television production with supervised activity in the planning of program material and program production. Students assist in the operation of KCSM-TV as part of the laboratory assignment.

242 (61b) PROJECTS IN TELEVISION II (3)

One lecture hour and six lab hours per week by arrangement. Prerequisite: Tele. 231 (60a) and 232 (60b) or 301 (101a) and 302 (101b).

Study of television operations and production with emphasis on the total station function. KCSM-TV laboratory assignments continued.

243 (61c) PROJECTS IN TELEVISION III (3)

One lecture hours and six lab hours per week by arrangement. Prerequisite: Tele. 231 (60a) and 232 (60b) or 301 (101a) and 302 (101b).

Advanced activity in television operations and production. Programs suitable for televising are produced for KCSM-TV.

301 (101a) RADIO AND TELEVISION TECHNICAL OPERATIONS I (3) (Formerly Radio and Television Technical Operations and Maintenance)

Two lecture hours and five lab hours per week.

Construction, installation and maintenance of equipment used in KCSM-FM and KCSM-TV and related studio equipment, including lighting, audio and video console equipment.

302 (101b) RADIO AND TELEVISION TECHNICAL OPERATIONS II (3) (Formerly Radio and Television Technical Operations and Maintenance)

Two lecture and five lab hours per week.

Advanced instruction in the subjects introduced in Tele. 301,

with additional emphasis on intercommunications equipment, video tape recorders, and FM and TV transmitters.

642 (47) COOPERATIVE EDUCATION (1-4)
(Credit/No Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 135).

680 (48) SELECTED TOPICS IN TELECOMMUNICATIONS (1-3)

Hours by arrangement.

Selected topics in Telecommunications not covered by regular catalog offerings. Course content and unit credit to be determined by the Fine Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

Trade and Industrial

680 (48) SELECTED TOPICS IN TRADE AND INDUSTRY (1-3)

Hours by arrangement.

Selected topics in Trade and Industry not covered by regular catalog offerings. Course content and unit credit to be determined by the Technology Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

701-703 (71a-71b) MACHINIST APPRENTICESHIP THEORY I (1-1)
One lecture hour per week.

702-704 (71aL-71bL) MACHINIST APPRENTICESHIP LAB I (1-1)
One lecture hour per week.

705-707 (72a-72b) MACHINIST APPRENTICESHIP THEORY II (1-1)
One lecture hour per week.

706-708 (72aL-72bL) MACHINIST APPRENTICESHIP LAB II (1-1)
Three lab hours per week.

711-713 (73a-73b) MACHINIST APPRENTICESHIP THEORY III (1-1)
One lecture hour per week.

712-714 (73aL-73bL) MACHINIST APPRENTICESHIP LAB III (1-1)
Three lab hours per week.

715-717 (74a-74b) MACHINIST APPRENTICESHIP THEORY IV (1-1)
One lecture hour per week.

716-718 (74aL-74bL) MACHINIST APPRENTICESHIP LAB IV (1-1)
Three lab hours per week.

721 CARPENTRY APPRENTICESHIP I (1)
Four lab hours per week.

722 CARPENTRY APPRENTICESHIP II (1)
Four lab hours per week.

723 CARPENTRY APPRENTICESHIP III (1)
Four lab hours per week.

724 CARPENTRY APPRENTICESHIP IV (1)
Four lab hours per week.

725 CARPENTRY APPRENTICESHIP V (1)
Four lab hours per week.

726 CARPENTRY APPRENTICESHIP VI (1)
Four lab hours per week.

727 CARPENTRY APPRENTICESHIP VII (1)
Four lab hours per week.

728 CARPENTRY APPRENTICESHIP VIII (1)
Four lab hours per week.

740 (62) CONTRACTOR'S LICENSE AND LAW (3)

Prerequisite: Experience in the construction field.

An introduction to the legal requirements for a contractor's license and a study of his/her obligations to clients.

The following courses are designed for indentured apprentices.

- 751 **ELECTRICAL APPRENTICESHIP I (2½)**
Four lab hours per week.
- 752 **ELECTRICAL APPRENTICESHIP II (2½)**
Four lab hours per week.
- 753 **ELECTRICAL APPRENTICESHIP III (2½)**
Four lab hours per week.
- 754 **ELECTRICAL APPRENTICESHIP IV (2½)**
Four lab hours per week.
- 761 **PLUMBING APPRENTICESHIP I (3½)**
Five lab hours per week.
- 762 **PLUMBING APPRENTICESHIP II (3½)**
Five lab hours per week.
- 763 **PLUMBING APPRENTICESHIP III (3½)**
Five lab hours per week.
- 764 **PLUMBING APPRENTICESHIP IV (3½)**
Five lab hours per week.
- 765 **PLUMBING APPRENTICESHIP V (3½)**
Five lab hours per week.
- 766 **PLUMBING APPRENTICESHIP VI (3½)**
Five lab hours per week.
- 767 **PLUMBING APPRENTICESHIP VII (3½)**
Five lab hours per week.
- 768 **PLUMBING APPRENTICESHIP VIII (3½)**
Five lab hours per week.
- 769 **PLUMBING APPRENTICESHIP IX (3½)**
Five lab hours per week.
- 770 **PLUMBING APPRENTICESHIP X (3½)**
Five lab hours per week.
- 771 **REFRIGERATION I (3½)**
Five lab hours per week.
- 772 **REFRIGERATION II (3½)**
Five lab hours per week.
- 781 **SHEET METAL APPRENTICESHIP I (2½)**
Four lab hours per week.
- 782 **SHEET METAL APPRENTICESHIP II (2½)**
Four lab hours per week.
- 783 **SHEET METAL APPRENTICESHIP III (2½)**
Four lab hours per week.

- 784 **SHEET METAL APPRENTICESHIP IV (2½)**
Four lab hours per week.
- 785 **SHEET METAL APPRENTICESHIP V (2½)**
Four lab hours per week.
- 786 **SHEET METAL APPRENTICESHIP VI (2½)**
Four lab hours per week.
- 787 **SHEET METAL APPRENTICESHIP VII (2½)**
Four lab hours per week.
- 788 **SHEET METAL APPRENTICESHIP VIII (2½)**
Four lab hours per week.
- 790 **SHEET METAL WELDING (½)**
One and a half lab hours per week.

Welding Technology

100 (51) APPLIED WELDING MATHEMATICS (3)

Three lecture hours per week.

Areas, volumes, fundamentals of algebra, calculation of irregular areas and volumes, metric conversions.

110 (52a) ELEMENTARY WELDING THEORY I (4)

Four lecture hours per week. Prerequisite: Concurrent enrollment in W.T. 111 (52a).

Introduction to gas welding of ferrous and non-ferrous metals, brazing and soldering. Instruction on the theory of flamecutting, non-destructive testing, introduction to metallurgy, and blueprint reading for welding.

111 (52a) ELEMENTARY WELDING PRACTICE I (4)

Four lecture hours per week. Prerequisite: Concurrent enrollment in W.T. 110 (52a).

Practical experience in gas and conventional arc welding of ferrous and non-ferrous metals, brazing and soldering. Lectures and demonstrations on non-destructive testing. (Extra supplies may be required.)

120 (52b) ELEMENTARY WELDING THEORY II (4)

Four lecture hours per week. Prerequisite: W.T. 110 (52a).

Introduction to conventional arc welding of steel, stainless steel and TIG welding of aluminum. Study of metallurgy and blueprint reading for welders.

121 (52b) ELEMENTARY WELDING PRACTICE II (4)

Four three-hour lab periods per week. Prerequisite: W.T. 111 (52a).

Advanced experience in conventional arc welding of steel in the flat, vertical, and overhead positions. Introduction to manual TIG welding of aluminum. Extra supplies may be required.

210 (62a) ADVANCED WELDING THEORY I (3)

Three lecture hours per week. Prerequisite: W.T. 110-120 (52a-52b).

TIG, MIG welding with emphasis on carbon steel, alloy steel, and stainless steel. Advanced problems in all phases of welding. Study in the theory of metallurgy and heat treating as it applies to welding technology.

211 (62a) ADVANCED WELDING PRACTICE I (5)

Fifteen lab hours per week. Prerequisite: W.T. 111 (52a) and 121 (52b), concurrent enrollment in W.T. 210 (62a).

Practical experience in TIG, MIG, and low hydrogen arc welding with emphasis on steel, stainless steel and aluminum. Extra supplies may be required.

220 (62b) ADVANCED WELDING THEORY II (3)

Three lecture hours per week. Prerequisite: W.T. 210 (62a)

Theory of MIG welding, pulsed MIG and TIG welding, electron beam welding, electro-slag welding, pipe study of the A.W.S. Structural Code and A.S.M.E. Boiler Code. Study of welding symbols as they apply to blueprints.

221 (62b) ADVANCED WELDING PRACTICE II (5)

Fifteen lab hours per week. Prerequisite: W.T. 211 (62a).

Practical experience in the welding of exotic metals, flame spraying, pulsed TIG and pipe welding. Practical experience in job estimation and production welding techniques as well as maintenance welding techniques. Instruction in the application of manipulative skills required in metal fabrication processes: hand and power shearing, punching, forming, mechanical fastening and sheet metal layout. Extra supplies may be required.

300 (75) WELDING FOR TECHNOLOGY

One lecture and one three-hour lab per week. Prerequisite: None

A related course of instruction designed to assist the student who is not a welding major in understanding the theories of oxyacetylene, bronze, conventional shielded metal arc, low hydrogen shielded metal arc, resistance welding and silver brazing with emphasis on associated equipment and supplies. (Extra supplies may be required.)

680 (48) SELECTED TOPICS IN WELDING TECHNOLOGY (1-3)

Hours by arrangement.

Selected topics in Welding Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Technology Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

690 (49) SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequisite: 3.0 GPA in subject field.

Independent study in a specific field or topic, directed by an instructor and supervised by the Division Director. Students are eligible to request approval of a Special Project only after successfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

700 (103) TIG WELDING TECHNOLOGY (4)

Two lecture and six lab hours per week. Prerequisite: W.T. 300 (75), previous course in welding or equivalent.

Practical experience in welding of aluminum, steel, and stainless steel. The types of weldments made are corner, fillet and butt. Study of TIG welding aluminum, steel and stainless steel, basic metallurgy and welding symbols as they apply to blueprints.



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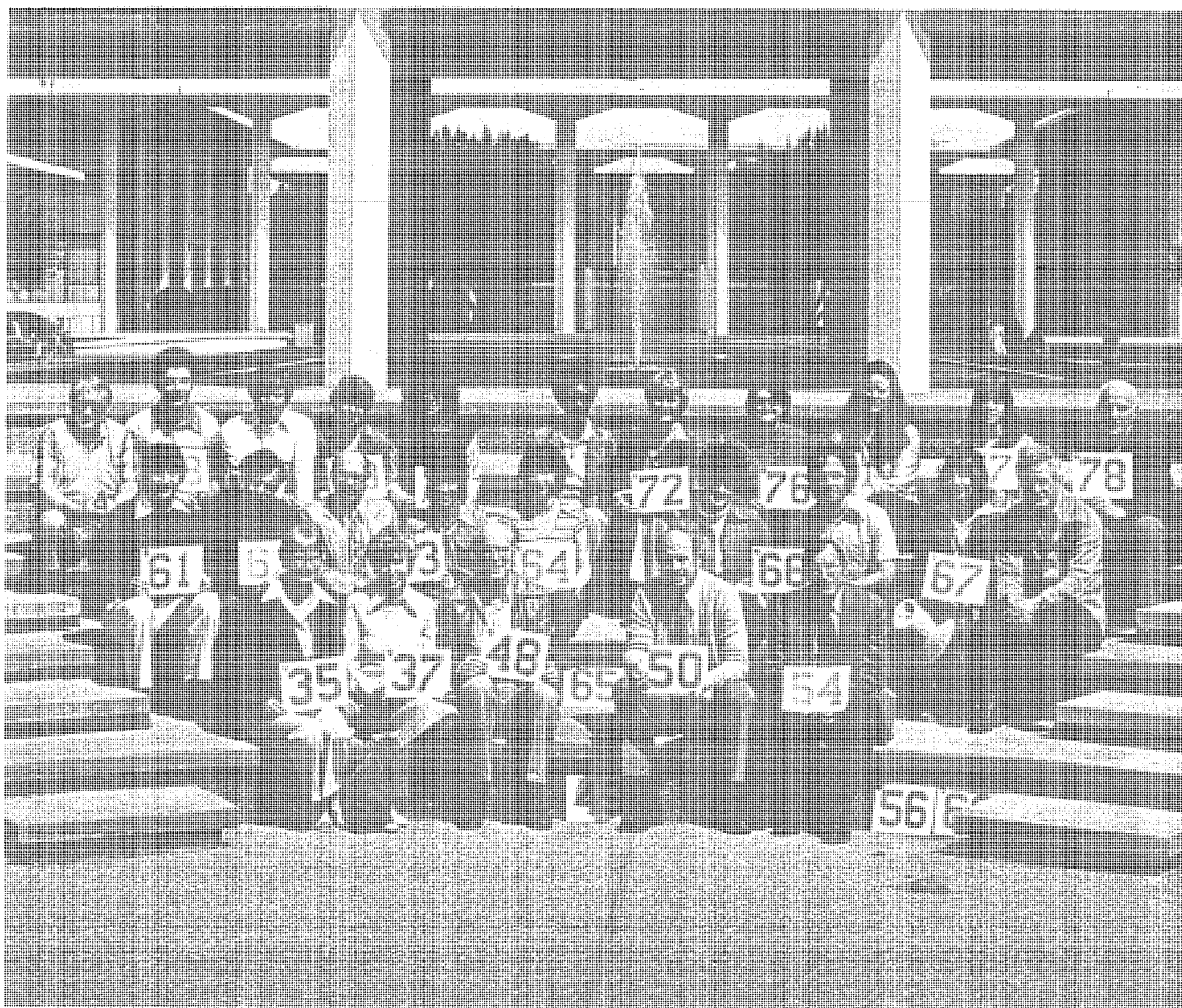


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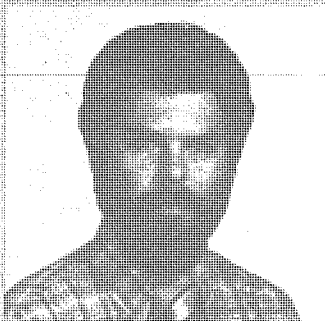
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Staff and faculty who are alumni of the College of San Mateo

(PICTURED): Gertrude Steele; 1935; Assistant to the President. Jeannette (Jennings) Mathers; 1937; Speech. George E. Wallace; 1948; Math-Science. John Noce; 1949; P.E. Bill Janssen; 1950; Business. Allan Brown; 1954; Political Science/Social Science. Dennis Stack; 1961; Drafting. David Duncan; 1962; Architecture-Drafting. V. A. Mendenhall; 1963; Aeronautics. Jean Bernasque; 1963; Dental Assisting. Phyllis Hechim; 1964; Admissions & Records. Diane C. Leroi; 1966; History. Jim Mathews; 1966; Media Center. Joanne Powell; 1967; Registrar's Office.. John H. Goehler; 1967; Political Science. H. Raymond; 1968; Aeronautics. Frank DeCoito; 1968; Electronics. Jim Petromilli; 1968; Electronics. Pamela Rogers; 1969; Registrar's Office. Arlene Romey; 1970; Registrar's Office. Kathryn Brown; 1972; Business. Elaine Burns; 1972; Career Center. Linda Beamer; 1976; Admissions & Records. Mary Kay Sholaas; 1976; Operations. Debbie Besnyi; 1977; Counseling Services. Dale Blust; 1978; Aeronautics. (NOT PICTURED): Joe Morgan; 1954; KCSM-TV. Caroline R. Silva; 1956; Physical Education. Roland Williamson; 1960; Health/Services. Richard Zanardi; 1965; KCSM-TV. Richard Castillo; 1966; Language Arts. Jim Threlkeld; 1966; KCSM-TV. Frank Lanzone; 1967; KCSM-FM. Jacquelyn Rose; 1968; Student Services. Gregg Atkins; 1969; Library. Clyde Rivers; 1969; KCSM-TV. Ken Schreiner; 1969; KCSM-TV. Steven Morehouse; 1971; Office of Veteran Affairs. Mike Davidson; 1974; KCSM-FM. Bonnie Atkins; 1974; KCSM-FM. Richard James Perry; 1975; Aeronautics.



ROGER VIGIL
Veteran

The road to becoming a physician and surgeon is a difficult one under the best of circumstances. Where there's a family to support at the same time, it's considerably more difficult. Such was the case for Roger Vigil, a Mexican-American, when he came to CSM in 1967, after four years in the military, to begin work toward a career in medicine. During his two years at CSM he was a full-time student working four to six hours Monday through Friday, on weekends, and during the summer to support his family. Today he credits the college with exceptional assistance in helping him take his "first academic step" toward becoming a doctor. "Without exception all faculty with whom I dealt were supportive, encouraging and fair," he says. "My counselor and several teachers were particularly encouraging to me. There is no doubt that their good advice and help laid the groundwork for my further success. I will always be grateful to them." Now after 11 years of rigorous academic and medical training, Vigil is a licensed physician and surgeon with an office in San Francisco. His preparation for his career included receiving an A.B. from Stanford University, M.D. from Stanford Medical School and a three year internship and residency at St. Mary's Hospital in San Francisco. The development of self-confidence was an important by-product of his CSM experience. Vigil says, "It gave me the opportunity to demonstrate to myself and others that I possessed the ability to succeed in an academic environment through diligent effort and hard work."



YOSHIKO RYU
Foreign Student

Before Yoshiko Ryu left her native Japan she learned of CSM's fine architectural program. Thus, it was with the goal of becoming an international architect that she came to the college in 1974. After three years at College of San Mateo and two years at U.C. Berkeley in the School of Environmental Design, she is making significant steps toward that goal. "As a result of my good training at CSM, I'll probably graduate with honors from U.C.B.," she says today. "Totally, I believe that CSM brought me nearer to my goal of becoming an international architect." During her first year at the college she devoted a major part of her time to building up her language skills. A diligent worker, her skills improved rapidly and she made excellent grades. She remembers that the CSM instructors showed great concern for the welfare of the student. The instructors in the architect program were especially dedicated to trying to develop the talent of each individual student, she indicates. Ryu also cites as instrumental in her success, the "wonderful emotional support" she received from the Foreign Student Office. While she put a good deal of time and effort into her studies, she also found time to tutor. "I was very active in the Learning Center as a tutor in math and chemistry," she relates. "I found this to be a very interesting experience, helping my fellow students." As she prepared to transfer to Berkeley she was awarded the Lucile Koshland Scholarship by CSM, an award given for both financial need and academic promise. Near the completion of her training at Berkeley, she received a partial scholarship to Massachusetts Institute of Technology. Reflecting on her years in this country, she says, "It has been wonderful to be exposed to so many ideas and friends here in America."

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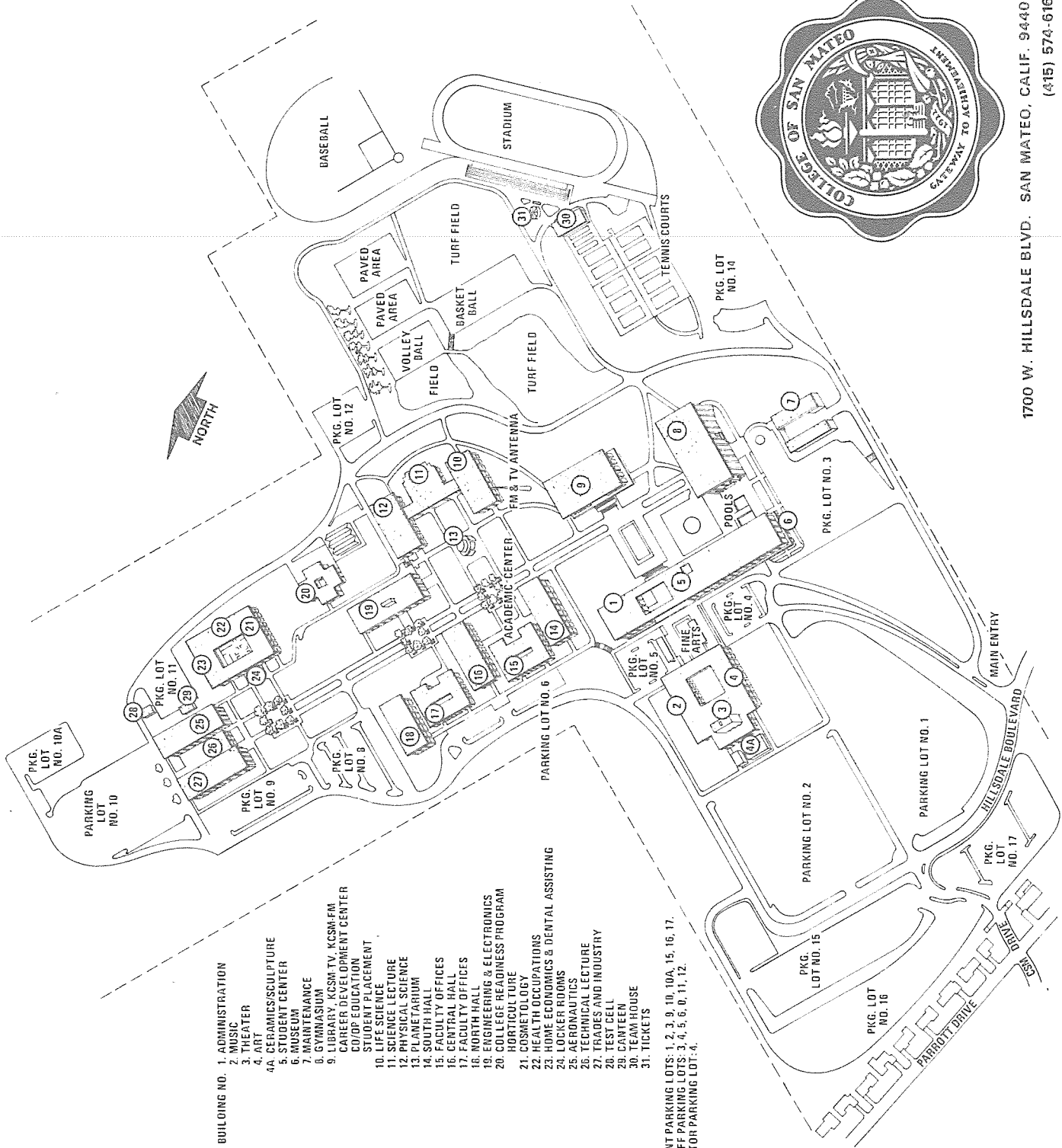
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