College of San Mateo

1977-1978

Catalog

COLLEGE OF SAN MATEO

PLEASE POST

COLLEGE OF SAN MATEO 1977-78 CATALOG AMENDMENT NO. 2
August 15, 1977

Reference: Pages 71 and 72
COURSES TRANSFERABLE TOWARD BACCALAUREATE DEGREE CREDIT
AT CALIFORNIA STATE UNIVERSITIES AND COLLEGES--1977-78

Change: Attached are revised lists (2 pages), dated August 15, 1977

Reference: Page 102 Aeronautics Courses
AERONAUTICS 3 FLIGHT SIMULATION (2½)

Change to: (½ unit per semester) May be repeated five times for a total of 2½ units.

Reference: Page 110 Art Courses

Add: ART 80 MANAGEMENT SYSTEMS FOR INTERIOR DESIGNERS (3)
Three lecture hours per week. Prerequisites: Art 81, 82 and 83.

Instruction and practice in retail and wholesale interior design procedures. Problems in merchandising, licensing, and purchasing and pricing of commercial and domestic furnishings and accessories. The communication of ideas and concepts; designer-client relations. Business practices relevant to the interior design field. (Identical to Consumer Arts and Sciences 80.)

Reference: Page 112 Biology Courses
BIOLOGY 11 PHYSICAL ANTHROPOLOGY (3)

Change to: (Identical to Anthropology 1.)

Reference: Page 127 Consumer Arts and Sciences Courses

Add: C.A. and S. 80 MANAGEMENT SYSTEMS FOR INTERIOR DESIGNERS (3)
See Art 80

(Over)

1700 W. HILLSDALE BOULEVARD, SAN MATEO, CALIFORNIA 94402, TELEPHONE (415) 574-6161

Reference: Page 150 French Courses

Add: FRENCH 100d CONVERSATIONAL FRENCH, ADVANCED INTERMEDIATE (2)
(Credit/No Credit)
Three class hours per week. Prerequisite: French 100c or equivalent.

Further course work in conversation following the model of French 100c. (This course will not fulfill language requirements at California State Colleges or at the University of California.)

Reference: Page 158 Horticulture Courses
HORTICULTURE 95a-95b LANDSCAPE TREES AND SHRUBS

Add: (2-2 Units)

Reference: Page 168 Mathematics Courses
MATHEMATICS 27 COLLEGE ALGEBRA WITH TRIGONOMETRY REVIEW (5)

Change to: Prerequisite: Math. 21 or quivalent 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.

Reference: MATHEMATICS 28 COLLEGE ALGEBRA (3)

Change to: Prerequisites: Math. 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.

Reference: Page 179 Physical Education Courses

Add: MASSAGE, INTERMEDIATE (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 physiological and psychological effects of massage; the use of "deep" massage to perceive and relieve chronic and acute tension. Introduction to the basic concepts of specialized massage systems, including physical therapy, osteopathy, cosmetology, shitsu, foot reflexology, and Rolfing.

(More)

Reference: Page 181 Physical Education Courses

Add: TENNIS, ADVANCED (1½)
Three lab hours per week. Prerequisites: Elementary and Intermediate Tennis or equivalent.

Advanced aspects of tennis play. Instruction in advanced strategy, philosophy, and techniques; tournament play in singles and doubles; testing program in skills, techniques, and rules.

Reference: Page 189 Recreation Education Courses

Add: RECREATION 42 SOCIAL RECREATION (2)
Two lecture hours per week. Prerequisite: None.

Instruction in planning, programming, and conducting social recreation activities in clubs, churches, campus organizations, playgrounds, and recreation centers. Classroom practice of the principles and techniques presented, along with supervised experience in arranging and conducting social activities for outside groups.

Add: RECREATION 43 PROGRAM PLANNING AND ORGANIZATION (3)
Two lecture hours and three lab hours per week. Prerequisite: Recreation 40.

A theory and activity course for recreation majors. The study of essential elements and basic principles of organization, supervision, and promotion. Evaluation of various types of recreation programs, including the methods and materials used in planning and conducting recreation programs in public and private agencies. Emphasis on the role of face-to-face leader in organizing recreational programs in a variety of settings.

Add: RECREATION 44 FOUNDATIONS OF OUTDOOR RECREATION (3)
Two lecture hours and three lab hours per week. Prerequisite: None.

The history, development, principles and trends of organized outdoor recreation. Nature and conservation; practical skills in firecraft, outdoor cooking, and backpacking. Leadership training in camp counseling. Laboratory work and field trips, including camping and hiking activities. Required for Recreation majors.

(More)

Reference: Page 192 Spanish Courses

Add: SPANISH 4 ADVANCED INTERMEDIATE (3)
Three class hours and one lab hour per week. Prerequisite: Spanish 3 with passing grade or assignment by the Language Arts Division on the basis of the Foreign Language Placement Test in Spanish. Concurrent enrollment in Spanish 8 is recommended.

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.

Lois A. Callahan

Lois A. Callahan, Ed.D.
Dean of Instruction

Attachment (2 pages)

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

August 15, 1977

College of San Mateo Catalog 1977-78

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

1700 West Hillsdale Boulevard • San Mateo, California 94402 • (415) 574-6161

Table of Contents

Calendar for 1977-78

Summer Session 1977

Test Dates
See Application for Admission
for dates, times and places.
Registration
See Schedule of Classes
Classes Begin
June 27
Independence Day Holiday
July 4
Last Day to Petition for Summer AA/AS Degree
August 5
Summer Session Six-week Classes Close
August 5
Summer Session Eight-week Classes Close
August 19

Fall Semester 1977

Applications Available
April 15
Test Dates for Fall Semester
See Application for Admission
for dates, times, and places
Counseling-Registration by Appointment, New and Returning Students
August 22-30
Day and Evening Classes Begin
September 6
Last Day to Add Semester-length Classes
September 19
Veterans' Day Holiday
November 11
Last Day to Apply for Fall AA/AS Degree or Certificate
November 18
Last Day to Drop a Semester-length Class in which a Student is Failing without possible Penalty
November 18
Thanksgiving Recess
November 24-26
Registration for Continuing Students
December 6-16
Winter Recess
December 19-January 2
Final Examinations, Evening Classes
January 17-23
Final Examinations, Day Classes
January 16-24

Spring Semester 1978

Applications Available
November 4.
Test Dates for Spring Semester
See Application for Admission for
dates, times and places.
Counseling-Registration by Appointment, New and Returning Students
January 16-24
Day and Evening Classes Begin
January 30
Last Day to Add Semester-length New Classes
February 10
Lincoln Day Holiday
February 13
Washington Day Holiday
February 20
Spring Recess
March 20-25
Last Day to Apply for AA/AS Degree or Certificate
April 14
Last Day to Drop a Semester-length Class in which a Student is Failing without possible Penalty
April 14
Test Dates for Fall Semester 1978
See Application for Admission for
dates, times and places.
Registration for Continuing Students
May 22-26
Memorial Day Holiday
May 29
Final Exams - Day Classes
June 2-12
Final Exams - Evening Classes
June 6-12
Commencement
June 8

Summer Session 1978

Test Dates
See Application for Admission for
dates, times and places.
Registration
See Schedule of Classes
Classes Begin
June 19
Independence Day Holiday
July 4
Last Day to Petition for Summer AA/AS Degree
July 21
Summer Session Six-week Classes Close
July 28
Summer Session Eight-week Classes Close
August 11

San Mateo County Community College District Board of Trustees

Eleanore D. Nettle
(Since 1956)
Housewife

Dr. James G. Rudolph
(Since 1976)
Electronics Consultant

Robert A. Tarver
(Since 1953)
Attorney

James R. Tormey Jr.
(Since 1971)
Attorney

Carl E. Ward
(Since1960)
Financial Consultant

District Administration

Glenn P. Smith
District Chancellor-Superintendent

College of San Mateo Administration

David H. Mertes
President

Gertrude M. Steele
Administrative Assistant to the President

INSTRUCTIONAL SERVICES

Lois A. Callahan
Dean of Instruction

Vern C. Gillmore
Director of Career and Occupational Education

Michael B. Kimball
Director of Continuing Education

(Name to be announced)
Director of Instructional Services

ACADEMIC DIRECTORS

Leo N. Bardes
Director, Fine and Performing Arts

Michael J. Clemens
Director, Social Science

Clifford G. Giffin
Director, Physical Education/Athletics

Gilbert B. Gossett
Director, Mathematics and Science

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

COMMUNITY EDUCATION

(Name to be announced)
Director of Community Education

OPERATIONS

C. William Friedrichs
Director of Operations

Chester R. Williams
Supervisor of Buildings and Grounds

Lynn Pontacq
Supervisor, Fiscal and Personnel Services

College Faculty 1977-78

(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, Telecommunications
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

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

Bianchino, Francis S. (1975)
Coordinator of Veterans Affairs
B.A., St. Francis College
M.S., St. John's University
Ph.D., United States International 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
Ph.D., Nova University

Blitz, George A. (1974)
Horticulture, Counselor
A.B., B.S., M.A., University of Calif., Berkeley

Blust, Dale W. (1965)
Aeronautics, Counselor

Blust, Kenneth E. (1966)
Aeronautics

Bogan, Harold S. (1974)
Security

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

Brauns, Robert A. (1954)
Play Production
A.B., Stanford 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

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

Bucher, Michael C. (1969)
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

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. (1976)
Dean of Instruction
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

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

Cassidy, Claudia L. (1974)
Counselor
B.A., University of Calif., Berkeley
M.A., San Francisco State University
Ph.D., University of Calif., Berkeley

Casstevens, Jewell (1963)
Cosmetology

Castillo, Richard P. (1969)
Spanish
B.A., University of Calif., Berkeley

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

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

Chowenhill, Dean F. (1967)
Drafting Technology, Counselor
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
B.S., 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. (1967)
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

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

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

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 J. (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

Devonshire, Charles M. (1958)
Psychology, Psychological Services
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

Dooley, John B. (1963)
Librarian
B.A., M.A., B.L.S., University of Calif. Berkeley

Duncan, David L. (1974)
Technical Art/Graphics
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

Eshoo, Agnes (1969)
Cosmetology

Fark, Roland H. (1969)
Biology
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

Fine, Albert K. (1957)
Technical Drafting
A.B., University of Calif., Santa Barbara
A.M., Ed.D., Stanford University

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

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)

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

Foye, James F. (1971)
Aeronautics

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

Free, Herbert W. (1967)
Business, Real Estate, Counselor
A.B., M.A., University of Calif., Bekeley

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

Giffin, Clifford 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

Gillmore, Vern C. (1971)
Director of Career and Occupational Education
B.A., San Jose State University
M.A., Stanford University
Ph.D., East Coast 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

Goldman, Helen M. (1967)
Medical Assisting
B.N., R.N., Providence College of Nursing
B.A., San Francisco State University

Gossett, Gilbert B. (1955)
Director, Math/Science Division
B.A., M.A., University of Pacific

Goth, George W.
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
National 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

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

Hansen, Ronald G. (1971)
Anthropology
B.A., M.A., San Francisco State 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., Seattle University
M.S.N., 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

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

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)

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

Hudson, Herbert H. (1947)
Physical Education, Counselor
A.B., San Jose State University
A.M., Stanford University

Hynding, Alan A. (1967)
History
B.S., University of Oregon
M.A., Stanford University
Ph.D., University of Washington

Ingraham, Joeann (1962)
Physical Education
A.B., San Jose State University

Innis, James E. (1967)
Health Education, Biology
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 (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

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
B.S., University of Alberta
M.S., 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

Le Gallais, D. Richmond (1955)
Chemistry
B.S.A., M.S.A., University of British Columbia
Ph.D., University of Calif., Berkeley

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

Lowe, Richard H. (1971)
Counselor
B.A., Pomona College
M.A., University of South Dakota

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

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

Martin, Chauncey J. (1967)
Machine Tools, Welding Technology, Counselor

Mathers, Jeannette J. (1955)
Speech, English
A.B., San Francisco State University
A.M., Stanford University

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
B.S., University of Dayton, Ohio
R.N., St. Elizabeth's Hospital, Ohio
M.S., University of Dayton

Mendenhall, Valdemer A., Jr. (1967)
Aeronautics

Mertes, David H. (1965)
President
B.A., San Francisco State University
M.A., Ph.D., University of Calif., Berkeley

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)
Biology
B.S., University of Toledo
M.A., University of Calif., Los Angeles

Montague, Thomas L. (1972)
Administration of Justice

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

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

Mulhall, Mary Ellen (1963)
Business, Counselor
B.A., San Francisco State University
M.A., University of San Francisco

Mullaney, Ellentine M. (1964)
English
B.A., University of Washington
M.A., San Francisco State University

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

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

Ogletree, Carolyn (1974)
Guidance, Counselor
B.A., M.S., San Francisco 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

Orozco, Adrian (1969)
Counselor
S.T.B., St. Alexis College, Rome, Italy
M.Ed., Loyola University

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
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

Piserchio, 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

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)
Physical Eduation, Cooperative Education, Counselor
B.S., Pacific University
M.A., San Francisco State University

Rolph, Samuel S., Jr. (1947)
Play Production
A.B., University of Calif., Los Angeles

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

Schneider, John T. (1960)
Economics
B.S., University of Southern California
M.B.A., University of Calif., Los Angeles

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

Short, George W. (1964)
English, Speech, Counselor
B.A., Occidental College
M.A., San Francisco 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)
Instructional Development
B.A., M.A., University of Calif., Los Angeles

Smith, Robert W. (1965)
Mathematics, Engineering, Architecture
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

Stetson, Winifred P. (1962)
Business, Counselor
A.B., 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

Stoker, Russell M. (1965)
Psychology
B.A., M.A., San Jose State University

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

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)
Instructional Development
B.A., Calif. State Univ., Long Beach
M.S., M.S.Ed., 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

Vainowski, Robert P. (1970)
Telecommunications
A.B., San Francisco State University

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
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., Nat. Taiwan University
M.S., 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

White, Irle E. (1963)
Drama
B.S., M.S., University of Oregon

Williams, John C. (1963)
Director, Health & Service Careers Division
A.B., M.A., San Francisco State University

Williams, Myrtle T. (1960)
Cosmetology

Williamson, H. Stuart (1965)
Biology
A.B., Harvard University
M.A., San Francisco State University

Williamson, Richard A. (1963)
English
B.A., 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
B.A., San Francisco State University

Woods, Bernard F. (1948)
Business Administration
A.B., San Jose State University
A.M., Stanford University

Woolery, Jeanne K. (1970)
Date 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
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

Ada R. Beveridge
Coordinator of College-Community Relations

Edla R. Walter
Librarian

Leonora Y. Brem
Health Education

Martha E. Burrill
Coordinator or 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

Howard E. Durham
Foreign Student Advisor

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

Dr. Francis A. Smart
Business Administration, Counselor

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

George A. Van Vliet
Aeronautics

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

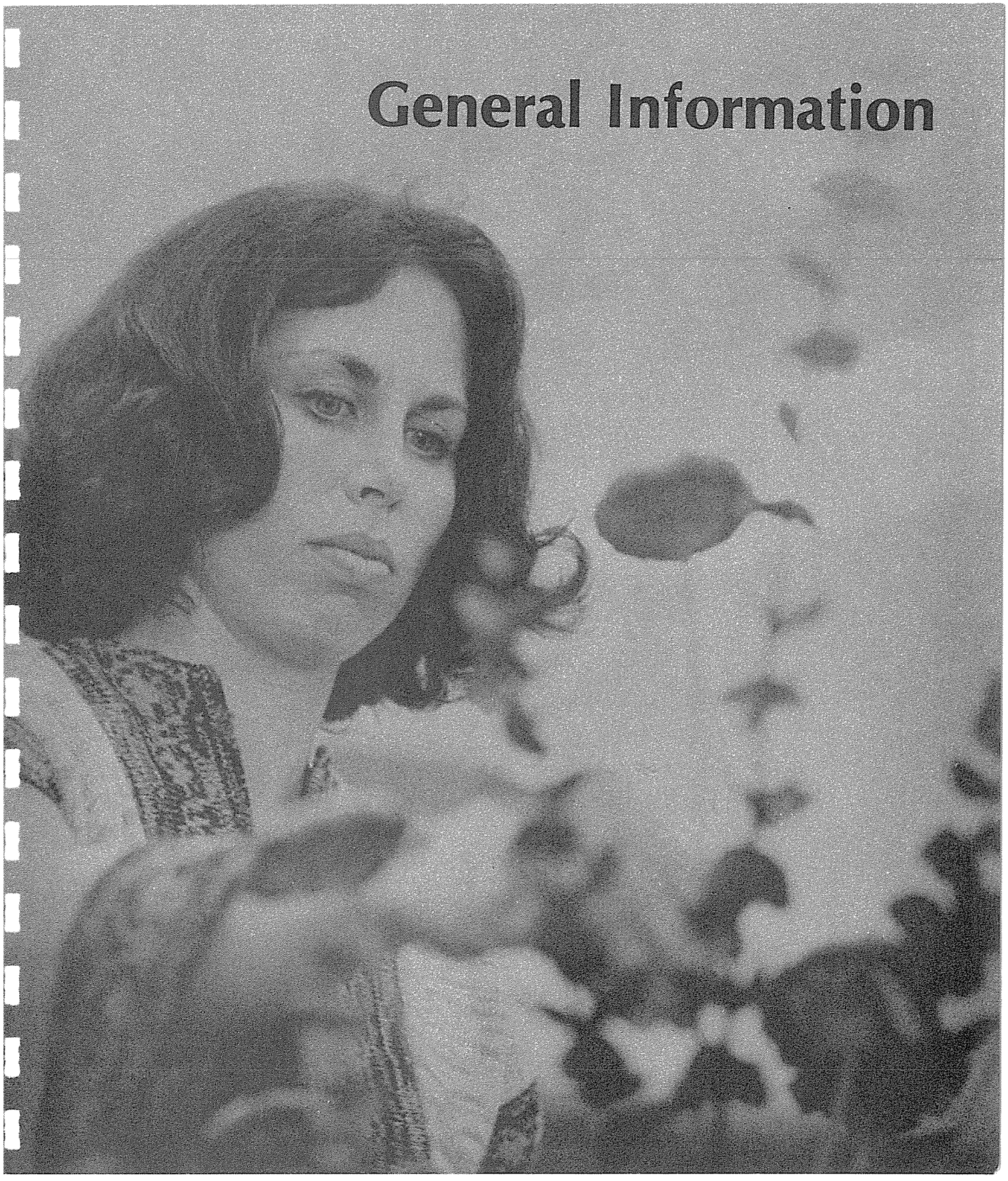
Harry W. Prochaska
Art

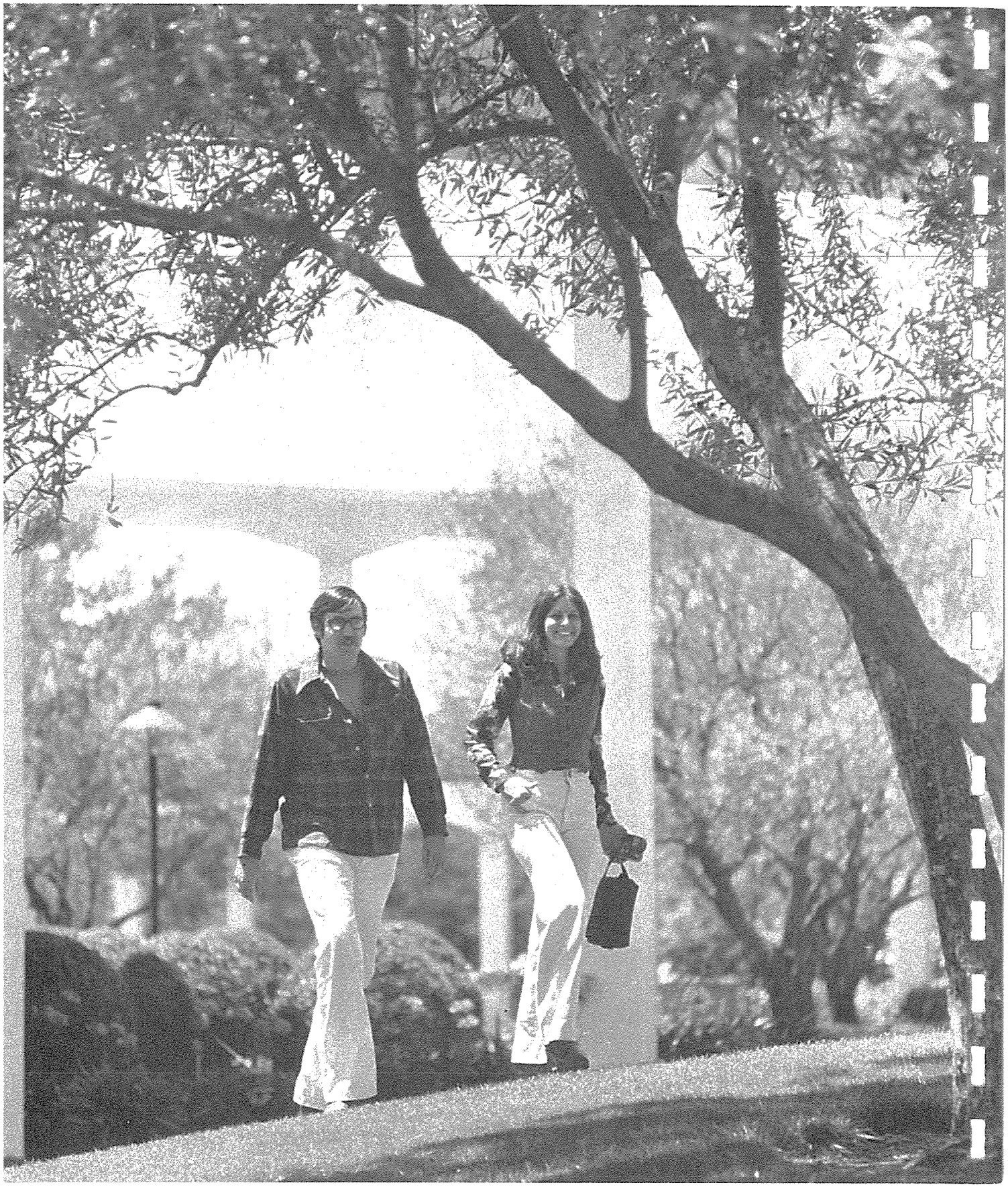
Elizabeth K. Rempel
Art

Gilbert G.W. Steed
Art

Alice P. Wilson
English

General Information





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 Community College District has grown to a complex of three modern campuses serving over 26,000 day and night 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. (The name of the District was changed to San Mateo Community College District in 1973.) Sequoia Union High School District joined the college district in 1961, and South San Francisco Unified School District was annexed in 1966. 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 full use of its "birthplace location," known as the Baldwin campus.

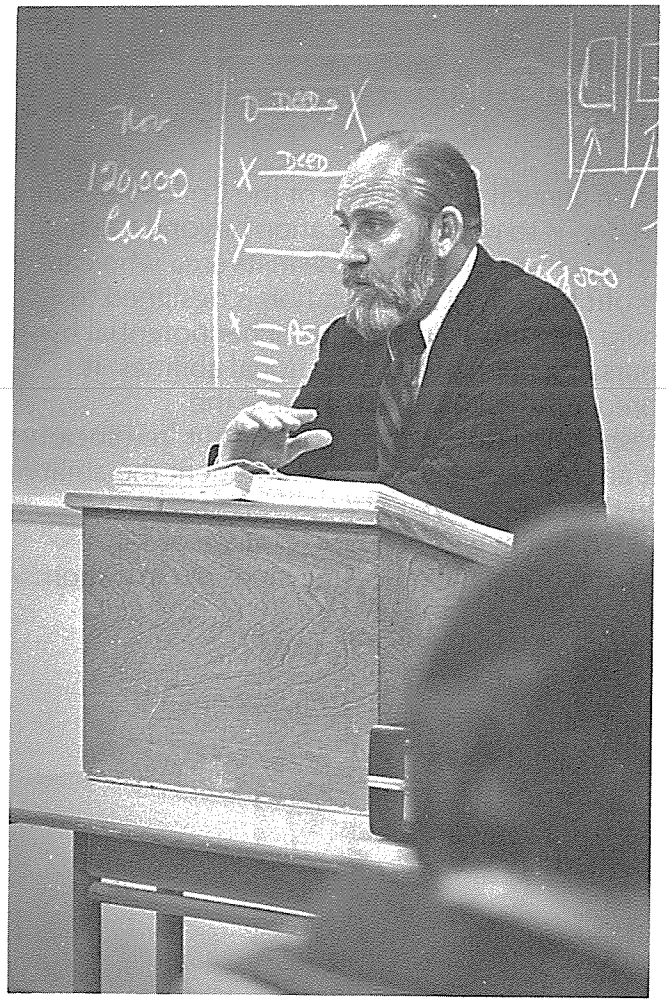
In 1939 a new college campus went into operation at North Delaware Street and Peninsula Avenue, San Mateo, but World War II put a stop to optimum development of that site. As a result, when the tide of returning servicemen began to roll in at the war's end, the college leased the Merchant Marine Cadet 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 the voters that was approved by an overwhelming 3 to 1 margin.

The bond issue victory cleared the way for prompt acquistions 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 Cañada 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 the District voters in 1964.

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

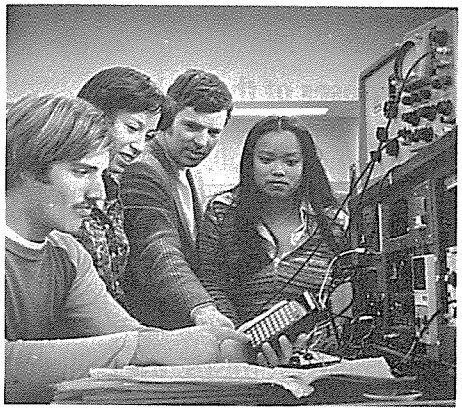


The College

College of San Mateo, the "oldest" of the three colleges in the San Mateo 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 over 14,000 day and night 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 supporting facilities.

The architectural style for the 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

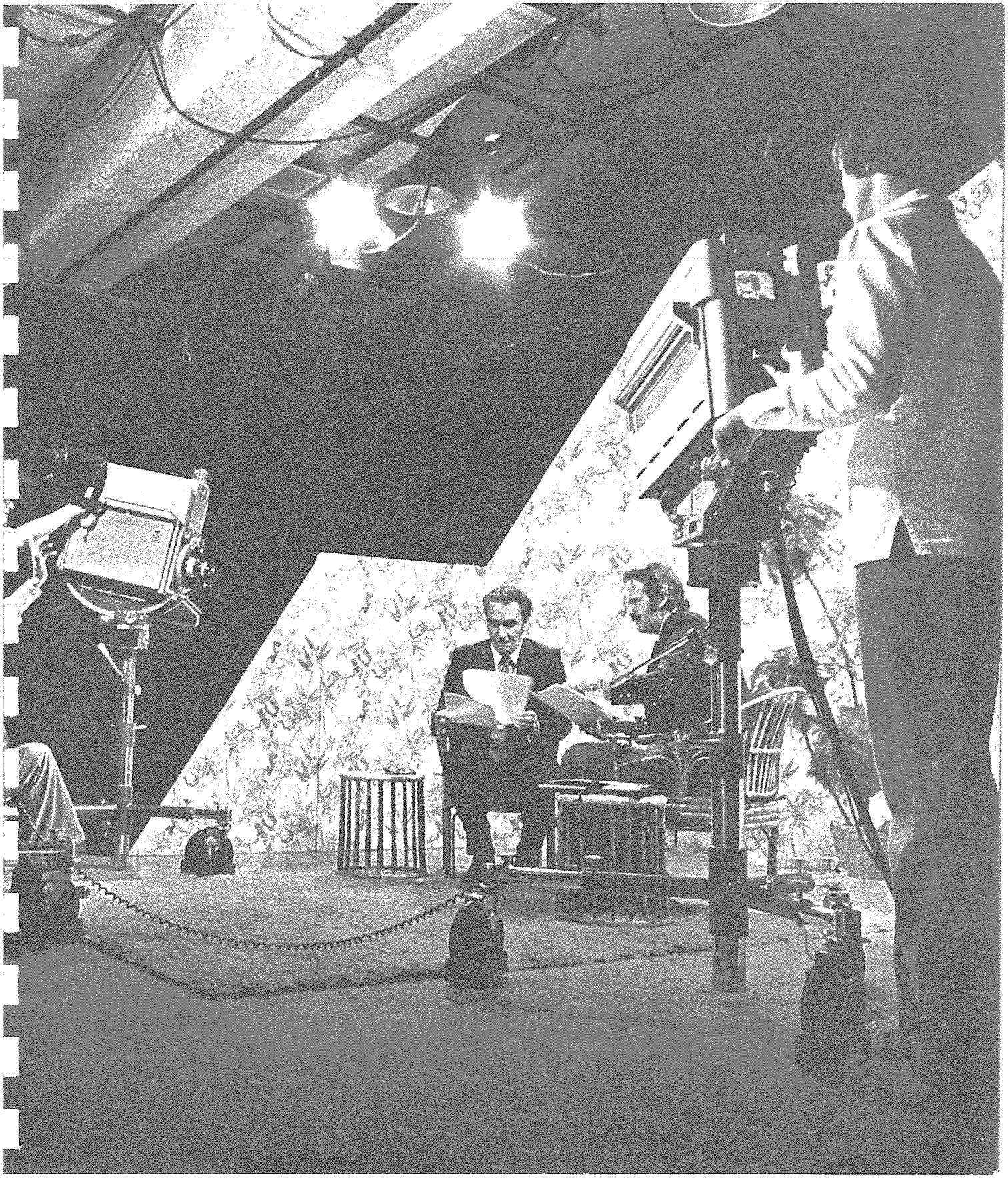
College of San Mateo has established its educational philosophy on three fundamental premises: that a free society requires intelligent support; that the individual has worth and dignity; and that a college has obligations both to society and the individual.

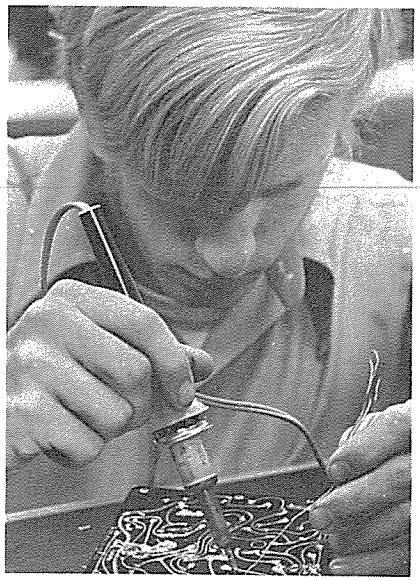
As a corollary to these premises, the college realizes that in its role of community college it must remain sensitive to changes in the needs of its area and evolve its educational offerings in response to those needs.

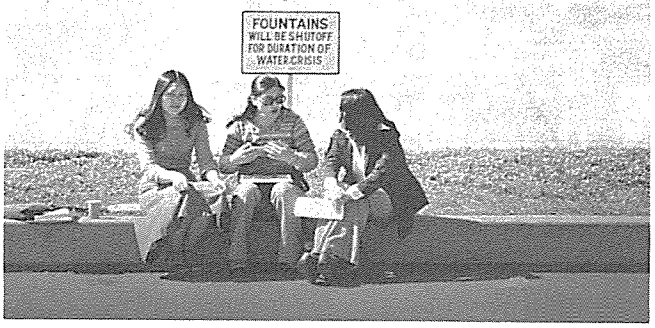
In general the purpose of the College of San Mateo is to provide education beyond the high school level for the people in its area who can profit thereby. This education is designed to help the student realize his or her potential by pursuing cultural and vocational abilities. It prepares the student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

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

General Education: Instruction which assist students to 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.
Continuing Education: Classes in which all persons living in the area may broaden their educational, vocational and aesthetic horizons.
Community Education: Short courses, public forums, lecture series, small group discussions, institutes, concerts and similar educational and cultural programs for the public at large.

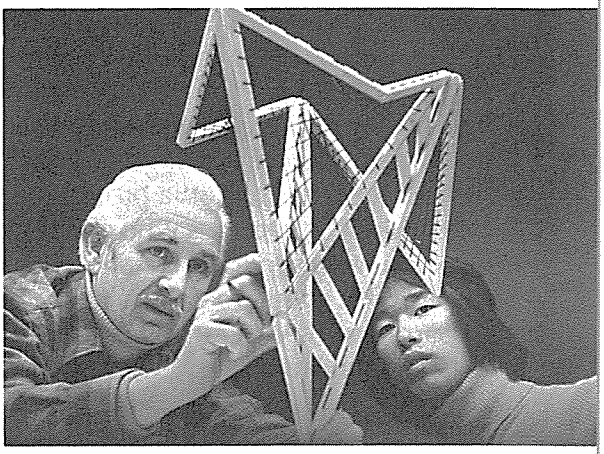






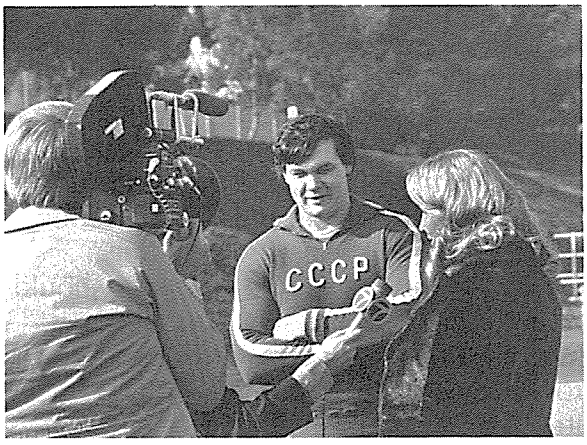
To assist students to profit most from their education, the college helps them to explore their aptitudes, choose their lifework and plan an educational program which will prepare them for that work. It offers this assistance through a formal program of guidance and counseling, and through informal student-teacher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

Situated as it is, close to San Francisco and to 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 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 (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 Veteran Affairs at 350 McAllister Street in San Francisco.

Costs to Students
All students are required to pay a Health Service fee 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 $100 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 42) who reside outside of San Mateo County and qualify for admission.

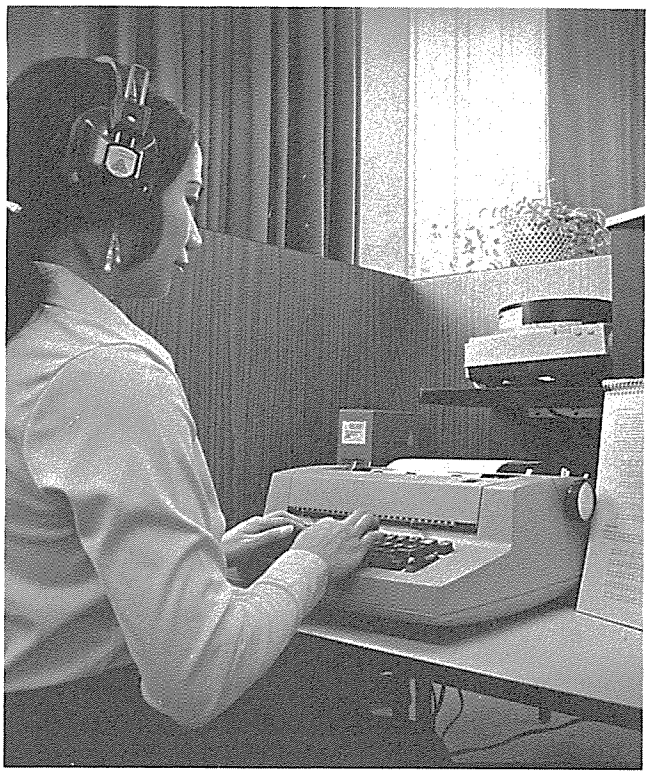
Out-of-state residents pay a non-resident fee of $1,322 for the academic year 1977-78. The fee is payable at the time of registration each semester at the rate of $44 per unit or a maximum of $661.

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 without charge 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. Parking and traffic regulations are enforced by the Campus Security Office and violations are cited to the San Mateo Municipal Court. Student parking is provided in Lots 1, 2, 3, 9, 10, 10A, 15, 16, 17, with parts of Lots 2 and 3 having some spaces reserved for permit parking. Locations are shown on the campus map. Questions regarding traffic should be directed to the Security Office or the Student Activities Office in the Student Center.

High School Diplomas

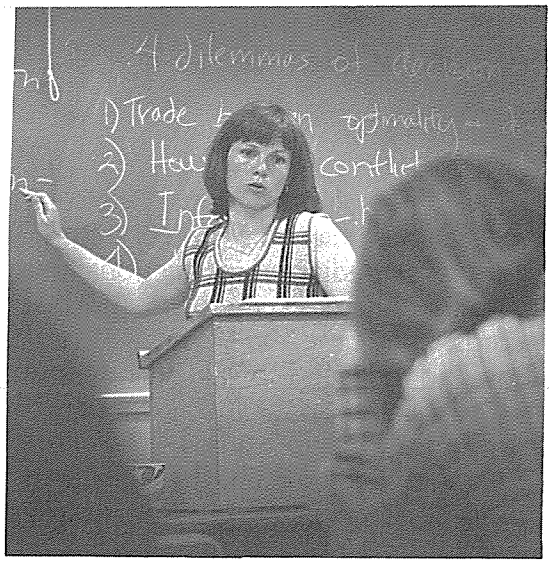
The college does not issue high school diplomas. Students who wish to complete requirements for the diploma should consult the high school they last attended to determine graduation requirements. College courses used to satisfy a high school diploma requirement may not be used toward a college degree. 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 347-9878 and asking for the Adult Education Counselor.

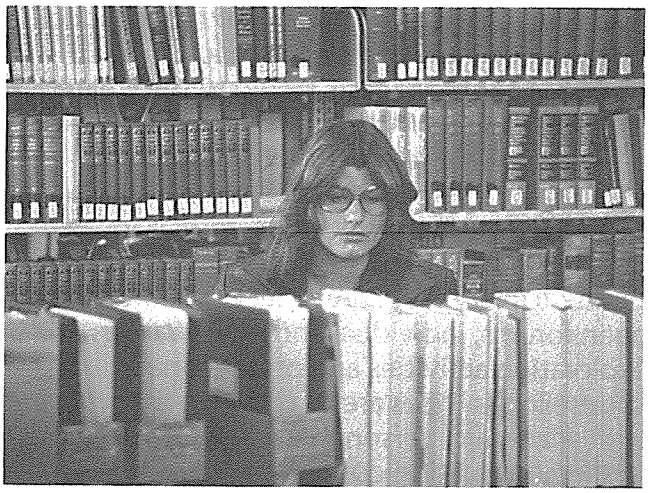


The Learning Resources Center

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. Instructional Service provides library services, closed and open-circuit television, radio, audio listening, coordinated instruction, media equipment services, instructional design and development, and a variety of other services for students and faculty. 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-stack areas, as well as a typing room with a copy machine and group study facilities. In the library collection, there are approximately 100,000 volumes, 850

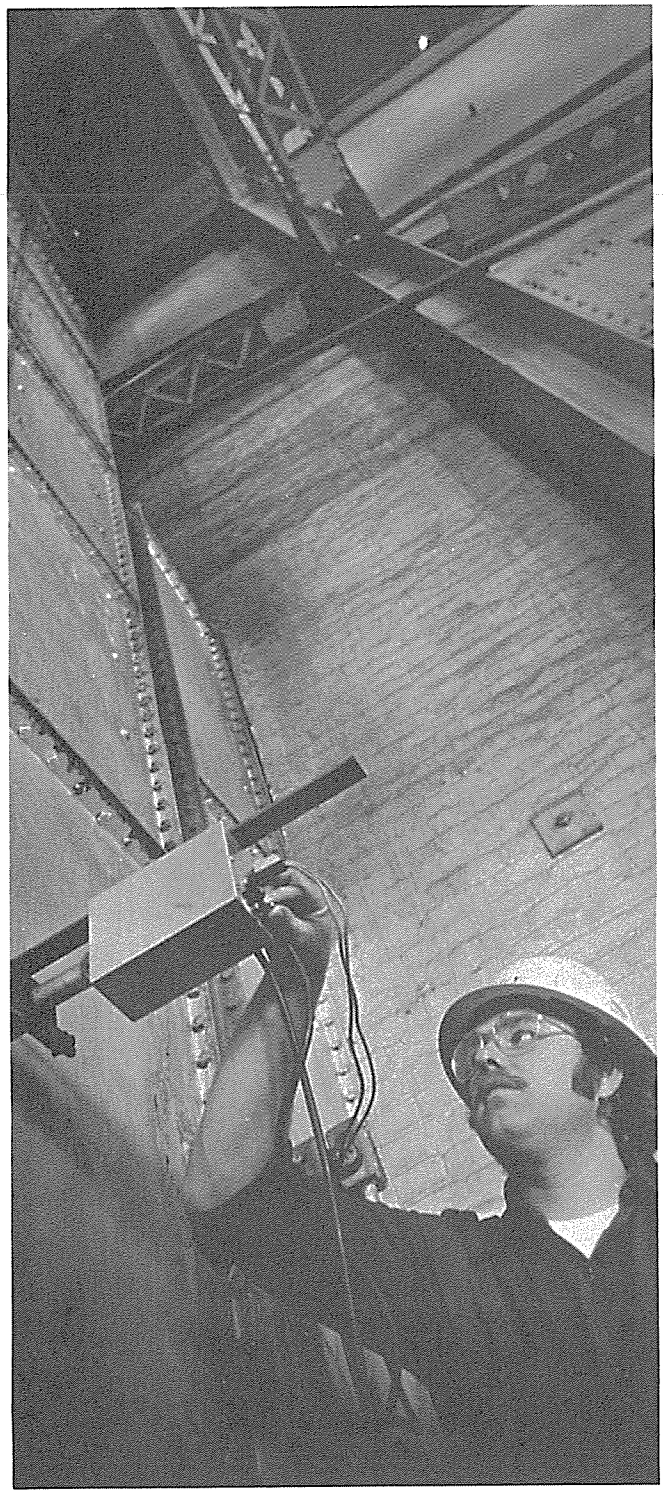

りこんしています
幸雄さんの家族
は今年の
ろこ





carefully selected periodicals, and 3,200 reels of microfilm. The Library is open each school year, Monday through Friday, and on Sunday afternoons. Specific hours for the daily schedule and for holidays are posted at the Library entrance.

The lower floor houses the Coordinated Instructional 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 Office of Instructional Development 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 open-circuit, the College of the Air, KCSM-TV, Channel 14, 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.

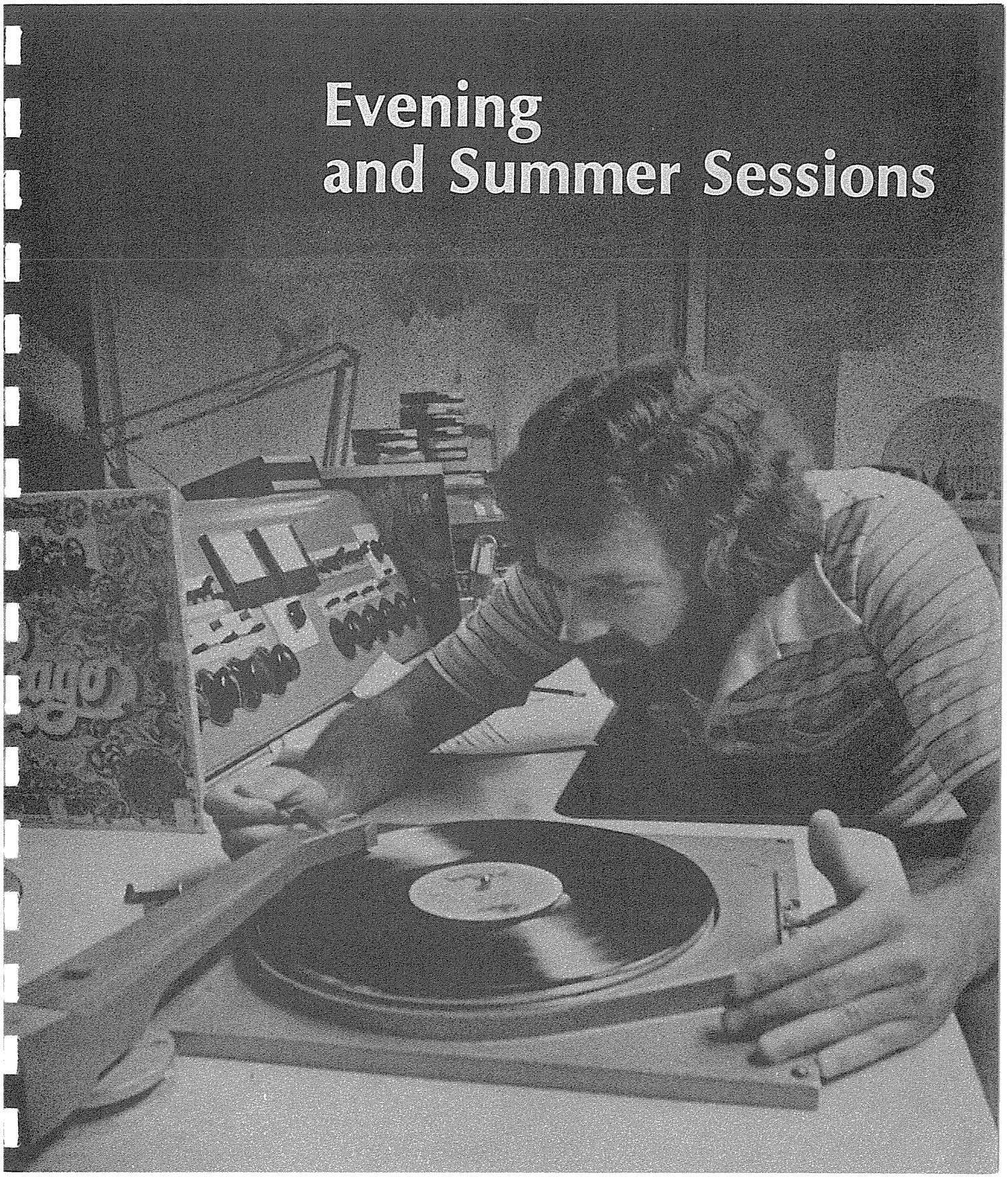
KCSM-FM broadcasts stereo to the greater Bay Area on 91.1 Mhz, providing a wide variety of programming to meet both student and community needs.

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.

Located adjacent to the Career Development Center is the Cooperative Education and Student Placement Department.

The Student Placement Office is a source of on-campus and community employment for students and alumni. Cooperative Education is an instructional program offering students an opportunity to earn credit for learning on the job. Learning is monitored by CSM instructors from appropriate disciplines who assist students in setting realistic goals designed to improve and/or increase skills.

Evening and Summer Sessions



Evening & Summer Sessions

Evening Session

The evening session program is the product of an educational philosophy which asserts that the College of San Mateo serves not only the young people of the community but its adult members as well. It provides 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 Continuing Education 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 disqualification or dismissal.

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 $44 per unit for non-credit courses at the time of registration.

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 the 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 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. Counseling 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 interview. Contact the Office of Admissions and Records for an appointment.

"Vocational Guidance and Counseling," a three-week course comprised of batteries of tests and their evaluation, is offered twice each semester.

Withdrawal Procedure from Evening or Summer Sessions

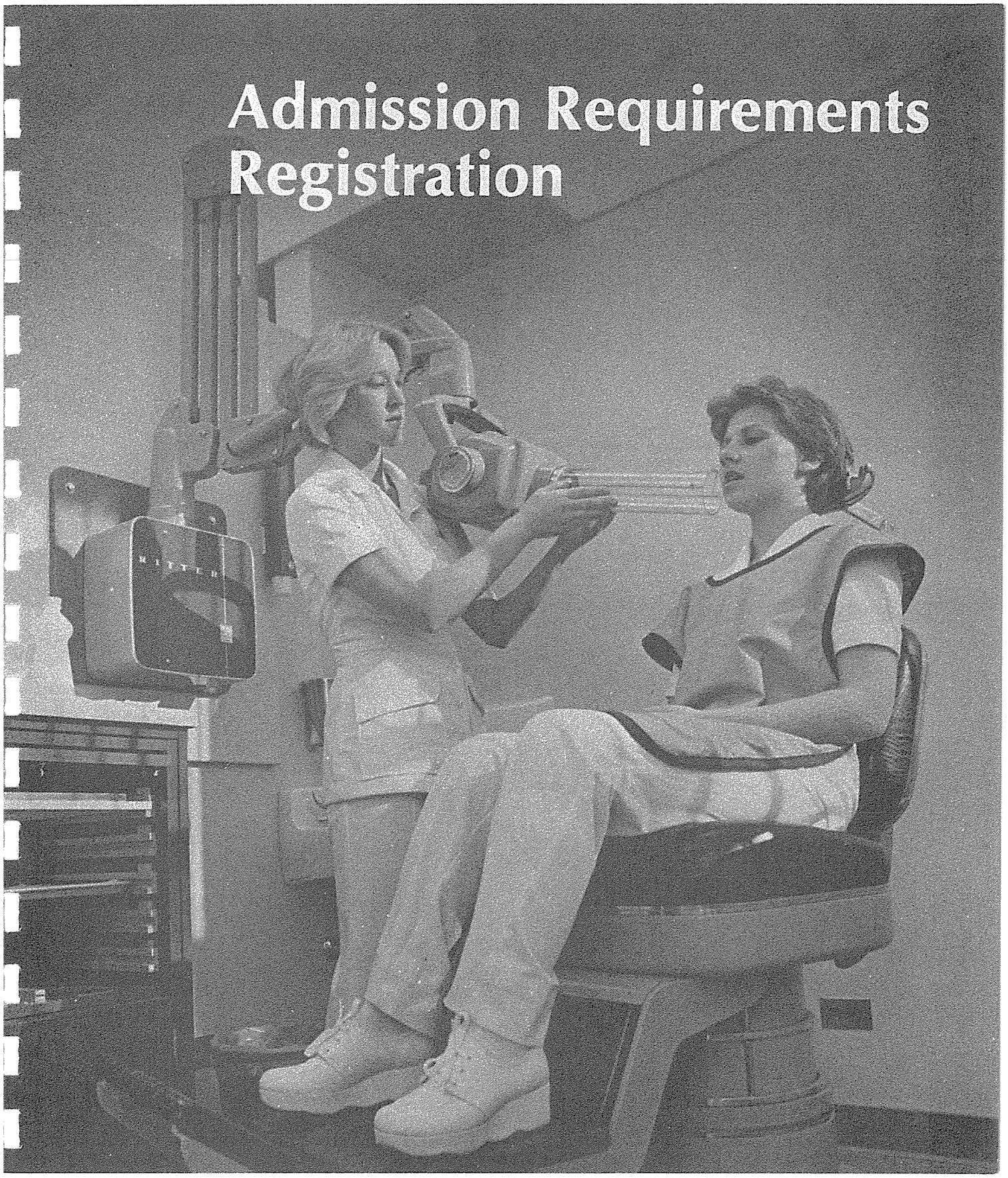
Students wishing to withdraw from an evening or summer session class must obtain a permit to withdraw from the Office of Continuing Education or the Office of Admissions and Records, Building 1, second floor.

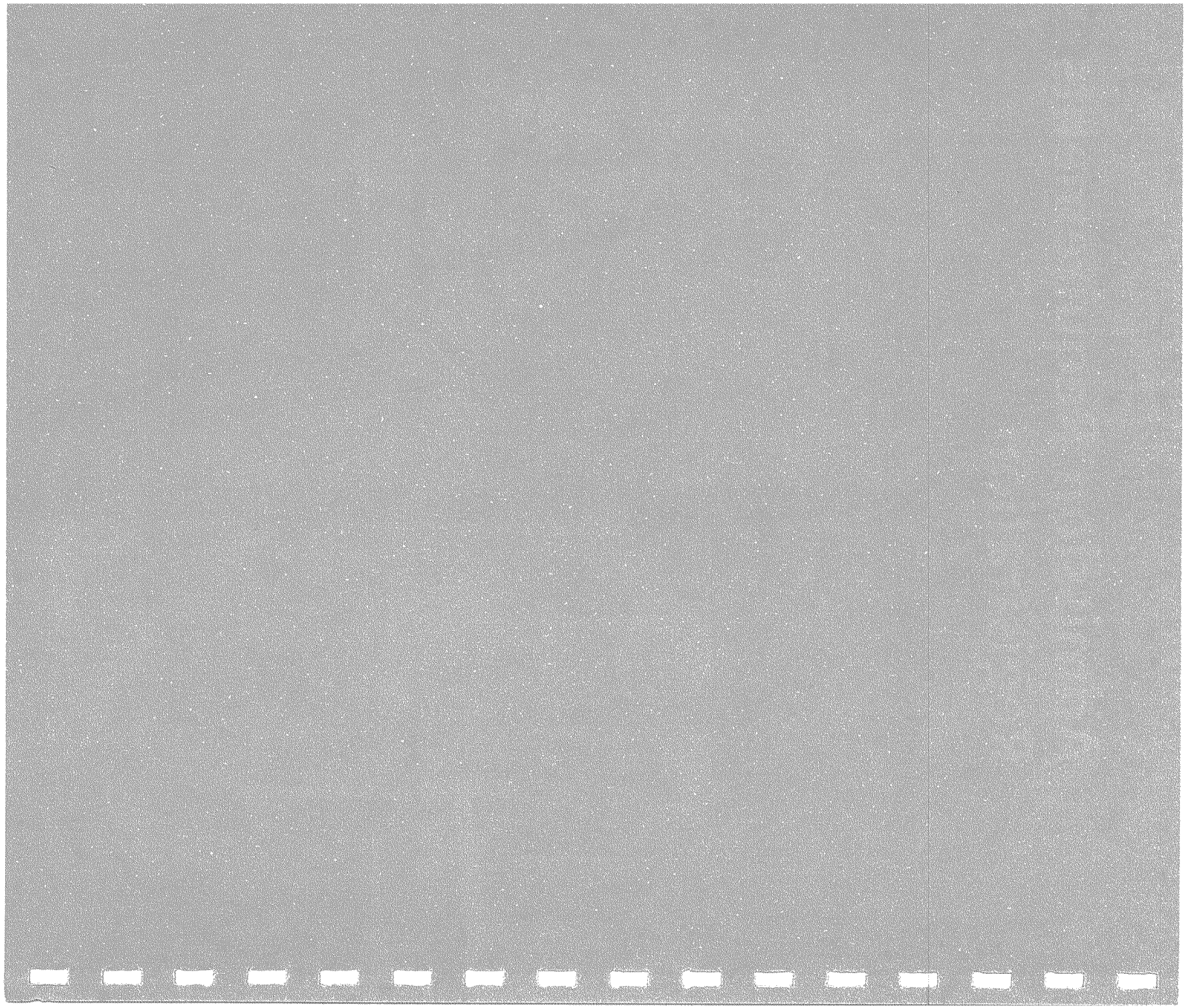
Withdrawal from evening and summer classes is the responsibility of the student. A student who does not withdraw may receive a grade of "F."

Summer Session

A balanced offering of day and evening summer session classes enables students to accelerate their programs or satisfy course or curriculum requirements. The Summer Session also affords opportunity to exceptionally able high school students after completing their junior years 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





Admission Requirements — Day Classes

Admission

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

Admission Requirements — Day Classes

Students applying for admission to the College of San Mateo 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.

Students who do not complete the transcript and test requirements for admission (2 and 3 above) are limited to a maximum of 8 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.

High School Graduates

Normally, graduation from high school or other schools of equivalent rank or successful completion of a high school equivalency examination 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.

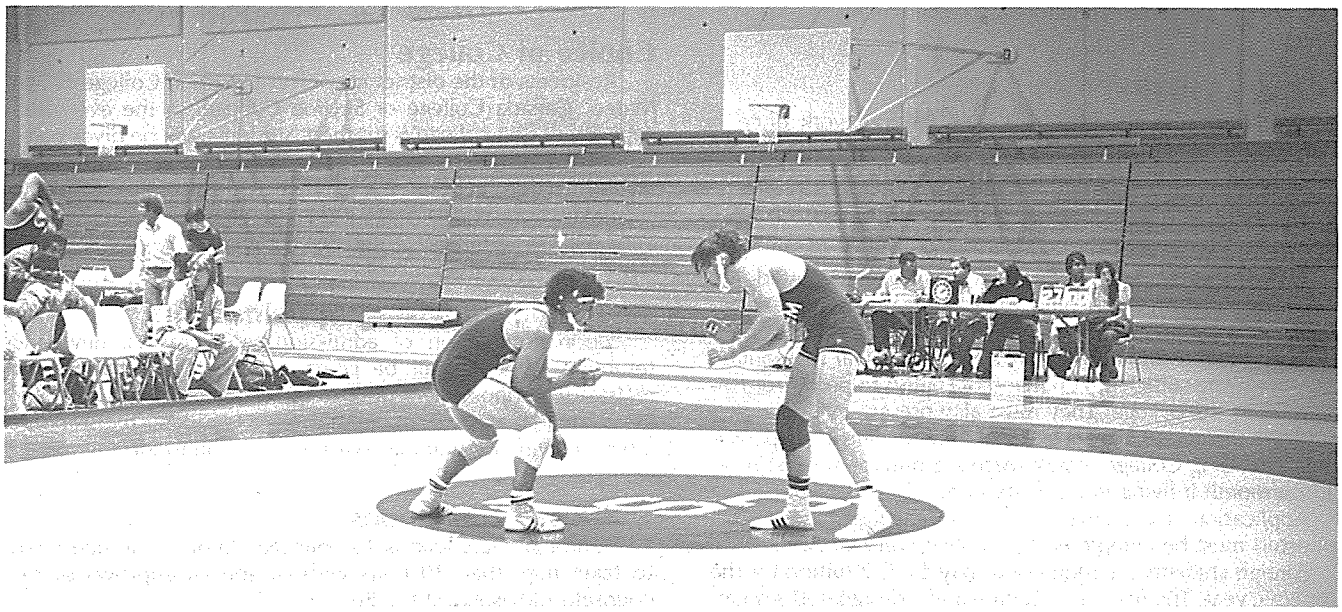
Any person who is not a legal resident of California or who is a legal resident of another community college district in California should see Residence Requirements for Admission. See pg. 42.

Transfers from Four-Year Institutions

Transfer students from four-year institutions are subject to CSM Academic Policy. See pg. 49.

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 disqualified 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 pg. 49.



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 Academic Policy. See pg. 49.

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 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.

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 eight 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 A.A./A.S. degree and/or certificate, or who plans to transfer to a four-year college, should complete all admission requirements.

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 Admissions and Records.

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 $150 to $175 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 $1,322 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.

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 $44 per unit with a maximum of $661 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 minors'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 must submit a written release from the superintendent of the community college district granting the student permission to enroll at 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 $44 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 taken into consideration if such diversion becomes necessary.

Admission requirements must be completed before a student will be permitted to register. See pg. 41.

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 permitted to take more than 19 units without special approval of the counselor/advisor and the Registrar.

Registration — Day Classes

Students working full time or those in the military service should limit their programs to 8 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 Services fee each semester. The summer session fee is $2.

Program Changes

No changes of program will be permitted during the period of registration.

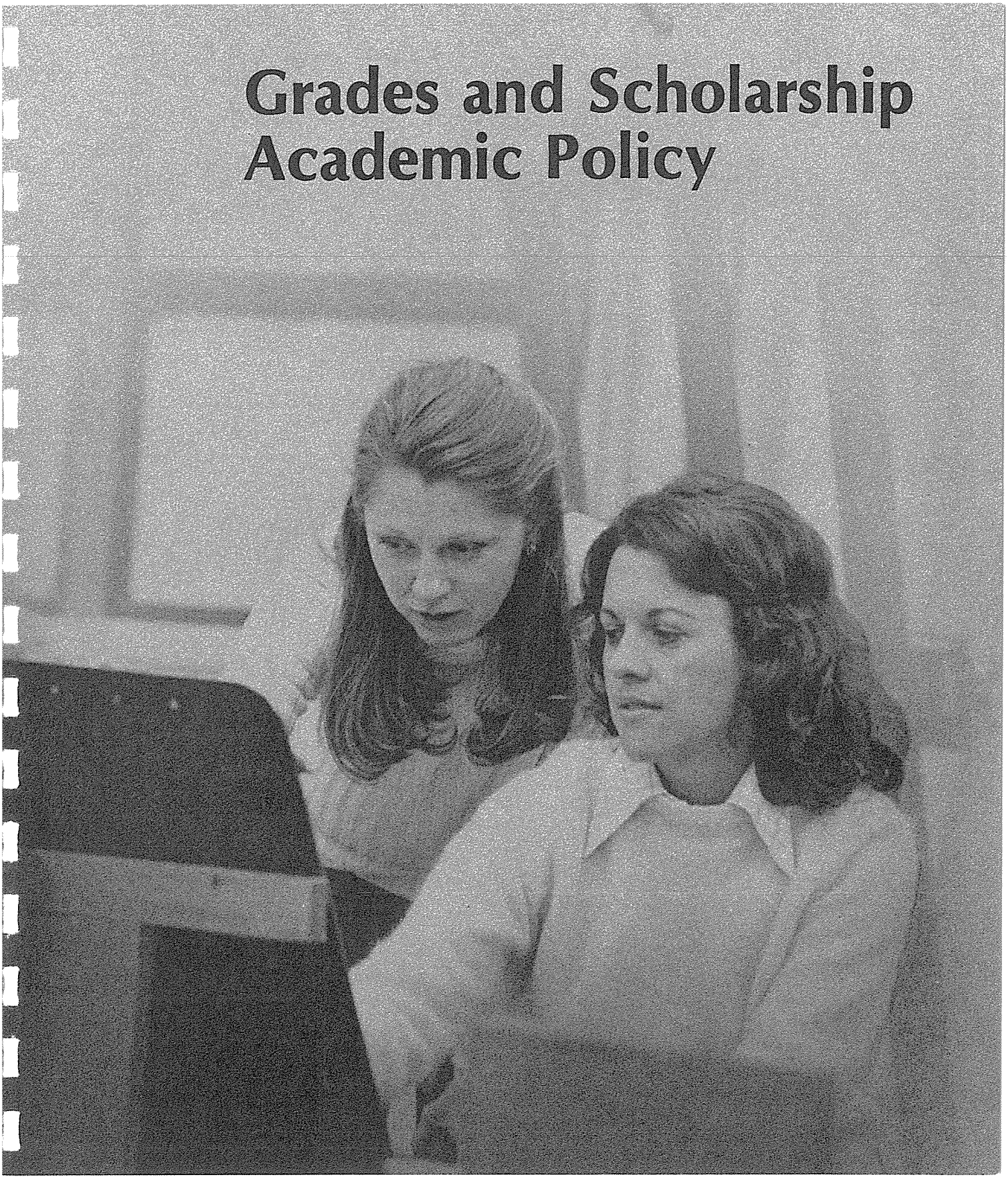
A program once entered by signing up for any given set of classes may not be changed in any way, unless written permission to do so is granted a student by a counselor/advisor, and the student completes the prescribed change-of-program procedure.

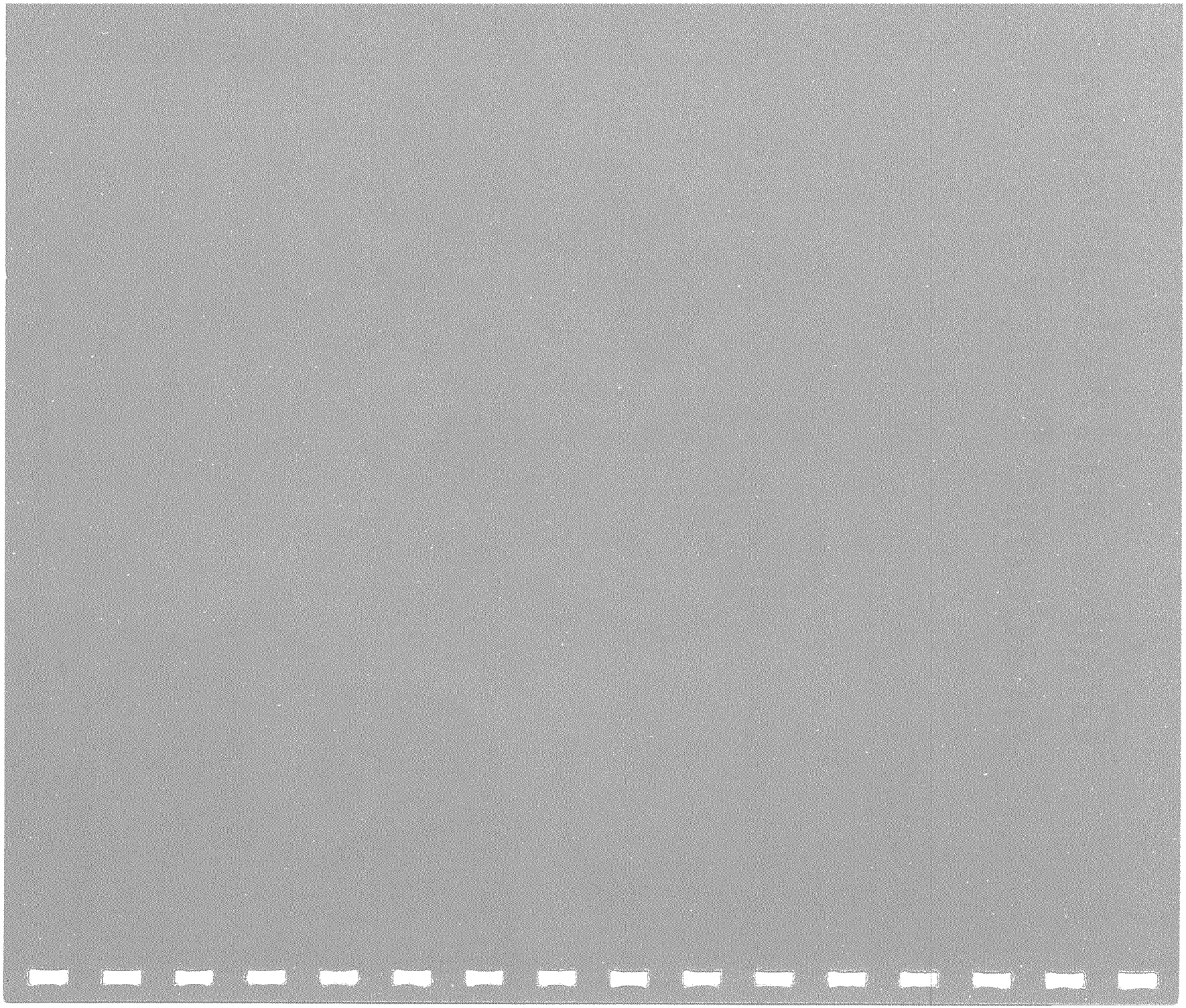
Changes of programs will be permitted only for students who have valid reasons for such requests.

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.

A student may drop a semester-length course, whether passing or failing, at any time through Friday of the second census week of a semester without incurring a penalty of a semester grade of "F"— Failed. After this date, if a student drops a course in which he or she is failing, the student will receive a semester grade of "F." A student may drop a short course, whether passing or failing, at any time during the first half of the course session. Students who are passing may, with proper authorization, withdraw from any class prior to the beginning of final examinations in order to receive a "W" grade. For further information see section on "Grades and Grade Points," especially the mark of "W."

Grades and Scholarship Academic Policy





Grades and Scholarships

Units Work and Credit

A "unit" represents one hour weekly, during one semester, in lecture or recitation with the necessary preparation time, or three hours in laboratory or other exercises not requiring home work for preparation.

A schedule of 15 college units presupposes that the average student will devote approximately 45 hours per week to class attendance and preparation.

If employed, a student must add the hours worked to the total load. The number of units attempted times three plus the hours per week employed should not exceed 60.

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 only "credit" or "no-credit" are given. The unit 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. Addditional time may be provided upon approval of the instructor and the Office 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 44). A "W" grade will NOT be allowed 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.

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 schools and other colleges will not be forwarded.

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

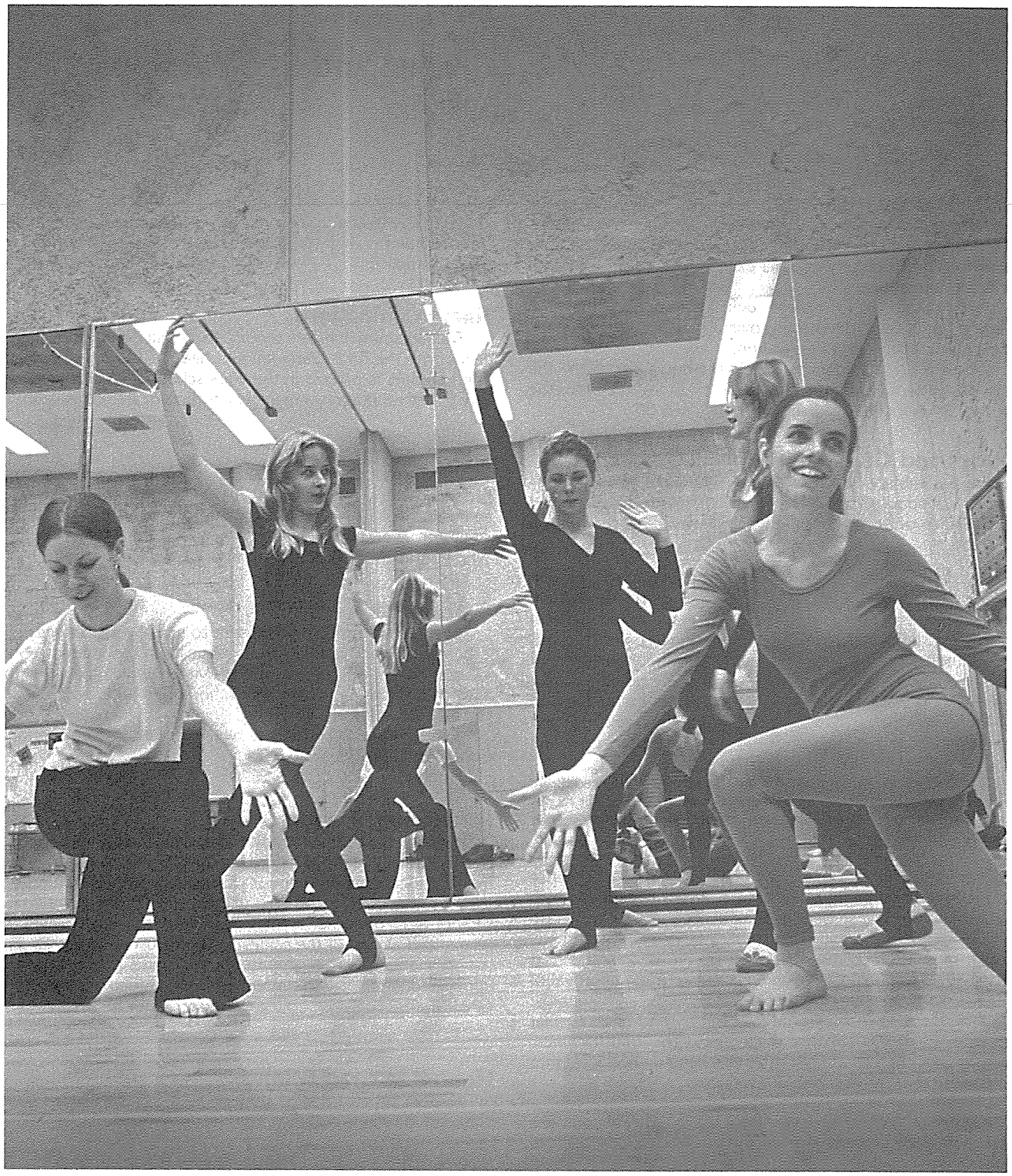
Scholarship Honors

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 Gama Sigma is awarded upon graduation if the student has maintained a cumulative GPA for all recognized college work of 3.5 or higher.

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 12½ units in one semester and 15½ units in a second semester, the cumulative units are 28, requiring a grade-point total of 56.)

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 circumstances:

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 8 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.)

A probationary student may continue in school, but a further deficiency of any knid will result in dismissal.

These two retention systems will be applied in such a manner that a student may be placed on probation under either system and subsequently be dismissed under either system.

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.

Grade Alleviation Policy

A maximum of two semesters or three quarters of work which is substandard 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. Alleviation of work may be accomplished in the following ways:
   2.1 Students applying for an associate degree must have completed 15 semester units (22 quarter units) with at least a 3.0 GPA, or 30 semester units (45 quarter units) with at least a 2.5 GPA, or 45 semester units (67 quarter units) with at least a 2.0 GPA since the work to be alleviated was completed.
   2.2 Students applying for a certificate program must have completed 6 semester units (9 quarter units) with at least a 3.0 GPA, or 12 semester units (18 quarter units) with at least a 2.5 GPA, or 18 semester units (27 quarter units) with at least a 2.0 GPA since the work to be alleviated was completed.
   2.3 Students who have already completed a certificate program and who then apply for an associate degree must be governed by the provisions of 2.1.
3. A semester or quarter is defined as all work attempted during a single academic term. The terms need not be consecutive.

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 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.

The following regulations regarding attendance have been approved by the Board of Trustees and will be enforced:

A student may be dropped from class whenever the total

hours of absence from class equal twice the number of hours the class meets in one week. Absence means non-attendance, and includes non-attendance for illness or personal emergency. However, absences due to a student's participation in a school-sponsored activity should be considered as "excused" absences. 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 should be further noted 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. In all cases the decision of the instructor is final.

Policy of Nondiscrimation

College of San Mateo is committed to equal opportunity regardless of sex, race, color, religion or national origin, for admission to the College, enrollment in classes, student serivces, activities, financial aid, and employment in accordance with provisions of Title VI of the 1964 Civil Rights Act and Title IX of the Educational Amendments of 1972 (45 CRF 86).

Inquiries concerning these laws and policies may be directed to the Director of Special Programs and Services, Administration Building, Room 209, telephone 547-6181.

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 Title IX of the Educational Amendments of 1972 (45 CRF 86) 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 made toward their resolution.

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 Policy

A regularly enrolled student may be permitted to obtain credit by examination in subject matter fields in which he/she is especially qualified through previous training for which credit or advanced placement has not previously been given.

A student will not be permitted to challenge a course for credit by examination until he/she has completed a minimum of 12 units with a 2.5 grade-point average. Challenge is limited to those courses recommended by the academic divisions and approved by the Office of Instruction. The examination may include written, oral, or skill tests or a combination of all three, and will be sufficiently comprehensive to determine that the student has essentially the same knowledge and skills as a student who successfully completes the course. The grade received will be entered on the student's record.

Letters requesting to challenge a course for credit by examination must be submitted to the Academic Review Committee, Office of Admissions and Records.

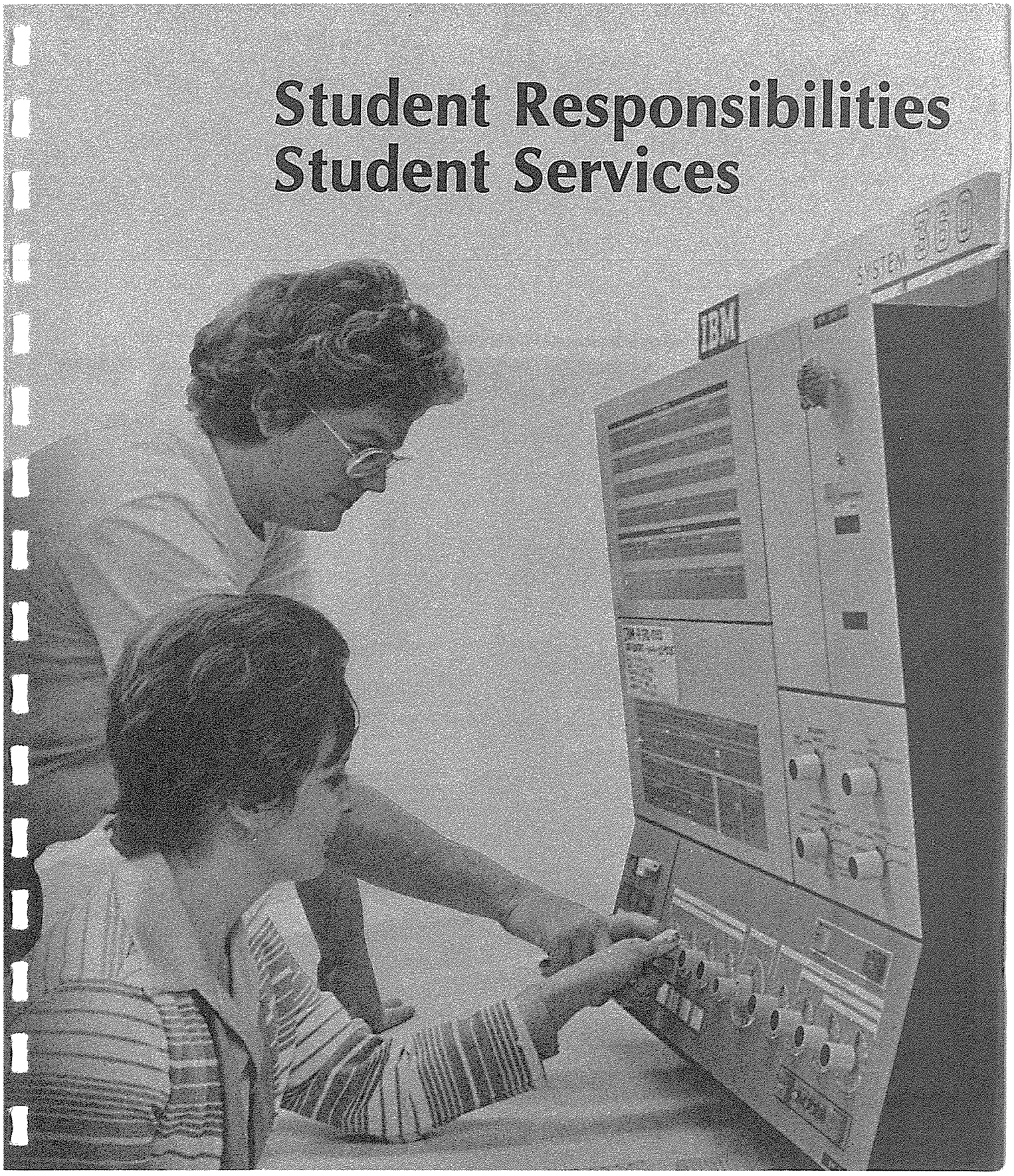
Academic Review Committee

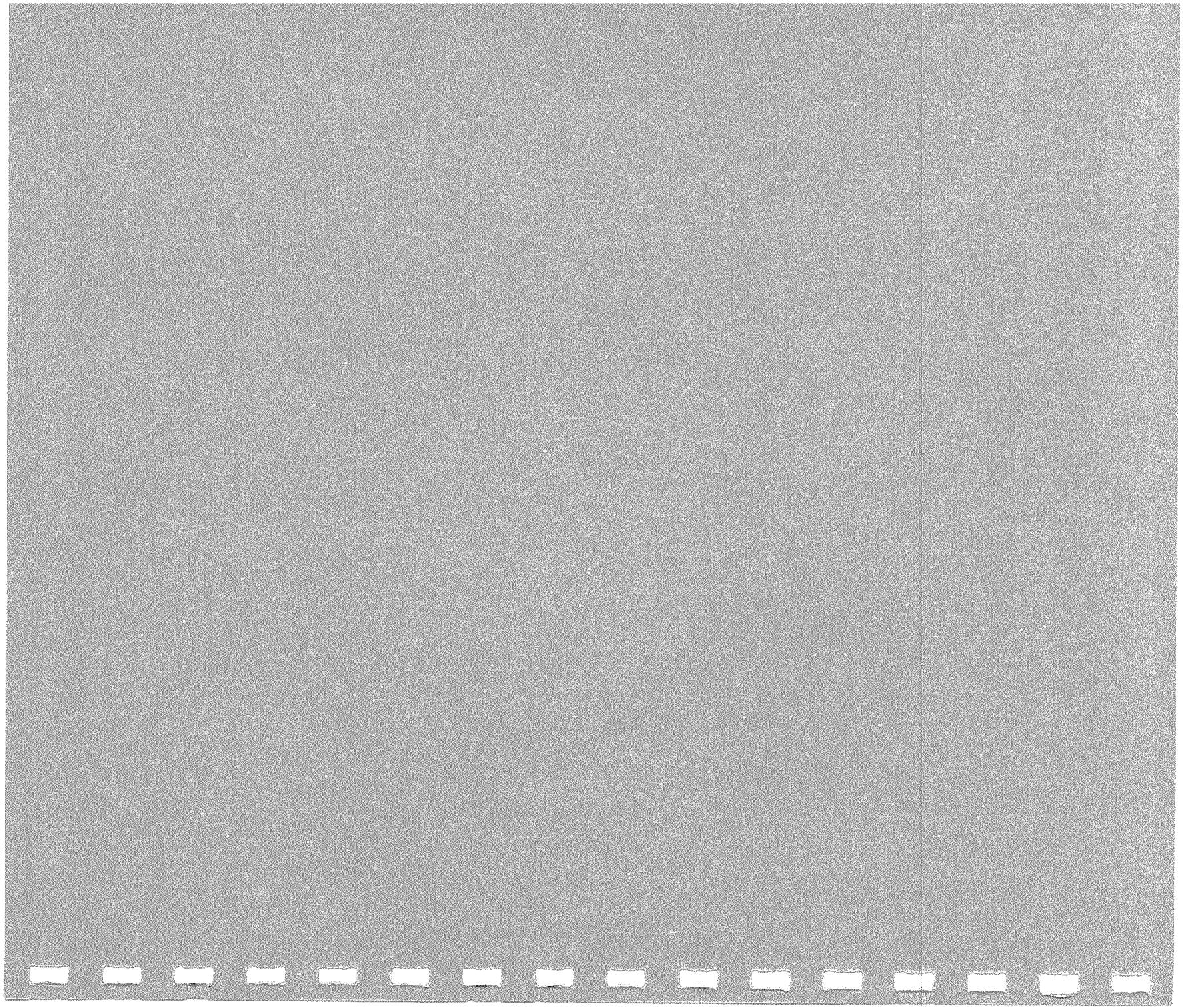
The Academic Review Committee has as its purposes and responsibilities the evaluation, enforcement, interpretation, and recommending exceptions (for cause) to academic regulations.

Repeated Course Policy

Ordinarily, units for a course which was completed and then repeated will not be counted as units earned toward an AA/AS degree or for transfer to another college. However, a student who has received grades of "D," "F," or "Inc" for courses taken at the College of San Mateo may repeat these courses at the College of San Mateo. Upon petition students may have the grade of the repeated course used in computation of the grade point average. Petitions are avilable in the Office of Admissions and Records.

Student Responsibilities
Student Services





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.

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 under the Education Code of the State of California. It is the policy of College of San Mateo to dismiss students when their membership in such organizations becomes known.

Emergency leave of Absence

Absences for medical reasons 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 should request emergency leave from the Student Health Center. Students should report to the Health Center for a clearance before returning to classes.

Students who will be absent from any class or classes for one week or longer for other personal emergencies should request an emergency leave from the Director of Counseling Services.

If a medical or personal emergency requires absence of as much as two weeks, the student should consult with a counselor/advisor to review his/her program and the advisability of continuing in classes.

Withdrawal Procedures from Day Classes

Students unable to complete a course at any time after registration must obtain a permit (add/drop slip) from their assigned counselor/advisor to withdraw from that course.

Part-time students (taking eight units or less) should report to the Drop-In Advisor in Building 1-102 for a permit to drop a class.

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 eight units or less) may obtain this petition from the Drop-In Advisor, Bldg. 1-102.

Withdrawal procedures should be completed within five days of the last date of class attendance and the properly executed petition returned to the appropriate office to avoid possible penalty grades. (See Academic Policy, Section I, Pg. 49).

At any time through Friday of the second census week a student may withdraw, whether passing or failing in courses, without incurring grades of "F." A student who withdraws after the deadline will receive a grade of "F" for any course in which he/she is failing.

A student may drop a short course, whether passing or failing, at any time during the first half of the course session. Students who are **passing** may, with proper authorization, withdraw from any class prior to the beginning of final examinations.

Student Services

STUDENT SERVICES AND ADMINISTRATIVE AFFAIRS

Dean of Student Services
Allan R. Brown

Director of Special Programs and Services
Philip D. Morse

Director of Admissions and Records
Herbert R. Warne

Director of Counseling Services
Aline Fountain

Director of College Readiness Program
Jackman LeBlanc

Foreign Student Advisor
Gerald J. Frassetti

Health Services
To be appointed

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

Physically Handicapped Enabler
Jacqueline Rose

Psychological Services
Charles M. Devonshire
Anita Fisher
Noel W. Keys
James Roach

Assistant Registrar
Edith N. Hopkins

Career Development Center
Claudia L. Cassidy

Coordinator of Security
Harold S. Bogan

Coordinator of Student Activities
Rusty Wilson

Coordinator of Veteran Affairs
Frank Bianchino

Financial Aids Officer
Leatha E. Crump

Student Placement
Ursula Sheppard

Student Center
Bookstore Manager—Andra Morgan
Cafeteria Manager

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
Herbert W. Free

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

College Readiness Program
Elizabeth Nakagawa
Adrian Orozco
Debbie Upshaw

Consumer Arts and Sciences
Mamie E. Ireson

Cosmetology
Agnes Eshoo

Data Processing
Douglas B. Crawford

Dental Assisting
Elizabeth Witzel

Drafting Technology
Dean Chowenhill
Clois A. McClure
H. Sanford Gum

Education
Eric Gattmann

Electronics Technology
George Angerbauer
George Bramlett

Engineering
Douglas B. Crawford
Ernest L. Multhaup

General Education
(Liberal Arts, General Education, No Major Program, Special Program, Undecided Major Program, Career Specialists)
Claudia L. Cassidy
J. Kyle Clinkscales
Carol A. Fouts
Eric Gattmann
Robert S. Howe
Alan A. Hynding
Richard Lowe
Carolyn Ogletree
Jo Ann Rock

Language Arts
(Dramatics, Radio, Telecommunications, Speech, English, Foreign Languages, Journalism)
George W. Short
Bruce Cameron
Dan Odum

Life Sciences
Mary Jane Baker (Sabbatical Leave)
George Blitz
J. Kyle Clinkscales

Manufacturing Technology
Chauncey J. Martin
Clois A. McClure

Mathematics
Douglas B. Crawford
Ernest L. Multhaup

Music
R. Galen Marshall

Nursing
Frances Henderson (Sabbatical Leave)
Mary Schoenky

Physical Education
Carol A. Fouts
Herbert H. Hudson

Physical Sciences
J. Kyle Clinkscales
Michael Chriss
William Glen

Real Estate
Herbert W. Free

Social Sciences
Eric Gattmann
Alan A. Hynding
Musonda Mantabe
Richard S. Phipps
Kern Richmond

Technical Illustration, Machine Tool Technology, Welding Technology
Chauncey J. Martin
Clois A. McClure
Dean Chowenhill

Veteran Affairs
Frank Bianchino

Women's Re-entry Program
Rose Marie Beuttler

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.

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

Health Service

The Health Center is in Room 226 of the Administration Building. It is staffed by a public health nurse and a receptionist-secretary. 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. Upon return, the student should obtain a clearance slip from the Health Center.

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

An ill or injured person who is unable to communicate will be sent to the emergency room at Chope 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 offers 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 services described above, the fee provides coverage by an emergency sickness and accident insurance program applicable *when the student is on campus or at a school sponsored event.*

In addition, the college has endorsed a voluntary health insurance program for students who are not covered by their own or their parents policies. The voluntary policy provides for 24 hour, around-the-clock protection at an advantageous group rate. Detailed information is available in the Student Health Center.

Psychological Services

Psychological counseling is available to all students at the college. The Psychological Service Center provides individual, confidential counseling to any student. The Psychological Services staff tries to help the student solve personal, emotional and interpersonal problems. The staff will also try to assist students in reducing the stumbling blocks that may prevent them from fully developing their potential and obtaining maximum benefit from their college experience. Some counseling is available in small groups on a semester or shorter basis. For students needing special attention or assistance, a referral may be made to a community mental health clinic, social agency or private therapist.

Appointments may be made with Psychological Services staff , in person, by telephone or through a counselor or 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 153.) 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 also useful to the student to verify or make effective educational and vocational plans.

Career Development Center

The Career Development Center at CSM,located in the lower level of the library, offers a variety of services and programs to students and members of the community designed to assist individuals in career exploration. 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, which is open daily from 8:00 a.m. to 4:30 p.m. The Center is also open several evenings per week. Please call 574-6571 for information.

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. College personnel are available throughout the day for placement services.

Financial Aid

College of San Mateo participates in federal and state scholarship, loan, grant and work-study programs. Work-study placement is available in both on-campus and community jobs related to the student course of study. In addition, the San Mateo College Foundation administers funds from private sources which are available to students as scholarships, loans and grants.

Students must be enrolled in 12 units to be eligible. For detailed information and application for financial aids, students should contact the Financial Aids Officer, Administration Building, Room 221. Scholarship applications are available through the office of the Director of Special Programs and Services in the Administration Building. Small emergency loan applications are available through the office of the Director of Counseling Services, in the Administration Building.

College Readiness Program

The College Readiness Program is 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 College Readiness Program office, and receive counseling from the counselors assigned to the Program.

The College Readiness Program also actively recruits students for its tutorial program. The students selected have specific skills in academic areas and a sincere desire to assist others in their efforts to succeed in course work.

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 College Readiness Program staff also encourages and supports students' participation in clubs and organizations which will enhance their ethnic awareness. The College Readiness Program offices serve as meeting areas for the Program's students.

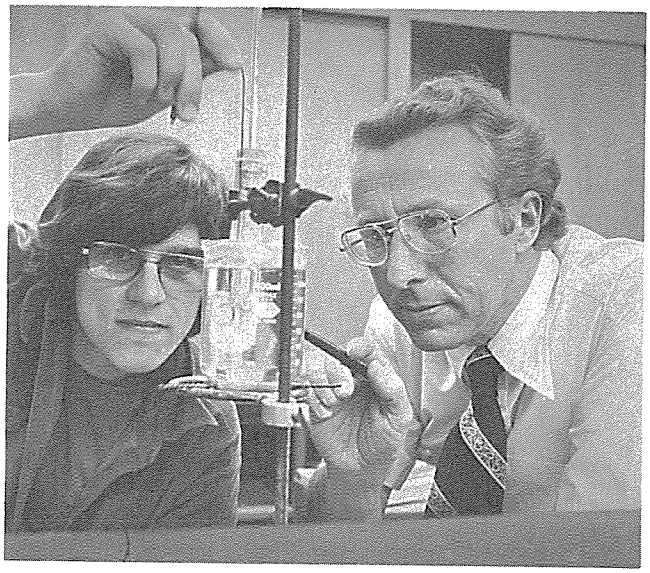
The offices are located in Building 20, Room 107. All personnel can be contacted for information by telephoning 574-6154.

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 Learning Center 97, 98, and 99. 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, brailling, special parking permits, access to classrooms, orientation to the campus and special arrangements, may contact the Enabler in the Learning Center. Pre-counseling interviews are provided to set up assistance services before the student enrolls in classes.



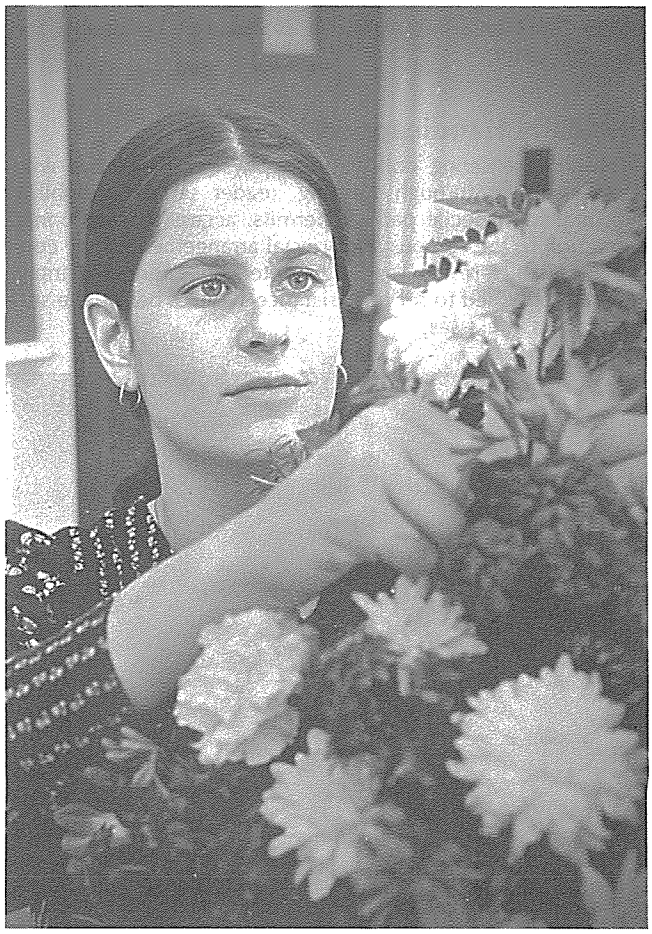
Veterans' Affairs

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. All veterans who were discharged other than under dishonorable conditions are eligible for educational benefits if they served a minimum of 181 days of active duty after January 31, 1955.

The Office of Veterans' Affairs is located in the Administration Building (Bldg. 1). The office is staffed from 8:00 a.m. to 4:30 p.m., Monday through Friday, and from 6:00 to 9:00 p.m. Monday through Thursdays.

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.



Women's Re-entry Program

The Women's Re-entry Program is a program designed for women whose education has been postponed or interrupted. Counseling and tutorial assistance are offered, together with a coordinated instructional program at hours convenient to women with school-age children.

Tutoring in a wide range of subjects is available for women 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, Bldg. 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:

ASCSM President
ASCSM Vice-President
Vice-President of Evening Students
Student Programs Board Representatives (2)
Business Division Senator(s)
Fine Arts Division Senator(s)
Health Occupations Division Senator(s)
Liberal Arts Division Senator(s)
Life Science Division Senator(s)
Physical Science/Math and Engineering Senator(s)
Social Science Division Senator(s)
Technology Division Senator(s)
Unclassified (no declared major) Division Senator(s)
Special (enrolled in 8 units or less) Division Senator(s)

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
Recreation/Games Area Committee
Poetry and Literature Committee
Women's Programming Committee
Innovative Services Committee
Innovative Programs Committee
Minority Programming Committee
Arts and Exhibits Committee

Student Associations

Student Senate Advisors
Philip Morse, Rusty Wilson

Student Programs Board Advisors
Philip Morse, Rusty Wilson

Judicial Council Advisor
John Goehler

Organizations

In order to secure the most from college life, a student should 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.

Association of Technical Draftsmen
Clois A. McClure

Alpha Epsilon Rho
John Boone

Alpha Gamma Sigma
Al Acena

Bulldog Track Club
Robert Rush

Ceramics Club
Vince Rascon

Christian Science Organization

Collegiate Christian Fellowship
Robert Anderson

Epsilon Delta
Elizabeth Witzel

Eta Epsilon
Grace Sonner

Experimental College
Gertrude Steele

Fine Arts Club
Joe Price

Freestyle
H. Sanford Gum

Gay People's Union
Anita Fisher

Horticulture
Alexander Graham

International Club
Zelte Crawford

La Raza
Adrian Orozco

L.D.S. Student Association
George Angerbauer

Organization of Arab Students
Maurice Fitzgerald

Samahen
Al Acena

Ski Club
Lorne MacDonald

Save the Chinese Language
Peter Wang

Sculpture Club
Ray Lorenzato

Student Activities Office

The Student Activities Office is located at the north end of the Student Center. It is purposely located in one of the heaviest student traffic areas on campus. The Student Activities Office is a drop-in type of office and is the 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 pri-

vate 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 the College of San Mateo:

The San Matean — A student newspaper published weekly, serving a two-fold purpose of providing full coverage 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.

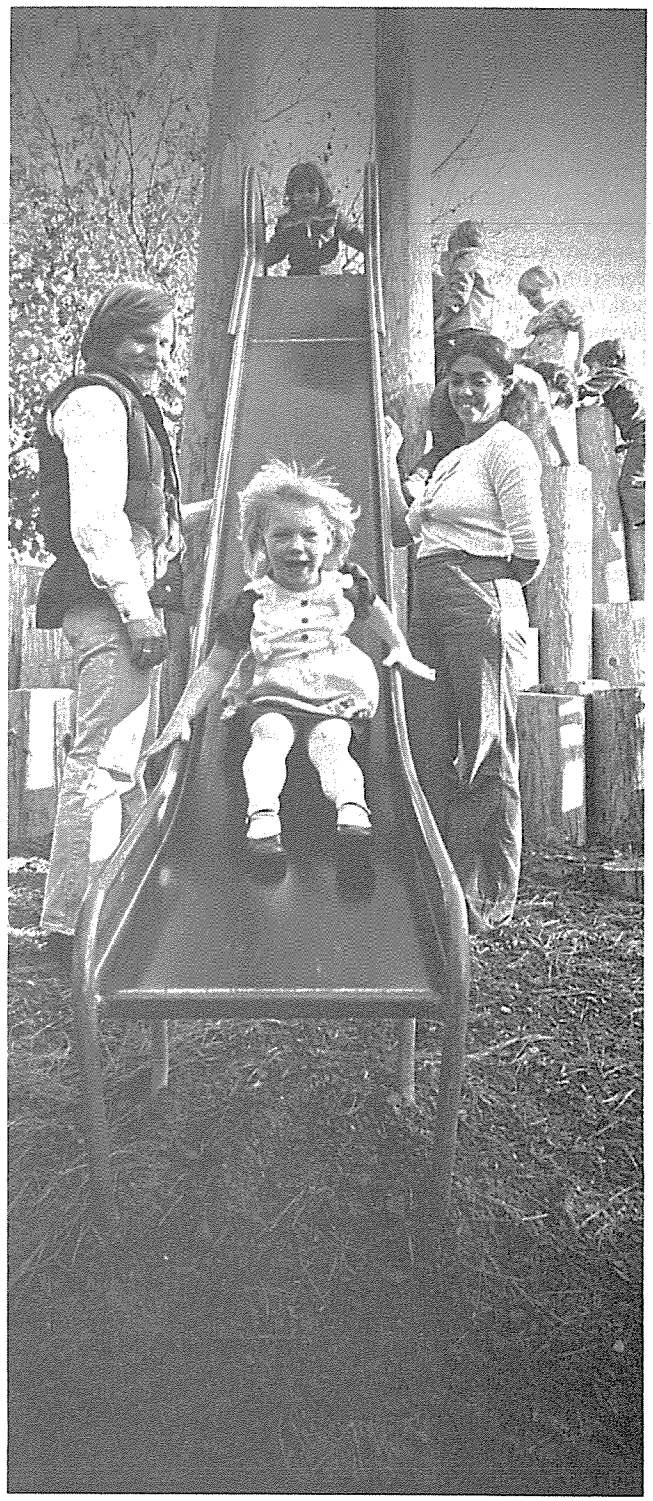
Pendulum — A student art and literary magazine published each spring, sponsored by the English Division. Each year the "Pendulum" provides a showcase for the talents of the creative writing and art classes, as well as informative and timely articles by other interested students.

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 — A booklet distributed by the Office of Student Services to new students. Designed to assist with preparation for registration, it discusses program planning, choice of classes, use of the schedule of classes and long-term program planning.

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 sufficcient 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 and the Bay Area Colleges Association of Women's Athletics for the benefit of those students interested in team competition. Sports offered are : Baseball, Men's Basketball, Women's Basketball, Cross Country, Women's Tennis, Football, Golf, Women's Softball, Swimming, Tennis, Track, Water Polo, 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 or the California State Athletic Committee.

The following basic principles pertain to all matters of eligibility:

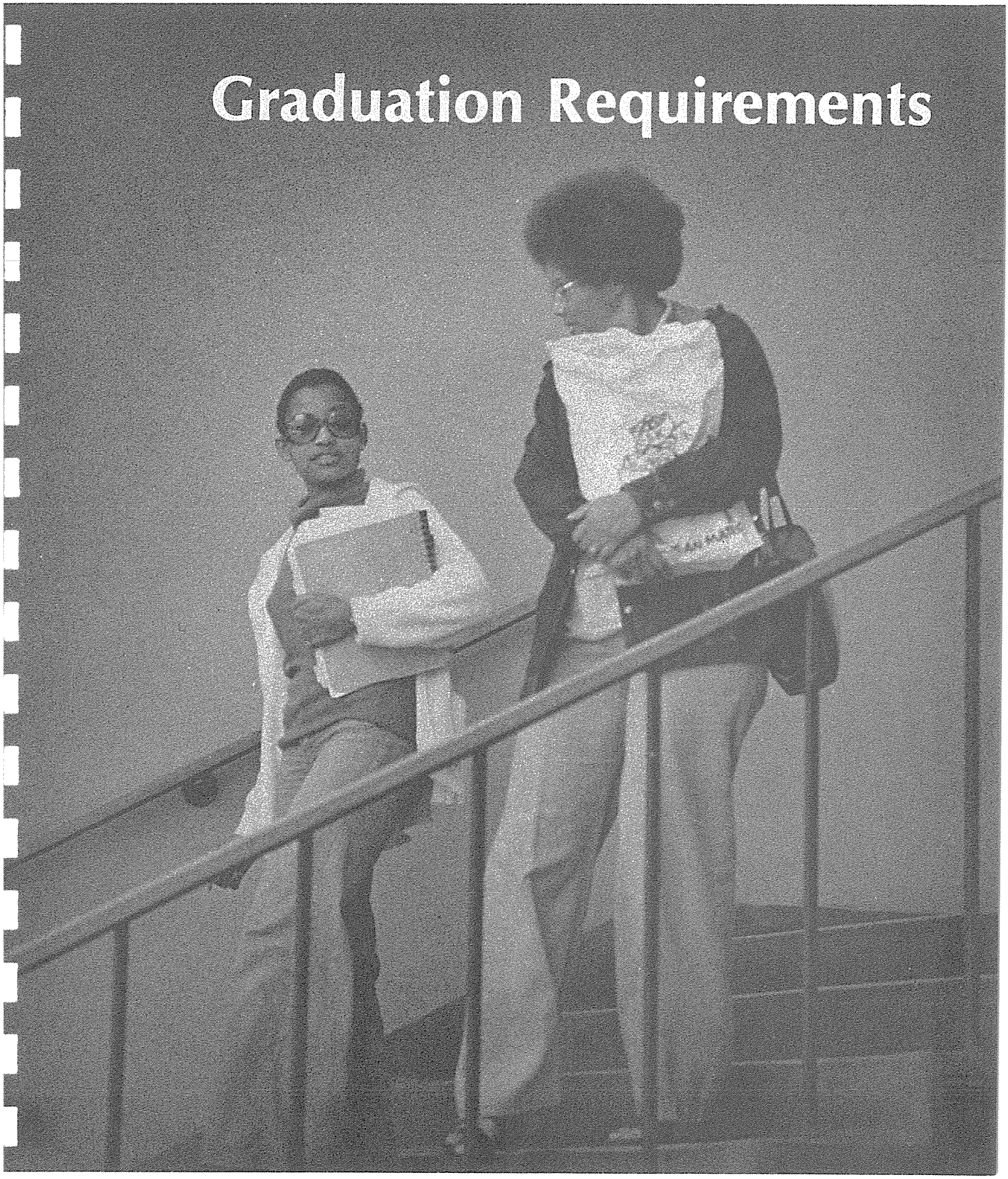
1. No student shall represent this college in any athletic contest unless enrolled in a minimum of any 12 units in a regular or special course as defined in the curricula of this institution.

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 attended as a full time student the previous two semesters.

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

Graduation Requirements



Graduation Requirements

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 of 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:

a) by completing either Political Science 25: National, State and Local Government (5 units), or, for foreign students only, Political Science 27: American Society (5 units); or

b) by completing one of the options in each of the groups listed below; or

c) 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

a. History 17a-17b — American History (6 units), or
b. Political Science 7, 9, 21, 22, or 30 (3 units), or
c. History 4a-4c — Western Civilization (6 units), or
d. History 4b-4c, Western Civilization (6 units), or
e. History 17a or 17b plus any 3-unit history course labeled "United States:"
   - 11 U.S.: Economic History (3)
   - 24 U.S.: American Foreign Policy (3)
   - 25 U.S.: The American West (3)
   - 26 U.S.: 20th Century American History (3)
   - 28 U.S.: Women in American History (3)
   - 30 U.S.: The American Labor Movement (3)
   - 32 U.S.: The South, Old and New in American Society (3)
   - 33 U.S.: The Afro-American in U.S. History (3)
   - 34a U.S.: The Afro-American in U.S. History to 1865 (3)
   - 34b U.S.: The Afro-American in U.S. History after 1865 (3)
   - 35 U.S.: Civil War and Reconstruction(3)
f. History 99 — Historical Geography (3), or
g. History 50 — American History and Current World Affairs (3)

Group 2 — California State and Local Government

a. History 23b — California History (2 units), or
b. Politcal Science 23 — State and Local Government (2 units), or
c. Political Science 12 — State and Urban Government (3 units), or
d. History 21 — History of San Mateo County (3 units), or
e. History 22 — California History (3 units), or
f. Sociology 12 — Urban Development (3 units)
g. Social Science 10a to 10e — 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 A, 61 or 11) and the other shall be selected from the following list. Credit of English 11 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: A, 2, 3, 9a-9b, 11, 12, 13, 14, 15a, 15b, 16a, 16b, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31a, 31b, 42a, 42b, 43, 46a, 46b, 48, 51, 52a, 52b, 53, *57a, *57b, 61, 62, 63, 65, 66, 68, 75.

Speech: 1a, 2a-2b, 4, 5, 10, 27, 33, *57a-57b, 62.

**For students with English as a second language.*

3. HEALTH SCIENCE

[illegible]th Science are required (Health Science [illegible] classes selected from Health Science [illegible] requirement may be waived for stu- [illegible]rate equivalent knowledge through an [illegible]able to the Math/Science Division and [illegible]tion.

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:

a. Graduates of community colleges or other colleges and universities.
b. 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).
c. Veterans with one or more years of active service.
d. 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

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 Sciences (at least 3 units)

PHYSICAL SCIENCE

Astronomy 1, 10, 15, 16
Chemistry 1a, 1b, 5, 7, 10, 12a, 12b, 20-27*, 30a, 30b, 51
Consumer Arts and Sciences 9, 22
Electronics Technology 10
Geography 1a
Geology 1a, 1b, 6, 10
Meteorology 1, 10
Oceanography 10
Physical Science 10
Physics 2a, 2b, 4a, 4b, 4c, 10
Technology 71

LIFE SCIENCE

Anthropology 1
Biology 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 30, 31, 32, 33, 34, 37, 40, 41, 42
Horticulture 95a, 95b, 115, 118
Paleontology 1

**For the purpose of this requirement, three one-unit courses from Chemistry 20-27 are considered the equivalent of one course.*

b. Social Science (at least 3 units)

Anthropology 2, 3, 4, 8, 18
Business 8a, 8b
Consumer Arts and Sciences 45
Economics 1a, 1b, 10, 11, 12, 13, 14a, 14b, 15, 20a, 20b, 20c
Ethnic Studies 1a, 1b, 3, 4, 5, 6a, 6b, 7, 8, 14, 16, 18, 20
Geography 1b, 4, 5a, 5b, 6, 99
History 4a, 4b, 4c, 5, 6a, 6b, 8a, 8b, 11, 12, 17a, 17b, 20a, 20b, 21, 22, 24, 25, 26, 28, 30, 32, 33, 35, 44, 45, 46, 50, 99
Labor Studies 10, 11
Management 65
Political Science 1, 2, 3, 5, 7, 9, 12, 18, 21, 22, 23, 25, 27, 30, 39
Psychology 1a, 1b, 3, 4, 5, 6, 10, 13, 14, 28, 33, 34, 39, 40
Social Science 10a-10e, 20, 33
Sociology 1, 2, 3, 4, 6, 12, 16, 40a, 40b

c. Humanities (at least 3 units)

Architecture 10
Art 1a, 1b, 1c, 1d, 10a, 10b, 40, 68a, 68b, 72a, 72b
Drama 1a, 1b, 2a, 2b, 10
English 12, 16a, 16b, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31a, 31b, 42a, 42b, 43, 46a, 46b, 51, 52a, 52b, 53, 62, 66, 68, 75
Ethnic Studies 11, 12, 15, 17, 41, 42, 43, 44, 45
Fine Arts 16a, 16b
French 4, 25a, 25b, 30, 40
German 4, 25a, 25b, 30, 41
Humanities 1, 2, 25
Music 6, 7, 8, 9
Philosophy 6a, 6b, 20a, 20b, 20c, 23, 24a, 24b, 35
Spanish 4, 4n, 25a, 25b, 29, 30, 42
Speech 2a, 2b

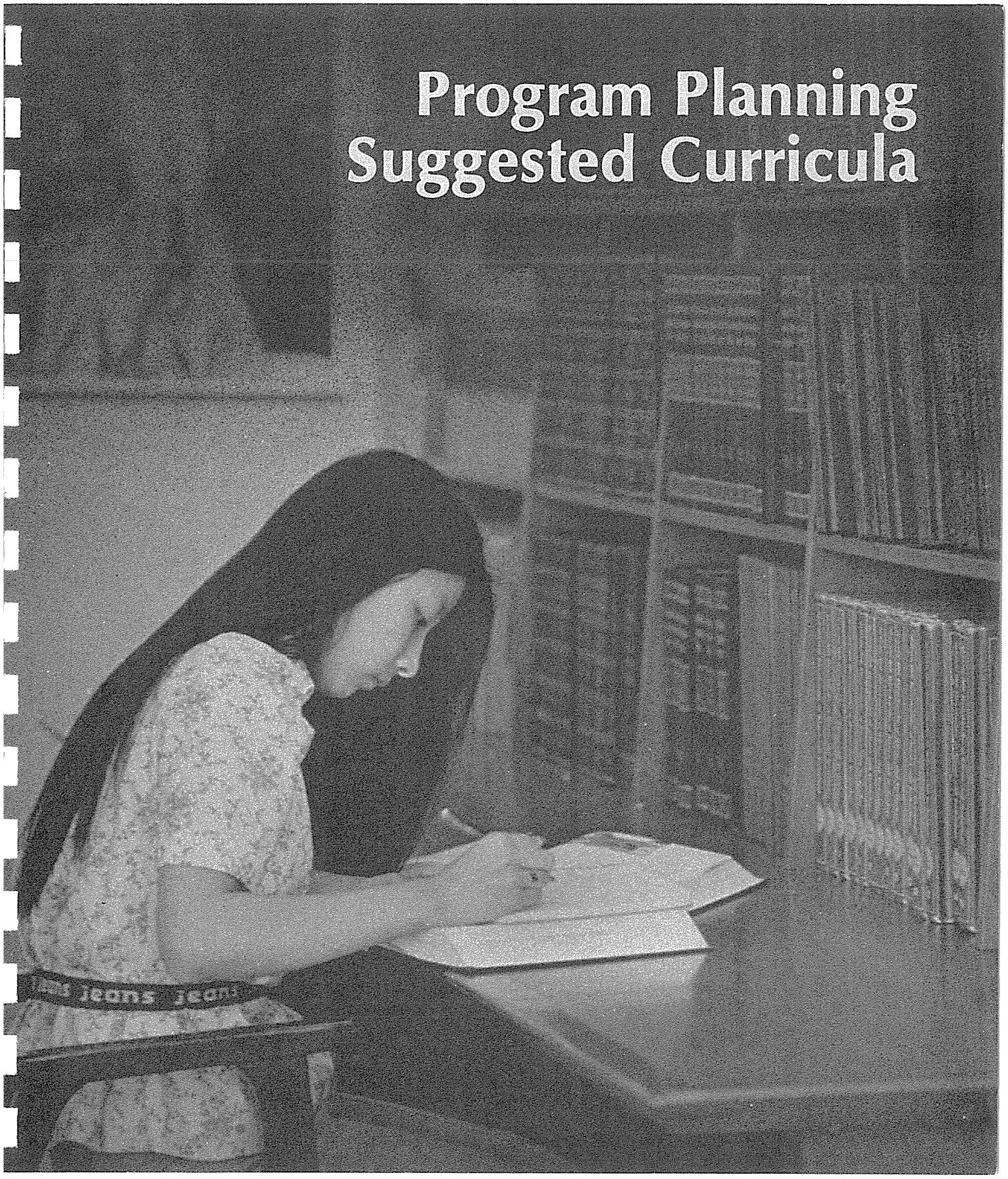
d. Learning Skills (at least 3 units)

Business 50, 51, 56, 91, 93
Data Processing 50, 53a, 54, 56
Drafting Technology 51a, 51b
Economics 2
English A, 2, 3, 7, 9a, 9b, 11, 13, 14, 15a, 15b, 57a, 57b, 61, 63, 65, 67
Fine Arts 15a, 15b
French 1, 1a, 1b, 2, 2a, 2b, 3, 100a, 100b, 100c
German 1, 1a, 1b, 2, 2a, 2b, 3, 100a, 100b, 100c
Italian 100a, 100b, 100c
Japanese 1, 1a, 1b, 2, 2a, 2b
Journalism 2, 15, 16
Electronics Technology 51
Machine Tool Technology 51a, 51b
Mathematics 1, 10, 11a, 11b, 11, 12, 13, 16, 17, 19, 20, 21, 22, 23a, 23b, 24a, 24b, 25, 27, 28, 30, 31, 32, 33, 34, 35, 55
Philosophy 7, 8, 12
Psychology 7
Russian 100a, 100b, 100c, 100d
Spanish 1, 1a, 1b, 1n, 2, 2a, 2b, 2n, 3, 3n, 100a, 100b, 100c
Speech 1a, 10, 27, 33, 57a, 57b, 62
Telecommunications 66, 71
Welding Technology 51

E. Electives

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

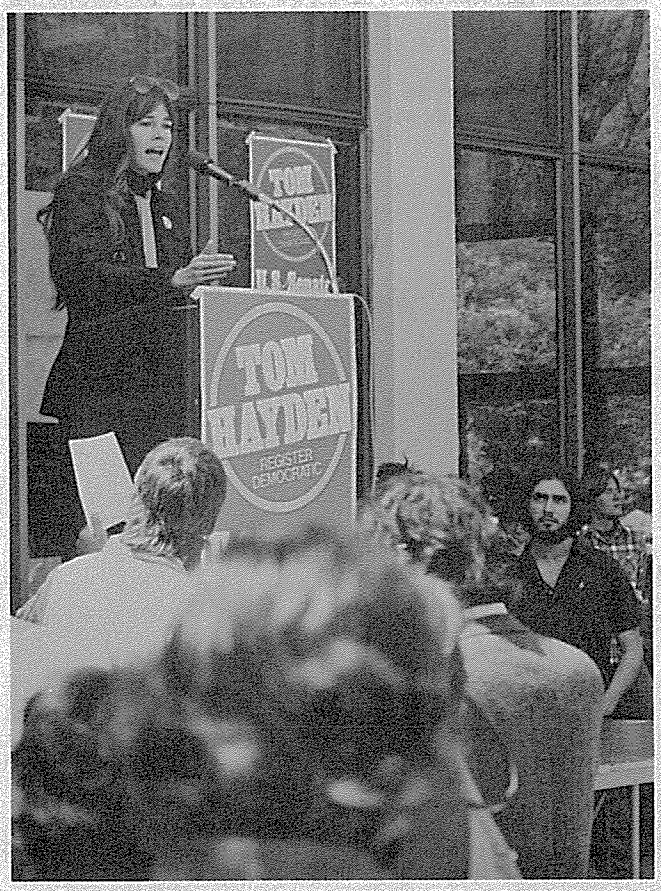
Program Planning Suggested Curricula



Suggested Curriculum Planning Progression

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. If all requirements have been met, students transferring to higher intstitutions may be graduated after two years of further study. Students may decide to spend more than two years at College of San Mateo or transfer to a four-year institution with less than junior standing. 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 tranfer 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.

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 1
Biology 1, 2, 3, 5, 6, 7, 8, 9, 11, 14, 15, 16, 18a, 18b, 21, 22, 23, 24, 25, 26, 27, 30, 32, 33, 40, 41, 42
Horticulture 95a, 95b, 115, 118
Paleontology 1

PHYSICAL SCIENCE
Astronomy 1, 10, 15, 16
Chemistry 1a, 1b, 5, 7, 12a, 12b, 20-27*, 30a, 30b
Consumer Arts and Sciences 9, 22
Geography 1a
Geology 1a, 1b, 6, 10
Meteorology 1, 10
Oceanography 10
Physical Science 10
Physics 2a, 2b, 4a, 4b, 4c, 10

**For the purpose of this requirement, three one-unit courses from Chemistry 20-27 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 2, 3, 4, 8, 18
Business 8a, 8b
Consumer Arts and Sciences 45
Economics 1a, 1b, 10, 11, 12, 13, 14a, 14b, 15, 20a, 20b, 20c
Ethnic Studies 1a, 1b, 3, 4, 5, 6a, 6b, 7, 8, 14, 16, 18, 20, 33
Geography 1b, 4, 5a, 5b, 6
History 4a, 4b, 4c, 5, 6a, 6b, 8a, 8b, 11, 12, 17a, 17b, 20a, 20b, 21 22, 24, 25, 26, 28, 30, 32, 33, 35, 44, 45, 46
Labor Studies 10, 11, 14
Political Science 1, 2, 3, 5, 7, 9, 12, 18, 21, 22, 23, 25, 27, 30, 39
Psychology 1a, 1b, 3, 4, 5, 6, 10, 13, 14, 28, 33, 34, 39, 40
Social Science 20, 33, 10a-10e
Sociology 1, 2, 3, 4, 6, 12, 16, 40a, 40b

HUMANITIES

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

Architecture 10
Art 1a, 1b, 1c, 1d, 10a, 10b, 40, 68a, 68b, 72a, 72b
Drama 1a, 1b, 2a, 2b,10
English 12, 16a, 16b, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31a, 31b, 42a, 42b, 43, 46a, 46b
Ethnic Studies 11, 12, 15, 17, 41, 42, 43, 44, 45
Fine Arts 16a, 16b
French 4, 25a, 25b, 30, 40
German 4, 25a, 25b, 30, 41
Humanities 1, 2, 25
Music 6, 7, 8, 9
Philosophy 6a, 6b, 20a, 20b, 20c, 23, 24a, 24b, 35
Spanish 4, 4n, 25a, 25b, 29, 30, 42
Speech 2a, 2b

BASIC SUBJECTS

(Minimum of 6 units, including English composition.)

English 2, 11, Composition
Data Processing 50, 53a, 54, 56
Economics 2
English 9a, 9b, 13, 14
Fine Arts 15a, 15b
Mathematics 10, 11, 11a, 11b, 12, 13, 16, 17, 19, 20, 21, 22, 23a, 24a, 24b, 25, 27, 28, 30, 31, 32, 33, 34, 35
Philosophy 7, 8, 12
Psychology 7
Speech 1a, 10, 27, 33
French 1, 1a, 1b, 2, 2a, 2b, 3
German 1, 1a, 1b, 2, 2a, 2b, 3
Spanish 1, 1a, 1b, 1n, 2n, 2, 2a, 2b, 3, 3n
Japanese 1, 1a, 1b, 2, 2a, 2b

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

1977-78

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.

Admin. of Justice 1,2, 3, 4, 5, 7, 10, 12, 15, 17, 19, 23, 47, 48, 49

Aeronautics 2a-b-c, 5, 6, 11, 12, 13, 14, 15, 16, 17, 47, 48, 49, 51, 51L, 52, 52L, 53, 53L, 54, 54L, 55, 55L, 56, 56L, 57, 57L, 58, 58L

Anthropology 1, 2, 3, 4, 8, 18, 48, 49

Architecture 1a, 4, 7a-b, 10, 11, 12, 13, 14, 15a-b, 16, 17, 21, 22, 23, 24, 47, 48, 49

Art 1a-b-c-d, 2a-b, 3a-b, 4, 5a-b, 6a-b, 7a-b, 10a-b, 12a, 15, 17a, 17b, 20a-b, 21a-b, 22a-b, 25, 27a-b, 40, 41a-b-c, 42a-b, 43a-b, 47, 48, 49, 51, 52, 53, 62a-b, 63a-b, 68a-b, 70, 81, 82, 83, 84, 85a-b, 86, 87, 88, 89

Astronomy 1, 10, 15, 16, 48, 49

Biology 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 14, 15, 16, 17, 18a-b, 19, 21, 22, 23, 24, 25, 26, 27, 30, 31, 32, 33, 34, 37, 40, 41, 42, 47, 48, 49

Business 2, 8a, 10, 12, 16, 24, 25, 30, 31, 32, 35, 47, 48, 49, 51, 52, 59L, 65, 66, 70a-b, 81, 82, 83a, 84, 85, 87, 88, 90.1, 90.2, 90.3, 90.4, 90.5, 92.1, 92.3, 92.4, 92.5 92.6 92.7 92.8, 92.9, 93, 94, 94L, 131, 134, 135, 136, 138, 139, 141

Business Administration 1a-b, 18a-b-c, 20, 48, 49

Chemistry 1a-b, 5, 7, 10, 12a-b, 20, 21, 22, 23, 24, 25, 26, 27, 30a-b, 48, 49

Consumer Arts & Sciences 1, 2, 5, 9, 15, 16, 17, 20, 21, 22, 24, 26, 40, 45, 47, 48, 49

Data Processing 47, 48, 49, 50, 52, 53a-b, 54, 56, 106

Drafting Technology 14, 48, 49, 52a-b, 62a-b, 63

Drama 1a-b, 2a-b, 10, 12a-b, 13, 14a-b-c-d, 15, 16, 17, 26,27a-b, 48, 49

Early Childhood Education 2, 3, 4, 5, 6, 7, 47, 48, 49

Economics 1a-b, 2, 10, 11, 12, 13, 14a-b, 15, 20a-b-c, 45, 48, 49

Education 1, 47, 49

Electronics 10, 14, 49, 51, 52, 52L, 53, 62, 62L, 63, 64, 71, 72, 72L, 73, 73L, 82, 82L, 83, 83L

Engineering 1a-b, 4, 14, 16, 17, 19, 20, 22, 35, 36, 37, 38, 45, 47, 48, 49, 90a-b, 91, 92

English 2, 3, 9a-b, 11, 12a-b-c-d, 13, 14, 15a-b, 16a-b, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31a-b, 42a-b, 43, 46a-b, 47, 48, 49

Ethnic Studies 1a-b, 3, 4, 5, 6a-b, 7, 8, 11, 12, 14, 15, 16, 17, 18, 20, 33, 41, 42, 43, 44, 45, 47, 48, 49

Fine Arts 15a-b, 16a-b, 17a-b

French 1, 1a-1b, 2, 2a-b, 3, 4, 8a-b, 25a-b, 30, 48, 49

Geography 1a-b, 4, 5a-b, 6, 48, 49

Geology 1a-b, 6, 10, 48, 49

German 1, 1a-b, 2, 2a-b, 3, 4, 8a-b, 25a-b, 30, 48, 49

Guidance 10, 11, 12, 30, 31, 48

Health Science 1, 2a-b-c-d-e-f-g-h-i, 9, 11, 47, 48, 49

History 4a-b-c, 5, 6a-b, 8a-b, 11, 12, 17a-b, 20a-b, 21, 22, 24, 25, 26, 28, 30, 32, 33, 35, 44, 45, 46, 48, 49

Horticulture 47, 48, 49, 90a-b-c-d-e-f, 91a-b, 93, 94, 95a-b, 96a-b, 97a-b, 98a-b, 110a-b, 111, 112, 113, 114, 115a-b, 116, 117, 118

Humanities 1, 2, 25

Japanese 1, 1a-b, 2, 2a-b

Journalism 1, 2, 15, 16, 48, 49

Labor Studies 10, 11, 14, 48

Library Technology 1, 47, 51, 52, 53, 54, 55, 56

Machine Tool Tech. 49, 51a-b, 52, 52L 53, 53L, 62, 62L, 63, 63L

Management 52, 72

Mathemathics 10, 11 or 11a-b, 12, 13, 16, 17, 19, 20, 21, 22, 23a-b, 24a-b, 25, 27, 28, 30, 31, 32, 33, 34, 35, 48, 49, 55

Medical Assisting 94

Meteorology 1, 10, 48, 49

Military Science 1a-b, 12a-b

Music 1a-b, 2a-b, 4a-b, 5a-b, 6, 7, 8, 9, 12, 13, 14, 15, 16, 17, 18a-b, 22, 23, 24, 25, 26a-b,27, 28, 33, 34, 37, 38, 39, 40, 48, 49

Nursing 1, 2, 3, 4, 5, 47

Oceanography 10

Paleontology 1

Philosophy 6a-b, 7, 8, 12, 20a-b-c, 23, 24a-b, 35, 48, 49

Physical Education 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 21, 22, 23, 24, 40, 41a-b, 42a-b, 47, 48, 49

Physical Science 10, 47, 48, 49

Physics 2a-b, 4a-b-c, 10, 48, 49

Political Science 1, 2, 3, 5, 7, 9, 12, 18, 21, 22, 23, 25, 27, 30, 39, 48, 49

Psychology 1a-b, 3, 4, 5, 6, 7, 10, 13, 14, 28, 33, 34, 39, 40, 48, 49

Recreation Education 40, 41

Social Science 10a-b-c-d-e, 20, 33, 47, 48, 49

Sociology 1, 2, 3, 4, 6, 12, 16, 40a-b, 48, 49

Spanish 1, 1a-b, 1n, 2, 2a-b, 2n, 3, 3n, 4, 4n, 8a-b, 25a-b, 29, 30, 48, 49

Speech 1a, 2a-b, 10, 33, 48, 49

Technical Art/Graphics 14, 49, 52a-b, 54, 55, 63, 64, 65a-b, 66

Technology 47, 49, 71, 72, 74, 76, 79

Telecommunications 47, 51, 52a-b, 60a-b, 65, 66, 68, 70, 71

Welding Technology 49, 51, 52a-b, 52aL-bL, 53, 62a-b, 62aL-bL, 75

Cooperative Education 47 series 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.

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 — A.A. or A.S. 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 lower division 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.

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.

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

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	Basic Police Recruit Academy		X
	Police Supervision		X
	Advanced Officers Training		X
	Peace Officers Orientation		X
	Administration of Justice	X	
Aeronautics	Aircraft Maintenance Technology	X	
	Airframe/Powerplant Maintenance Technology	X	X
	Commercial Pilot Technology	X	X
	Pilot Technology	X	
Business	Banking		
	Bank Operations		X
	Credit & Lending		X
	Business Administration	X	
	Chartered Life Underwriter		X
	Clerical	X	X

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

Occupational Area	Curriculum	A.A./A.S. Degree	Certificate
Business	Data Processing	X	
	Computer Programmer		X
	Computer Operator		X
	Escrow	X	X
	Key Data Entry		X
	Legal Secretarial	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 — General	X	X
	Merchandising — Management	X	X
	Real Estate	X	X
	Secretarial	X	X
	Transportation	X	X
Consumer Arts and Sciences	Consumer Arts and Sciences	X	
	Fashion Merchandising	X	X
	Interior Design	X	X
Cosmetology	Cosmetology — Cosmetologist	X	X
	Cosmetology — Manicurist		X
	Cosmetology — Wig Stylist		X
	Cosmetology — Instructor		X
Dental Assisting	Dental Assisting	X	X
Education	Early Childhood Education — Basic		X
	Early Childhood Ed. — Advanced	X	X
	Teacher Assistant	X	X
Fire Science	Fire Science — Basic		X
	Fire Science — Advanced	X	X
Horticulture	Floristry		X
	Vocational Gardening		X
	Environmental Horticulture	X	X
	Ornamental Hortiuclture	X	X
Library	Library Technical Assistant		X
Nursing	Nursing	X	
	Nursing — Vocational	X	X
Technology	Building Inspection		X
	Drafting Technology	X	X
	Electronics Technology	X	X
	Machine Tool Technology	X	X
	Technical 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 Canada College, 364-1212, or Skyline College, 355-7000.

Administration of Justice

Associate in Arts 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 1, 2, 3, 4, 5 and three elective units	18

(ADMJ 90 fulfills requirements of ADMJ 1 and 3 plus three units of electives.)

Suggested Electives: Administration of Justice 7, 17 are highly recommended for transfer students; 10, 12, 19 are also desirable.

General Education and other requirements for the A.A. degree: See pages 65-66.

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 Arts degree.

The following are special certificate programs for which an individual certificate will be issued upon satisfactory completion; college credit may be applied to the A.A. degree.

ADMJ 90 Principles of Law Enforcement (Basic Academy)	12 units
ADMJ 92 Supervisor Training	4 units
ADMJ 94 Advanced Officer Training	2 units
ADMJ 96 Peace Officer Orientation	2 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.

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 56, 56L, 58, 58L	13
Powerplant: Aero 55, 55L, 57, 57L	13
Total	26

If a student has an airframe *or* powerplant license, upon application to the Aeronautics Department, 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 71, Electronics 14, 53, 65, Telecom. 65, Drafting 14, Welding 75, Physics 10.

Requirements	**Semester Units**
FAA Airframe *or* Powerplant license	(equivalent) 7
Powerplant: Aero 55, 55L, 57, 57L	13
Airframe: Aero 56, 56L, 58, 58L	
Technical Electives (6 units required) Technology 71, Electronics 14, 53, 65, Telecom. 65, Drafting 14, Welding 75, Physics 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 65-66.

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	(equivalent) 13
Select 13 units from the following courses: Drafting 14; Electronics 14, 53; Physics 10; Technology 71; Welding 75, Electronics 65, 105, 106, Telecom. 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 65-66.

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 and does not plan to transfer to a four-year college. This program may also be used as basic training for aviation business and entrance into air traffic control employment. The flight portion of the program is handled by a fixed-base operator, and the student is responsible for payment of all flight costs.

Requirements	**Semester Units**
Aeronautics 2a, 2b, 2c, 3, 5, 6, 7	21
Meteorology 10	3

General Education and other requirements for A.S. degree: See pages 65-66.

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

Requirements	**Semester Units**
Commercial, instrument, and multi-engine license or air transport license	(equivalent) 10
Select 11 units from following courses.	
Aero 5, Aero 7, Meteorology 1 or 10, Electronics 14, Business 10, Technology 71, Physics 10, Astronomy 10	11
Total	21

If a student wishes to obtain an A.A. or A.S. degree in some other major, the ten 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 10, 11*, 12*, 15a-15b, 16, 17, 21*, 22*, 23*, 24*	33

Suggested Electives: Architecture 1a, 7a-7b, 13; Mathematics — by eligibility; Physics 2a-2b.

General Education and other requirements for the A.S. degree: See pages 65-66.

Art

Associate in Arts Degree with a Major in Art

Requirements	**Semester Units**
Art 2a, 5a, plus 12 units from courses in the Art Department	18

General Education and other requirements for A.A. degree: See pages 65-66.

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 2a-2b, 5a, 12a, 15, 51, 52	21
Students should check course descriptions and prerequisites, and discuss recommended sequence with counselors.	
Technical Art/Graphics 65a	2

Suggested Electives: Art 3a, 4, 5b, 6a, 7a, 62; Business 12; Guidance 10; Science; Speech 1a.

General Education and other requirements for the A.A. degree: See pages 65-66.

Art — Interior Design

Associate in Arts Degree with a Major in Interior Design

Requirements	**Semester Units**
Art 81, 82, 83, 84, 85a, 85b, 87	21

Suggested Electives: Art 1a, 1b, 1c.

General Education and other requirements for A.A. degree: See pages 65-66.

Certificate Program

Requirements	**Semester Units**
Art 81, 82, 83, 84, 85a, 87	21

Suggested Elective: Art 85b.

Art — Painting

Associate in Arts Degree with a Major in Painting

Requirements	**Semester Units**
Art 2a-2b, 3a, 6a, 7a, 15, 17a, 22a	24
Students should check coure descriptions and prerequisites, and discuss recommended sequence with counselors.	

Suggested Electives: Art 1a, 1b, 1c.

General Education and other requirements for A.A. degree: See pages 65-66.

Art — Photography

Associate in Arts Degree with a Major in Photography

Requirements	**Semester Units**
Art 2a or 5a, 40, 41a-41b-41c, 43a-43b	21

Suggested Electives: Art 1a, 3a, 17a; Technical Art/Graphics 65a-65b; Fine Arts 15a; Telecommunications 70.

General Education and other requirements for A.A. degree: See pages 65-66.

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**
Building Inspection 63a, 63b, 63c, 63d, 63e, 63f	15-18
Select 6-9 units from following courses: Technology 73; Business 8a,123; Management 92	6-9
Total	24

Business Administration

Transfer Program

See Listing of minimum requirements (Option 1) for the Associate in Arts Degree with a Major in Business Administration, below.

Recommended High School Preparation: Elementary Algebra, Intermediate Algebra, Plane Geometry, Trigonometry, Chemistry or Physics, Foreign Language. If student has not completed Intermediate Algebra in high school, he should take Math. 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

This 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 — Bus. Ad. 1a-1b, 18a, 20; Bus.2	19
Option 2 — Bus 8a, 10, 50 or 51, 65, 66 or Bus. Ad. 1a; Bus. 93; Bus. Ad. 18a, 20 or Data Proc. 50	23-24

Suggested Electives: Bus. 11, 24, 56, 70a, 81, 82; Econ. 1a-1b.

General Education and other requirements for the A.A. degree: See pages 65-66.

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 on the quantitative part of the SCAT entrance examination, or completion of Bus. 50 with a grade of C or better. It is recommended that Bus. 50 be completed by the end of the second semester.

Business 10 — Introduction to Business.

Business — Banking

American Institute of Banking Certificate Programs

Bank Operations

Requirements	Semester Units
Bus. 8a, 30, 50 or 51: Bus. Ad. 18a: Data Proc. 50: Mgmt. 54	18
Select 6 units from following courses: Bus. 56, 91, 92.1, 93; Mgmt. 50, 80, 92; Speech 10	6
Total	24

Credit and Lending

Requirements	Semester Units
Bus. 31, 32; Bus. Ad. 1a-1b; Econ. 1a-1b	20
Select 3 units from following courses: Bus. 35, 56, 93; Bus. Ad. 18a; Mgmt. 50, 63	3
Total	23

Business — General Clerical

Associate in Arts Degree with a General Clerical Major

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
Bus. 10, 50 or 51, 66, 91, 92.5, 92.6, 92.7, 93, 94, 96, 100a (core courses)	25

See page 75 for Business Division's Mathematics requirement.

Suggested Electives: Bus. 8a, 56, 92.8, 92.9; Data Proc. 50.

General Education and other requirements for the A.A. degree: See pages 65-66.

Business — Clerical

Certificate Program

Students may apply for a Clerical Certificate once they have: **(1)** completed Business 66, Business 100a, Business 10 and Business 93, **(2)** passed departmental proficiency tests in typing and machine transcription.

Business — Data Processing

Associate in Arts Degree with a Major in Data Processing

Requirements	Semester Units
Data Proc. 50, 51, 52, 53a-53b, 54	23
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. 2, 8a, 10, 24, 50 or 51, 56, 65; Data Proc. 20, 25, 47, 49, 55, 56, 97, 106; Bus. Ad. 1b; Econ. 1a, 1b.

General Education and other requirements for the A.A. degree: See pages 65-66.

Computer Operator Certificate Program

Students may apply for this certificate upon completion of Data Processing 50, 51, 52, and 53a.

Computer Programmer Certificate Program

Students may apply for this certificate upon completion of Data Processing 50, 51, 52, 53a-53b, and 54.

Key Data Entry Certificate Program

Students may apply for this certificate upon completion of Data Processing 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 specifics.

Requirements	**Semester Units**
Bus. 145b*, 145d, 145e, 83a*, 87, 88 50 or 51, 56,10	24

Select 12 units from following courses: Bus. 8a, 66 or Bus. Ad. 1a, Bus. 82a, 85, 92.2, 111 or 11, 131, 134 or 135, 138; Bus. Ad. 18a; Econ. 1a or 1b; Psych. 1a; Speech 1a or 10. 12

General Education and other requirements for A.A. degree: See pages 65-66.

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, Business 56, and 6 additional units taken from Real Estate. Please verify with the College catalog or the 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**
Bus. 145b*, Bus. 145d, Bus. 145e, Bus. 83a*, Bus. 87, and Bus. 88.	18

Select 6 units from following courses: (as recommended by California Escrow Association) Bus. 8a, 50, or 51, 56, 66 or Bus. Ad. 1a, Bus. 82a, 85, 92.2, 131, 134 or 135, 138, 142 or Cooperative Ed.** 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 Bus. 145d, Bus. 145b may be by-passed; or at the recommendation of the Counselor alone, 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

Requirements	**Semester Units**
Business 10, 59L, 67, 90.5, 90L, 94L, 100a, 100L.	22

See page 78 for Business Division's Mathematics requirements.

Suggested Electives: Bus. Ad. 18a; Bus. 8a, 92.9, 66 or Bus. Ad. 1a; Psych. 1a; Speech 1a or 10; Ad. of Justice 1,2, 3.

General Education and other requirements for the A.A. degree: See pages 65-66.

Certificate Program

Students may apply for a Legal Secretarial Certificate after they have: (1) completed Business 59L, Business 90L, Business 100L, and Business 94L; (2) passed proficiency tests in shorthand, typing, transcription and machine transcription. The Legal Secretarial courses are taught in a modularized program so that a student may progress at an individual pace. Please see your counselor for details of this program.

Business — Management

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.

Business Management

Requirements	**Semester Units**
Data Proc. 50, Management 65, 92, 99.	12

Select 12 units from following: Bus. 8a, 24; Management 50, 52, 54, 61, 63, 96. 12

Total 24

Small Business Management

Requirements	**Semester Units**
Bus. 16, 65, 66, Management 99	13
Select 12 units from following: Bus. 8a, 24; Bus. Ad. 18a, 18b; Management 50, 52, 65, 90	12
Total	25

Industrial Management

Requirements	**Semester Units**
Management 65, 77, 92, 99	12
Select 12 units from following: Bus. 2, 8a; Management 50, 52, 54, 61, 71, 85, 96	12
Total	24

Marketing Management

Requirements	**Semester Units**
Bus. 24, 25; Management 91, 99	12
Select 12 units from following: Bus. 12, 16; Bus. Ad. 18a, 18b; Data Proc. 50; Management 50, 54, 93	12
Total	24

Business — Medical Assisting

Associate in Arts Degree with a Major in Medical Assisting

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 7 (this course fulfills the Natural Science requirement for graduation), Bus. 8a or Psych. 1a; Medical Assisting 57a, 59, 60, 94, 95, 100, 108	29

See page 78 for Business Division's Mathematics requirement.

Select two courses from the following: Biology 23, 52; Bus. 8a, 56, 66, 91, 92.6, 92.7; Psych. 1a.

Certificate Program

Students may apply for a Medical Assisting Certificate (1) upon completion of the following courses: Biology 7 (this course fulfills the Natural Science requirement for graduation), Business 8a, Psychology 1a, Business 10, 50 (if required by test), 92.6, 92.7, or equivalent, Medical Assisting 57a, 59, 60, 94, 95, 100, 108; (2) upon passing departmental proficiency tests in typing and transcription.

Business — Merchandising

Certificate Programs

Merchandising — General

Students may apply for a Merchandising — General Certificate upon completion of Business 8a, 10, 11, 12, 16, 24, 47 (6 units), 50 (if required by test).

Merchandising — Management

Students may apply for a Merchandising — Management Certificate upon completion of Business 8a, 10, 11, 12, 16 or 24, 47 (6 units), 50 (if required by test), 66 or Business Administration 1a.

Associate in Arts Degree with a Major in Merchandising

By completing the Certificate Program above and the General Education and other requirements for the A.A. degree, Pages 65-66, 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 10 or Management 99; Business *50 or 51, 83a, 84 or license equivalent; 85, 87, 88, 131 (if not substituted by 83a) 134 or 135	18-21

Contact Real Estate Department for recommended course sequence.

*Business 50 or 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. 19 or better).

Suggested Electives: Business Administration 1a or Business 66; Economics 1a-ab; Architecture 10; Business 8a, 12, 56, 65, 82a, 92.1; Business Administration 18a; Data Processing 50; Psychology 1a.

General Education and other requirements for the A.A. degree: See pages 65-66.

Professional Certificate Program

Basic Training Required: Business 83a, 84.

Professional Courses Required: Prerequisite: *A Real Estate Broker's or Salesman's License, or completion of Business 83a and 84 or equivalent. Business 85 or 83b, 87, 88 131 or 83a, 134 or 135.*

Advanced Professional Elective Courses: Three of the following are required: 111, 112, 113, 114, 135, 136, 139, 140, 141, 142.

Special Professional Courses: (These may be used for Certificate credit also.) Business 145a, 145b, 145c, 145d, 145e.

Alternate Methods of Satisfying Real Estate Certificate Requirements:

1. Candidates may satisfy not more than 12 units of the required 24 with courses completed at other collegiate institutions which are of satifactory quality and cover subjects comparable to those included in this program. (District earned units excepted from this rule.) This credit does not automatically apply to the Associate in Arts Degree.

2. Upon application, a student may meet subject requirements by courses satisfactorily completed through the American Institute of Real Estate Appraisers, the Institute of Real Estate Management, or courses taken in applied fields. This credit does not apply toward the Associate in Arts Degree.

Career Opportunities: Since the course prepares for the State Examinations, some students become real estate salesmen or brokers. Other students find employment with banks or other insitutions which make loans on real property. Many students will use this type of information in purchasing a home or income property.

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.

Requirements	**Semester Units**
Bus. 10; 90.4; 90.5; 91; 92.5; 92.6; and 92.7; or either 92.8 or 92.9; 94; 96; 100a; if above percentile rating of 35, take 51 or an accounting course or other mathematics class	20-22

See page 78 for Business Division's Mathematics requirement.

Select two courses from the following: Business 8a, 56, 66 or Bus. Ad. 1a; Psychology 1a; speech 1a or 10.

Certificate Program

Students may apply for a Secretarial Certificate once they have (1) completed Business 100a, Business 91, and Business 10; (2) passed departmental proficiency tests in shorthand dictation and transcription, machine transcription, and typing.

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. 10, 70, 72, 73, 74	15
Bus. Ad. 1a or Bus. 66	4
Econ. 1b or Mgmt. 65	3

Select two courses from the following: Bus. 11, 71, 75, 76, 77, Bus. Ad. 18a.

General Education and other requirements for the A.A. degree: See pages 65-66.

Certificate Program

Requirements	**Semester Units**
Bus. 70, 72, 73, 74, 75	15

Select three courses from the following: Bus. 11, 47, 71,76, 77.

Community Education

College of San Mateo Community Education schedules each semester a variety of short courses, film series, public forums, lecture series, small group discussions, institutes, concerts and similar educational and cultural programs for the public at large. To obtain a brochure listing current Community Education events, telephone the Community Education Office, 574-6445.

Consumer Arts and Sciences

Transfer Program

Associate in Arts Degree with a Major in Consumer Arts and Sciences

The student who intends to transfer a major in Consumer Arts and Sciences should plan a course at College of San Mateo to meet the general requirements for junior standing, as well as the lower divion departmental requirements, of the specific college or university the student plans to attend. Aids the student in dealing with the responsibilities of self, family and the professional world that affect the many hours not structured by the job assignments.

Requirements	**Semester Units**
Consumer Arts and Sciences 5, 9, 22, 45, plus eight additional units of C.A.S. courses	18

General Education and other requirements for the A.A. degree: See pages 65-66.

Career Opportunities: A major in Consumer Arts and Sciences 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 con-

sumer 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 Merchandisng

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
Consumer Arts and Sciences 15, 16, 17, 22, 24, 45	18
Business 10, 11, 12, 50 or 51 or equivalent	12

General Education and other requirements for A.A. degree: See pages 65-66.

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 lower level of the Library, Phone 574-6171.

Cosmetology — Cosmetologist

Tenth grade completion or equivalent 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.

Associate in Arts Degree with a Major in Cosmetology

Requirements	Semester Units
Cosmetology 50,51	*40*
Business 50 or 51	*3*

Suggested Electives: Art 63a; Business 8a, 66; Cosmetology 52, 90; Pyschology 1a; Solciology 1; Speech 62.

General Education and other requirements for the A.A. degree: See pages 65-66.

One-Year Certificate Program

This program prepares the student for employment upon completion of 1600 hours.

Requirements	Semester Units
Cosmetology 50	*Variable to 16*
Cosmetology 51	*Variable to 16*

Special Courses in Cosmetology

Cosmet. 52 — Cosmetology (for brush-up), units to be determined: Refresher course — upgrading persons who hold California Cosmetologist License, or for out-of-state Cosmetologists in preparation for California State Board of Cosmetology Examination.

Cosmet. 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.

Cosmet. 54 — Wig Stylist, units to be determined: 400 hours prepares a special wig stylist to take the California State Board of Cosmetology Examination and subsequent employment in this field only.

Cosmet. 90 — Advanced Workshop, 1 unit: (Offered in the evening.)

Dental Assisting

Associate in Arts 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) maintain placement in English 61 or eligibility for English A; (4) be admitted to the college and have a C average in all completed college courses.

Priorities for Admission: (1) continuing students (students enrolled in regularly scheduled, semester-long day or evening credit classes) on the basis of the greatest number of units completed in satisfaction of admission requirements for the A.A. degree in Dental Assisting; (2) residents of San Mateo County; (3)students from Canada College, College of San Mateo and Skyline College will be given equal consideration for admission to the program.

Requirements	Semester Units
Dental Assisting 51a-b through 56a-b	33
Business 50, 92.1 or equivalent	3-6
English 61 or eligibility to English A	3
Select three units from following: Psychology 1a, 6, 10; Sociology 1a,6; Speech 1a, 10	3

General Education and other requirements for the A.A. degree: See pages 65-66.

One-Year Certificate Program

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 61 or eligibility for English A; (4) be admitted to the college and have a C average in all completed college courses.

Priorities for Admission: (1) continuing students (students enrolled in regularly scheduled, semester-long day or evening credit classes) on the basis of the greatest number of units completed in satisfaction of admission requirements for the A.A. Degree in Dental Assisting; (2)residents of San Mateo County; (3) students from Canada College, College of San Mateo and Skyline College will be given equal consideration for admission to the program.

First Semester	**Semester Units**
Dental Assisting 51a, 52a, 53a, 54a, 55a, 56a	16

Second Semester	**Semester Units**
Dental Assisting 51b, 52b, 53b, 54b, 55b, 56b	17

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.

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 52a-52b, 62a-62b	20

Suggested Electives: Data Processing 50.

General Education and other requirements for the A.S. degree: See pages 65-66.

Certificate Program

Requirements	**Semester Units**
Drafting Technology 51a, 51b, 52a, 52b, 62a, 62b, 63; Tech. 71, 72, 74, 79; Elec. Tech. 14	42

The students who successfully complete the above curriculum will be eligible to receive the Certificate of Proficiency in Drafting Technology.

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 1a, 1b, 2a, 2b, plus six units from Drama 10, 12a, 12b, 14a, 14b, 26	18

Suggested Electives: Drama 13, 15, 16, 17; English 25; Speech 33, 2a; Physical Education — Dance, Fencing, Ballet.

General Education and other requirements for the A.A. degree: See pages 65-66.

Early Childhood Education

(Nursery School Program)

The Early Childhood Education program is designed to prepare qualified assistants who, upon completion of the course of study, are capable of performing the duties of a teaching assistant in a variety of pre-school programs. Nursery schools associated with the College of San Mateo and participating in the program are located in San Mateo and Millbrae.

A Basic Certificate, an Advanced Certificate and an A.A. Degree program are available.

Associate in Arts Degree with a Major in Early Childhood Education

Requirements	**Semester Units**
E.C.E. 2, 3, 4, 5, 6, 7	18
Psychology 1a or 5	3

Select one course from following: Anthropology, Art, Education, Consumer Arts and Sciences, Life Science, Music, Sociology	3

General Education and other requirements for the A.A. degree: See pages 65-66.

Certificate Programs

Requirements for Basic Certificate	**Semester Units**
Early Childhood Education 2, 3, 4, 5	12
Total	12

Requirements for Advanced Certificate	**Semester Units**
Basic Certificate	12
E.C.E. 6,7	6
Psych. 1a or Psych. 5	3
Electives	3
Total	24

Select one course from the following: Anthropology, Art, Education, Consumer Arts and Sciences (Nutrition), Life Science, Music, Sociology.

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.

Education — Teacher Assistant

Associate in Arts Degree with a Major in Teacher Assisting

This program prepares the student to serve as a paraprofessional member of the teaching team. Teacher assistants work under the direction of a professional teacher. They perform a wide variety of tasks in the schools.

Requirements	**Semester Units**
Education 1, 2 and 3	9
Business 92*	3
Speech 10, 62, 1a or 33 (by advice of counselor)	3
Psychology 1a, or 5 or 10 (by advice of counselor)	3
Cooperative Education field experience	3
Total	21

*If student has typing competency, another 3-unit elective is required.

Electives: Biology 40; Business 100a; Library Technology 55, 57; Mathematics 16; Music 8; Physical Science; Life Science; Spanish.

Certificate Program

Requirements	**Semester Units**
(from the foregoing list of required courses)	21
Suggested Electives	
(from the foregoing list of suggested electives)	3
Total	24

Equivalent courses in Speech and Psychology, and a demonstrated competency in typing may be substituted for required courses. Additional courses will then be selected from the suggested electives to make up the total.

Electronics Technology

Associate in Science Degree with a Major in Electronics Technology

Requirements	**Semester Units**
Electronics Technology 51*, 52, 52L, 53, 62, 62L, 64, 72, 72L, 73, 73L	33

*or Math 20 or any math course for which Math 20 is a prerequisite.

General Education and other requirements for the A.S. degree: See pages 65-66.

The student will be required to purchase a set of prescribed personal tools at the beginning of the first semester.

Certificate Program

Those students who successfully complete the A.S. Major requirements plus the specialization electives listed below will be eligible to receive the Certificate of Proficency in Electronics Technology.

Specialization Electives: Electonics 71, 82, 82L 83, 83L

Total Semester Units 46

Associate in Science Degree with a Major in Electronics Technology — Evening Session.

The Electronics Technology Certificate may be earned by completing the Associate in Science major requirements, plus two additional specialization electives listed below (31-35 semester units).

Requirements	**Semester Units**
Electronics Technology 51*, 102, 122, 132, 134	19
plus two courses from the following Specialization Electives:	
ET 53, 63, 70, 106, 133, 135, 143	6-8
Total	25-27

*or Math 20 or any math course for which Math 20 is a prerequisite.

General Education and other requirements for the A.S. degree: See pages 65-66.

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, electornic instruments, communications, CATV, microwave installations and testing of all types of electronic equipment.

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 25, Computer Programming (15 units).

Transfer Program

Associate in Science 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 conselors.

Requirements	Semester Units
Engineering 4, 20*, 22*, 35*, 38*, 45*	15
Mathematics 25, 31, 32, 33, 34	18
Chemistry 1a-1b or 1a, 12a	8-10
Physics 4a-4b-4c	12

*Plus 6 units from Engineering 1a, 1b; Mathematics 25, 31, 32, 33, 34; Physics 4a, 4b, 4c and Chemistry 1a, 1b, 12a.

Suggested Electives: Engineering 1a; Mathematics 22, 24a, 24b, 35; Geology 1a.

General Education and other requirements for the A.S. degree: See pages 65-66.

*Courses listed above are transfer requirements; those marked with an asterisk are A.S. degree requirements.

Engineering Technology

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 the technical courses for the lower-divison 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 14, 16*, 17*, 20*, 22*, 45*	15
Mathemathics 23a*-23b*, 25	11
Chemistry 1a	5
Physics 2a-2b	8
Technical Elective	6

*Plus 6 units from area of technology specialization and 8 units from Math. 23a-23b or Physics 2a-2b.

Suggested Electives: Technical courses; Business 66; Engineering 4; Mathematics 22, 24a, 24b.

General Education and other requirements for the A.S. degree: See pages 65-66.

*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 16*, 17*, 45*	9
Electonics Technology 52-52L, 62*-62L*, 72*-72L*, 73*-73L*, 82*,82L, 53, 63, 64*, 83*-83L*	40
(If evening courses ET 102, 122, 132 are substituted for corresponding day courses, up to 4 units of technical electives must be included to make a total of 40 units.)	
Mathematics 23a*-23b*	8
Physics 2a-2b	8

Suggested Electives: Engineering 4; Mathematics 22, 24a, 24b, 25.

General Education and other requirements for the A.S. degree: See pages 65-66.

*Courses listed above are transfer requirements. Those courses marked with an asterisk are A.S. degree requirements.

Engineering Technology — Surveying

Transfer Program

Associate in Science Degree with a Major in Surveying-Photogrammetry

Requirements	Semester Units
Engineering 1a*-1b*, 19*, 20*, 22*, 91	16
Chemistry 30a-30b	8
Geology 1a*	4
Physics 2a-2b	8
Mathematics 23a*-23b*, 25	11

Suggested Electives: Engineering 4, 35; Geography 5a; Mathematics 22, 24a, 24b.

General Education and other requirements for the A.S. degree: See pages 65-66.

*Courses listed above are transfer requirements. Those courses marked with an asterisk are A.S. degree requirements.

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 career 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 presently employed in public school systems, social services, human relations, and professionals whose jobs involve interpersonal situations with multiracial groups.

Requirements	Semester Units
Ethnic Studies 1a and 1b plus 12 units from the following: Ethnic Studies 3, 4, 5, 6a, 6b, 7, 8, 11, 12, 14, 15, 16, 17, 18, 20, 33, 41, 42, 43, 44, 45	18

General Education and other requirements for the A.A. degree: See pages 65-66.

Fine Arts — 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 counselor.

Requirements	Semester Units
Fine Arts/English 15a-15b, 16a-16b; Fine Arts 17a-17b	18

General Education and other requirements for the A.A. degree: See pages 65-66.

Fire Science

Associate in Arts Degree with a Major in Fire Science

The Fire Science program is designed to give the student an opportunity to prepare himself to meet the high standards necessary in pursuing a career in the 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 Scence 50, 51a, 55*, 56, 62a, 66	18
Select one course from following: Fire Science or related courses	3

General Education and other requirements for the A.A. degree: See pages 65-66.

Certificate Programs

Requirements	Semester Units
A minimum of 12 units is required from the following courses: Fire Science 50, 51a, 53, 54, 55, 56, 61, 62a-62b, 63, 64, 65, 66, 67,68a-68b and 3 units of electives	15

Requirements for Advanced Certificate

A minimum of 24 units is required from the following courses: Fire Science 50, 51a, 53, 54, 55, 56, 61, 62a-62b, 63, 64, 65, 66, 67, 68a-68b and 6 units of electives	30

A recommended sequence of courses is as follows: Fire Science 55*, 66, 50, 56, 51a, 62a, elective.

*In all Fire Science programs Fire Science 55, Introduction to Fire Protection and Suppression, may be waived for those students who have three or more years of certified service as professional fire fighters. If Fire Science 55 is waived for this reason, another 3-unit Fire Science course must be substituted.

Floristry

Certificate Program

See Horticulture Courses

Home Economics

See Consumer Arts and Sciences

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 — Vocational Gardening

Certificate Program — Evening Session

Requirements	**Semester Units**
Horticulture 130a-130b, 132a-132b, 135a-135b	6

Horticulture — Environmental

Certificate Program (One-Year Day Program)

Requirements	**Semester Units**
Option 1 — Hort. 110a-110b, 111, 112, 113, 114	18
Option 2 — Hort. 110a-110b, 111, 113, 114, 115	18
Option 3 — Hort. 110a-110b, 111, 112, 114, 116	18

Associate in Arts Degree with a Major in Environmental Horticulture

Requirements	**Semester Units**
Option 1, 2, or 3 above	18

Suggested Electives: Hort. 117, 118, 119, 120; Architecture 14; Business 11, 66.

General Education and other requirements for the A.A. degree: See pages 65-66.

Horticulture — Floristry

Certificate Program (One-Year Day Program)

Requirements	**Semester Units**
Horticulture 112, 116, 117, 119	12

Horticulture — Ornamental

Certificate Program

Evening Program: Satisfactory completion of 24 units as follows:

Requirements	**Semester Units**
Horticulture 95a-95b, 93, 94 90a-90b, or 90c-90d, or 90e-90f	12

Select 12 units from the following: Horticulture 91a-91b, 96a-96b, 97a-97b, 98a-98b.

Associate in Arts Degree with a Major in Ornamental Horticulture

Requirements	**Semester Units**
Horticulture 95a-b, 93, 94, plus 4 units from 90a-b-c-d-e-f, plus 6 units from Horticulture 91a-b, 96a-b, 97a-b, 98a-b	18

General Education and other requirements for the A.A. degree: See pages 65-66.

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 (pages 65-66) for Natural Sciences, Social Science, and Humanities, with at least 3 units in each area	18

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 51, 52, 53, 54, 55	15
One course from each of the following groups: English 11, 61, 63, 65; Bus. 8a; Management 92; D.P. 50; Speech 1a, 62; Lib. Tech. 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 2; Chemistry 51; Math. 10, 11 or other appropriate level of Math; Physics — Math. 11 or 21.

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 21*, 22*, 27*	14
Chemistry 1a*,1b, 12a-12b	16
Biology Electives (excluding Biology 1 and 2)	4-12
Mathematics 20, 21 (or equivalent)	1-6
Science Electives (Physics 2a-2b or Physics 4a, 4b, 4c	8-12

General Education and other requirements for an A.S. degree: See pages 65-66.

**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 21*, 27*	9
Biology electives (Biology 23, 24, 25)	4-12
Chemistry 1a*, 1b*, 12a-12b	15-20
Mathematics 23a-23b or 30, 31, 32	8-12
Physics 2a-2b or 4a, 4b, 4c	8-12

General Education and other requirements for the A.S. degree: See pages 65-66.

**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 Arts Degree with a Major in Pre-Nursing

Requirements	Semester Units
Biology 23*, 24*, and 26 or 25*	13-14
Biology Elective (excluding Biology 1 and 2)	4
Chemistry 1a-1b*, or 30a-30b*	8-10
Science Electives (Physics 2a-2b or 10)	3-8

General Education and other requirements for the A.A. degree: See pages 65-66.

**Courses listed above are transfer requirements. Those courses marked with an asterisk are A.A. 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 51a-b, 52, 52L, 53, 53L, 62, 62L, 63, 63L	40
Technology 72	2
Welding Technology 75	2
Drafting Technology14	3

General Education and other requirements for the A.S. degree: See pages 65-66.

Students will be required to maintain a personal set of tools.

Those students who successfully complete the above curriculum 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.

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 Unit**
Mathemathics 31, 32, 33 and at least 6 units from Mathemathics 22, 24a, 24b, 25, 30, 34, 35	18

General Education and other requirements for an A.A. or A.S. degree: See pages 65-66.

Medical Assisting

(For Program Planning and Suggested Curricula see Business—Medical Assisting, page 80)

Military Science (Reserve Officers' 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 baccalaureate 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

Tranfer 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 ot 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.

Requirements	**Semester Units**
9 units from Music 9, 1a-b, 2a-b, 4a-b, 5a-b, 16, 17; *3 units* from Music 6, 7, 8; *6 units* from Music 16, 22, 23, 27, 28, 33, 34, 41; *2 units* from Music 12, 13, 14, 15, 18a-b, 24, 25, 26a-b, 37, 38, 39; plus completion of 3 semesters of Music 41 and 3 semesters in performance classes	20

General Education and other requirements for the A.A. degree: See pages 65-66.

Nursery School

(See Early Childhood Education.)

Nursing

Transfer Program

(See also Life Sciences)

Students who intend to transfer a major in Nursing should plan their courses 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.

Associate in Arts Degree with a Major in Nursing

The College of San Mateo Associate in Arts Nursing Program provides students with opportunities for learning at the College, local hospital 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 Arts 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 Algebra, Chemistry with lab, and General Biology with lab, with C grades within the last 5 years; (3) be admitted to the college and have a C average in all completed college courses.

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.A. 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 1, 2, 3, 4, 5	36
Biology 41, 42	9
Psychology 1a, 5, Sociology 1	9
Speech 1a or 10; English 11	6

General Education and other requirements for A.A. degree: See pages 65-66.

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 61 or eligibility for English A or 11.

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 Vocational Nursing Program (as listed in the college catalog) (2) residents of San Mateo County.

Requirements	**Semester Units**		
First Semester (18 weeks)	Lec.	Lab	Total
Nursing I	4	4	8
Vocation Nursing 51	5	2	7
Biology 7	3	—	3
Psychology 1a	3	—	3
Totals	15	6	21
Second Semester (18 weeks)			
Vocational Nursing 52a	7	8	15
Biology 52	2	—	2
Totals	9	8	17
Third Semester (10 weeks)			
Vocational Nursing 52b	2	7	9
Grand Totals	26	21	47

Associate in Arts Degree with a Major in Vocational Nursing

Requirements	**Semester Units**
Nursing I	8
Vocational Nursing 51, 52a and 52b	31
Biology 7, 52	5
Psychology 1a	3

General Education and other requirements for an A.A. degree: See pages 65-66.

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**
Physical Education 40 and Recreation 40 or 41 plus 9 units from Physical Education 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 21, 22, 23, 24, 41a-b, 42a-b, 48	20

Suggested Electives: Biology, Chemistry, Anatomy, Physiology, Physics.

General Education and other requirements for the A.A. degree: See pages 65-66.

Physical Sciences

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 10, 1; Chemistry 10, 30a, 1a; Geology 10, 1a; Physics 10, 2a, 4a	18

Suggested Electives: Chemistry 5, 12a; Mathematics 25, 30, 31, 32, 33, 34; Physics 4a, 4b, 4c.

General Education and other requirements for the A.S. degree: See pages 65-66.

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**
Physical Education 40 and Recreation 40, 41, plus 9 units from Physical Education 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 21, 22, 23, 24, 41a-b, 42a-b, 48	20

Suggested Electives: Biology, Chemistry, Anatomy, Physiology, Physics.

General Education and other requirements for the A.A. degree: See pages 65-66.

Social Science

Transfer Program

Associate in Arts Degree with a Major in Social Science

Social Science fields are many and varied but 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 be a total of 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. 1/Bio.11);
Economics (not including Econ. 2); Ethnic Studies (not including E.S. 11, 12, 15, 17, 41, 42, 43, 44, 45); Geography (not including Geog. 1a); History, Philosophy (not including Phil. 7, 8 or 12);
Political Science, Psychology (not including Psych. 7);
Social Science, Sociology..... 18

General Education and other requirements for the A.A. degree: See pages 65-66.

Spanish

The program is designed to give the student a functional proficiency in the language, while at the same time preparing him to transfer to a four-year institution with a minor or major in Spanish.

Certificate of Proficiency

Students who feel written proof of their proficiency would be beneficial to them in their careers may apply for a Certificate of Proficiency in Spanish after they have completed the advanced intermediate course (Spanish 4) and a minimum of two additional units, and have passed the department tests on aural comprehension and speaking fluency.

Associate in Arts Degree with a Major in Spanish

Major requirements are listed on pages 65-66.

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.

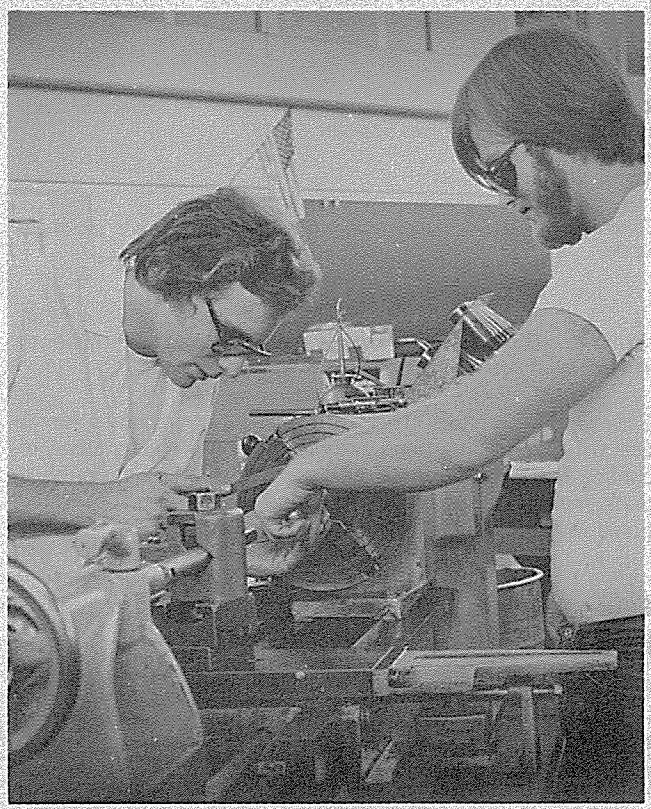
California Polytechnic State University: (San Luis Obispo Campus) Industrial Technology, Industrial Arts Education, and Industrial Sales and Technology.

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 Arts and Graphics 52a-52b, 54, 55, 63, 64, 65a-65b, 66	33
Art 1b; and Art 2b or 51	6

General Education and other requirements for A.A. degree: See pages 65-66.

Those students who successfully complete the above curriculum 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.

Telecommunications — Broadcast Engineering

Associate in Arts Degree with a Major in Broadcast Engineering

Requirements	Semester Units
Electronics 52-52L, Telecommunications 52a, 60a, 65, 66, 101a-101b, Data Processing 50	27

General Education and other requirements for A.A. degree: See pages 65-66.

Telecommunications — Radio Broadcasting

Associate in Arts Degree with a Major in Radio Broadcasting

Requirements	Semester Units
Telecommunications 52a-52b, 60a, 65, 66, and 53 or 67, Data Processing 50	24
Speech 1a	3

General Education and other requirements for A.A. degree: See pages 65-66.

Telecommunications — Televison Broadcasting

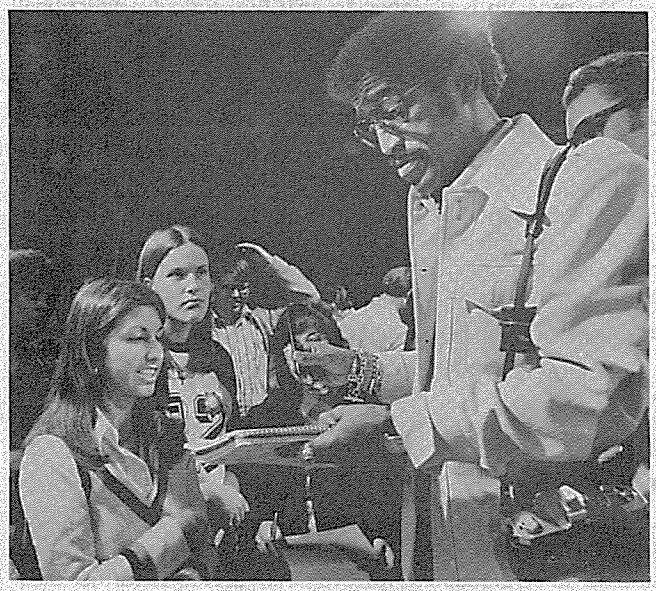
Associate in Arts Degree with a Major in Television Broadcasting

Requirements	Semester Units
Telecommunications 52a, 60a-60b, 61a-61b, 65, 66; Data Processing 50	24

General Education and other requirements for A.A. degree: See pages 65-66.

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: 51, 52a-52b, 52aL-5bL, 53, 62a-62b, 62aL-62bL	37
Technology 71 or Physics 10, Technology 74,76	8
Electronics 10 or Electronics 14	3

General Education and other requirements for the A.A. degree: See pages 65-66.

Students will be required to purchase personal safety equipment and adhere to all safety rules.

Those students who successfully complete the above curriculum will be eligible to receive the Certificate of Proficiency in Welding Technology.

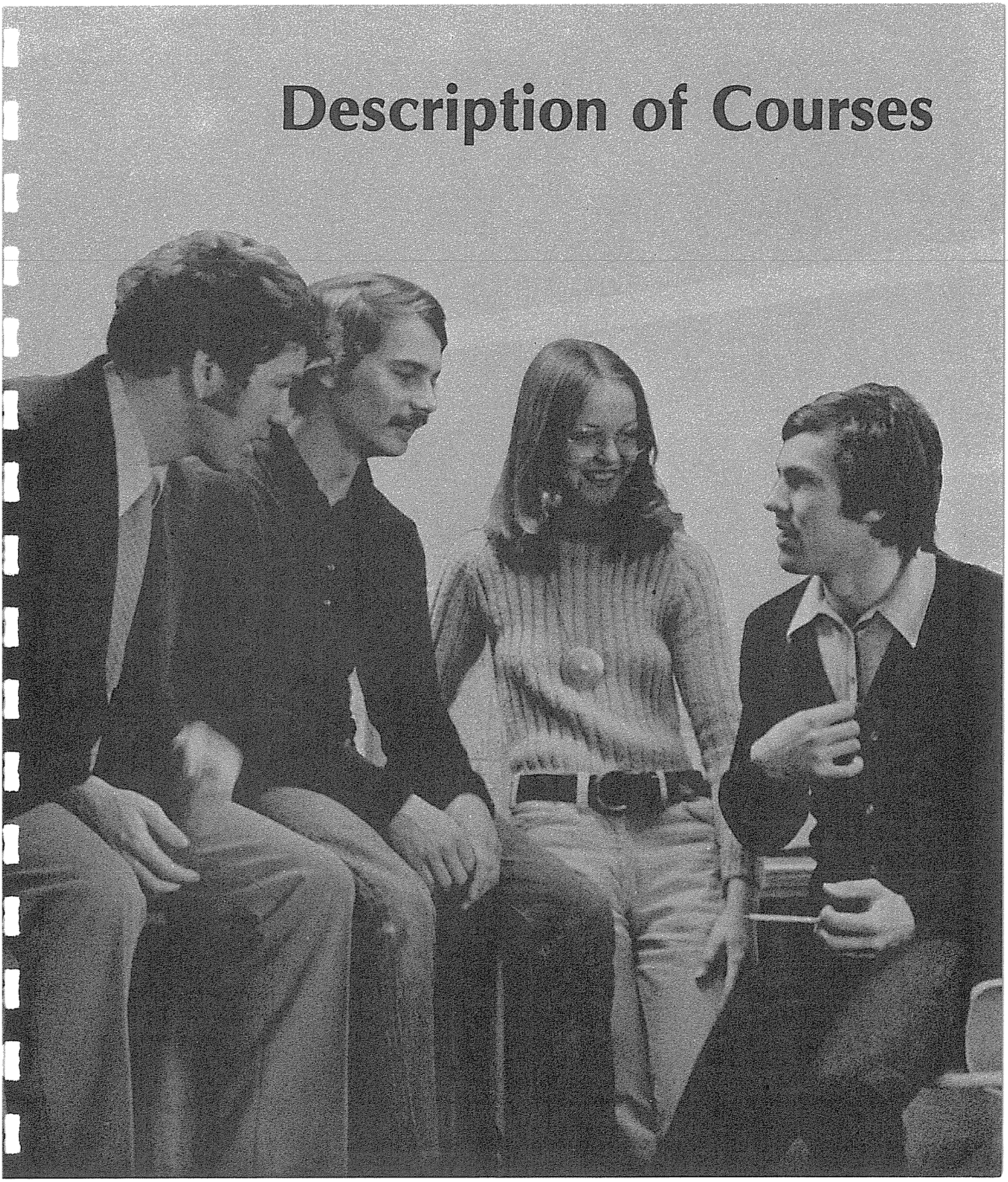
Career Opportunities: The field of welding offers employment in automotives, aircraft, guided missiles, nuclear energy, railroads, radio, television, appliances, department stores and food processing plants. The welding technician can join, separate and remove excess metals with varies techniques, and 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 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 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. English 29: Women and Literature investigates the images of women in English and American literature and introduces students to important contemporary women writers. Learning Center 80 (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 Women's Re-Entry Program for women whose formal education has been interrupted or postponed (see page 58).

Description of Courses



Courses of Instruction
Information Regarding Course Changes for 1977-78

New Course Title, Number and Name	Old Course Title, Number and Name
Architecture 7a-7b Building Process and Construction Materials	**Architecture 48** Building Process and Construction Materials
Art 22 (3 units) Sculpture	**Art 22a-22b (3-3)** Sculpture
Art 23 Intermediate Sculpture	**Art 22a-22b** Sculpture
Automotive Technology 51 Basic Maintenance and Economics of the Automobile	**Automotive Technology 51** Economics of the Automobile
Automotive Technology 52 Basic Automotive Repair for the Consumer	**Automotive Technology 14** Fundamentals
Biology 4 Selected Topics in Nutrition	**Biology 48** Selected Topics in Nutrition
Business 35 Personal Money Management	**Business 35** Personal and Family Finance
Business 71 Traffic Management and Physical Distribution	**Business 70b** Traffic Management and Physical Distribution
Business 92.1, 92.3, 92.4 Beginning Typing	**Business 92.1** Keyboard Typing **Business 92.3, 92.4** Elementary Typing
Business 94 Word Processing Machine Transcription	**Business 94** Machine Transcription
Business 100a Office Procedures	**Business 100a** Secretarial Procedures and Administration
Business 100b Office Administration	**Business 100b** Secretarial Procedures and Administration
Dental Assisting 51a-b through 56a-b	**Dental Assisitng** 50 and 60

New Course Title, Number and Name	Old Course Title, Number and Name
Electronics Technology 70 Television Fundamentals	**Electronics Technology 70-70L** Television Fundamentals
Electronics Technology 71 Electronic Systems	**Electronics Technology 70-70L** Television Fundamentals
Electronics Technology 105-106 Commercial License	**Electronics Technology 105a-105b** Commercial License
Electronics Technology 143 Microwave Principles	**Electronics Technology 143a-143b** Microwave theory
English 3 The Term Paper	**English 48** The Term Paper
English 61/A, 61/AX Basic Reading, Writing, and Composition; Writing Practicum	**English 48, 48X** Basic Writing; Practicum
Health Science 11 Holistic Health	**Health Science 48** Holistic Health and Healing
Horticulture 115 Garden Design	**Horticulture 115a** Garden Design
Horticulture 119 Landscape Design	**Horticulture 115b** Landscape Design
Humanities 25 Technology, Contemporary Society & Human Values	**Social Science 25** Technology, Contemporary Society & Human Values
Medical Assisting 57b Medical Terminology, Advanced	**Business 48** Medical Terminology, Part II
Medical Assisting 70a Administrative Medical Assisting Review	**Medical Assisting 70a-70b** Medical Assisting Review
Medical Assisting 70b Clinical Medical Assisting Review	**Medical Assisting 70a-70b** Medical Assisting Review
Music 8 History of Jazz	**Music 7b** Afro-American Jazz
Music 12 Elementary Piano	**Music 12a-12b** Elementary Piano
Physical Education 2 Circuit Weight Conditioning	**Physical Education 2** Weight Conditioning for Aquatics
Physical Education 41a-41b Officiating for Men's Sports	**Physical Education 41a-41b** The Theory of Sports Officiating
Physical Education 42a-42b Officiating for Women's Sports	**Physical Education 42a-42b** Women's Sports Officiating
Political Science 22 The Presidency — An American Political Institution	**Political Science 22** American National Government
Telecommunications 65 (3 units) Commercial Licenses	**Telecommunications 65a-b (3-3)** Commercial Licenses

Description of Courses

Courses are offered at the discretion of the college in accord 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.

Courses numbered 10 are specifically designed as survey courses, primarily for General Education; 47 is reserved for Cooperative Education, 48 for Selected Topics, and 49 for Special Projects; 148 designates a nontransferable course.

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 time necessary in preparation thereof, 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.

Administration of Justice

(Police Science)

1 INTRODUCTION TO ADMINISTRATION OF JUSTICE (3)

Three class 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.

2 PRINCIPLES AND PROCEDURES OF THE JUSTICE SYSTEM (3)

Three class 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.

3 CONCEPTS IN CRIMINAL LAW (3)

Three class 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.

4 LEGAL ASPECTS OF EVIDENCE (3)

Three class hours per week. Prerequisite: Administration of Justice 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.

5 POLICE AND COMMUNITY RELATIONS (3)

Three class hours per week.

Interaction of law enforcement and local government. Current innovative programs by police agencies to establish communication and liaison between law enforcement and the community.

7 CRIMINAL INVESTIGATION (3)

Three class hours per week. Prerequisites: Administration of Justice 1, 2 and 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.

10 JUVENILE PROCEDURES (3)

Three class hours per week. Prerequisite: Completion of or concurrent enrollment in Administration of Justice 1.

The position the 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.

12 TRAFFIC SUPERVISION AND CONTROL (Formerly Traffic Control)

Three class hours per week. Prerequisite: Administration of Justice 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.

15a-15b-15c CRIMINAL IDENTIFICATION (1-1-1)

The 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 7.

15a Advanced Fingerprinting, 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. **15b Advanced 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. **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 dark room procedures and techniques.

17 POLICE ORGANIZATION AND ADMINISTRATION (3)

Three class hours per week. Prerequisites: Administration of Justice 1 and 2, or equivalent 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.

19 PATROL PROCEDURES (3)

Three class hours per week. Prerequisite: Completion of or concurrent enrollment in Administration of Justice 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.

25 POLICE DEFENSIVE TACTICS (1)

Two class 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.

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 127.)

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.

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.)

80a-80b INTERNSHIP (2-2)

Five hours per week-one hour in the classroom and four hours to be arranged. Prerequisites: Sophomore standing; Police Science major.

Tasks assigned in a local police station or other agency of the criminal justice system as arranged.

90 PRINCIPLES OF LAW ENFORCEMENT (12) (Basic Police Academy)

440 hours for 11 weeks. Hours by arrangement. Prerequisite: Qualifications to meet minimum standards for a police officer in California as set by the Commission on Peace Officers' Standards and Training. ADMJ 90 is equivalent to ADMJ 1 and ADMJ 3.

Criminal law, evidence, procedure, investigation, firearms, first aid, defensive tactics, community relations, use of chemical agents, and other related police subjects. Course meets the requirements for Basic Certification by the Commission on Peace Officer Standards and Training (POST).

92 POLICE SUPERVISION (4)

Hours by arrangement. Prerequisite: Administation of Justice 90 and 94.

Decision making at the first line supervisor level, leadership, policy making, psychological aspects of supervision, professionalization, utilization of manpower, as well as basic elements of supervision. Certified by the Commission on Peace Officer Standards and Training (POST).

94 ADVANCED OFFICERS COURSE (2)

Hours by arrangement. Prerequisite: Administration of Justice 90.

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).

96a PEACE OFFICERS ORIENTATION: ARREST & FIREARMS (1-1)

26 or 40 hours (one week, by arrangement)

Laws of Arrest, Search and Seizure, Methods of Arrest and discretionary decision-making. The care and use of firearms, moral and legal application on the use 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.)

96b SECURITY FIREARMS (½-1)

8 or 16 hours (one week by arrangement)

The moral and legal aspects in the use of firearms, care, safety and nomenclature of firearms with range qualification to demonstrate performance objectives. This course approved by Consumer Affairs Bureau to meet requirements 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.)

96c SECURITY BATON TRAINING (½-1)

8 or 16 hours (one week by arrangement)

A course in the legal and moral aspects as relates 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.

98 POLICE FIREARMS INSTRUCTION-CHEMICAL AGENTS (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 famliarization 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.)

This program conforms with the basic requirements of Peace Officers Standards and Training for minimum hours of basic training. (Note: Due to the use of firearms anyone convicted of a felony could be in violation of the law in these specific areas of training.)

99a RESERVE OFFICERS BASIC TRAINING (3)

Three class hours per week and 8 hours on designated Saturdays. (Total 85 hours.) Prerequisite: Administration of Justice 1 or 2, or eligibility for Reserve Police Organization.

A course in basic police operations, laws, evidence,procedure, juvenile law and procedure, first aid and chemical agents. To prepare potential applicants to a reserve police or sheriff's unit.

99b RESERVE OFFICERS BASIC TRAINING (3)

Three class hours per week and 8 hours on designated Saturdays. (Total 82 hours.) Prerequisite: Administration of Justice 99a.

A course in intermediate basic police operations involving parole, probation, community police relations, patrol procedures, traffic control, defensive tactics, firearms training and qualifications. To prepare potential applicants for reserve status in police or sheriff's department.

99c RESERVE OFFICERS BASIC TRAINING (4)

Three hours per week and 8 hours on designated Saturdays, (Total 88 hours.) Prerequisites: Administration of Justice 99a and 99b.

Advanced basic criminal investigation of specific crimes and advanced patrol procedures involving demonstration of behavioral objectives and practical application in specific situations and problems. To fulfill training requirements of the reserve applicant.

Aeronautics

(Also see Meteorology 1 and 10)

2a BASIC PILOT GROUND SCHOOL (3)

Three lecture hours per week. Concurrent enrollment in Aero 3 and Aero 6 required (Aero 3 and Aero 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.

2b INSTRUMENT FLIGHT GROUND SCHOOL (3)

Three lecture hours per week. Prerequisites: Aero. 2a, 3 and concurrent enrollment in Aero. 7. (Private Pilot license or Aero 2a required for Evening Session.)

Federal Aviation regulations, navigation and meteorology, requirements for instrument flight. Preparation of flight logs and related flight planning.

2c COMMERCIAL PILOT GROUND SCHOOL (3)

Three lecture hours per week. Prerequisite: Aero. 2a, 2b, and 7 (Private Pilot license or Aero 2a required for Evening Session.)

Airplane operations and performance, F.A.A. Regulations Parts 1, 61, 91, 135-430.

3 FLIGHT SIMULATION (2½)

Prerequisites: Day - enrollement in Aero. 2a, 2b, or 2c, or eqvivalent. (Private Pilot certificate required for Evening Session.)

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 repeated five times for credit.)

5 AIRCRAFT POWERPLANTS FOR PILOTS (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.

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.

7 FEDERAL AVIATION REGULATIONS (3)

Three lecture hours per week. Prerequisite: Aero. 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.

11, 12, 13, 14, and 15 FLIGHT TRAINING (2 units each)

Prerequisites: Concurrent enrollment in, or completion of, Aero. 2a and Aero. 6, and FAA 2nd class medical certificate.

Introduction to flight through actual flying experience in modern, instrument and radio-equipped aircraft; completion of the five phases of flight training for the instrument and commercial pilot requirements.

Enrollments and class assignments will be conducted through the coordinator in the Aeronautics Department. In order to receive credit for these courses, the student must be flying under FAA, Part 141.

16 MULTI-ENGINE FLIGHT TRAINING (1)

Prerequisite: Refer to Aero. 11

Flight training in preparation for the multi-engine rating. Fifteen hours of dual instruction minimum.

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 127.)

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.

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.)

51 BASIC GENERAL MAINTENANCE (2½)

Five lecture hours per week for 8 weeks. Prerequisite: Concurrent enrollment in Aero. 51.

Blueprint reading, mechanical drawing, aircraft weight and balance procedures, and other maintenance functions as specified in Federal Aviation Regulation Part 147.

51L BASIC GENERAL MAINTENANCE LAB (4)

Twenty-five lab hours per week for 8 weeks. Prerequisite: Concurrent enrollment in Aero. 51.

Aircraft weighing, non-destructive testing, basic heattreating, use of technical manuals and other maintenance functions as specified in Federal Aviation Requlation Part 147.

52 ADVANCED GENERAL MAINTENANCE (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 51, 51L, and concurrent enrollment in Aero. 52L.

Fundamentals of direct and alternating current electricity, fundamentals of applied mathematics, fundamentals of applied physics as specified by Federal Aviation Regulation Part 147.

52L ADVANCED GENERAL MAINTENANCE LAB (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 51, 51L, and concurrent enrollment in Aero. 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.

53 BASIC POWERPLANT MAINTENANCE (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 51, 51L, 52, 52L, and concurrent enrollment in 53L.

Fundamentals of piston engine construction and operation, basic powerplant indicating systems, as specified in Federal Avaiation Regulation Part 147.

53L BASIC POWERPLANT MAINTENANCE LAB (4)

Twenty-five lab hours per week for 8 weeks. Prerequisite: Aero. 51, 51L, 52, 52L, and concurrent enrollment in Aero. 53.

Inspect and repair opposed and radial piston engines, perform powerplant inspections, inspect engine indicating systems as specified by Federal Aviation Regulation Part 147.

54 BASIC AIRFRAME MAINTENANCE (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 51, 51L, 52, 52L, and concurrent enrollment in Aero. 54L.

Principles of aircraft sheet metal structures, identification of aircraft fasteners, aircraft sheetmetal layout and fabrication as specified in Federal Aviation Regulation Part 147.

54L BASIC AIRFRAME MAINTENANCE LAB (4)

Twenty-five lab hours per week of 8 weeks. Pererquisites: Aero. 51, 51L, 52, 52L, and concurrent enrollment in Aero. 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.

55 INTERMEDIATE POWERPLANT MAINTENANCE (2½)

Five lecture hours per week of 8 weeks. Prerequisites: Aero. 51, 51L, 52, 52L, 53, 53L, and concurrent enrollment in 55L.

Fundamentals of turbine engine construction and operation, piston and turbine enging fuel metering systems as specified in Federal Aviation Regulation Part 147.

55L INTERMEDIATE POWERPLANT MAINTENANCE LAB (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 51, 52, 53, and concurrent enrollment in Aero. 55.

Inspect and service turbine engines, repair engine fuel metering components as specified by Federal Aviation Regulation Part 147.

56 INTERMEDIATE AIRFRAME MAINTENANCE (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 51, 51L, 52, 52L, 54, 54L, and concurrent enrollment in Aero. 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.

56L INTERMEDIATE AIRFRAME MAINTENANCE LAB (4)

Twenty-five lab hours per week of 8 weeks. Prerequisites: Aero. 51, 51L, 52, 52L, 54, 54L, and concurrent enrollment in Aero. 56.

Application of aircraft covering material, aircraft painting, rig rotary and fixed wing aircraft as specified in Federal Aviation Regulation Part 147.

57 ADVANCED POWERPLANT MAINTENANCE (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 51,

51L, 52, 52L, 53, 53L, 55, 55L, and concurrent enrollment in Aero. 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.

57L ADVANCED POWERPLANT MAINTENANCE LAB (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 51, 51L, 52, 52L, 53, 53L, 55, 55L, and concurrent enrollment in Aero. 57.

Inspect and repair engine exhaust and cooling systems, repair and balance propellers as specified in Federal Aviation Regulation Part 147.

58 ADVANCED AIRFRAME MAINTENANCE (2½)

Five lecture hours per week for 8 weeks. Prerequisites: Aero. 51, 51L, 52, 52L, 54, 54L, 56, 56L, and concurrent enrollment in Aero. 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.

58L ADVANCED AIRFRAME MAINTENANCE LAB (4)

Twenty-five lab hours per week for 8 weeks. Prerequisites: Aero. 51, 51L, 52, 52L, 54, 54L, 56, 56L, and concurrent enrollment in Aero. 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.

65a-65b AVIONICS (3-3)

Three lecture hours per week Prerequisite: Course in elementary electronics or equivalent.

65a—The study of electronic principles and devices as they apply to aircraft avionic systems. Avionic Systems including gyros, ADF, compass systems, and VOR. **65b**—Aircraft navigation systems including DME, inertial navigation, and autopilot.

91a-91b AIRCRAFT POWERPLANT MECHANICS (4-4)

Three lecture and three shop hours per week. Prerequisite: Applicant must have completed the FAA time requirements (18 mos.) prior to enrollment. Original enrollment may be in either Aero. 91a or 91b.

91a — Basic theory, maintenance, lubrication, carburetion and fuel systems, ignition systems, propellers. **91b** — Electrical systems. FAA regulations and trouble-shooting, preparation for the FAA written examination.

92a-92b AIRFRAME MECHANICS (6-6)

Six lecture hours per week. Prerequisite: Completion of the FAA time requirements (18 mos.) prior to enrollment. Original enrollment may be in either Aero. 92a or 92b.

92a — Aircraft structures, weight and balance, hydraulic systems and aircraft control. **92b** — Aircraft electrical systems, fuel systems, sheet metal structure, welding and FAA regulations. Preparation for the FAA written and practical examination.

Anthropology

1 PHYSICAL ANTHROPOLOGY (3)

Three lecture/discussion 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 11.)

2 CULTURAL ANTHROPOLOGY (3)

Three lecture hours per week.

Study of culture as the man-made environment of particular societies. Inroduction 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.

3 PREHISTORY: THE EVOLUTION OF CULTURE (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.

4 ARCHAEOLOGY: FIELD EXCAVATIONS (3) Fall only

Three lecture-field 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.

8 CULTURAL CONTRIBUTIONS OF BROWN AND RED PEOPLES (3)

Three lecture hours per week. Recommended Prerequisite: Ethnic Studies 1.

Cultural contributions including art, drama, music, dance, and dress patterns intrinsic to the culture of Brown and Red peo-

ples. The significance of each of these art forms to American life and how they have affected the American scene. (Identical to Ethnic Studies 8.)

18 MAGIC, SCIENCE, AND RELIGION (3)

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. Their techniques for controlling both the natural and the supernatural.

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 Sciences Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

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.)

Architecture

1a SURVEYING (2)

Two lecture and 3 lab hours per week for 12 weeks. Prerequisite: Math. 21 or equivalent with grade of C or better, or high school preparation including 1½ years of Algebra, one year of Geometry and one semester of Trigonometry with grade of C or better.

Theory of measurements in surveying; measurement of distance, differential leveling and measurements of angles and directions, stadia techniques and topographic mapping.

4 INTRODUCTION TO ARCHITECTURE (1) (Credit/No Credit)

Three class 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.

7a-7b BUILDING PROCESS AND CONSTRUCTION MATERIALS (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.

10 SURVEY OF CONTEMPORARY ARCHITECTURE (3)

Three class hours per week.

Basic values in contemporary architecture; its relationahip 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.

11 GRAPHICS (2)

One lecture and three lab hours per week plus two hours by arrangement. Prerequisite: Concurrent enrollment in an Architecture course, or equivalent.

Representational freehand drawing for Architecture majors, covering perspective, composition and specific techniques in black and white media, including introduction to the use of photography. (May be repeated for a total of 4 semester units.)

12 GRAPHICS (1)

Three lab hours per week. Prerequisite: Concurrent enrollment in an Architecture course, or equivalent.

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.)

13 ARCHITECTURAL PHOTOGRAPHY (2)

One lecture plus two lab hours per week by arrangement. Prerequisite: Arch. 11 or equivalent.

The use of photography as a visual process in the interpretation of architecture. Techniques of preparing a portfolio for transfer to the professional schools of architecture.

14 ESSENTIALS OF DRAFTING (3)

Six class 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.

15a INTRODUCTION TO DRAWING AND PERSPECTIVE (2)

Six class hours per week. Prerequisites: Arch. 11, Math 12 or equivalent, Arch. 14 or equivalent.

Basic techniques in the graphic communication of architects: orthographic and isometric projection, descriptive geometry, mechanical perspective, and shades and shadows.

15b DELINEATION (3)

Two lecture and four lab hours per week. Prerequisites: Arch. 11, 12, 15a.

Three-dimensional representations with various drawing media which will enable the student to express architectural ideas and designs.

16 STATICS (3)

Three lecture hours per week. Prerequisite: Concurrent enrollment in Math. 23a or 31.

The analysis of forces and their effects on rigid body structures by both analytical and graphical methods in two and three dimensions.

17 STRENGTH OF MATERIALS (3)

Three lecture hours per week. Prerequisite: Satisfactory completion of Arch. 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.

21 ARCHITECTURAL DESIGN (4)

Three lecture and three lab hours per week plus three hours by arrangement. Prerequisites: Arch. 14 or equivalent and concurrent enrollment in Arch. 11. Arch 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, and basic design.

22 ARCHITECTURAL DESIGN AND MATERIALS (4)

Three lecture and three lab hours per week plus three hours by arrangement. Prerequisites: Arch. 21, concurrent enrollment in Arch. 12 and Arch. 16.

Principles of architectural design, synthesis of form, space and color, esthetic 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.

23 ARCHITECTURAL DESIGN AND PRACTICE (4)

Three lecture and three lab hours per week plus three hours by arrangement. Prerequisites: Arch. 22 and concurrent enrollment in Arch. 17. Recommended: Arch 1a.

Architectural design, involving advanced projects, environmental esthetics and programming as design determinates. Introduction to electrical, mechanical and plumbing systems.

24 ARCHITECTURAL DESIGN AND PRACTICE (4)

Three lecture and three lab hours per week plus three hours by arrangement. Prerequisites: Arch.23 and Arch. 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 means of architectural communication

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 127.)

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.

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.)

115 GARDEN DESIGN (3) Fall only

Two lecture and three lab hours per week.

Introductory graphics, drafting, environmental planning and design for the garden landscape. Identical to Architecture 115.

120 LANDSCAPE DESIGN (3)

Two lecture and three lab hours per week. Prerequisite: Architecture 115.

Advanced graphic techniques, environmental planning and

design, planting, structures, engineering, materials, and history of the landscape. (Horticulture 120 is identical to Architecture 120.)

Art

1a HISTORY OF ART (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 until the late Middle Ages, with emphasis on architecture and sculpture.

1b HISTORY OF ART (3)

Three lecture hours per week.

A survey of Gothic, Rennaissance and Baroque art. Emphasis is placed on the development of painting from the 14th to the 18th Century.

1c HISTORY OF ART (3)

Three lecture hours per week.

A survey of European and American art from mid-18th Century until the present. Emphasis is placed on the development of modern painting as a reaction against earlier traditions.

1d HISTORY OF ORIENTAL ART (3)

Three lecture hours per week.

Introduction to the art of India, China and Japan, Study of selected works of sculpture, architecture and painting in relation to their historical and cultural settings. Special attention to works in the Brundage collection, M. H. de Young Memorial Museum.

2a-2b DRAWING AND COMPOSITION (3-3)

Six lecture-critique-lab hours per week. Prerequisite: 2a — None; 2b — Art 2a.

2a — 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. **2b —** Advanced composition; further study of three-dimensional form, in black and white and in color; illustration; experimental pictorial composition.

3a-3b COLOR TECHNOLOGY (3-3)

Three lecture hours per week. (A minimum of three hours of preparation per week required for class.) Prerequisite: 3a — Art 2a, 5a; 3b—Art 3a.

3a — Course study is based on both an adaptation and extension of the Ostwald system structured 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 as one of mixing color. **3b —** Continuation of the above with consideration of each individual student's special interest and planned career within the area of visual communication.

4 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 for Mechanical or Architectural Drafting.)

5a DESIGN: TWO-DIMENSIONAL (3)

Six lecture-critque-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.

5b DESIGN: THREE-DIMENSIONAL (3)

Six lecture-critique-lab hours per week. Prerequisite: Art 5a.

Volume line and space studies using paper, wire, wood, string and plaster of paris construction. Mobiles, stabiles and similar objects are created.

6a PAINTING, TWO-DIMENSIONAL (3)

Six lecture-critique-lab hours per week. Prerequisite: Art 2a-2b; 3a recommended.

Problems presented by the two-dimensional canvas and the techniques available to effect a solution and to achieve a personal expression. Painting is stressed as color communication acquired by increasing physical and psychological control of the paint medium. Ability to mix colors and modify hues, to progress and recess form, to distribute light and dark, and to shift intensities is correlated with every study.

6b PAINTING: THREE-DIMENSIONAL (3)

Six lecture-critique-lab hours per week. Prerequisite: Art 6a.

Continuation of two-dimensional problems and study of painting as three-dimension problems. The communication of painting is viewed as one of assembly, as one of construction, and as one of collage to further extend the experience of painting. (May be repeated once for credit.)

7a-7b WATERCOLOR (3-3)

Six lecture-critique-lab hours per week. Prerequisites: 7a — Art 2a-2b; 3a recommended: 7b — Art 7a.

7a—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 will be studied. **7b** — A continuation of Art 7a with emphasis of more painting experience in various styles and techniques in watercolor, such as an addition of opaque paints, and the use of collage to further extend the painting experience. (May be repeated for credit.)

10a-10b INTRODUCTION TO THE ARTS (3-3)

Three lecture hours per week. 10a — None: 10b — Art 10b or equivalent.

10a — Introduction to painting, music and theatre, stressing basic elements, problems of organization and contemporary experiments with media and forms. **10b** — Intensive study of three major works from various areas of Fine Arts.

12a LETTERING (3)

Three lecture 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 placed on letter proportions, character of style and proper spacing of letters and words.

15 LIFE DRAWING (3)

Six lecture-critique-lab hours per week, Prerequisite: Art 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.)

17a-17b ETCHING (3-3)

Six lecture-critique-lab hours per week. Prerequisite: 17a — Art 2a, 2b or equivalent; 17b — Art 17a.

17a — 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. **17b** — An advanced course in intaglio etching as a fine art, with emphasis on contemporary methods of color printing. (May be repeated for credit. Extra supplies may be required.)

20a-20b CERAMICS (3-3)

Six lecture-critique-lab hours per week. Prerequisite: 20a — None; 20 b — 20a.

Elementary clay construction including pinch, coil, and slab; methods of ornamentation, glazing, firing, introduction to potters wheel. (20b may be repeated for credit. Extra supplies are required.)

21a-21b GLASS BLOWING (3-3)

Six lecture-critique-lab hours per week.

21a — An introduction to the study of glass blowing and flat glass design. Theory and practice of designing and applying materials to stained glass. **21b** — Emphasis on three-dimensional design. (May be repeated for credit.)

22 SCULPTURE (3)

Six lecture-critique-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.)

23 INTERMEDIATE SCULPTURE (3)

Six lecture-lab-critique hours per week. Prerequisite: Art 22 or equivalent.

Armature building, mold making and casting is 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.)

25 CRAFTS (3)

Six lecture-critique-lab hours per week.

Introduction of fundamental design principles as they apply to a variety of crafts. Basic projects in textile, printing, jewelry and three-dimensional design.

27a-27b STAGE DESIGN. (3-3)

Three lecture hours per week. Prerequisite: 27a — Art 5a-5b or equivalent; 27b — Art 27a.

27a — Experience in executing designs for theatrical settings. Analysis of scenic problems of plays. Emphasis is upon solving the problems involved in preparing a design for presentation. No experience in drawing required. **27b** — Special problems in scenic design. (This course is also taught as Drama 27a-27b.)

40 VISUAL PERCEPTION (3)

Three lecture 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.)

41a-41b PHOTOGRAPHY BLACK & WHITE (3-3)

Six lecture-critique-lab hours per week. Prerequisite: 41a — Art 40, 2a or 5a, or concurrent enrollment; 41b — Art 41a.

41a — Introduction to basic black and white photographic skills: the use of cameras, lenses, filters, exposure meters, precise methods of negative developing, enlarging, and the mounting, spotting and presentation of exhibition caliber prints. (Extra supplies may be required.) **41b —** Continuation of skills and equipment introduced in 41a. Designed for students who have basic black and white photography and darkroom skills. (Extra supplies may be required.)

41c PHOTOGRAPHY WORKSHOP (3)

Six lecture-critique-lab hours per week. Prerequisite: Art 41a.

The broader aspects of technical perfection and visual awareness. Contemporary and creative forms of photographic presentations are explored, with emphasis on experimental techniques. (Extra supplies may be required.)

42a-42b ADVERTISING PHOTOGRAPHY (3-3)

Six lecture-critique-lab hours per week. Prerequisite: 42a — Art 41a; 42b — Art 41a.

The history of advertising including presentation of examples, the lithographic process of printing, various letter types and styles, and layouts and presentations. Current methods of advertising are continuously investigated. The student may employ color if concurrently enrolled in Art 43a or Art 43b. (Extra supplies may be required.)

43a-43b COLOR PHOTOGRAPHY (3-3)

Six lecture-critique-lab hours per week. Prerequisite: 43a — Art 41a; 43b — Art 43a.

43a — 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. Instructional materials fee required. **43b —** Emphasis on more refined control of color materials and a more cohesive portfolio. (Extra supplies may be required.)

47 COOPERATIVE EDCATION (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 127)

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.

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.)

51 RENDERING TECHNIQUES (3)

Six lecture-critique-lab hours per week. Prerequisites: Art 2a-2b, Art 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.

52 FIGURE DRAWING (2)

Four lecture-critique-lab hours per week.

Drawing the human figure from both live models and plaster anatomical casts using charcoal, conté, and ink. Emphasis is on proportion, action, structure, form and foreshortening. (May be repeated for credit.)

53 FASHION ILLUSTRATION (2)

Four lecture-critique-lab hours per week.

Principles of fashion illustration, design and layout in various media. Emphasis on style interpretation of accessories and clothes from the live model for magazine and newspaper reproduction.

62a-62b SILKSCREEN AND SERIGRAPHY (2-2)

Four lecture-lab--critique hours per week. Prerequisite: 62a — None; 62b — Art 62a

62a — 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 photosilkscreen approach and the printing on fabrics such as T-Shirts. **62b —** Advanced problems designed to encourage student experimentation in utilizing serigraphic techniques for visual presentation.

63a-63b FASHION DESIGN (2-2)

Four lecture-critique-lab hours per week. Prerequisite: 63a — None; 63b — Art 63a.

63a — The current fashion picture: form, color, fabric draping, drafting, sketching, historical research, abstration and stylizations as they affect the designing of clothing. Emphasis is placed on original designing by the students. **63b —** Historical research and national costumes as they affect designers, the development of a designer's line and the preparation of finished designs.

68a-68b INTERIOR DESIGN (3-3)

Three lecture hours per week. (Either semester may be taken separately.)

68a — Analysis of the modern home — site, design, furnishing and decoration. **68b —** History of furniture, with examination of "period styles," their influence on modern interior decoration and their values in solving problems.

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 shcools, colleges, universities and agencies. Instruction in portfolio organization, selection of work, matting, labeling and defining the objective of the art work.

81 BASIC CONCEPTS FOR INTERIOR DESIGN (3)

Six lecture-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. (Identical to Consumer Arts and Sciences 81.)

82 GRAPHICS FOR INTERIOR DESIGN (3)

Six lecture-lab hours per week.

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. (Identical to Consumer Arts and Sciences 82.)

83 SPACE PLANNING (3)

Six lecture-lab hours per week. Preprequisite: Art 82, or concurrent enrollment.

Organization, planning and construction of interior space to satisfy practical and aesthetic needs. The drawing, designing and planning of a residence. (Identical to Consumer Arts and Sciences 83.)

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. (Identical to Consumer Arts and Sciences 84.)

85a-85b HISTORY OF FURNITURE (3-3)

Three lecture hours per week. Prerequisite: 85a — None; 85b — Art 85a.

85a — A survey of the furniture and decoration of the Western world from ancient times to the 18th Century. **85b —** A study of the principal styles of furniture, accessories and architectural details which encompass this time period through contemporary furniture and decoration of the 20th Century. (Identical to Consumer Arts and Sciences 85a-85b.)

86 TEXTILES (3)

Three lecture hours per week.

Appreciation of the role of textiles and their use in interior design; fabric characteristics, fibers, yarns, and finishes.

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. (Identical to Consumer Arts and Sciences 87.)

88 INTERIOR DESIGN WORKSHOP (3)

Six lecture-lab hours per week. Prerequisites: Art 81, 82, 83, 84, 85a-b, 86, 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. (Identical to Consumer Arts and Sciences 88.)

89 INTERIOR DESIGN PORTFOLIO AND PRESENTATION (1)

Three class hours per week. Prerequisite: Art 88.

An occupational course for the advanced student in Interior Design, emphasizing professional presentation of interior design projects to potential clients and potential employers. (Identical to Consumer Arts and Sciences 89.)

Astronomy

1 GENERAL ASTRONOMY (4)

Three lecture 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 pinciples involved. Designed primarily for science majors. Astronomical tools and techniques, the solar system, the stars, the galaxies, cosmology.

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. The course includes 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.

15 GENERAL COSMOLOGY (3)

Three lecture per week. Prerequisite: Astr. 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.

16 LIFE IN THE UNIVERSE (3)

Three lecture hours per week. Prerequisite: Astro. 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.

46a-46b-46c PLANETARIUM TRAINING PROGRAM (1-1-1)

One lecture and one lab hour per week. Prerequisite: Astro. 10.

46a — Introduction to the planetarium, coordinate systems, time, calendar, planetary motions. **46b —** Introduction to planetarium programming, lecture presentation, planetarium operation, lecture-demonstration techniques. **46c —** Intermediate planetarium programming, lecture preparation, program design and structuring, special effects; each student will prepare and present one original planetarium program.

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.

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.)

Audio-Visual

61a-61b AUDIO-VISUAL AIDS (1-1)

One lecture hour, two lab hours by arrangement, per week.

Techniques of operation and care of equipment (motion picture, slide, filmstrip and overhead projectors). Production of projectiles for the various projectors. (Of special value to those seeking teaching as a career, and for all prospective candidates in the fields of public relations, music and communications.)

Automotive Technology

51 BASIC MAINTENANCE AND ECONOMICS OF THE AUTOMOBILE (2)

Two class hour 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.

52 BASIC AUTOMOTIVE REPAIR FOR THE CONSUMER (2) (Formerly Automotive Technology 14)

One lecture and three lab hours per week. Prerequisite: Automotive Technology 51 or equivalent.

Theory and practice in the use of tools and materials in the repair of automobiles for the home consumer. Emphasis is on those repairs which can be performed in the average homeowner's garage.

Biology

1 INTRODUCTION TO THE LIFE SCIENCES (3)

Three lecture-demonstration 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 contemporary problems. (This course is intended for non-science majors with no previous experience in the biological sciences.)

2 GENERAL BIOLOGY (4)

Three lecture hours and three lab or field 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, and the ecology, life cycles and natural history. (Extra supplies may be required.)

3 PLANTS AND MAN (3)

Three lecture-field 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.

4 SELECTED TOPICS IN NUTRITION (3)

Thre 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.

5 INTRODUCTION TO ECOLOGY (3)

Three lecture hours per week. Recommended: Biology 1 or 2.

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.

6 SOCIAL GENETICS (3)

Three lecture hours per week.

Survey of the principles of genetics with concentration on the latest developments in human genetics that permit manipulation of human embryonic development. (This course may be used to waive Health Science 2f.)

7 THE HUMAN MACHINE (3)

Three lecture hours per week. Prerequisite: Biology 1 or 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 assistants programs.

8 INTRODUCTION TO PLANT SCIENCE (3)
(Formerly Plant Science for Horticulture Major)

Two lecture and three lab hours per week.

Introduction to principles of plant stucture, function, and reproduction. (Identical to Horticulture 118.)

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.

11 PHYSICAL ANTHROPOLOGY (3)

Three lecture/discussion 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 11.)

14 INTRODUCTION TO FISHERIES AND WILDLIFE MANAGEMENT (3)

Three lecture hours per week.

Principles of fisheries and wildlife management and conservation. History of wildlfie conservation and the ecological basis for managing wildlife. Education and training for employment in the field of wildlife managment.

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.

16 INTROUCTION 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.

17 FORESTRY SURVEYING (3)

Two lecture and three lab hours per week. Prerequisite: Completion of or concurrent enrollment in Geometry.

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.

18a-18b LANDSCAPE TREES AND SHRUBS (2-2)

Three lecture-lab hours per week.

Plant classification, description, nomenclature, morphology, use of keys. The study in class of plants commonly used in California parks and gardens. Emphasis on plant identification. (Identical to Horticulture 95a-95b)

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 112.)

21 GENERAL ZOOLOGY (5)

Three lecture and six lab hours per week. Prerequisite: High school biology or equivalent with a satisfactory grade.

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.

22 GENERAL BOTANY (5)

Three lecture and six lab hours per week. Prerequisite: High school biology or equivalent with a satisfactory grade.

Principles of biology as illustrated by plants with emphasis on structure, physiology and reproduction in green plants. Extra supplies may be required.

23 ANATOMY (4)

Three lecture and three lab hours per week. Prerequisite: Satisfactory completion of a high school or college-level General Biology course.

Structure of the human body. Laboratory study and dissection of human and higher mammals. (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.

24 INTRODUCTORY PHYSIOLOGY (5)

Three lecture and six lab hours per week. Prerequisite: One course selected from Biology 21, 23, or 27. A knowledge of elementary chemistry and physics is recommended.

Functions of the organs and systems of the human body. This course is 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.

25 GENERAL MICROBIOLOGY (5) Fall only

Three lecture and six lab hours per week. Prerequisite: Chemistry 1a-lab or Chemistry 30a-30b, College-level Biology course. Bio. 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, Agriculture, Pre-Dentistry, Nursing, Agriculture, Sanitary Engineering.) Extra supplies may be required.

26 GENERAL BACTERIOLOGY (4) Fall only

Two lecture and 6 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.

27 INTRODUCTION TO CELL BIOLOGY (4)

Three lecture and three lab hours per week. Prerequisite: Chemistry 1a, or Chemistry 30a-30b.

Evaluation and analysis of the living cell and its component parts. The metabolism of the cell and bioenergetics involved will be examined as they relate to cellular development, growth, and reproduction. (Recommended for all Life Science and Medical Science majors.) Extra supplies may be required.

30 MARINE BIOLOGY (3)

Two lecture and three lab/field 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. Extra supplies may be required.

31 GENERAL ENTOMOLOGY (4)

Two lecture and six lab hours per week. Prerequisite: Sophomore standing with one course in the Biological Sciences.

Classification, life histories, morphology, physiology and ecology of insects; their comparative and functional relationship and emphasis upon their relationship to man.

32 TREES, SHRUBS AND WILDFLOWERS OF NORTHERN CALIFORNIA (3)

Two lecture and three lab hours per week.

The study of native and introduced trees, shrubs and wildflowers of Northern California, including their identification, taxonomy, ecology and utilization. Field trips will be scheduled throughout the semester.

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 human inheritance and biochemical genetics. The importance of heredity in its evolutionary concepts is included.

34 BIOLOGY OF SEX AND REPRODUCTION (3)

Three class hours per week.

Aspects of the nature of sexuality. Life cycles of sex types will be related to genetic potentials of plant and animal types. The hormonal and nervous control will be utilized to characterize reproduction.

37 DEVELOPMENT OF BIOLOGICAL CONCEPTS (3)

Three class hours per week. Prerequisites: Twelve or more units of college work and an 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, the Dark Ages, rebirth of science during the Renaissance, historical foundations of modern biology and modern biological themes.

40 NATURE STUDY (3)

One lecture and six lab hours per week, with day and weekend field trips to be arranged. Prerequisite: One course in the Biological Sciences.

Study of selected common organisms, both plant and animal; natural history and distribution of Bay Area organisms. Course designed to meet requirements of Education majors.

41 ANATOMY AND PHYSIOLGY (5)

Three lecture and six lab hours per week. Required for AARN Program. Prerequisite: Previous course in Biological Sciences.

Survey of basic human anatomy and of the principles of physiology. Emphasis is placed upon those areas which have a direct correlation with the practice of nursing. Extra supplies may be required.

42 MICROBIOLOGY FOR NURSES (4) Spring only

Three lecture, four lab hours, plus one hour by arrangement per week. Required for A.A. Degree Nursing Program. Prerequisite: Biology 41.

Basic concepts of the structure and function of microorgansims, especially as related to the host-parasite relationship. Control and prevention of the infectious diseases of man.

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 127.)

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 not intended to be a permanent offering of the Division.

49 SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequiste: 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.)

52 BACTERIOLOGY FOR VOCATIONAL NURSES (2) Spring only

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.

Building Inspection

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.

63b UNIFORM 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.

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.

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.

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.

63f PLAN CHECKING, STRUCTURAL (3)

Three lecture hours per week.

Structural requirements for conventional construction, including forces, reactions, movements in wood, steel and concrete construction; lateral forces and retaining walls.

Business

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

Mathematics—Bus. 50 or 51. (See course descriptions on page 116.) Students who are taking the transfer program may comply with the Business Math requirement by successful completion of an appropriate transfer mathematics course. **Bus. 10**—Introduction to Business.

2 ELEMENTARY STATISTICS (4)

See Economics 2.

8a HUMAN RELATIONS (3)

Three class 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.

8b HUMAN RELATIONS (3)

Three class hours per week. Prerequisite: Bus. 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.

10 INTRODUCTION TO BUSINESS (3)

Three class hours per week.

An introductory survey of the nature, organization and structure 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 requirement for Mgmt. 99 for Management Certificate Program.)

11 FUNDAMENTALS OF SALESMANSHIP (3)

Three class hours per week. Prerequisite: Business 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.

12 ADVERTISING (3)

Three class hours per week. Not open to first semester freshmen.

The role of advertising in our economic life, with emphasis on advertising methods and media.

16 RETAIL MANAGEMENT (3)

Three class hours per week. Prerequisite: Bus. 10 and Bus. 50 or 51.

Retail processes emphasized include merchandise planning and control, buying and receiving, pricing, sale promotion and customer service.

24 MARKETING (3)

Three class hours per week. Prerequisite: Bus. 10 or Mgmt. 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.

25 MARKETING RESEARCH (3)

Three class hours per week. Prerequisite: Business 24.

Survey of marketing research and application as a management tool. The approach is essentially practical rather than theoretical.

30 PRINCIPLES OF BANK OPERATIONS (3)

Three class 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.

31 INSTALLMENT CREDIT (3)

Three class hours per week.

Study of the broad field of installment credit and lending from the standpoint of both the public relations and profit position.

32 ANALYZING FINANCIAL STATEMENTS (3)

Three class 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.

35 PERSONAL MONEY MANAGEMENT (3) (Formerly Personal and Family Finance)

Three class 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.

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 127.)

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.

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.)

50 BUSINESS ARITHMETIC (3)

Three class 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 fractions, decimals and percentages as applied to ordinary problems of business.

51 BUSINESS MATHEMATICS (3)

Three class hours per week. Prerequisite: A percentile rating of 35 or over on the quantitative part of the SCAT entrance examination or completion of Bus. 50 with a grade of C or better.

Finding required quantity by the use of fractional equivalents, aliquot parts, equations and formulas, ratio and proportion, formulas in percentage, simple interest, bank discount, present value, periodic payments and depreciation.

52 LAW FOR THE LAYMAN (3)

Three class hours per week.

Survey of legal problems which confront people in their everyday life activities. Included are the courts, trials, marriage and divorce, community property, wills, trusts, succession, mortgages, trust deeds, conditional sales, crimes, torts, homesteads and the Corporate Securities Act.

56 BUSINESS ENGLISH AND COMMUNICATIONS II (3) (Formerly Business Correspondence)

Three class hours per week. Prerequisite: Bus. 92.1, 92.3, 92.4 (Beginning Typing, 3 units) or equivalent.

Business letter-writing taught by the workshop method. Students form their own companies and carry on the correspondence necessary to complete the business transactions.

59L INTRODUCTION TO LEGAL OFFICE TRAINING (3)

Three class hours per week. Part of the Legal Secretarial Modular Program.

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.

65 SMALL BUSINESS MANAGEMENT (3)

Three class hours per week. Prerequisite: Bus. 10

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.

66 GENERAL ACCOUNTING (4)

Five class hours plus one lab hour per week. Prerequisite: Completion of or concurrent enrollment in Bus. 50 or 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.

67 SECRETARIAL ACCOUNTING (2-3)

Three class hours and one lab hour a week by arrangement for 11 weeks — 2 units; three class hours and one lab hour a week by arrangement for 16 weeks — 3 units. Prerequisite: Bus. 50, 51, or equivalent.

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.

69a INCOME TAX ACCOUNTING, Part I (3)

Three class hours per week. Prerequisites; Bus. 66 or Bus. Ad. 1a.

Study of the procedures for computing the income tax liability of individuals and business in accordance with the latest income tax law and regulations. Practice in solving typical problems and in preparation of tax returns.

69b INCOME TAX ACCOUNTING, Part II (3)

Three class hours per week. Prerequisites: Bus. 69a 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.

70 PRINCIPLES OF TRANSPORTATION (3) (Formerly Business 70a)

Three class 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.

71 TRAFFIC MANAGMENT AND PHYSICAL DISTRIBUTION (3) (Formerly Business 70b)

Three class hours per week. Prerequisite: Bus. 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.

72 REGULATION OF TRANSPORTATION (3)

Three class hours per week. Prerequisite: Bus. 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.

73 INTERSTATE AND TRANSCONTINENTAL RAILROAD RATES, RULES AND REGULATIONS (3)

Three class hours per week. Prerequisite: Bus. 70 or equivalent.

Designed to introduce the basic structure of rail class and commodity tariffs in interstate and transcontinental shipment. Particular emphasis is placed on tariff publications of the Pacific Southcoast Freight Bureau and the Transcontinental Freight Bureau.

74 FREIGHT LOSS, DAMAGE, AND CLAIMS LAW (3)

Three class hours per week. Prerequisite: Bus. 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.

75 INTRASTATE AND INTERSTATE MOTOR CARRIER RATES, RULES, AND REGULATIONS (3)

Three class hours per week. Prerequisite: Bus. 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.

76 AIR FREIGHT RATES, RULES, AND REGUALTION (3)

Three class hours per week. Prerequisite: Bus. 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.

77 SPECIAL COMMODITIES TRANSPORT AND WAREHOUSE MANAGMENT (3)

Three class hours per week. Prerequisite: Bus. 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.

80a ECONOMIC SECURITY AND INDIVIDUAL LIFE INSURANCE (3)

Three class 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.)

80b LIFE INSURANCE LAW AND MATHEMATICS (3)

Three class hours per week.

Legal aspects of contract formation, policy provisions, assignments, ownership rights, creditor rights, beneficiary designations, and disposition of life insurance proceeds. Also covered is the mathematics of life insurance. (Preparation for CLU Examination, HS 302.)

80c GROUP INSURANCE AND SOCIAL INSURANCE (3)

Three class 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.)

80d ECONOMICS (3)

Three class 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.)

80e ACCOUNTING AND FINANCE (3)

Three class 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.)

80f INVESTMENTS AND FAMILY FINANCIAL MANAGEMENT (3)

Three class 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 insurance, mutual funds, variable annuities, and aspects of other investment media. (Preparation for CLU Examination, HS 306.)

80g INCOME TAXATION (3)

Three class 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.)

80h PENSION PLANNING (3)

Three class 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.)

80j BUSINESS INSURANCE (3)

Three class 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.)

80k ESTATE PLANNING AND TAXATION (3)

Three class 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.)

81 SECURITY INVESTMENTS (3)

Three class hours per week. Prerequisite: Sophomore standing.

Stocks, bonds and investment trusts; investment policies, evaluation, charting — issues and industries.

82 PRINCIPLES OF INSURANCE (3)

Three class hours per week.

Covers each type of insurance with the fundamental underlying principles, the organization of insurance business and accepted insurance practices. (Designed for all majors in Business who seek to pass the state examination for insurance salesmen.)

83a-83b REAL ESTATE PRINCIPLES (Basic and Advanced) (3-4)

83a — Three class hours per week; 83b — Four class hours per week. Prerequisites: 83a — None. Concurrent registration in Bus. 50 or 51 and 84 is recommended. 83b — Bus. 83a and Bus. 84, or Real Estate Salesman's or Broker's License, or equivalent.

83a — Property, contracts, agency, financing, recordation, liens and encumbrances, taxes, escrows, land description, and real estate math. (Meets the state requirements for the broker's examination.) **83b** — Problem assignments as they relate to contracts, financing, conveyances, liens, agency, legal aspects, escrow, leasing, and real estate math. (Approved by State Dept. of Real Estate as substitute for Bus. 85 toward Broker's examination.)

83c REAL ESTATE MATHEMATICS (1)

One class hour per week. Prerequisite: Concurrent enrollment in Bus. 83b.

Comprehensive review of the type of mathematical problems given in the state examination for a Broker's or Salesmen's license. (This course is not intended as a substitute for Bus. 140 — Real Estate Mathematics.)

84 REAL ESTATE VALUATION, INVESTMENT AND MANAGEMENT (3)

Three class hours per week. Recommended: Concurrent enrollment in 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.)

85 REAL ESTATE PRACTICE (3)

Three class hours per week. Prerequisite: Bus. 83a and 84, or equivalent.

Comprehensive presentation of the techniques of operating a real estate business in the State of California with emphasis on the daily activities of salesmen and brokers. (Meets the state requirements for the broker's examination.)

87 LEGAL ASPECTS OF REAL ESTATE (3)

Three class hours. per week. Prerequisite: Bus. 83a and 84; Bus. 85 (or concurrent enrollment); or equivalent.

The practice of real estate brokerage, real estate sales, property management, real estate ownership, the management or 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.)

88 REAL ESTATE FINANCE (3)

Three class hours per week. Prerequisite: Salesman's or broker's license, or completion of Bus. 83a and 84. Completion of 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.)

90.1 SHORTHAND, BASIC GREGG THEORY (4)

Five class hours and two lab hours a week by arrangement for eleven weeks. Prerequisites: Enrollment in or completion of Business 91; enrollment in or completion of three units of beginning typing or equivalent.

Foundation course in Gregg Shorthand Diamond Jubilee theory.

90.2 SHORTHAND, ELEMENTARY DICTATION (1)

Five class hours and two lab hours 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 Business 91.

Intensive dictation and theory reinforcement to achieve a minimum of 60 words a minute for three minutes.

90.3 SHORTHAND, SPEED BUILDING (1)

Five class hours and two lab hours a week by arrangement for 5-1/2 weeks. May be taken 2 times 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 Business 91 or equivalent.

Speed development individualized for all levels of competency. May be taken concurrently with Business 90.4.

90.4 SHORTHAND, PRE-TRANSCIPTION (4)

Six class hours and two lab hours a week by arrangement for eleven weeks. Prerequisites: Ability to take dictation at 60 words a minute; enrollment in or completion of three units of intermediate typing (Bus. 92.5, 92.6, 92.7) or equivalent; Business 91 or equivalent.

Integration of English, typing, and shorthand skills to produce mailable copy.

90.5 SHORTHAND, TRANSCRIPTION (2)

Six class hours a week for 5½ weeks. Prerequisites: Business 90.4; ability to take dictation at 70 words a minute; Business 91; enrollment in or completion of three units of intermediate typing (Bus. 92.5, 92.6, 92.7) or equivalent.

Production transcription with emphasis on employment standards.

90L LEGAL SHORTHAND AND TRANSCRIPTION (2)

Four class hours per week. Prerequisite: Proficiency in shorthand and typewriting. Part of the Legal Secretarial Modular Program.

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.

90p ALPHABETIC SHORTHAND (1-3)

Three class hours and two lab hours per week by arrangement for 11 weeks. Prerequisites: Enrollment in or completion of Bus. 91 or equivalent; enrollment in or completion of three units of beginning typing (Bus. 92.1, 92.3, 92.4) or equivalent.

Foundation course in alphabetic shorthand — principles, dictation, transcription. Vocational or personal use.

91 BUSINESS ENGLISH AND COMMUNICATIONS I (3) (Formerly Business English)

Three class hours per week.

Grammar, punctuation, spelling and word usage for business.

Beginning, Intermediate, and Advanced typing courses use the Audio-Visual-Tutorial method of instruction. The student may enter any desired course on any Monday during the semester and earn from one to three units of credit.

92.1, 92.3, 92.4 BEGINNING TYPING (1-3)

Five class hours and 1 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.

92.5, 92.6, 92.7 INTERMEDIATE TYPING (1-3)

Five class hour and 1 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.

92.8, 92.9 ADVANCED TYPING (1-2)

Five class hours and 1 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.

92.2 SKILL BUILDING TYPING (1)

Five class hours and two lab hours a week for 5½ weeks. Prerequisite: Knowledge of keyboard. May be taken two times for credit.

Speed and accuracy development individualized for all levels of competency. May be taken concurrently with all typing courses except 92.1.

93 MACHINE CALCULATION (1-2)

Five class hours per week for 5½ weeks (three 5½ week modules per semester). Students may enter at the beginning of any module. (May be repeated once for credit.) Prerequisite: Bus. 50 or equivalent.

Instruction includes electronic display calculators and the touch system of operating the 10-key adding machine. Assignments emphasize actual business situations and problems. The printing calculator and rotary calculator will be offered on a special project basis.

94 WORD PROCESSING MACHINE TRANSCRIPTION (2)

Four class hours per week. Prerequisite: Typing speed of 40 wpm; Bus. 91 or equivalent.

A foundation course in machine transcription to develop a student's skill in transcribing mailable copy. Instruction is audio-visual-tutorial.

94L LEGAL MACHINE TRANSCRIPTION (2)

Four class hours per week. Prerequisite: Demonstrated proficiency in typewriting. Part of the Legal Secretarial Modular Program.

Transcription of legal documents: client, court, and general; correspondence and reports.

96 FILING AND RECORDS MANAGEMENT (2)

Two class 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.

99 CERTIFIED PROFESSIONAL SECRETARY REVIEW (3)

Three class hours per week. Prerequisite: Demonstrated profi-

ciency 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.

100a OFFICE PROCEDURES (3)

Four class hours per week plus one hour by arrangement. Prerequisites: Bus. 91 or equivalent; completion of three units of Intermediate Typing (Bus. 92.5, 92.6, 92.7) or equivalent; Bus. 96 or equivalent.

Intensive course in application of skills in the wide range of activities performed in secretarial and office administration.

100b OFFICE ADMINISTRATION (3) (Formerly Secretarial Procedures and Administration)

Five class hours per week. Prerequisite: Bus. 100a or equivalent.

Integration of training through simulated office experience with emphasis on techniques of administration.

100L LEGAL SECRETARIAL PROCEDURES AND OFFICE ADMINISTRATION (3)

Five class hours per week. Prerequisite: Demonstrated proficiency in typewriting. Part of the Legal Secretarial Modular Program.

Intensive course in specialized procedures applicable to 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.

102 BEGINNING WORD PROCESSING (1-4)

Two lecture and three lab hours per week. Prerequisites: Bus. 91 or equivalent; typing speed of 50 wpm.

Basic training in the operation of automatic typewriters, dictating, and transcribing equipment for the purpose of meeting general job requirements in the area of word processing. Advanced applications are not covered in this introductory course.

111 FUNDAMENTALS OF REAL ESTATE SALESMANSHIP (3)

Three class hours per week. Prerequisite: Bus. 83a and 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.

112 LEGAL ASPECTS OF REAL ESTATE, ADVANCED (3)

Three class hours per week. Prerequisite: 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. (Meets the State requirements for the broker's examination.)

113 REAL ESTATE FINANCE, ADVANCED (3)

Three class hours per week. Prerequisite: Bus. 88, or equivalent.

Financing of commerical, 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.)

114 REAL ESTATE OFFICE ADMINISTRATION (3)

Three class hours per week Prerequisite: Bus. 83a or 84, 85, 87, 88 and 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.)

123 PUBLIC RELATIONS (3)

Three class hours per week.

Role of public relations in business and industry. The course also covers the fundamental principles, procedures and tools used in public relations.

131 REAL ESTATE ECONOMICS (3)

Three class hours per week. Prerequisite: Bus. 83a or 84, 85, 87, 88 and 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.)

134 REAL ESTATE APPRAISAL, BASIC (3)

Three class hours per week. Prerequisite: Bus. 83a and 84, or equivalent.

Basic real estate appraisal which considers the analysis of residential and commerical properties. Techniques for determination of loan, market and insurance values. (Meets the State requirements for the broker's examination.)

135 ADVANCED REAL ESTATE APPRAISAL (Urban) (3)

Three class hours per week. Prerequisite: 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.)

136 ADVANCED REAL ESTATE APPRAISAL (Rural) (3)

Three class hours per week. Prerequisite: Bus. 134 or 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.)

138 REAL ESTATE EXCHANGES AND TAXATION (3)

Three class hours per week. Prerequisite: Bus. 83a or 84, 85, 87, 88 and 134; or equivalent.

Advanced course for real estate brokers 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.)

139 COMMERCIAL AND INVESTMENT PROPERTY (3)

Three class hours per week. Prerequisite: Bus. 83a or 84, 85, 87, 88 and 134; or equivalent.

For licensed real estate brokers and salesmen, financing officials, and investors. Emphasizes the process of selecting various commercial properties for investment, analyzing locations, income, operating expenses, depreciation and obsolescence. (Meets the State requirements for the broker's examination.)

140 REAL ESTATE MATHEMATICS (3)

Three class 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, escrow, interest calculations and capitalization techniques.

141 REAL ESTATE PROPERTY MANAGEMENT (3)

Three class hours per week. Prerequisite: Bus. 85, 87 and 88, or equivalent.

Applied study of the management of income-producing real estate. Emphasis on neighborhood analysis; rent schedules; selection of personnel; contracts and purchasing; interior and exterior maintenance; leasing procedures; and accounting and investment planning. (Meets the State requirements for the broker's examination.)

142 REAL ESTATE INTERNSHIP (4)

Two lecture hours and 10 laboratory hours per week. Prerequisites: Business 83a and 84 or equivalent. Business 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. This is intended to assist the student enrolled in the work-experience education program.

145a TITLE EXAMINING PROCEDURES, BASIC (3)

Three class hours per week.

Compiling and interpreting data from various official sources leading to the production of evidence of ownership of real estate.

145b ESCROW PROCEDURES BASIC (3)

Three class hours per week. Prerequisite: Bus. 145a or equivalent.

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.)

145c TITLE EXAMINING PROCEDURES, ADVANCED (3)

Three class hours per week. Prerequisite: Bus. 145a or equivalent.

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.

145d ESCROW PRACTICES, INTERMEDIATE (3)

Three class hours per week. Prerequisite: 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.)

145e ESCROW PROBLEMS, ADVANCED (3)

Three class hours per week. Prerequisite: Bus. 245d 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 requirements for broker's examination.)

Business Administration

Students planning to transfer to a university should complete Math. 20 or have 2 years of high school Algebra.

1a-1b PRINCIPLES OF ACCOUNTING (4-4)

Five class hours per week. Prerequisite: 1a-None. 1b-Bus. Adm. 1a or equivalent, with a grade of C or better.

1a—Records, accounts and statements of proprietorship enterprises. Debit and credit theory and generally accepted accounting principles and concepts. **1b**—Applications of theory, concepts and principles to partnerships and corporations. Introduction to departmental, cost and manufacturing accounting, budgeting, analysis and management decisions.

18a BUSINESS LAW (3)

Three class 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 agency and employer-employee relations.

18b BUSINESS LAW (3)

Three class hours per week. Prerequisite: Bus. Adm. 18a.

Continuation of 18a with business applications of law of partnerships, corporations, real property, mortgages and security transactions, trusts, wills, bankruptcy and commercial paper.

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 implication of government regulation of business and the economy. Discussion of sources of power within the government and constitutional limitations thereon, together with specific regulatory powers and their administration.

20 COMPUTER APPLICATIONS IN ACCOUNTING (4)

Three lecture hours and 2 lab hours per week. Prerequisites: Concurrent enrollment in or completion of Bus. Adm. 1a; completion of one year of high school algebra, or Math. 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.

48 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.

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.)

Chemistry

1a-1b GENERAL CHEMISTRY (5-5)

Three lecture and six lab hours per week. Prerequisites: 1a — Chem. 51 or high school Chemistry with grade C-plus and two years of high school Mathematics or satisfactory performance on placement test; high school Physics recommended; 1b — Chem. 1a with grade C or better. Intended for students majoring in science fields and engineering.

1a —Basic principles of atomic and molecular structure and bonding. Chemical reactions and equations, solutions, gas laws, equilibrium, stoichiometry and calculations related to the foregoing. (Extra supplies may be required.) **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.)

5 QUANTITATIVE ANALYSIS (4)

Two lecture and six lab hours per week. Prerequisite: Chem. 1b with grade C or better.

Theory, calculations and practice of common analytical procedures. Includes gravametric, volumetric methods; also colorimetric, potentiometric and other instrumental procedures. (Extra supplies may be required.)

7 INTRODUCTION TO PHYSICAL CHEMISTRY (4)

Three lecture and three lab hours per week. Prerequisites: Chem. 1a-1b, Chem. 5.

Properties of matter, solutions, equilibrium, hydrogen ion concentration, thermochemistry and reaction velocity. (Extra supplies may be required.)

10 SURVEY OF CHEMISTRY (3)

Three lecture hours per week. (Not open to students who have had or are taking Chem. 1a.)

General survey of the more important concepts and applications of Chemistry for non-science majors.

12a ORGANIC CHEMISTRY (3)

Three lecture hours per week. Prerequisite: Chem. 1a with grade C or better.

Basic concepts of structure and reactivity. Reactions of major functional groups. Designed to be the first semester of a one-year organic course or a one-semester overview.

12aL ORGANIC CHEMISTRY LAB (2)

One lab/lecture and five lab hours per week. Prerequisite: Completion of or concurrent enrollment in Chem. 12a.

Principles and practice of laboratory techniques, including methods of separation, purification, synthesis, kinetics, and identification of unknowns. Theory and practice of instrumental methods. (Extra supplies may be required.)

12b ORGANIC CHEMISTRY (5)

Three lecture hours and one lab/lecture and five lab hours per week. Prerequisites: Chem. 12 and 12aL with grades of C or better.

Mechanisms and uses of more complex syntheses, condensation reactions, and instrumental techniques. Includes more exotic classes of compounds than those in Chem. 12a.

20 LANGUAGE OF CHEMISTRY (1)

Three lecture hours per week for six weeks.

A general introduction to those concepts of chemistry recommended for understanding the applications in the Chemistry 20 series. Symbols for elements and compounds; principles of bonding and molecular structure; functional groups of organic compounds; general types of chemical reactions and how to interpret them.

21 CHEMISTRY OF FOOD AND FOOD ADDITIVES (1)

Three lecture hours per week for six weeks. Prerequisite: Chemistry 20 or other chemistry course.

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.

22 CHEMISTRY OF COSMETICS (1)

Three lecture hours per week for six weeks. Prerequisite: Chemistry 20 or other chemistry course.

Chemical composition of major types of cosmetics, deodorants, hair dressing. Effect of active ingredients on the substrate. Structures of components of major cosmetic categories and their relationship to the desired function.

23 CHEMISTRY OF GARDENING (1)

Three lecture hours per week for six weeks. Prerequisite: Chemistry 20 or other chemistry course.

Chemical composition of fertilizers, pesticides, and herbicides. Mode of action of critical ingredients; potential side effects. Structures of the active components of commercial, agricultural and gardening aids, and the mechanism of their action.

24 CHEMISTRY OF PHOTOGRAPHY (1)

Three lecture hours per week for six weeks. Prerequisite: Chemistry 20 or other chemistry course.

Chemical description of black and white and color film construction. Reactions occuring during image formation and processing.

25 CHEMISTRY OF DRUGS & PHARMACEUTICALS (1)

Three lecture hours per week for six weeks. Prerequisite: Chem. 20 or other chemistry course.

The structure and mode of action of selected drugs and pharmaceuticals.

26 CHEMISTRY OF MOTOR FUELS (1)

Three lecture hours per week for six weeks. Prerequisite: Chem. 20 or other chemistry course.

A description of the manufacture and performance of motor fuels as related to the chemistry of the components.

27 CHEMISTRY OF POLLUTION AND THE ENVIRONMENT (1)

Three lecture hours per weeks. Prerequisite: Chem. 20 or other chemistry course.

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.

30a-30b BASIC CHEMISTRY (4-4)

Three lecture and three lab hours per week. Prerequisites: 30a—high school Abgebra; 30b–30a with grade C or better.

30a — Aspects of chemistry of particular use to applied fields. Includes mole concept,aqueous solutions, acids and bases, ma-

jor classes of organic compounds and reactions of biological importance. (Extra supplies may be required.) **30b** — Includes gas laws, equation writing, oxidation reduction and further work in organic and biochemistry. (Intended for students whose majors — Nursing, Home Economics, Industrial Technology, and Police Science—require a working knowledge of chemistry, but not the theoretical background given in Chem. 1a-1b.) (Extra supplies may be required.)

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.)

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.)

51 PREPARATION FOR CHEMISTRY 1a (3)

Six lecture-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. 1a.) (Extra supplies may be required.)

Community Education Programs

The Community Education Program of the College of San Mateo offers a wide variety of lectures, workshops, forums, performances and non-credit short courses. For a complete listing of these activities, call the Community Education Office, 574-6445. A brochure of the semester's activities will be mailed to you upon request.

Consumer Arts and Sciences

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.

2 MEAL MANAGEMENT AND FOREIGN FOODS (3)

Two lecture and three lab hours per week. Prerequisite: Home Econ. 1.

Food buying, meal preparation and service. Emphasis is also given to kitchen equipment and organization, quick meals, economical meals and foreign cookery.

3 FOODS FOR ONE OR TWO (2) (Formerly Bachelor Foods)

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.

5 TWENTIETH CENTURY CAREERS (1)

One lecture hour per week.

Introduction to the range of subject matter to be selected in two-and four-year programs in Consumer Arts and Sciences curriculum.

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 need of the individual. (Identical to Health Science 9.)

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.

16 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.

17 FASHION COORDINATING AND DISPLAY (3)

Three lecture hours per week. Prerequisite: Consumer Arts and Sciences 16 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.

20 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.

21 TAILORING (3)

Two lecture and three lab hours per week. Prerequisite: Consumer Arts and Sciences 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.

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.

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.

26 FASHION DESIGN AND CONSTRUCTION (3)

Two lecture and three lab hours per week. Prerequisite: Consumer Arts & Sciences 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.

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.

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 Economics 45.)

46 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.

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 127.)

48 SELECTED TOPICS IN CONSUMER ARTS AND SCIENCES (1-3)

Hours by arrangement.

Selected topics in Consumer Arts and Sciences 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.

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.)

52 GOURMET FOODS (2)

Two class hours per week. (Not open to Consumer Arts and Sciences majors.)

Planning, selection and preparation of foods for meals for optimum health. Designed especially for those who wish to serve gourmet, nutritional meals.

55 HOME DECORATION (2)

Two lecture hours per week.

An appreciation and application of the elements that contribute to the art of decorating the home. Provides a knowledge of the relevant arts, crafts and trades and how they are utilized.

65 CLOTHING CONSTRUCTION (1)

Three lecture-lab hours per week.

Color analysis, design, fabric and pattern selection; basic construction techniques and commercial patterns used to develop an individual project.

66 CLOTHING CONSTRUCTION (1)

Three lecture-lab hours per week. Prerequisite: Consumer Arts and Sciences 65 or equivalent.

Tailoring and custom techniques including pattern alteration and fitting for the individual.

67 FITTING & ALTERATIONS (1)

Three lecture-lab hours per week.

Detailed alteration techniques for individualized figure problems to insure perfect fit.

81 BASIC CONCEPTS FOR INTERIOR DESIGN (3)

See Art 81.

82 GRAPHICS FOR INTERIOR DESIGN (3)

See Art 82.

83 SPACE PLANNING (3)

See Art 83.

84 COLOR APPLIED TO INTERIOR DESIGN (3)

See Art 84.

85a-85b HISTORY AND FURNITURE AND DECORATION (3-3)

See Art 85a-85b.

87 MATERIALS AND APPLICATION (3)

See Art 87.

88 INTERIOR DESIGN WORKSHOP (3)

See Art 88.

89 INTERIOR DESIGN PORTFOLIO AND PRESENTATION (1)

See Art 89.

Cooperative Education

1 and 2 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 8 units of credit including Cooperative Education is mandatory. Coordinating class learning activities averaging one hour per week are required. Scheduled seminars, individual conferences, and individualized instruction are provided to meet this requirement.

Development of desirable employment habits, attitudes, and career awareness under the direction of a college coordinator. Designed for the student who does not have a specific occupational goal but desires experience on a job. Students with established majors and career goals should enroll in Cooperative Education 47.

There are two 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 New Careers Plan provides students working full time a chance to relate theory and on-going work experience.

Further information is available at the Cooperative Education Office.

For Veterans Only:

The Veterans Administration does not approve **Cooperative Education 1 and 2** for educational benefits.

47 CAREER COOPERATIVE WORK EXPERIENCE EDUCATION (1-4)
ALTERNATE SEMESTER (1-8)
(Credit/No Credit)

Available in each major field of study.

Career 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. May be repeated for credit up to a grand total of 16 units. Enrollment in 8 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

The University of California will accept Cooperative Education. Check with the Cooperative Education Department for current

information on transferring co-op credit to the California State University and College system.

Work experience in a field related to a career goal and major, supplemented by individual counseling from an instructor-coordinator. There are three basic programs: (1) parallel plan part-time work; (2) alternate semester, alternating work and school each semester; (3) full-time employment, part-time college.

Related instruction information is presented within classes in the major field of study. In addition, certain departments require scheduled seminars and/or individualized instruction. For more information contact the Cooperative Education office, 574-6171.

For Veterans Only:

The parallel plan qualifies for "institutional course" pay rates; the alternate plan qualifies for "cooperative course" pay rates, as designated 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 a regularly scheduled weekly meeting.

Cosmetology

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 127.)

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.

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.)

50 COSMETOLOGY (Variable to 16)

37½ hours per week: Twelve lecture hours and 25½ lab hours per week for maximum of 16 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.

All subjects required for licensing as a Cosmetologist by the California State Board of Cosmetology.

51 COSMETOLOGY (Variable to 16)

37½ hours per week: 10½ lecture hours and 27 lab hours per week for maximum of 16 units, fewer hours by arrangement for fewer units. Prerequisite: Grade C or better in Cosmetology 50.

Continuation of Cosmetology 50.

52 COSMETOLOGY (Brush-up) (Units to be determined)

Five lecture hours and 27 lab hours per week. Prerequisite: Cosmetology license, or Cosmetology 51 with a C or better.

For supplemental training requirements or out-of-state requirements. Course requirements must be met satisfactorily prior to state examination.

53 MANICURIST (Variable to 10)

Nine lecture hours and 28½ lab hours per week. Prerequisite: Enrollment in Cosmetology curriculum.

Training in theory and practice in the art of manicuring and pedicuring in preparation for licensure by the California State Board of Cosmetology, in that field only. (Total of 350 hours training.)

90 ADVANCED WORKSHOP (1)

Spring Semester—*three class hours per week for eight weeks. (Two 8-week sessions offered.)*
Fall Semester—*five class hours per week for nine weeks. (One session offered.) Prerequisite: California Cosmetologist License or completion of Cosmetology 50.*

Latest National Hair Fashion releases for Spring and Fall. Current techniques in hair shaping, wet and thermal styling and related salon practices.

91 INSTRUCTOR TRAINING (Variable to 17)

Nine lecture and 28½ lab hours per week for a total of 750 hours. Prerequisite: Valid California Cosmetologist license; or Cosmetology 51 with a C or better.

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. 150 hours may be added to the training, if necessary, to correct deficiencies.

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.

5 FOLK/SQUARE DANCE (1)

Two class 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.

6 MOVEMENT AND BODY AWARENESS (1)

Two class hours per week.

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.

8 ELEMENTARY BALLET AND MODERN DANCE (1)

Two class 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.

10 DANCE AND MOVEMENT FOR THEATER (2)

Four class hours per week.

Movement, body awareness activities for the theater environment. Dance technique, locomotor movements, and various improvisation experiences resulting in choreographic movement studies.

12a-12b BALLET (1-1)

Two class hours per week.

12a — Beginning study of ballet techniques and style, barre, center floor and dance variations. Modern ballet works are explored. **12b —** Beginning ballet techniques, concentrating on barre, center floor, and dance variations. Classical ballet works are explored.

13a-13b CONTEMPORARY MODERN DANCE (1-1)

Two class hours per week.

13a — Fundamentals of contemporary dance technique, body alignment, and basic locomotor movements. Modern dance styles are studied in relation to the significance of a dancer's training. **13b —** In-depth study of modern dance techniques, body alignment and locomotor movements. Contemporary dance choreographers and their significance to contemporary dance are studied.

14 JAZZ DANCE (1)

Two class hours per week.

Beginning techniques in jazz-stage, jazz movements, fast jazz, jazz rock, and blues, plus various jazz combination.

20a-20b DANCE PRODUCTION (1-2)

Two class hours per week. Prerequisite: 20a—Dance 8 or 13a-b; 20b—Dance 20a.

20a — Choreographic principles of dance composition and stage presentation. Types of dance include primitive, medieval, expressionism, cerebralism, jazz, improvisation, impressionism, formal ballet, modern ballet, Broadway musical, Americana, and folk dances. **20b —** 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. (Additional hours required for production.)

Data Processing

20 COMPUTER APPLICATIONS IN ACCOUNTING (4)

See Business Administration 20.

25 FORTRAN PROGRAMMING WITH AN INTRODUCTION TO NUMERICAL AND STATISTICAL METHODS (3)

See Mathematics 25.

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 127.)

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/laboratory class.

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.)

50 COMPUTERS AND SOCIETY (3)

Three lecture hours per week plus one lab hour per week by arragement.

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.

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.

52 OPERATING SYSTEMS CONCEPTS AND JOB CONTROL LANGUAGE (JCL) (4)

Three lecture and three lab hours per week. Prerequisite: Data Proc. 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.

53a BASIC COBOL PROGRAMMING (4)

Three lecture hours and three lab hours per week. Prerequisite: Data Proc. 50 or equivalent.

Writing and testing COBOL programs on an IBM-360/30 computer. Emphasis on logic of typical business programs and basic language elements. Included also are debugging techniques, use of reference manuals, program documentation standards, and structured programming concepts.

53b ADVANCED COBOL PROGRAMMING (4)

Three lecture hours and three lab hours per week. Prerequisite: Data Proc. 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.

54 SYSTEM 360 ASSEMBLER LANGUAGE 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 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 dumps.

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.

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 will be stressed, scientific subsets will be covered in less detail. All forms of input/output design will be covered.

97 KEY DATA ENTRY (3)

Day—five class hours per week. Evening—six class hours per week. Prerequisite: Knowledge of typing.

Extensive operating experience on 029 and 129 keypunches, and introduction to key to disk equipment. Multi-level program design; practice exercises involving typical business applications, to prepare a student for entry-level employment.

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

47 COOPERATIVE EDUCATION — HEALTH OCCUPATIONS (1-4) (Credit/No Credit)

Work experience in a field related to a career goal, supple-

mented by individual iounseling from an instructor-coordinator. (See Page 127.)

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.

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.

51a-51b OFFICE PROCEDURES (3-3)

Two lecture and three lab hours per week. Prerequisites: 51a—none; 51b—D.A. 51a.

51a — Introduction to nutrition, pharmacology and microbiology. Study of first aid, dental terminology, jurisprudence, ethics, appointment control, record management, recall systems, office supplies and equipment, filing, telephone and written communication (including manuscripts and reports), preparation of office manual and resume. **51b** — Study of dental insurance concepts, banking, payroll, tax preparations, monthly statements and collections. Laboratory sessions for application of above principles.

52a-52b DENTAL MATERIALS (3-3)

Two lecture and 1½ lab hours per week. Prerequisites: 52a — none; 52b — D.A. 52a.

52a — Introduction to and use and manipulation of dental materials. Study and manipulation of dental materials used in dental office laboratories. Study of and preparation of dental materials, principles of prosthodontics and restorative materials. **52b** — Continuation of 52a, with further study in dental casting procedures. Introduction to dental procedures, further restorative materials uses and applications, and impression materials uses and applications.

53a-53b DENTAL ANATOMY & PHYSIOLOGY (2½-2½)

Two lecture and 1½ lab hours per week. Prerequisites: 53a—none; 53b—D.A. 53a.

53a — Basic introduction to the science of dentistry. Study of the anatomy and physiology of the head and neck. Introduction to common oral pathologic disturbances. Introduction to oral health principles. **53b** — Continuation of the study of oral anatomy, its principles and applications. Further study of the anatomy and physiology of the head and neck, and oral health principles.

54a-54b CHAIRSIDE PROCEDURES (3-3)

Two lecture and three lab hours per week. Prerequisites: 54a—none; 54b—D.A. 54a.

54a — Beginning clinical application of chairside assisting techniques. Preparation of patient and operatory area. Basic concepts of instrumentation, dental equipment and sterilization techniques. **54b** — Introduction to dental specialties, instru mentation and applications. Introduction to intra-oral functions, DA and RDA levels. Application of cardio-pulmonary resuscitation procedures, community health centers.

55a-55b CLINIC (2-1)

Seven lab hours per week (for ten weeks for 55b). Prerequisites: 55a—none; 55b—D.A. 55a.

55a — Transfer of chairside theory to practical experience at local dental schools and community health centers. **55b** — Continuation of applying chairside theory to practical experience at local dental schools and community health centers.

56a-56b DENTAL RADIOLOGY (3-3)

One lecture and three lab hours per week, plus three hours by arrangement. Prerequisites: 56a—none; 56—D.A. 56a.

56a — Introduction to radiology; history, principles of radiology; biological effects of radiology; radiation protection; films; exposure and processing techniques; mounting and filing of X-rays. **56b** — Instruction in factors of radiology, including film placement, angulation and exposures. Experience in taking X-rays and darkroom procedures.

Drafting Technology

Equipment may be required in all Drafting Technology courses.

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.

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 Divison in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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 ro request approval of a Special Profect 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.)

51a-51b APPLIED DRAFTING MATHEMATICS (3-3)

Three lecture hours per week. Prerequisite: Concurrent enrollment in D.T. 52a-b.

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.

52a-52b TECHNICAL DRAFTING (5-5)

Five three-hour periods per week. Prerequisites: 52a-Conncurrent enrollment in D.T. 51a. 52b - Concurrent enrollment in D.T. 51b; a grade of C or better in D.T. 52a, and completion of D.T. 51a.

52a — Multi-view drawing, lettering, geometric shape description, sections, descriptive geometry, sketching, dimensioning, reproduction processes, charts and graphs. **52b** — Working drawing, threads and fasteners, gears, tolerancing, pictorial projections, intersections, developments and assembly drawings.

62a-62b ADVANCED TECHNICAL DRAFTING (5-5)

Five three-hour periods per week. Prerequisite: Grade C or Better in D.T. 52a-b.

62a — Cams, assembly drawings, geometric and true positional tolerances, welding, jigs and fixture design and structural drawing. **62b** — Topographic drafting, production illustration, electrical and electronic drafting, pneumatics, hydraulics, piping, and documentation with metric values.

63 BASIC TECHNICAL DESIGN (3)

Three lecture hours per week. Prerequisites: Tech. 72 and 74, concurrent enrollment in D.T. 62a.

Application of the materials covered in Tech. 72 and 74 to the solution of design problems. Topics include problems of producibility, value engineering reliability and metrication; numerically-controlled machines and programs.

EVENING CERTIFICATE PROGRAM

Upon completion of 24 semester units of drafting and related courses in the evening, a student may be awarded a Certificate in Industrial Drafting. For complete details, contact the Technology Division.

102a-102b BASIC TECHNICAL DRAFTING (3-3)

Two lecture and four lab hours per week. Prerequisites: 102a - None; 102b - D.T. 102a or D.T. 14.

102a — Sketches, working drawings, shop processes, pictorial projections, intersections, developments, and simplified drafting. **102b** — Continued practice in preparation of working drawings including tolerancing, assembly drawings, and the use of engineering change notices.

112a-112b TECHNICAL DRAFTING (3-3)

Two three-hour meetings per week. Prerequisites: D.T. 112a — D.T. 102a or D.T. 14; D.T. 112b — D.T. 102a-b, 112a.

112a — Projections, points, lines, planes, revolutions, intersections, surfaces and sheet metal practices. **112b** — Gears and cams, with emphasis on calculations and terminology. Dimensioning, tolerancing, quality control, assembly and welding drawings.

122 ELECTRONICS DRAFTING (3)

Two lecture and four lab hours per week. Prerequisites: D.T. 14 or equivalent, Electronics 10 or equivalent.

Techniques of preparing the various types of electronic drawings used in industry.

130 ELEMENTS OF MACHINE DESIGN (3)

Three lecture hours per week. Prerequisite: D.T. 14, or knowledge of drafting fundamentals; Mathematics through Numerical Trigonometry.

Techniques of selection and computations for machine elements and for design for compound machines.

Drama

1a-1b HISTORY OF DRAMATIC ARTS (3-3)

Three lecture hours per week.

1a — Evolution of the theatre from classical Greece to the 17th Century; physical theatres, directing and staging. The principles underlying these arts are related to dominant social, intellectual and artistic forces of the period. **1b —** Evolution of theatre arts from the 17th Century to the present. Material presented in motion pictures, film-strips, recordings, models and play attendance, as well as lectures and discussion.

2a-2b DRAMATIC LITERATURE (3-3)

Three lecture hours per week.

2a — Drama as an art form, dramatic structure (the traditional theories of dramatic form) are studied through the writing of plays and the study of dramatic writing from the classical Greek tragedies, the Elizabethan Theatre, The Commedia dell' arte, Moliere and the 18th Century comedy. **2b —**Development and changes in modern dramatic styles and structure from the early 19th Century, Ibsen, Chekhov, through the Brechtian style, the theatre of the absurd, up to the living theatre.

10 INTRODUCTION TO THE THEATRE (3)

Three lecture hours per week.

Nomenclature, duties and responsibilities, traditions, script analysis, approach to a script from the director's viewpoint, the designer's viewpoint, the actor's viewpoint and the audience viewpoint. Discussions of publicity, performance, music and dance, motion picture and television.

12a-12b STAGE PRODUCTION (3-3)

Two lecture and three lab hours per week.

Arts of the theatre. Lectures and laboratory sesssions concerned with construction, painting and handling of scenery. Stage properties and effects. Woodworking methods as they apply to stage scenery. Rigging, construction and handling of "soft" scenery. Platforms, stairs and ramps. Materials and construction techniques for making "free" forms. Painting materials and techniques. Backstage organization. Making and remaking furniture.

13 LIGHTING (3)

Two lecture and four lab hours per week, plus one crew assignment of approximately 50 hours.

Elements of electricity, color in light reflection, refraction and absorption, intensity and control as these subjects relate to theatrical lighting. Theory and practice relating to the design and execution of lighting for theatrical presentations, displays and television productions.

14a THEORY AND PRACTICE OF ACTING (3)

Four class hours per week.

Theories and techniques of acting and dramatic production, enacting and oral reading of scenes, tape recording, pantomimes and improvisations, vocal and physical exercises.

14b-14c-14d ADVANCED ACTING AND FUNDAMENTALS OF DIRECTING (3-3-3)

Four class hours per week. Prerequisite: Drama 14a or equivalent.

Review of basic principles and skills of acting, advanced theories and techniques.

15 PLAY PRODUCTION (1/2 to 2)

Play rehearsals of seven weeks for each of four major productions per year, the first four weeks of which are from 3-6 p.m. daily and the last three weeks from 7-11 p.m. daily. Prerequisite: Tryouts.

Problems of actual play production, acting. (May be repeated for credit.)

16 PRODUCTION SHOP (1/2 to 2)

Play rehearsals of seven weeks for each of four major productions per year, the first four weeks of which are from 1-5 p.m. daily and the last three weeks from 7-11 p.m. daily.

Problems of actural play production; lighting, management. (May be repeated for credit.)

17 COSTUME-FASHION WORKSHOP (1/2 to 2)

Hours by arrangement.

Problems of actual play production, costumes, or makeup. This course will provide the costume and fashion students the opportunity for practical experience in design and execution of costumes for dramatic productions. (May be repeated for credit.)

20 DIRECTING (3)

Hours by arrangement.

Introduction to the theory and practice of play directing for theatre and screen. Analysis of plays to determine suitable acting, and staging styles and methods. Review of theories and techniques of acting. Study of compostion, movement, tempo, climax, and the use of sound and music. Preparation of play-production plans and promptbooks. Production of scenes or short plays for stage and television.

26 THEATRE GRAPHICS (3)

Three lecture hours per week.

A study of techniques in scenic design including blueprinting, transparency preparation, watercolor and perspective. Painting and lighting of scenery including pigments, colored light, detail painting and the use of aniline dye; analysis of specialized theatrical techniques involving silkscreening, program design, model making and projected scenery.

27a-27b STAGE DESIGN (3-3)

See Art 27a-27b.

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.

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: Student normally may receive credit for only one Special Project per semester.)

Early Childhood Education

2 INTRODUCTION TO EARLY CHILDHOOD (3)

Two lecture hours and three lab hours per week.

Getting to know the young child, how he or she develops and learns. Counseling for careers in working with young children. Directed observation of individual children and groups of children. Active participation with children in the classroom and experience in working with parents.

3 UNDERSTANDING THE CHILD IN THE FAMILY AND COMMUNITY (3)

Two lecture hours and three lab hours per week.

A study of the differences in children including emotional, intellectual, ethnic and cultural differences. Focus on interaction of each child within the family and community. Attention is given to the use of community resources in working with parents and children with special needs. The lab experience includes work with parents and in varied programs.

4 NURSERY SCHOOL PRINCIPLES AND PRACTICES (3)

Two lecture hours and three lab hours per week.

Includes early childhood education with historical perspective from Europe as well as the United States, its philosophy, methods, materials and programming. The focus is on the student as a potential teacher's aide. Supervision, interpretation and evaluation of the student's experiences with young children in a laboratory setting.

5 CURRICULUM FOR EARLY CHILDHOOD EDUCATION (3)

Two lecture hours and three hours per week.

Curriculum development and creative activities for young children, with active participation in all aspects of the program. Creative expression in the nursery school under the close supervision of an experienced teacher. Workshops are interspersed with special seminars on problems pertinent to education of the young child.

6 ADMINISTRATION OF NURSERY SCHOOLS (3)

Three class hours per week.

Provides a general understanding of the principles involved in administering and supervising an early childhood educational program. Emphasis is placed on relationships with parents, governmental agencies, community leaders, staff development. Curriculum planning, certification, licensing and school finance problems are included.

7 CREATIVE EXPERIENCES FOR YOUNG CHILDREN (3)

Three class hours per week.

Emphasis is placed on creativity in curriculum planning for young children using the media of art, music, drama, dance and science.

47 COOPERATIVE EDUCATION (1-4) (Credit/No Credit)

Work experience in a field related to a careeer goal, supplemented by individual counseling from an instructor-coordinator. (See Page 127.)

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 Social Sciences Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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 succesfully completing at least two college-level courses in the subject field. (Note: Students normally may receive credit for only one Special Project per semester.)

60 EARLY CHILD DEVELOPMENT (3) (Credit/No Credit)

Students study theory of child development with active participation in all aspects of the program as they observe children interacting with their contemporaries in a nursery school setting. (May be repeated for credit.)

Economics

1a PRINCIPLES OF ECONOMICS (3)

Three lecture-discussion hours per week.

Capitalism and other economic systems; the role of resources, machines and men in production; the banking system and the use of money in guiding economic activity; trends of national income and factors in its determination; policies for stabilization and growth in advanced and underdeveloped nations.

1b PRINCIPLES OF ECONOMICS (3)

Three lecture-discussion hours per week.

Supply and demand, the price determination in a market economy; the business firm's costs, revenues and price polices under conditions of competition and monopoly; the determination of wages, rent, interest and profits; international trade and finance; comparative economic systems of other nations.

2 ELEMENTARY STATISTICS (4)

Four class hours per week. Prerequisite: Math 13.

Statistical theory and methods for measuring the variation and uncertainty inherent in the physical, social and economic environment. Emphasis is on the application of statistical tools for solving problems in business and the social sciences. (Identical to Bus. 2.)

10 SURVEY OF ECONOMIC PROBLEMS (3) Fall only

Three class hours per week.

A non-theoretical consideration of the major economic problems which confront the citizen today. This course is recommended for the general student interested in aspects of consumer economics and current economic problems, and for the business and economics majors who desire an introduction to the theory courses (Economics 1a and 1b).

11 ECONOMIC HISTORY OF THE UNITED STATES (3) Spring only

Three class 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 11; with History 17a or 17b, fulfills American Institutions requirement.)

12 ECONOMIC HISTORY OF EUROPE (3)

Three class hours per week.

Roots of modern economic society will be traced to their European origins. Includes mercantilism, the market system and modern industrialism. Attention will also be given to the 20th Center (Identical to History 12.)

13 CURRENT ECONOMIC AND SOCIAL PROBLEMS OF LATIN AMERICA (3)

Three class hours per week. Recommended: Prior study of Latin American history or politics.

Review of historical and polical background covering the indigenous cultures, colonial period and independence; followed by intensive study of specific country problems such as inflation, population, economic growth, agrarian reform, etc.

14a LABOR ECONOMICS (3)

Three class hours per week. Prerequisite: Econ. 1a and 1b.

Composition of the labor force, the history, structure, philosophy and objectives of the trade union movement, development of public control of labor relations. Problems of labor supply, mobility, market organization, employment and unemployment and wage determination.

14b COLLECTIVE BARGAINING AND PUBLIC POLIGY (3)

Three class hours per week. Prerequisite: Econ. 1a and 1b.

Emergence, development and practice of collective bargaining in America. Through the study of actual collective bargaining cases, it shows how our system of industrial jurisprudence has developed and is developing within the broad framework of public policy.

15 PUBLIC FINANCE AND TAXATION (3)

Three class hours per week. Prerequisite: Econ. 1a and 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.

20a,b,c CURRENT ECONOMIC TOPICS (1-1-1) Fall only

Three 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 may include: Inflation; Energy; Population; Gold and Dollar Crisis; Socialism; and Women and Employment.

45 CONSUMER ISSUES AND BUYING PROBLEMS (3)

See Consumer Arts and Sciences 45.

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 Sciences Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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.)

51 THE ECONOMICS OF THE AUTOMOBILE (2)

Two class 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 reliablity. Practical experience in maintaining and evaluating the used car. (Identical to Automotive Technology 51.) (Extra supplies may be required.)

Education

1 INTRODUCTION (3)

Three class 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.

2 THE TEACHER ASSISTANT (1-3)

Hours by arrangement.

This course has three major components and each component treats with a specific aspect of the teacher assistant's job. *The Common Component* — This component deals with the modern educational system and the teacher assistant's role in it. *Tutoring* — The methods of tutoring in reading, language arts, math and English as a second language. *New approaches to Discipline* — Behavior modification, reinforcement and new methods developed to help teachers and teacher assistants in the classroom.

3 READING IN PUBLIC SCHOOLS (3)

Three class hours per week.

Physiological and psychological basis of reading, philosophy of reading instruction, individual and group reading instruction, coordination and acceleration problems in reading, multimedia approach in reading, teacher and teaching assistant variables in reading, facts and fallacies about reading readiness.

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 127.)

48 SELECTED TOPICS IN EDUCATION (1-3)

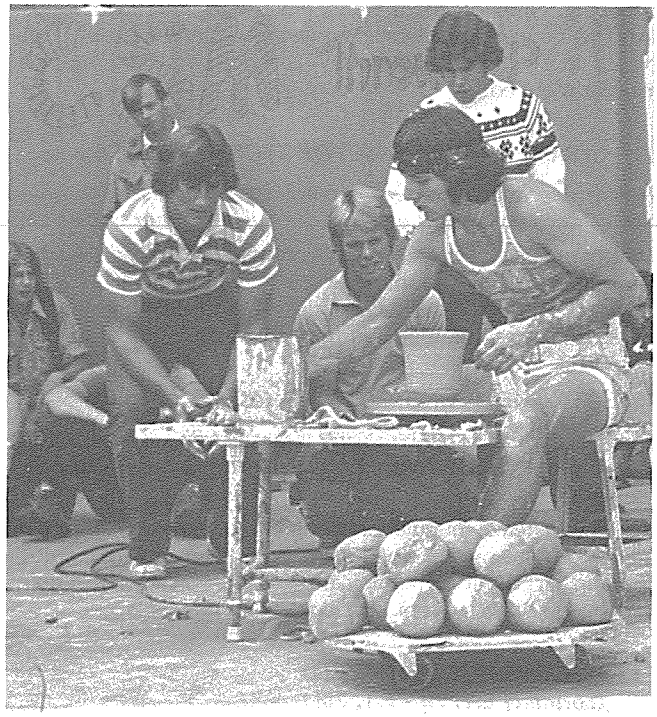
Hours by arrangements.

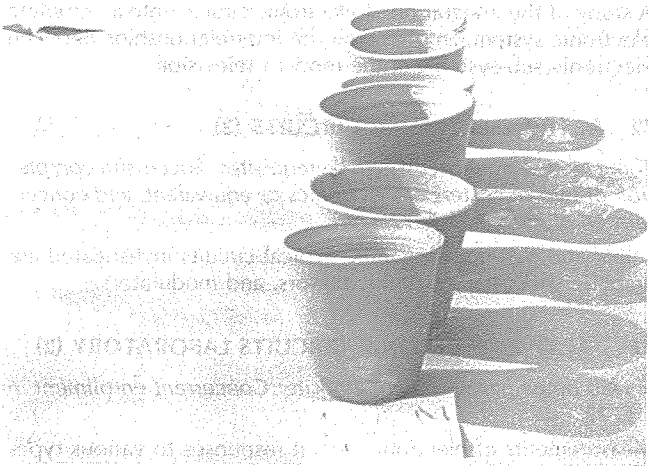
Selected topics in Education not covered by regular catalog offerings. Course content and unit credit to be determined by the Social Sciences Division in relation to community student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

49 SPECIAL PROJECTS (1-2)

Hours by arrangement. Consent of the instructor and Chairman of the Social Sciences 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

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.

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 basic instruments along with construction of a project.

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. (Recommended for all beginning electronics technology students.)

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.

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.)

51 APPLIED ELECTRONIC MATHEMATICS (3)

Three lecture hours per week. Prerequisite: Math 11 taken during the previous year with a grade 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.

52 PASSIVE CIRCUITS AND DEVICES (4)

Four lecture hours per week. Prerequisite: One year of high school algebra with a grade C or better, and concurrent enrollment in E.T. 52L and E.T. 53.

Study of the circuit action of significant combinations of resistance, capacitance, and inductance.

52L PASSIVE CIRCUITS AND DEVICES LABORATORY (2)

Six lab hours per week. Prerequisite: Concurrent enrollment in corresponding section of E.T. 52.

Experiments and procedures parallel the lecture material presented in E.T. 52. The use of basic electronic measuring equipment is stressed. (Extra supplies may be required.)

53 ELECTRONIC AND MECHANICAL ASSEMBLY TECHNIQUES (BASIC) (3)

Two lecture hours and two lab hours per week for the first eight weeks. Two lecture hours and four lab hours per week for the second eight weeks. Required of all first semester Electronics majors.

Basic hand skills required of electronics and assembly personnel. Familiarization with fabrication and assembly techniques typical of the electronics industry, with emphasis on quality of workmanship. (Extra supplies may be required.)

62 ACTIVE CIRCUITS AND DEVICES (4)

Four lecture hours per week. Prerequisite: Successful completion of E.T. 52 and E.T. 52L or equivalent, and concurrent enrollment in E.T. 62L and E.T. 63.

A study of the static and dynamic characteristics of active devices.

62L ACTIVE CIRCUITS AND DEVICES LABORATORY (2)

Six lab hours per week. Prerequisite: Concurrent enrollment in corresponding section of E.T. 62 and E.T. 63.

Experiments and procedures which parallel the lecture material presented in E.T. 62. The use of sophisticated electronic measuring equipment is stressed. (Extra supplies may be required.)

63 ELECTRONIC AND MECHANICAL ASSEMBLE TECHNIQUES (ADVANCED) (3)

Two lecture hours and two lab hours per week for the first eight weeks. Two lecture hours and four lab hours per week for the second eight weeks. (Required of all second semester electronics majors.) Prerequisite: E.T. 53.

Continuation of instruction in fabrication and assembly techniques, with emphasis on more advanced skills. Instruction in electronic unit design and fabrication of printed circuits.

64 FUNDAMENTALS OF DIGITAL LOGIC AND CIRCUITS (3)

Two lecture hours and four lab hours per week for the first eight weeks. Two lecture hours and two lab hours per week for the second eight weeks. Prerequisites: Electronics 14 or concurrent enrollment.

Theory and application of digital electronics in modern industry. This course is applicable toward the Certificate of Proficiency in Electronics Laboratory Technology. (Extra supplies may be required.)

65 COMMERICAL LICENSE FOR TECHNICIANS (2)

Two lecture hours per week. Prerequisite: Satisfactory completion of one semester of electronics course work or equivalent.

Basic material covered will be that outlined by the Federal communications Commission. The course will serve as a study guide for the first- and second-class radio telephone license. (This course may be repeated for a total of 6 units of credit.)

70 TELEVISION FUNDAMENTALS (4)

Three lecture hours per week and 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.)

71 ELECTRONICS SYSTEMS (4) (Formerly E.T. 70 - E.T. 70L)

Three lecture hours per week and three lab hours per week. Prerequisites: E.T. 62, E.T. 62L.

A study of the integration of electronic cirucits into a complete electronic system. Emphasis on the interrelationships between electronic sub-systems in the modern television.

72 ACTIVE ELECTRONIC CIRCUITS (3)

Three lecture hours per week. Prerequisites: Successful completion of two semesters of electronics or equivalent, and concurrent enrollment in E.T. 72L.

Linear and non-linear circuits. Typical circuits investigated are amplifiers, oscillators, multivibrators, and modulators.

72L ACTIVE ELECTRONIC CIRCUITS LABORATORY (2)

Six lab hours per week. Prerequisite: Concurrent enrollment in E.T. 72.

Measurements of electronic circuit responses to various types of input signals as discussed and developed in the lecture material.

73 DIGITAL LOGIC CIRCUITS (3)

Three lecture hours per week. Prerequisites: Concurrent enrollment in 73L. Satisfactory completion of E.T. 64 and E.T. 64L or equivalent.

RAM's, ROM's ALU's, multiplexers, uarts, buffer register are

typical "bugs" used. ASCII coding, EBCDIC coding, character generation, ASCII coded keyboards and advanced circuitry including microprocessors are contained in the scope of this course.

73L DIGITAL LOGIC CIRCUITS LAB (2)

Six lab hours per week. Prerequisites: Satisfactory completion of two semesters of electronics technology courses and concurrent enrollment in E.T. 73.

Laboratory follows system and circuits as developed in lecture materials.

82 APPLIED CIRCUIT ANALYSIS (3)

Three lecture hours per week. Prerequisites: Satisfactory completion or enrollment in E.T. 82L, and completion of E.T. 72 and 72L or equivalent.

Practical analysis of electronic circuits. Field effect transistor review, hybrid multistage amplifiers, tuned voltage amplifiers, tuned power amplifiers, video amplifiers, oscillators, modulators and power supplies are typical of the circuits analyzed.

82L CIRCUIT ANALYSIS LAB (2)

Six lab hours per week. Prerequisite: Concurrent enrollment in E.T. 82.

Laboratory analysis: Measurement and calculations of electronic circuits as developed in lecture materials. (Extra supplies may be required.)

83 RADIO-FREQUENCY COMMUNICATIONS (3)

Three lecture hours per week. Prerequisites: Satisfactory completion of E.T. 72 or equivalent, and concurrent enrollment in E.T. 83L.

Study and analysis of transmitting and receiving equipment including alignment and calibration procedures. Antennas, transmission lines, and microvave measuring techniques are also included in the scope of the course.

83L RADIO-FREQUENCY COMMUNICATIONS LAB (1)

Three laboratory hours per week. Concurrent enrollment in E.T. 83.

Laboratory follows systems and circuit material developed in the lecture. (Extra supplies may be required.)

102 DC AND AC ELECTRONICS FUNDAMENTALS (4)

Three lecture and three lab hours per week. Prerequisites: E.T. 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.)

105-106 COMMERCIAL LICENSES (3-3) (Formerly 105a-105b)

Three lecture hours per week. Prerequisite: 105 — E.T. 14 or equivalent. 106 — 105 or equivalent.

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. **106 —** Continuation of preparation for license examination.

122 ACTIVE CIRCUITS AND DEVICES (4)

Three lecture and three lab hours per week. Prerequisite: E.T. 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.)

132 APPLIED LINEAR AMPLIFIER ANALYSES (4)

Three lecture and three lab hours per week. Prerequisite: E.T. 122.

Analyses of cirucits: 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.

133 APPLIED ELECTRONICS CIRCUIT ANALYSIS (4)

Three lecture and three lab hours per week. Prerequisite: E.T. 132.

Analysis of circuits including power supplies, RF amplifiers, oscillators, non-sine waves and sine waves, FM-AM modulation, and integrated circuit applications. (Extra supplies may be required.)

134 DIGITAL CIRCUITS FUNDAMENTALS (4)

Three lecture and three lab hours per week. Prerequisites: E.T. 14 and E.T. 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.)

135 ADVANCED DIGITAL CIRCUITS (4)

Three lecture and three lab hours per week. Prerequisite: E.T. 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.)

143 MICROWAVE PRINCIPLES (3)
(Formerly Microwave Theory.)

Three lecture hours per week. Prerequisites: E.T. 132 or equivalent.

Study of transmission lines, active and passive microwave devices, and their applications in electronic equipment and communication systems that operate in the microwave region.

Engineering

1a-1b ENGINEERING MEASUREMENTS (PLANE SURVEYING) (3-3)

Two lecture and three lab hours per week. Prerequisite: 1a — Math. 21; 1b — Engin. 1a.

1a — Theory of measurements with application in surveying; measurement of distance, differential leveling, measurements of angles and directions; field astronomy; systematic and random errors, adjustment of observations. **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.

4 THE ENGINEERING PROFESSION (2)

Two class hours per week.

An historical overview of the branches and functions of engineering, the engineering approach to problem analysis and solution, a preview of basic engineering sciences. Occasional lectures by practicing engineers.

14 MECHANICAL DRAWING (3)

See Drafting Technology 14.

16 STATICS (3)

See Architecture 16.

17 STRENGTH OF MATERIALS (3)

See Architecture 17.

19 FUNDAMENTALS OF PHOTOGRAMMETRY (3)

Two lecture and three lab hours per week. Prerequisites: Math. 21 and Engin. 1a or 90a.

Elements of photogrammetric optics; aerial cameras and accessories; flight planning; principles of radial-line plotting and planimetric mapping; stereoscopy and parallax; mosaics, stereoscopic plotting instruments; photo interpretation.

20 DESCRIPTIVE GEOMETRY (2)

Six class hours per week. Prerequisite: Math. 21. Recommended: One year of high school mechancial drawing or Engin.14.

Fundamental principles of descriptive geometry and their application to engineering problems. Mathematical methods, vectors, truss and space-force polygons.

22 ENGINEERING GRAPHICS (2)

Six class hours per week. Prerequisite: Engin. 20; Math. 31 or Math. 23a (may be taken concurrently).

Graphical 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.

35 STATICS (3)

Three class hours per week. Prerequisite: Math. 31 or Math. 23a. Recommended: Engin. 20

Plane and space force systems; vector algebra, equilibrium problems covering structures, machines, distributed force systems, friction, moments of inertia and virtual work.

36 DYNAMICS (3)

Three class hours per week. Prerequisites: Engin. 35, Math. 32 or Math. 23b. Physics 2b with grade B, or Physics 4a.

Applied vector algebra; kinematics: rectilinear, curvilinear and relative motion; kinetics: Newton's laws, work, energy, impulse and momentum; vibration and time response; introduction to fluid mechanics.

37 STRENGTH OF MATERIALS (3)

Three class hours per week. Prerequisites: Engin. 35 and Math. 32 or Math. 23b.

Elastic stress, strain and deformation; analysis of members under axial, torsional, flexural and combined loads. Statically indeterminate beams. Columns, impact and cyclic loads, theories of failure and introduction to ultimate resistance of materials.

38 CIRCUITS AND DEVICES (3)

Three class hours per week. Prerequisite: Math. 32, Physics 4b or equivalent.

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

45 MATERIALS SCIENCE (3)

Two lecture and three lab hours per week. Prerequisites: Math.

31 and Chem. 1a. Recommended: Physics 4a.

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

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 127.)

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.

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.)

90a-90b ELEMENTS OF SURVEYING (3-3)

Two lecture and three lab hours per week. Prerequisites: 90a — High school-level Mathematics through Geometry; 90b — Engin. 90a.

90a — Use, adjustment and care of surveying instruments; basic surveying measurements of distances, elevations, angles and directions, principles and methods for planning and conducting land surveys. **90b —** Practical applications of the basic principles of Engin. 90a, including location and construction surveys, boundary surveys, determination of meridian, and introductions to public land surveys, state plane coordinate systems and industrial applications.

91 LAND SURVEYING LICENSE (BOUNDARY CONTROL) (3)

Three lecture hours per week. Prerequisite: High school-level mathematics which include plane Geometry, Trigonometry and Algebra; Engineering 90b or equivalent.

Preparation for the California State Land Surveying License examination. Particular emphasis on boundary control and legal principles of surveying.

92 LAND SURVEYING LICENSE (PUBLIC LAND) (3)

Three lecture hours per week. Prerequisite: Engineering 91 or equivalent.

Preparation for the California State Land Surveying License examination. Particular emphasis on U.S. Government lands and property location.

English

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 11, Interpretation and Composition) will not be required to take the test. It is designed to determine the entrant's ability in reading, in the mechanics of writing, and in composition. It is used (in addition to other information) to determine placement of students in English 11 and other college transfer courses in English.

The English Program

The English program consists of transfer and non-transfer courses in composition, literature, language, and speech. Entering students enroll first in one of the following courses in composition:

Transfer Course	Non-Transfer Courses
English 11	English A or English 61

The English requirement may be completed by additional three units chosen from the following courses:

Transfer Courses	Non-Transfer Courses
English 12	English 62
Speech 1a	English 63
Speech 10	English 65
	English 67
	Speech 62

Note that English 11 is the prerequisite for English 12. English A or English 61 is the prerequisite for English 62, 63 and 65. English A is prerequisite for English 11 except for students who placed in English 11 on the placement test. English 67 (Reading Improvement Lab — 1 unit) may be taken concurrently with any of the other courses in the English program.

Other English transfer courses are those numbered below fifty; other English non-transfer courses are those numbered above fifty.

A BASIC INTERPRETATION AND COMPOSITION (3)

Three class hours per week.

Training in the principles of composition, with emphasis on the brief expository essay. Practice in writing based on the study of essays, fiction, poetry, etc. (Designed mainly to prepare students for English 11.)

ENGLISH A/11: INTERMEDIATE COMPOSITION (4) (A/11X: Writing Practicum)

Three class hours per week of lecture and discussion. Two hours per week in the writing practicum, working on specific writing problems and assignments.

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 (English A/11X: Writing Practicum); the other three units will appear on the transcript as credit for either English 11 or English A, depending upon the level of achievement as a writer at the end of the semester.

2 ADVANCED COMPOSITION (3)

Three class hours per week. Prerequisite: English 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.

3 THE 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.

9a-9b CREATIVE WRITING (2-2)

Two class hours per week. Prerequisites: 9a — English 12; 9b — English 9a.

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 annual magazine, "Pendulum."

11 INTERPRETATION AND COMPOSITION (3)

Three class hours per week.

Practice in writing based on a study of significant essays, poetry, fiction, drama, song lyrics, films, etc.

12 INTRODUCTION TO LITERATURE (3)

Three class hours per week. Prerequisite: English 11. Note: Each English 12 course (a,b,c and d) may be taken separately for units of credit.

12a Major Types — Study of literary types; fiction, drama and poetry. Reading analysis and discussion of selected works; written reports; oral reading, lectures.

12b Poetry — Reading, analysis and discussion of selected poetry; written reportts; oral reading; lectures.

12c Fiction — The short story and novel. Reading, analysis and discussion of selected works; written reports; oral readings; lectures.

12d Drama — Reading, analysis and discussion of selected dramatic works; written reports; oral readings; lectures.

13 INTRODUCTION TO SEMANTICS (3)

Three class hours per week. Prerequisite: English 11.

Vocabulary course including principles of semantics; some specific topics covered: etymology, dialects, roots, combining forms.

14 STRUCTURE OF THE ENGLISH LANGUAGE (3) Spring only

Three class hours per week. Prerequisite: English 11.

Study of historical changes in language from the view of the traditional and modern grammatical systems, including an analysis of linguistic concepts.

15a-15b FILMMAKING (3-3)

Three lecture and six lab hours per week.

15a—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. **15b**—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 Fine Arts 15a/b.) (May be repeated for credit.)

16a-16b FILM HISTORY (3-3)

Three lecture and two lab hours per week.

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, on the language of film and on analysis for full film enjoyment. (Identical to Fine Arts 16a/b.)

20 MYTHOLOGY AND FOLKLORE (3)

Three class hours per week. Prerequisite: English 12 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.

21 THE SHORT STORY (2)

Two class hours per week. Prerequisite: English 12 or equivalent.

Study of short stories. Class discussion and reports; lectures.

22 THE BIBLE AS LITERATURE (3)

Three class hours per week. Prerequisite: English 12 or equivalent.

Study of the significant writings of the Old and New Testaments and of the Apocrypha.

23 INTRODUCTION TO POETRY (3) Spring only

Three class hours per week. Prerequisite: English 12 or equivalent.

Lectures concerning the various elements of and approaches to poetry. Intensive and extensive reading, discussion, critical papers.

24 MODERN DRAMA (3)

Three class hours per week. Prerequisite: English 12 or equivalent.

Study, from a theatrical as well as a literary point of view, of the outstanding masterpeices of the modern theatre. Lectures; discussion; recordings by professional actors.

25 INTRODUCTION TO SHAKESPEARE (3)

Three class hours per week. Prerequisite: English 12 or equivalent.

Emphasis upon Sharespeare's poetic and dramatic growth as a writer through a study of representative plays and poems. Reading, discussion, critical papers.

26 MODERN NOVEL (3)

Three class hours per week. Prerequisite: English 12 or equivalent.

Study of novels of the late 19th and 20th Centuries and of various aspects of literary criticism. Reading, discussion and critical papers.

27 CONTEMPORARY LITERATURE (3) Spring only

Three class hours per week. Prerequisite: English 12 or equivalent.

Study of selected fiction, poetry and drama of the 20th Century. Lectures, discussions, related reading, writing of critical papers.

29 WOMEN AND LITERATURE (3)

Three class hours per week. Prerequisite: English 12 or equivalent.

Survey images of women in literature from 1600 to present. Study of selected women writers. Reading, discussion and critical papers.

30 MAJOR FIGURES IN AMERICAN LITERATURE (3)

Three class hours per week. Prerequisite: English 12 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.)

31a AMERICAN LITERATURE (3)

Three class hours per week. Prerequisite: English 12 or equivalent.

Study of American literature from the beginning through Mark Twain. Lectures; reading, analysis and discussion of selected works, papers. (Not offered in 1977-78.)

31b AMERICAN LITERATURE (3)

Three class hours per week. Prerequisite: English 12 or equivalent.

Study of American literature since Mark Twain. Lectures; reading, analysis and discussion of selected works, papers. (Not offered in 1977-78.)

42a MASTERPIECES OF EUROPEAN LITERATURE (3)

Three class hours per week. Prerequisite: English 12 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.

42b MASTERPIECES OF EUROPEAN LITERATURE (3)

Three class hours per week. Prerequiste: English 12 or equivalent.

Study of various works of European literature from the 17th Century to the present day, with emphasis on European prose writings. Readings, analysis and discussion of selected works; written reports, oral readings and lectures.

43 AFRO-AMERICAN LITERATURE (3)

Three class hours per week. Prerequisite: English 12 or equivalent.

Comprehensive survey of Afro-American letters in the United States from 1619 to the present. (Identical to Ethnic Studies 43) (Not offered in 1977-78.)

46a SURVEY OF ENGLISH LITERATURE (3)

Three class hours per week. Prerequisite: English 12 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.) (Not offered in 1977-78.)

46b SURVEY OF ENGLISH LITERATURE (3)

Three class hours per week. Prerequisite: English 12 or equivalent.

Study of the typical works of major English writers of the 19th and 20th Centuries, lectures, discussions, recordings. (Recommended for English majors.) (Not offered in 1977-78.)

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 127.)

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.

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.)

57a-57b ENGLISH FOR NON-NATIVE SPEAKERS (1-5, 1-5)

Five class hours per week. Prerequisite: 57a — Diagnostic test; 57b — English 57a.

Study of English grammar and composition, drill in oral and written vocabulary, sentence structure and English idiom.

61 BASIC READING AND COMPOSITION (3)

Three class hours per week.

Practice in reading and writing based on a study of essays, poetry, fiction, drama, song lyrics, films, etc.

61/A BASIC READING, INTERPRETING, AND COMPOSITION (3) (61/AX Writing Practicum)

Three class hours per week of lecture and discussion, plus two hours per week in writing practicum on specific writing problems and assignments.

Practice in writing based on the reading and study of essays and short stories. Note: The student will receive one unit of credit for his/or her practicum work (English 61/AX: Writing Practicum); the other three units will appear on the transcript as credit for either English A of English 61, depending upon the level of writing achievement at the end of the semester.

62 BASIC INTRODUCTION TO LITERATURE (3)

Three class hours per week. Prerequisite: English 61 or English A.

Study of fiction, drama and poetry. Reading, class discussion; oral readings; lectures; written reports.

63 VOCABULARY STUDY (3)

Three class 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.

65 ENGLISH GRAMMAR (3)

Three class hours per week.

Study of basic grammar, including such topics as sentence structure, diction, agreement, punctuation, and troublesome verbs.

67 READING IMPROVEMENT LAB (1) (Credit/No Credit)

Five class 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.)

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.

Ethnic Studies

1a INTRODUCTION TO ETHNIC STUDIES (3)
(Formerly Ethnic Studies 1)

Three lecture hours per week.

The evolution of the earliest inhabitants of the United States, the Native Americans and La Raza. The two groups as they represent convergent and divergent cultures. Their history and cultural contributions in the United States, explored through lectures, films, discussions, and projects.

1b INTRODUCTION TO ETHNIC STUDIES (3)

Three lecture hours per week.

History and cultural contributions of Asians and Blacks in the United States. A chronological look at the evolution of the two groups in the United States, through lecture, film, discussion and projects.

3 INTRODUCTION TO LA RAZA STUDIES (3)
(Formerly Brown and Red Peoples in the U.S.)

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.

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 the Asian-American communities.

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.

6a-6b PATTERNS OF PREJUDICE AND RACISM (3-3)

Three lecture hours per week.

6a — Problems of prejudice and racism. Personality development, psychoanalytic theories of predjudice, and racist-oriented trends and patterns will be explored in depth, with a consideration of the mythical and factual concepts employed to substantiate prejudice. **6b —** Concentration on specific cultural traditions. The origins of racial prejudice will be traced to man's first recognition of racial differences and his subsequent historical reactions. (Identical to Sociology 40a-40b.)

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 members suffering from the major mental illness affecting each respective culture.

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 Anthropology 8.)

11 LITERATURE AND LIFE OF BROWN AND RED AMERICANS (3)

Three lecture hours per week.

Emphasizes the writer's contributions to define American life and his attempt to articulate the anxieties, joys, frustrations, and sorrows of his people. Investigates his life in relation to his changing environment as described by his literary works.

12 CASTENADA: NATIVE/LATIN-AMERICAN LIFE (3)

Three lecture hours per week.

Yaqui way of life and ancient Indian philosophies including views on the universe, nature, dignity and self-esteem.

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.

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.

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 upon Third World communities in the United States. Concentrations include the family, education, religion, and business. (Identical to Sociology 16.)

17 AFRICAN LITERATURE (3)

Three lecture hours per week.

Survey of works of contemporary African writers. An introductory course about the peoples and cultures of Africa through their literature, myths, legends, proverbs, and oral tradition as expressed by contemporary authors.

18 GOVERNMENTS AND POLITICS OF AFRICA (3)

Three lecture hours per week.

Focus on critical analysis of the processes and practices in African political life and the forces that shape them (Identical to Political Science 18.)

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.

33 AFRO-AMERICAN CULTURE (3)

Three class hours per week.

A contemporary view of Black America. Current political and social movements in Black communities with an emphasis on the culture of the contemporary Black community in present and historical perspective. (Identical to Social Science 33.)

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 7.)

42 HISTORY OF JAZZ (Formerly Afro-American Jazz)

Three lecture hours per week. Prerequisite: Ethnic Studies 41, Music 7a, Music 28, or equivalent.

Study of jazz since 1900, with emphasis on instrumental styles; the development of jazz since 1940 and contemportary trends. (Identical to Music 8.)

43 AFRO-AMERICAN LITERATURE (3)

Three lecture hours per week. Prerequisite: English 12.

Comprehensive survey of Afro-American letters in the United States from 1619 to the present. (Identical to English 43.)

44 THE HISTORY OF BLACKS IN FILM (3)

Three lecture hours per week.

Contributions of Blacks to 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.

45 THIRD WORLD CINEMA (1)

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 the cinema. Focus on films by and about African people in various parts of the world.

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 127.)

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 Ethnic Studies Department in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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.)

Fine Arts

15a-15b FILMMAKING (3-3)

Three lecture and six lab hours per week.

15a — Introduction to film theory, asethetics, and 8mm production; includes screenplay writing and critical writing, as well as crew work on videotape productions and super-8mm motion pictures. **15b —** Advanced theory, aesthetics, and 8mm production. Students work on a production crew, as well as writing and producing their own motion pictures. (Identical to English 15a/b.) (May be repeated for credit.)

16a-16b FILM HISTORY (3-3)

Three lecture and two lab hours per week.

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, on the language of film, and on analysis for full film enjoyment. (Identical to English 16a/b.)

17a-17b MOTION PICTURE PRODUCTION (3-3)

Two lecture and five lab hours per week. Prerequisites: 17a — Fine Arts 15a-15b or eqivalent; 17b — Fine Arts 17a or equivalent.

17a — Introduction to the basic photographic and cinematographic techniques used in television and motion picture production. Includes graphics for television, sound-on-film techniques, script writing, and on-location photography laboratory. (Extra supplies may be required.) Identical to Telecommunications 70. **17b —** Additional on-location training.

Fire Science

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 127.)

48 SELECTED TOPICS IN FIRE SCIENCE (1-3)

Selected topics in Fire 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.

49 SPECIAL PROJECTS

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.)

50 FIRE FIGHTING TACTICS (3)

Three class hours per week.

Study of facts and probabilities, the fireman's own situation, decision and plan of operation in combating a variety of conflagrations.

51a FIRE SCIENCE HYDRAULICS (3)

Three class hours per week.

Basic mathematics, principles of hydraulics, calculations of engine and nozzle pressures, discharge, fire streams, friction laws and pumps.

53 COMPANY ADMINISTRATION (3)

Three class hours per week.

A study of personnel, company response, maintenance of buildings, assignments, districts, duties and responsibilities of a company officer.

54 PERSONNEL ADMINISTRATION (3)

Three class hours per week.

Organization and administration of a personnel department; analysis, classification and description of jobs; incentives; evaluation; placement activities; training, safety, medical, grievances, discipline and employee benefits.

55 INTRODUCTION TO FIRE PROTECTION AND SUPPRESSION (3)

Three class hours per week.

The philosophy and history of fire protection, characteristics and behavior of fire, fire extinguishing agents, and fire protection organization and equipment. A brief introduction to the Insurance Service Offices Grading Schedule and its relation to insurance rates.

56 FUNDAMENTALS OF FIRE PREVENTION (3)

Three class 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.

61 FIRE DEPARTMENT APPARATUS AND EQUIPMENT (3)

Three class hours per week.

Operation, care and maintenance of fire apparatus and pumps, basic mathematics and hydraulics, effective fire streams, inspection and records.

62a-62b HAZARDOUS MATERIALS I AND II (3-3)

Three class hours per week.

Review of basic chemistry; storage, handling, laws, standards and fire-fighting practices pertaining to hazardous solids, liquids and gases.

63 BUILDING CONSTRUCTION FOR FIRE PROTECTION (3)

Three class hours per week.

Fundamentals of building construction as it relates to fire protection. Classification by occupancy and types of construction with emphais on fire protection features including: building equipment, facilities, fire resistive materials and high-rise considerations.

64 FIRE PROTECTION EQUIPMENT AND SYSTEMS (3)

Three class hours per week.

Use of portable fire extinguishing equipment; sprinkler systems; protection systems for special hazards; fire alarm and detection systems.

65 RELATED CODES AND ORDINANCES (3)

Three class hours per week.

Study and familiarization with national, state, and local laws and ordinances which influence the field of fire prevention.

66 RESCUE PRACTICES (3)

Three class hours per week.

Fundamentals of rescue practices, emergency care of victims, artificial respiration, toxic gases, chemicals and diseases, radioactive hazards, rescue problems and techniques.

67 FIRE INVESTIGATION I (3)

Three class 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.

68a-68b FIRE SERVICE TRAINING TECHNIQUES (3-3)

Three class hours per week. Prerequisite: Advanced Fire Science Certificate or equivalent.

Designed for fire company officers who conduct in-service training programs. Methods, procedures, and techniques to help fire service personnel select, develop, and organize material for in-service training programs, including methods of planning, job analysis lesson plans, and evaluation with the opportunity to apply major principles of learning through practice presentations.

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, Italian, Russian, 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. Imitation, response and independent practice are an integral feature of the study of a foreign language at the College.

1 ELEMENTARY FRENCH (5)

Five class 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.

1a ELEMENTARY FRENCH (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three class hours and one lab hour per week.

Approximately half of the semester's work in French 1 is covered in this course. Recommended for those students without any background in foreign language study.

1b ELEMENTARY FRENCH (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 class hours and one lab hour per week. Prerequisite: French 1a or equivalent.

Approximately the second half of the semester's work in French 1 is covered. (French 1a and 1b are equivalent to French 1.)

2 ADVANCED ELEMENTARY FRENCH (5)

Five class hours and two lab hours per week. Prerequisite: com-

pletion of French 1 or French 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.

2a ADVANCED ELEMENTARY FRENCH (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three class hours and one lab hour per week. Prerequisite: French 1 or 1b.

Approximately the first half of the semester's work in French 2 is covered.

2b ADVANCED ELEMENTARY FRENCH (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 class hours and one lab hour per week. Prerequisite: French 2a or equivalent.

Approximately the second half of the semester's work in French 2 is covered. (French 2a and 2b are equivalent to French 2.)

3 INTERMEDIATE FRENCH (5)

Five class hours and two lab hours per week. Prerequisite: Completion of French 1 and 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 8a recommended.

Reading of short stories, plays or novels; review of grammar, conversation, composition, dictation.

4 ADVANCED INTERMEDIATE FRENCH (3)

Three class hours and two lab hours per week. Prerequisite: Completion of French 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 8a or 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.

8a FRENCH CONVERSATION (2) Fall only

Two class hours and two lab hours per week. Prerequisite: French 3 or French 4, or concurrent enrollment in French 3, or permission of instructor. (Native speakers not eligible.)

Practice in conversation based on French customs and culture.

8b FRENCH CONVERSATION (2) Spring only

Two class hours and two lab hours per week. Prerequisite: French 8a or French 4 or 25, or permission of instructor. (Native speakers not eligible.)

Further practice in conversation based on French customs and culture.

25a-25b READING IN FRENCH LITERATURE (3-3)

Three class hours and two lab hours per week, or one hour recording and one hour outside reading. Prerequisites: 25a — Completion of French 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 8b recommended. 25b — French 25a.

Reading and discussion of works of French literature. Continued review of principles of grammar.

30 INDIVIDUAL READING (1-2)

Conference periods for oral reports. Time to be arranged. A minimum of three hours of reading per each unit of credit is required weekly. Prerequisites: Current enrollment in or completion of French 25b.

Reading of French classics, contemporary literature or recent periodicals. (May be repeated for credit.)

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.

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.)

100a CONVERSATIONAL FRENCH, ELEMENTARY (2) (Credit/No Credit)

Three class 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 flexiblity 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.)

When student demand is light, French 100b and 100c may be offered as 1.5 hour modules.

100b CONVERSATIONAL FRENCH, ADVANCED ELEMENTARY (2) (Credit/No Credit)

Three class hours per week. Prerequisite: French 100a or equivalent.

Further work in conversation following the model of French 100a. (This course will not fulfill language requirements at California State Colleges or at the University of California.)

100c CONVERSATIONAL FRENCH, INTERMEDIATE (2) (Credit/No Credit)

Three class hours per week. Prerequisite: French 100b or equivalent.

More advanced work in conversation following the model of French 100b. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

Geography

1a PHYSICAL ENVIRONMENT AND MAN (3)

Three class 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.)

1b CULTURAL ENVIRONMENT AND MAN (3)

Three class 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 Sciences requirement in part.)

4 ECONOMIC GEOGRAPHY (3)

Three class 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. (Not offered in 1977-78.)

5a WORLD REGIONAL GEOGRAPHY (3)

Three class 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. (Not offered in 1977-78.)

5b WORLD REGIONAL GEOGRAPHY (3)

Three class 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. (Not offered in 1977-78.)

6 WORLD REGIONAL GEOGRAPHY (3)

Three class 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. (Not offered in 1977-78.)

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 Sciences Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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.)

99 HISTORICAL GEOGRAPHY (3)

Three class 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 99.) (Not offered in 1977-78.)

Geology

1a GENERAL GEOLOGY: DYNAMIC AND STRUCTURAL (4)

Three lecture and three lab hours per week plus two field trips. (Not open to students who have taken or are taking Geology 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.

1b HISTORICAL GEOLOGY (4) (Offered alternate spring semesters.)

Three lecture and three lab hours per week, plus one weekend field trip and one day-long field trip. Prerequisite: Geology 1a or Geology 10.

Geological history of the earth and the evolution of its animal and plant inhabitants.

6 ELEMENTARY MINERALOGY (4) (Offered alternate spring semesters.)

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 Prerequisite: Elementary Chemistry.

Basic principles of crystallography, crystal chemistry and mineral formation. Laboratory includes mineral and rock identification, and work on crystal models and the crystal projections.

10 SURVEY OF GEOLOGY (3)

Day: Two lecture and one recitation hours 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 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.

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 Divison in relation to comunity-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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 an integral feature of the study of a foreign language at the College.

1 ELEMEMENTARY GERMAN (5)

Five class 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.

1a ELEMENTARY GERMAN (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three class hours and one lab hour per week.

Approximately half of the semester's work in German 1 is covered in this course. This course is recommended for those students without any background in foreign language study.

1b ELEMENTARY GERMAN (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 class hours and one lab hour per week. Prerequisite: German 1a or equivalent.

Approximately the second half of the semester's work in German 1 is covered. (German 1a and 1b are equivalent to German 1.)

2 ADVANCED ELEMENTARY GERMAN (5)

Five class hours and 2 lab hours per week. Prerequisite: German 1 with a passing grade, or completion of German 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 1, with continued prac-

tice in listening, speaking, reading (of more difficult textual material) and writing. (See "Language Laboratory Requirement" above.)

2a ADVANCED ELEMENTARY GERMAN (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three class hours and one lab hour per week. Prerequisite: German 1 or 1b.

Approximately the first half of the semester's work in German 2 is covered.

2b ADVANCED ELEMENTARY GERMAN (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 class hours and one lab hour per week. Prerequisite: German 2a or equivalent.

Approximately the second half of the semester's work in German 2 is covered. (German 2a and 2b are equivalent to German 2.)

3 INTERMEDIATE GERMAN (5)

Five class hours and two lab hours per week. Prerequisite: German 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.

4 ADVANCED INTERMEDIATE GERMAN (3)

Three class hours and one lab hour per week. Prerequisite: German 3 with a passing grade, or assignment by the Foreign Language Department on the basis of the Foreign Language 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 word families, derivatives, compounds, idioms; practice of patterns; aural practice.

8a-8b GERMAN CONVERSATION (2-2)

Two class hours and one lab hour per week. Prerequisites: 8a — Successful completion of two semesters of college-level work in German; 8b — Successful completion of three 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.

25a-25b READINGS IN GERMAN LITERATURE (3-3)

Three class hours per week. Prerequisites: 25a — German 4; 25b — German 25a.

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.

30 INDIVIDUAL READING (1-2)

One conference period per week or oral report. Prerequisite: Evaluation of previous preparation, usually at least German 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.)

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.

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.)

100a CONVERSATIONAL GERMAN, ELEMENTARY (2) (Credit/No Credit)

Three class 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.)

When student demand is light, German 100b and 100c may be offered as 1.5 hour modules.

100b CONVERSATIONAL GERMAN, ADVANCED ELEMENTARY (2) (Credit/No Credit)

Three class hours per week. Prerequisite: German 100a or equivalent.

Further work in conversation following the model of German 100a. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

100c CONVERSATIONAL GERMAN, INTERMEDIATE (2) (Credit/No Credit)

Three class hours per week. Prerequisite: German 100b or equivalent.

More advanced work in German following the model of German 100a. (This course will not fulfill language requirement at California State College or at the University of California.)

Guidance

5 DECISIONS (1)

Three lecture hours per week for six weeks.

Provides students with opportunites 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 **not** be repeated for credit.)

8 WOMENS' 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 women whose education has been interrupted. Areas covered include analysis of present abilites 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. (Identical to Learning Center 80.)

10 INTRODUCTION TO COLLEGE (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 desire 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.

11 ORIENTATION TO STUDENT SERVICES (1-3) (Credit/No Credit)

Two 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 and/or Counselor-Advisor Aide. Explores opportunities for career choices in Student Services. (May be repeated for credit.)

12 THE ALIEN STUDENT (1) (Credit/No Credit)

Two lecture hours per week for 8 weeks.

Designed to provide recent immigrants and foreign students with an orientation to college and community, and to assist them in their adjustment. (May be repeated for credit.)

30 CAREER EXPLORATION (1) (Credit/No Credit)

Three lecture hours and 1 to 3 lab hours per week for 6 weeks by arrangement.

A variety of tests are given to appraise apitudes, interests, personal adjustments and special abilities, and to assist students in making effective education 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.

31 PERSONALIZING CAREER OBJECTIVES (1) (Credit/No Credit)

Lecture, lab and individual study 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.

48 SELECTED TOPICS (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.

Health Science

1 GENERAL HEALTH SCIENCE (2)

Two class hours per week. Health Science 1 or equivalent required for A.A. degree (minimum 2 units. Two units of Health Science 2a — 2i are equivalent to Health Science 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.)

2a HUMAN REPRODUCTION (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 2a — 2i are equivalent to Health Science 1.)

Overview of the reproductive processes of life forms, with emphasis on the biological aspects of human reproduction. 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.)

2b NUTRITION AND FITNESS (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 2a — 2i are equivalent to Health Science 1.)

Principles of nutrition and exercise as contributing factors to total fitness. Provides tools for the student to analyze his diet and effect positive changes in eating habits and physical activities to improve mental and physical well-being.

2c COMMUNICABLE DISEASE (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 2a — 2i are equivalent to Health Science 1.)

Study of some of the most prevalent and debilitating communicable diseases: causes, social implications, methods of detection, treatment and prevention.

2d ENVIRONMENTAL HEALTH (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 2a — 2i are equivalent to Health Science 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.

2e DRUGS: THEIR USE AND MISUSE (1)

Two lecture hours per week for eight weeks (Two units of Health Science 2a — 2i are equivalent to Health Science 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.)

2f BIRTH DEFECTS (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 2a — 2i are equivalent to Health Science 1.)

Study of the principles of human genetics and prenatal development, with an overview of many severe hereditary and environment-induced defects.

2g EMOTIONAL HEALTH (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 2a — 2i are equivalent to Health Science 1.)

Concepts of personality development, emotional health, and emotional disorders, with emphasis on the positive aspects of developing and maintaining emotional stability.

2h HEART DISEASE AND CANCER (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 2a-2i are equivalent to Health Science 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.

2i CURRENT HEALTH ISSUES (1)

Two lecture hours per week for eight weeks. (Two units of Health Science 2a-2i are equivalent to Health Science 1.)

An objective look at the medical, legal, and ethical aspects of the most provocative, controversial health issues making today's news headlines.

3 FIRST AID (1)

Two class hours per week for eight weeks.

Instruction in all the immediate, temporary treatment given in case of accident or sudden illness before the services of a physician can be secured.

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 need of the individual. (This course is identical to Consumer Arts and Sciences 9, and may be used to waive Health Science 2b.)

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 wellbeing. Includes direct experience of a variety of health promoting techniques (yoga, massage, breath exercises, visualization, etc.), as well as information regarding such healing practices as acupuncture, biofeedback, chiropractic and others.

47 COOPERATIVE EDUCATION (1-4) (Credit/Credit)

Work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 127.)

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.

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)

4a HISTORY OF WESTERN CIVILIZATION (3)

Three class 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.

4b HISTORY OF WESTERN CIVILIZATION (3)

Three class 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 4b-4c (six units) fulfills American Institutions requirement.)

4c HISTORY OF AMERICAN CIVILIZATION (3)

Three class 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 4a-4c (six units) fulfills American Institutions requirement.)

5 HISTORY OF ENGLAND (3)

Three class 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.

6a AFRICAN CIVILIZATIONS (3)

Three class 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 of the Savannah and forest, coastal tropical Africa and the Atlantic world. (Not offered 1977-78.)

6b AFRICAN CIVILIZATIONS (3)

Three class 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.

8a HISTORY OF AMERICAS (3)

Three class 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. (Not offered in 1977-78.)

8b HISTORY OF AMERICAS (3)

Three class hours per week.

General survey of the history of North and outh America, from about 1830 until the present. Emphasis on the larger countries of the Western Hemispere, and the development during the crucial period which began with the outbreak of World War II and has continued until contemporary times. (Not offered in 1977-78.)

11 ECONOMIC HISTORY OF THE UNITED STATES (3) Spring only

Three class 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. (This course is identical to Economics 11; with History 17a or 17b, fulfills American Institutions requirement.)

12 ECONOMIC HISTORY OF EUROPE (3)

Three class hours per week.

The roots of modern economic society traced to their European origins. The rise of mercantilism, the market system, and modern industrialism sketched against the ancient and medieval background. Attention given to 20th Century interwar and postwar developments, including recent movements toward European economic union. (This course is identical to Economics 12.)

17a AMERICAN HISTORY (3)

Three class 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.

17b AMERICAN HISTORY (3)

Three class hours per week.

The course continues the work of 17a, developing the reconstruction period, industrial expansion, social and economic development, and the foreign policies of the U.S. through World War II. (History 17a-17b (6 units) fulfills American Institutions requirement.)

20a-20b TWENTIETH CENTURY EUROPE (3-3)

Three class hours per week.

20a — 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. **20b —** History of Europe after the first World War. The brief optimism of the 1920's, followed by the depression and the period after World War II. (Not offered in 1977-78.)

21 HISTORY OF SAN MATEO COUNTY (3)

Three class 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 Coastside communities, airport, industrial parks, population shifts, voting trends. (History 21 satisfies the requirement in California State and Local Government.)

22 CALFORNIA HISTORY (3)

Three class 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 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. (History 22 satisfies the requirement in California State and Local Government.)

24 AMERICAN FOREIGN POLICY (3)

Three class hours per week.

Historical inquiry into the background of major problems in foreign policy of our own day. Special attention given to the period since World War II. (With History 17a or 17b, fulfills American Institutions requirement.) (Not offered in 1977-78.)

25 THE AMERICAN WEST (3)

Three class hours per week

The movement of Americans west of the Mississippi River, with an emphasis on fur trading, cattle raising, farming, mining, railroad building, community building. Indian problems, and the character and image of the West and Westerners. (With History 17a or 17b, fulfills American Institutions requirement.)

26 U.S.: 20th CENTURY AMERICAN HISTORY (3)

Three class hours per week.

Major economic, political, social and intellectual developments of the United States since the 1920's. (With History 17a or 17b, fulfills American Institutions requirement.)

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 racial and local origins, explored in depth. Attitudes of women as well as attitudes about women in America. (With History 17a or 17b fulfills American Institutions requirement.)

30 THE AMERICAN LABOR MOVEMENT (3) Spring only

Three class 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 upon trends since the Civil War. Particular attention paid to Labor's role in California and in the Bay Area. (Identical to Labor Studies 10; with History 17a or 17b, fulfills American Institutions requirement.)

32 THE SOUTH, OLD AND NEW IN AMERICAN HISTORY (3) Fall only

Three class 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.

33 THE AFRO-AMERICAN IN U.S. HISTORY (3) Spring only

Three class hours per week. Recommended: History 17a.

Social, economic and political facts as they relate to the Afro-American. Race relations will be analyzed and special emphasis will be given the history of the Afro-American. (With History 17a or 17b, fulfills American Institutions requirement.)

35 CIVIL WAR RECONSTRUCTION (3)

Three class hours per week. Recommended: History 17a or 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 17a or 17b, fulfills the American Institutions requirement.

44 HISTORY OF THE FAR EAST (3)

Three class 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, Parkistan and the countries of Southeast Asia. (Not offered in 1977-78.)

45 HISTORY OF MODERN RUSSIA (3)

Three class 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. (Not offered in 1977-78.)

46 MODERN GERMANY (3)

Three class 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. (Not offered in 1977-78.)

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 Sciences Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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 eligibe 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.)

50 AMERICAN HISTORY AND CURRENT WORLD AFFAIRS (3)

Three class 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 requirement for students working toward the Associate in Arts degree and not planning to transfer to a four-year institution.) May be repeated for credit.

99 HISTORICAL GEOGRAPHY (3)

Three class hours per week.

Analysis of selected problems from the historical geography of the United States. Emphasis is 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 99.) (Not offered 1977-78.)

shop records, shipping, buying, employee relations and quality control of flowers, plants and floral pieces.

Horticulture — Vocational Gardening

130a-130b VOCATIONAL AND PLANT MATERIAL (1-1)

Three class 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. 130a — Emphasizes the landscape use of trees; 130b — Emphasizes the landscape use of shrubs and ground covers.

132a-132b GENERAL VOCATIONAL GARDENING (1-1)

Three class hours per week.

Study of gardening in California. Soils, manures, fertilizers and amendments. Plant propagation. Turf management. Pruning and maintenance of trees and shrubs. Perennials, herbaceous perennials, annuals and biennials. Horticultural machines and tools. Insecticides and fungicides.

135a-135b VOCATIONAL LANDSCAPE GARDENING (1-1)

Three class hours per week.

Basic principles of landscape design, construction and estimating. Preparation of simple plans and layouts. Visits to outstanding landscaping exhibits.

Humanities

(See also History and Philosophy)

1 INTRODUCTION TO HUMANITIES GREECE TO RENAISSANCE (3)

Three class 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.

2 INTRODUCTION TO HUMANTIES: REFORMATION TO PRESENT (3)

Three class 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.

25 TECHNOLOGY, CONTEMPORARY SOCIETY, AND HUMAN VALUES (3) (Formerly Social Science 25)

Three class hours per week.

A humanistic analysis of the impact of contemporary technology on warfare, education, philosopy, behavior control, and social relations. Reasons for the rise of technological civilization in the West, the characterology of techology, and the phenomenology of its effects are examined.

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.)

Italian

100a CONVERSATIONAL ITALIAN, ELEMENTARY (2) (Credit/No Credit)

Three class 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. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

When student demand is light, Italian 100b and 100c may be offered as 1.5 hour modules.

100b CONVERSATIONAL ITALIAN, ADVANCED ELEMENTARY (2) (Credit/No Credit)

Three class hours per week. Prerequisite: Italian 100a or equivalent.

Further work in conversation following the model of Italian 100a. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

100c CONVERSATIONAL ITALIAN, INTERMEDIATE (2) (Credit/No Credit)

Three class hours per week. Prereqisite: Italian 100b or equivalent.

More advanced work in conversation following the model of Italian 100b. (this course will not fulfill language requirement at California State Colleges or at the University of California.)

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. Imitation, response, and independent practice are an integral feature of the study of a foreign language at the College.

1 ELEMENTARY JAPANESE (5)

Five class 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 forms of Japanese.

1a ELEMENTARY JAPANESE (3)

Three class hours plus one lab hour per week.

Approximately half of the semester's work in Japanese 1 is covered in this course.

1b ELEMENTARY JAPANESE (3)

Three class hours plus one lab hours per week. Prerequisite: Japanese 1a or equivalent.

Approximately the second half of the semester's work in Japanese 1 is covered. (Japanese 1a and 1b are equivalent to Japanese 1.)

2 ADVANCED ELEMENTARY JAPANESE (5)

Five class hours and one lab hour per week. Prerequisite: Japanese 1 or equivalent.

Further study of basic patterns of Japanese.

2a ADVANCED ELEMENTARY JAPANESE (3)

Three class hours plus one lab hour per week. Prerequisite: Japanese 1 or 1b.

Approximately half of the semester's work in Japanese 2 is covered in this course.

2b ADVANCED ELEMENTARY JAPANESE (3)

Three class hours plus one lab hour per week. Prerequisite: Japanese 2a or equivalent.

Approximately the second half of the semester's work in Japanese 2 is covered. (Japanese 2a and 2b are equivalent to Japanese 2.)

Journalism

1 INTRODUCTION TO JOURNALISM (3)

Three class 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.

2 NEWSWRITING (3)

Two lecture and two lab hours per week. Prerequisite: Journalism 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.

15 NEWSPAPER PRODUCTION (2)

Four class hours per week. Prerequisite: Journalism 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.)

16 MAGAZINE PRODUCTION (2)

Four class 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.)

48 SELECTED TOPICS IN JOURNALISM (1-3)

Hours by arrangement.

Selected topics in Journalism not covered by regular catalog offering. Course content and unit credit to be determined by the Langualge Arts Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

49 SPECIAL PROJECTS (1-2)

Hours by arrangement. Prerequiste: 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

10 THE AMERICAN LABOR MOVEMENT (3) Spring only

Three class hours per week.

A survey of the history, structure, and instituitons of the organized labor movement in the United States, covering developments from the colonial era to the present, with the greatest emphasis upon trends since the Civil War. Particular attention is given to labor's role in California and the Bay Area. (Identical to History 30; with Hist. 17a or 17b, fulfills American Institutions requirement.)

11 LEGAL FOUNDATIONS: LABOR LAW AND MINORITY RIGHTS (3) Fall only

Three class 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.

14 GRIEVANCE HANDLING AND ARBITRATION (3) Fall only

Three class 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.

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.

Learning Center

80 WOMEN'S 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 women 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. (Identical to Guidance 8.)

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.

97 TUTORING PRACTICUM (1 unit per 8 weeks) (Credit/No Credit)

Ten hours per week for eight weeks. Prerequisite: G.P.A. 3.00 in subject the student wishes to tutor.

For students with demonstrated academic ability who wish to tutor individuals or small groups under staff supervision.

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 demonstation of competency.

Orientation and training course for those conducting individul and small group tutoring in the CSM Learning Center. Introduction to group techniques and programed materials. (May be repeated for credit.)

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.

Library Technology

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.

47 COOPERATIVE EDUCATION (1-4) (Credit/No Credit)

Designed for the student desiring work experience in a field related to a career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 127.)

48 SELECTED TOPICS IN LIBRARY TECHNOLOGY (1-3)

Hours by arrangement.

Selected topics in Library work not covered by regular catalog offerings. Course content and unit credit to be determined by the Library division in relation to community-student need and/or available staff. May be offered as a seminar, lecture or lecture/laboratory class.

51 INTRODUCTION TO LIBRARY TECHNOLOGY (3)

Three class hours per week.

Introduction to the types of libraries (school, college, public and special) making a study of their services, functions and organizational patterns, job opportunities, salaries, benefits and working conditions. Library terminology and human relations in library work.

52 LIBRARY TECHNICAL PROCESSES (3)

Three class hours per week.

Introduction to acquisition work for books, periodicals, documents and recordings; processing of these materials from receipt to shelving and preparation of material for binding are discussed. Documents, report literature and special materials handling.

53 ELEMENTARY CATALOGING PROCEDURES (3)

Three class hours per week. Prerequisite: Library Tech. 51 and typing ability equivalent to at least one year of typing.

Examination of the card catalog, its organization and function. Special attention to filing and to typing headings on cards. Book catalogs are discussed, as well as the two major classification systems, with the resulting cataloging of some fiction and biography.

54 PUBLIC SERVICES (3)

Three class hours per week. Prerequisite: Library Tech. 51 or acceptable work experience.

Circulation procedures of books, periodicals, pamphlets, documents and services are examined. Employee-patron relationships and the philosophy of library service are explored.

55 NON-BOOK MATERIALS (3)

Three class hours per week.

Introduction to non-book materials and audio-visual equipment in libraries. Examination of audio installations and A-V facilities. Preparation of A-V materials and use of equipment.

56 SELECTING BOOKS FOR CHILDREN (3)

Three class hours per week.

Placing emphasis on reading for the elementary school child, this course is designed to help library-aides, teacher-aides and parents become aware of some of the most useful-to-know children's books, as related to a child's age, sex and emotional maturity.

57 STORYTELLING (3)

Three class hours and six home-preparation hours per week.

Laboratory experience in presenting stories and poetry to children in the kindergarten-primary grades and to acquaint the teacher-assistant, the teacher, the library-aide, and the librarian with the history of literature for children and the outstanding authors and illustrators of children's books.

Life Sciences

(See Biology)

Machine Tool Technology

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 Technician Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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.)

51a-51b APPLIED MACHINE TOOL MATHEMATICS (2-2)

Two lecture hours per week. Prerequisites: 51a — concurrent enrollment in M.T.T. 52; 51b — concurrent enrollment in M.T.T. 62.

51a — Practical applications of basic arithmetic, algebra, and geometry in the solution of machine tool problems. Also covers the usage of pocket-size electronic calculators. Concurrent enrollment in MTT 52 is required. **51b —** The use of logarithms, trigonometry, volumetric calculations, tables and nomograms as applied to machine tool problems. Concurrent enrollment in MTT 62 is required.

52 ELEMENTARY MACHINE TOOL THEORY (5) (Formerly Elementary Machine Shop Theory)

Five lecture hours per week. Prerequisites: Concurrent enrollment in M.T.T. 51a and 52L.

The first of a four-semester program, this course presents the basic theory of the metal removal principal, English and metric measurement, layout and bench work, metals, threads, drilling, applied mathematics, lathe work, and others.

52L ELEMENTARY MACHINE TOOL PRACTICE (4)

Four three-hour periods per week. Prerequisite: Concurrent enrollment in M.T.T. 52.

Laboratory experience in the applied theory of reading the micrometer. Making layouts, drill press, lathe and lathe tool bit grinding, cutting threads, angles, machine maintenance and setups. Students will be required to purchase personal tools.

53 INTERMEDIATE MACHINE TOOL THEORY (5)

Five lecture hours per week. Prerequisite: M.T.T. 52, 52L, and concurrent enrollment in M.T.T. 53L.

Continuation of M.T.T. 52. Concentrated theory presentations covering precision grinding, milling machine operation, heat treating, tool and cutter design, electro-discharge machining and others.

53L INTERMEDIATE MACHINE TOOL PRACTICE (4)

Four three-hour periods per week. Prerequisites: M.T.T. 52, 52L, and concurrent enrollment in M.T.T. 53.

Continuation of M.T.T. 52L; machining operations. Laboratory activities include milling machine operation, precision grinding, thread cutting, and the heat treating of metals.

62 ADVANCED MACHINE TOOL THEORY (5)

Five lecture hours per week. Prerequisites: M.T.T. 53, 53L or equivalent and concurrent enrollment in M.T.T. 51b.

Theoretical principles and practical applications of numerical control as applied to the machine tool industry. The relationship between machine tool principles, numerical control planning, and mathematics for numerical control programming.

62L ADVANCED MACHINE TOOL PRACTICE (4)

Four three-hour per week. Prerequisites: M.T.T. 52, 53L, or equivalent.

External and internal thread cutting, tool and cutter grinding, advanced machine tool practice, and an introduction to numerical control milling.

63 TOOL AND DIE TECHNOLOGY THEORY (5)

Five lecture hours per week. Prerequisites: M.T.T. 62, 62L, or equivalent.

Fundamentals of tool and die manufacture with emphasis on die design and power press nomenclature, safety power press die sets, die components terminology, elementary die construction theory, and principles of progressive and compound dies.

63L TOOL AND DIE TECHNOLOGY PRACTICE (4)

Four three-hour periods per week. Prerequisites: M.T.T. 62, 62L.

Fundamental practice in the design and manufacture of die sets, blanking and piercing operations, bending, deforming and shearing operation. (Extra supplies may be required.)

64 INTRODUCTION TO NUMERICAL CONTROL PROGRAMMING AND MACHINING (3)

Three lecture hours per week. Prerequisites: M.T.T. 53 and M.T.T. 53L, or equivalent.

Advanced machine tool technology and theory of programming machine tools for production manufacturing.

101 APPLIED TECHNICAL MATHEMATICS (3)

Three lecture hours per week. Recommended: High school Algebra, Geometry and Trigonometry.

Covers fractions, percentage, ratio and proportion, polygons, circles, areas, volumes, weights of material, and the essentials of trigonometry.

102a MACHINE TOOL THEORY AND PRACTICE (2) (Formerly Machine Shop Theory)

One lecture and three lab hours per week.

Survey of machine tool processes. Recomended 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.)

102b-102c MACHINE TOOL THEORY AND PRACTICE (2-2)

One lecture and three lab hours per week. Prerequisite: M.T.T. 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.)

122a-122b TOOL AND DIE THEORY (3)

Three lecture hours per week. Prerequisites: M.T.T. 102a-b.

The theory of production tools, including the construction of shearing , forming, and progressive dies. The main emphasis is in the actual fabrication of tools land the production of the components made with the dies.

140 INTRODUCTION TO MANUAL NC PARTS PROGRAMMING (3)

Three lecture hours per week. Prerequisite: Post-high school machine tools course or equivalent.

Actual training in programming NC tools. Concentrates on point-to-point machine tools with some exposure to contouring.

150 ADVANCED MANUAL NC PARTS PROGRAMMING (2)

Three class hours per week. Prerequisite: M.T.T. 140.

Skill development in programming two-, three- and four-axis NC milling machines in point-to-point and contouring (profiling).

160 COMPUTERIZED NC PARTS PROGRAMMING (2)

Three class hours per week. Prerequisite: M.T.T. 140.

Initial experience in using computers to create center-line programs and post processed programs from computer program languages. Includes APT and others. Intended to enable students to gain sufficient proficiency to qualify for positions as parts programmers.

Management

48 SELECTED TOPICS IN MANAGMENT (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.

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.)

50 FINANCIAL MANAGEMENT (3)

Three class 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.

52 REPORT WRITING (3)

Three class 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.

54 MANAGEMENT COMMUNICATIONS (3)

Three class 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.

55 DYNAMICS OF GROUP COMMUNICATIONS (3)

Three class hours per week. Prerequisite: Mgmt. 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.

61 INDUSTRIAL RELATIONS (3)

Three class hours per week.

Employer and union policies affecting the labor market, emphasizing: wage systems, living conditions, productivity,

unemployment, union organizations and collective bargaining, and industrial conflicts from the point of view of wage earner, employer and the government.

63 PLANNING, BUDGETING AND CONTROL FOR SUPERVISORS (3)

Three class 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.

65 BUSINESS AND INDUSTRIAL ECONOMICS (3)

Three class hours per week. (Econ. 1a and 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.

71 MATERIALS MANAGEMENT (3)

Three class 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.

72 MOTION STUDY AND METHODS ANALYSIS (3)

Three class 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.

77 INDUSTRIAL ENGINEERING METHODS (3)

Three class hours per week.

Overall view of manufacturing managment. Fundamentals of organization, capital costs and budgets, motion and time study, industrial statistics, operations, research.

80 MANAGEMENT OF HUMAN RESOURCES (3)

Three class 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.

85 ORGANIZATIONAL BEHAVIOR (3)

Three class 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.

90 ADMINISTRATIVE OFFICE MANAGEMENT (3)

Three class 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.

91 SALES MANAGEMENT (3)

Three class hours per week.

Sales organizations; sales, merchandising and distributive policies; layout of territories, selection and training; pricing, use of advertising, public relations, and promotion materials. The integration of the points of view of sales and merchandising managers in approaching and solving problems.

92 TECHNIQUES OF SUPERVISION (3)

Three class 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.

93 LEADERSHIP IN ORGANIZATION (3)

Three class 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.

96 ADMINISTRATIVE ORGANIZATION (3)

Three class hours per week.

A study of the principal functions of modern management such as planning, organizing, staffing, actuating, controlling, and decision-making.

99 PRINCIPLES OF MANAGMENT (3)

Three class hours per week.

Survey of business principles and practices, problems, and pro-

cedures, background of American business, organization, ownership, financing, production and distribution of goods. (Satisfies Bus. 10 requirement for A.A. degree in Business and is required for Management certificate.)

Mathematics

See also Business 50 and 51.

The normal sequence of mathematics courses at CSM is 11, 12, 20, 21, 28, 30, 31, 32, 33, 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.

1 PRE-ALGEBRA MATHEMATICS (1-3) (Credit/No Credit)

One class hour plus two hours by arrangement per week.

Basic arithmetic facts and operations of whole numbers, fractions and decimals. Students who achieve competency in the basics may elect an option such as fundamentals of algebra, nursing or industrial applications. May be repeated for a total of 3 semester units.

10 INTRODUCTION TO MATHEMATICAL CONCEPTS (3)

Three class hours per week.

The basic ideas of mathematics and their historical development; number, function, logic, sets; the relationship of traditonal and contemporary mathematical thought.

11 ELEMENTARY ALGEBRA (5)

Day — five class hours per week. Evening — six class hours per week.

Elementary Algebra through quadratic equations.

11a-11b ELEMENTARY ALGEBRA (3-3)

Three class hours per week.

A two-semester study of Elementary Algebra through quadratic equations.

12 GEOMETRY (5)

Day — five class hours per week. Evening — six class hours per week. Prerequisite: Math. 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.

13 ELEMENTARY FINITE MATHEMATICS (3)

Three class hours per week. Prerequisite: Math. 19 or 20 with grade C or better, or 1½ years of high school Algebra 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.

16 CONTENT OF ELEMENTARY SCHOOL MATHEMATICS (3)

Three class 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.

17 INTRODUCTION TO SYMBOLIC LOGIC (3)

See Philosophy 12.

19 INTERMEDIATE ALGEBRA WITH REVIEW (5)

Day — five class hours per week, Evening — six class hours per week. Prerequisite: Math 11 with grade C or better, or one year of high school Algebra with grade C or better. Recommended: Math. 12 with grade C or better, or one year of high school Geometry with grade C or better.

Covers the same course material as Math. 20 but includes a review of material from Elementary Algebra.

20 INTERMEDIATE ALGEBRA (3)

Three class hours per week. Prerequisites: Math. 11 with grade C or better, or one year of high school Algebra with grade C or better. Recommended: Math. 12 with grade C or better, or one year of high school Geometry with grade C or better.

Extension of fundamental algebraic concepts and operations, binomial expansion, solution of linear and quadratic equations, individually and in systems, determinants, radical equations, complex numbers, introduction to theory of equations.

21 ANALYTIC TRIGONOMETRY (3)

Three class hours per week. Prerequisites: Math. 12 and Math. 19 or 20 with grades of C or better; or high school preparation including 1½ years of Algebra and one year of Geometry with grade C or better.

Trigonometric functions of real numbers and angles, their graphs and periodicity; reduction formulas; functions of multiple angles; identities and equations; radian measure; inverse functions; logarithms; solution of triangles.

22 ELEMENTARY PROBABILITY AND STATISTICS (4)

Day — four class hours per week. Evening — five class hours per week. Prerequisite: Math. 20 or equivalent with grade C or better, or high school preparation including 1½ years of Algebra with grade 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.

23a-23b APPLIED ANALYTIC GEOMETRY AND CALCULUS (5-3)

Day — five class hours per week. Evening — six class hours per week. Prerequisites: 23a — Math. 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 of better. 23b — Three class hours per week. Prerequisite: Math. 23a with grade C or better.

23a — Selected topics from analytic geometry plus basic techniques of both differential and integral calculus. (This sequence may not be subsituted for the Math. 30 sequence for mathematics, physics or engineering majors.) **23b —** Further work in differentiation and integration, calculus of functions of several variables and selected topics from differential equations.

24a-24b MINICOMPUTER PROGRAMMING (1½-1½)

Two lecture plus 2 lab hours per week by arrangement for 7 weeks. Prerequisite: Math. 20 or equivalent with grade C or better, or high school preparation including 1½ years of Algebra with grade C or better.

24a — Elementary techniques of basic programming including keyboard operations, data storage and recall, looping and branching. **24b —** Iterative methods for solving equations, series, approximating limits, solutions of quadratic equations, approximating functions, elementary statistical techniques, computer plotting and advanced topics within the student's area of interest.

25 FORTRAN PROGRAMMING WITH AN INTRODUCTION TO NUMERICAL AND STATISTICAL METHODS (3)

Day — Two lecture and three lab hours per week. Evening — Three class hours plus two lab hours by arrangement per week. Prerequisite: Math. 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.)

27 COLLEGE ALGEBRA WITH TRIGONOMETRY REVIEW (5)

Day — five class hours per week. Evening — six class hours per week. Prerequisite: Math. 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.

Covers the same course material as Math. 28 but includes a review of Trigonometry.

28 COLLEGE ALGEBRA (3)

Three class hours per week. Prerequisite: Math. 21 (or equivalent) with grade C or better; or high school preparation including 1½ years 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.

30 ANALYTIC GEOMETRY (4)

Day — four class hours per week. Evening — five class hours per week. Prerequisite: Math 21 and 27 or 28 with grades of 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.

Elements of plane and solid analytic geometry.

31 CALCULUS (4)

Day — four class hours per week. Evening — five class hours per week. Prerequisite: Math. 30 (or equivalent) with grade C or better.

Development of the basic theory and techniques of differential and integral calculus as applied to algebraic functions.

32 CALCULUS (4)

Day — four class hours per week. Evening — five class hours per week. Prerequisite: Math. 31 (or equivalent) with grade C or better.

Additional topics of differential and integral calculus including transcendental functions, techniques of integration, indeterminate forms and improper integrals.

33 CALCULUS (4)

Day — four class hours per week. Evening — five class hours per week. Prerequisite: Math. 32 (or equivalent) with grade C or better.

Additional topics of differential and integral calculus including series, vectors and functions of several variables.

34 ORDINARY DIFFERENTIAL EQUATIONS (3)

Three class hours per week. Prerequisite: Math. 33 (or equivalent) with grade C or better. When approved by the instructor, may be taken concurrently with Math 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.

35 LINEAR ALGEBRA (3)

Three class hours per week. Prerequisite: Math. 31.

Vectors and matrices applied to linear equations and linear transformations, real and inner product spaces.

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.

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.)

55 PRACTICAL TRIGONOMETRY (3) (Formerly Practical Trigonometry and Slide Rule)

Three class hours per week. Prerequisites: Math. 12 and Math. 19 or 20 with grades of C or better, or high school preparation including 1½ years of Algebra and one year of Geometry with grade C or better.

Trigonometric functions as functions of angle measure, their graphs and periodicity. Introduction to solutions of trigonometric equations. Vectors. Solutions of triangles. (Not recommended for students intending to take the Math. 30 sequence.)

Medical Assisting

(For Program Planning and Suggested Curricula see Business — Medical Assisting)

57a-57b MEDICAL TERMINOLOGY (3-3)

Three class hours per week. Prerequisite: 57a — None; 57b — M.A. 57a.

57a—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. **57b**—Terminology in medical specialties as it relates to body structure, pathological conditions and diseases; operative terms and techniques, laboratory and radiological diagnostic procedures.

59 INTRODUCTION TO MEDICAL OFFICE TRAINING (3)

Three class 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.

60 CLINICAL PROCEDURES (3)

Two lecture and three lab hours per week. Prerequisite: Biology 7.

Examination room techniques; sterilization procedures; medical emergencies; laboratory procedures; pharmacology.

70a ADMINISTRATIVE MEDICAL ASSISTING REVIEW (3)

Three class hours per week. Prerequisites: M.A. 57, 59, 95 and 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 bookkeeping, medical ethics and legal aspects.

70b CLINICAL MEDICAL ASSISTING REVIEW (3)

Three class hours per week. Prerequisites: M.A. 57, 59, and 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 will be discussed.

94 MEDICAL TRANSCRIPTION (2)

Four class hours per week. Prerequisites: Bus. 92.6, 92.7 or equivalent; M.A. 57.

Machine transcription of medical reports.

95 MEDICAL INSURANCE PROCEDURES (2)

Four class hours per week. Prerequisites: M.A. 59, Bus. 92.7 or equivalent.

Blue Cross, Blue Shield, Medicare, Medi-Cal, Workmen's Com-

pensation and other insurance programs are presented. Instruction includes California Relative Value Studies in preparing claims for insurance payment. Billing and bookkeeping methods.

100 MEDICAL OFFICE PROCEDURES (3)

Four class hours a week, plus 1 hour by arrangement. Prerequisites: M.A. 57, 59, Bus. 92.6, 92,.7 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.

108 MEDICAL ASSISTING EXTERNSHIP (4)

Two class hours per week plus 10 hours per week of supervised training in medical office. Prerequisites: Completion of or enrollment in Medical Assisting 60, 94, 95, 100.

Practical experience, under supervision, in a physician's office or clinic and/or hospital, with weekly seminar.

Meteorology

1 ELEMENTARY METEOROLOGY (3)

Three lecture hours per week.

Elementary meteorology including the basic processes of weather phenomena, basic weather analysis and forecasting.

10 AVIATION WEATHER (3)

Three class hours per week. Prerequisite: Aero. 2a.

Basic weather concepts and their special application to aviation. Designed to prepare the aviation student for the meteorology portion of the FAA pilot's examination.

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.

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.)

Military Science

(Reserve Officers Training Corps)

1a DEFENSE ESTABLISHMENT AND FUNDAMENTALS OF LEADERSHIP (2)

One lecture hour and one leadership lab bi-weekly.

The history, mission and organization of ROTC; techniques of marksmanship, causes of war, evolution of weapons, and factors of national power. Progressive training in leadership and command.

1b DEFENSE ESTABLISHMENT AND FUNDAMENTALS OF LEADERSHIP (2)

One lecture hour and one leadership lab bi-weekly.

Principles of war; history, mission and organization of the Department of Defense; introduction to leadership.

12a APPLIED LEADERSHIP AND MANAGEMENT (2)

One lecture hour and one leadership lab bi-weekly. Prerequisite: Military Science 1a-1b.

Map and aerial photograph reading. Instruction in military operations and basic tactics. Progressive training leadership and command.

12b APPLIED LEADERSHIP AND MANAGEMENT — MAP AND AERIAL PHOTOGRAPH READING (2)

One lecture hour and one leadership lab bi-weekly. Prerequisite: Military Science 1a-1b.

Operations of the basic military team. The functions, duties and responsibilities of junior leaders. Continuing development of leadership through practical exercises.

Music

Enrollment in Music 22, 23, 27, 28 and 40 is based on a prerequisite of Music 24, 25, 26 or the equivalent as demonstrated by a standard audition. Enrollment in Music 33, 34, 35 is based on a prerequisite of Music 37 or the equivalent as demonstrated by a standard audition.

1a-1b MUSICIANSHIP (3-3)

Three class hours per week. Prerequisite: 1a — Music 9 or equivalent; 1b — Music 1a.

Study of music notations, keys and intervals. Performance at sight of melodic and rhythmic examples. Dictation of melodic, harmonic and rhythmic examples. Fundamentals of keyboard harmony.

2a-2b ADVANCED MUSICIANSHIP (3-3)

Three class hours per week. Prerequisite: Music 1a-1b or equivalent; 2b — Music 2a.

Continuation of Music 1a-1b. (Nine units of musicianship are recommended for students majoring in Music.)

4a-4b HARMONY (3-3)

Three class hours per week. Prerequisites: 4a — Music 9 or equivalent, Music 1a-1b (or equivalent), or taken concurrently; 4b — Music 4a.

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.

5a-5b ADVANCED HARMONY (3-3)

Three class hours per week. Prerequisite: 5a — Music 4a-4b; 5b — Music 5a.

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.

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.

7 SURVEY OF BLACK MUSIC (3)
(Formerly Music 7a)

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 41.)

8 HISTORY OF JAZZ (3)
(Formerly Music 7b — Afro-American Jazz)

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 42.)

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.

12 ELEMENTARY PIANO (1)
(Formerly Music 12a)

Three class hours plus two lab hours per week.

Study in the techniques of piano playing. Individual attention, assignments and performance in a class situation.

13 ADVANCED ELEMENTARY PIANO (1)

Three class hours plus two lab hours per week. Prerequisite: Music 12 or equivalent.

Continuation of study in the techniques of piano playing. Individual attention, assignments and performance in a class situation.

14 INTERMEDIATE PIANO (1)

Three class hours plus two lab hours per week. Prerequisite: Music 13 or equivalent.

Continuation of study in the techniques of piano playing. Individual attention, assignments and performance in a class situation.

15 ADVANCED PIANO (1)

Three class hours plus two lab hours per week. Prerequisite: Music 14 or equivalent.

For advanced students. Recital performance is part of the course. (May be repeated for credit.)

16 IMPROVISATION (3)

Three class hours per week. Prerequisite: Music 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.

17 COMPOSERS WORKSHOP (2)

One lecture and two lab hours per week. Prerequisite: Music 4a-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.)

18a-18b GUITAR (1-1)

Three lecture hours plus two lab hours per week. Prerequisite: 18a — None; 18b — Music 18a.

18a — 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 guitar. Students must supply their own instruments. **18b** — Continuation of 18a with emphasis on solo performances. (18b may be repeated for credit.)

22 ORCHESTRA (1)

Three class hours per week.

Study and performance of standard and contemporary literature for chamber and symphonic ensembles. Performance is required. (May be repeated for credit.)

23 SYMPHONIC BAND (1)

Three class hours plus two lab hours by arrangement per week.

Study and performance of music for concert band. Performance is required. Band does not perform at athletic events. (May be repeated for credit.)

24 STUDY OF BRASS INSTRUMENTS (1)

Three class hours plus two lab hours per week.

Techniques of playing the instrument of the student's choice, with individual instruction. (May be repeated for credit.)

25 STUDY OF WOODWIND INSTRUMENTS (1)

Three class hours plus two lab hours per week.

Technique of playing the instrument of the student's choice, with individual instruction. (May be repeated for credit.)

26a-26b STUDY OF STRINGED INSTRUMENTS (1-1)

Three class hours plus two lab hours per week. Prerequisite: 26a — None; 26b — Music 26a.

26a — Beginning study of performance on violin, viola, cello or string bass. **26b** — Continuation of Music 26a. Technique of playing the violin, viola, cello or string bass, with individual instruction. (May be repeated for credit.)

27 INSTRUMENTAL ENSEMBLE (1)

Three class hours per week. Prerequisite: Demonstration of proficiency.

Performance is required. (May be repeated for credit.)

28 JAZZ BAND (2)

Five class hours per week. Prerequisite: 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.)

33 A CAPPELLA CHOIR (1-2)

Five class hours per week (daily), or three hours per week (MWF). Prerequisite: Demonstration of proficiency.

Study and performance of choral literature for accompanied and unaccompanied choir. Performance is required. (May be repeated for credit.)

34 COLLEGE CHORALE (1)

Three class hours per week. Prerequisite: Concurrent enrollment in Music 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 A Cappella Choir. Performance is a part of the course. (May be repeated for credit.)

35 MASTERWORKS CHORALE (2)

Three class hours per week. Prerequisite: Prior chorale experience—the equivalent of Music 33.

The study, preparation and performance of major choral works. The chorale presents two to four public concerts each year of the chorale masterpieces of all eras of music history.

37 ELEMENTARY SOLO VOICE (1)

Three class hours plus two lab hours per week.

Elementary vocal problems analyzed and corrected through exercises and songs. (May be repeated for credit.)

38 INTERMEDIATE SOLO VOICE (1)

Three class hours plus two lab hours per week. Prerequisite: Music 37 or equivalent.

Advanced songs and recital performance as ability merits. (May be repeated for credit.)

39 ADVANCED SOLO VOICE (1)

Three class hours plus two lab hours per week. Prerequisite: Music 38 or equivalent.

Performance course, emphasis on the study and performance of lieder, arias and other classical vocal literature. (May be repeated for credit.)

40 MUSICAL PRODUCTIONS (1-3)

Hours by arrangement. Prerequisite: Demonstration of proficiency.

Training in solo and chorus work for staging a musical production. (May be repeated for credit.)

41 MUSIC RECITALS (½)

One class 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.)

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.

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 — A. A. Degree

The courses described are open only to those students accepted in the nursing program (see admission requirements on Page 88). A grade C or higher is necessary for progression in the sequence. Upon graduation, the candidate receives an Associate in Arts degree and is eligible to write the California Board of Registered Nursing licensing examination.

1 NURSING (8)

Four lecture hours and twelve lab hours which includes three Skills Lab hours per week. Prerequisite: Registration in the Associate in Arts Degree Nursing Program, and either concurrent enrollment in or satisfactory completion of Biology 41 Psychology 1a.

Principles and practices in the fundamentals of nursing common to all patient conditions. Common needs of normal and ill individuals are considered. Correlated clinical practice with the subacute and chronically ill and skills lab are offered concurrently with the lectures. (Completion of this course with C grade or better waives one unit of Health Science requirement.)

2 NURSING (8)

Four lecture and twelve lab hours per week. Prerequisites: Nursing 1, Biology 41, and Psychology 1a with grade C or better, and concurrent enrollment in or satisfactory completion of Biology 42 and Psychology 5.

Human behavior, growth and development of child and family. The focus is on nursing care related to the adaptations to stress during the growth and development cycle, the maternity cycle and emotional illness. Theory and clinical experience, principles of growth and development, mental health, homeostasis and nutrition are correlated. Skills lab is part of the course. (Completion of this course with grade C or better waives one unit of Health Science requirement.)

3 NURSING (3)

Three lecture and sixteen lab hours per week. Prerequisites: Nursing 2, Biology 42, Psychology 5, all with C grade or better.

Care of adult patients with emphasis on chronic illness, physical and emotional, including preventative, therapeutic, pharmacological, nutritional and rehabilitative aspects. Clinical experiences will take place in a variety of settings. Theory and clinical experience will be correlated.

4 NURSING (8) (Formerly Nursing 3)

Five lecture hours and 9 lab hours and one Skills Lab hour per week. Prerequisites: Nursing 3 with a grade C or better.

Care of adult patients with illnesses requiring medical/surgical interventions and preventive, therapeutic, pharmacological, nutritional and rehabilitative aspects of these conditions. Skills lab and principles of growth and development, mental health and homeostasis are correlated.

5 NURSING (9) (Formerly Nursing 4)

Four lecture hours and 15 lab hours and one Skills lab hour per week. Prerequisite: Nursing 4 with grade C or better.

Correlated theory and clinical experience in nursing of patients with acute conditions requiring medical/surgical intervention, long-term care and rehabilitation. Preventive, therapeutic, pharmacological, nutritional aspects. Principles of growth and

development, mental health and homeostasis. Afternoon rotations and skills labs are correlated. (Completion of course with C Grade or better is required for graduation and eligibility for licensure examination.)

40 SPECIAL PRACTICE REVIEW (3-5) (Credit/No Credit) (Formerly Nursing 45)

Two to four lecture hours and three laboratory hours per week. May be repeated for credit. Prerequisites: Completion of Nursing 5 or equivalent, or current California R.N. License and malpractice insurance coverage.

Continuing education for registered nurses who wish to update skills, gain depth of knowledge in a particular area, and/or become more cognizant of changing health care. Includes concurrent theory and clinical practice. Student and instructor plan a program based on the student's learning needs.

41 THEORY REVIEW — FUNDAMENTALS OF NURSING (4) (Credit/No Credit)

Four lecture hours per week. Prerequisites: Completion of Nursing 5 or equivalent, or current R.N. License.

Review for nurses of knowledge and skills basic to nursing care of patients with sub-acute and chronic illnesses. Principles and practices which serve as guides to the basic nursing care common to all conditions and health needs of the individual are considered.

42 THEORY REVIEW — MATERNAL AND CHILD HEALTH/PSYCHIATRIC NURSING (4) (Credit /No Credit)

Four lecture hours per week. Prerequisites: Completion of Nursing 5 or equivalent, or current R.N. License.

Concepts of human behavior, and growth and development of child and family. Focus on nursing care related to adaptations to stress during maternity cycle and during emotional illness. Principles of growth and development, mental health, homeostasis and nutrition are correlated.

43 THEORY REVIEW — NURSING CARE OF ADULTS WITH CHRONIC MENTAL AND PHYSICAL ILLNESS (1)

Three lecture hours per week. Prerequisites: Completion of Nursing 5 or equivalent, or current R.N. License.

Nursing care of adult patients with physical or emotional illness including preventive, therapeutic, pharmacological, nutritional and rehabilitative concepts.

44 THEORY REVIEW — BEGINNING MEDICAL/SURGICAL (4) (Credit/No Credit) (Formerly Nursing 43)

Four lecture hours per week. Prerequisites: Completion of Nursing 5 or equivalent, or current R.N. License.

Nursing care of adult patients with illnesses requiring medical/surgical intervention. Includes preventive, therapeutic, pharmacological, nutritional and rehabilitative, growth and development, mental health and homeostatic concepts.

45 THEORY REVIEW — ADVANCED MEDICAL/SURGICAL (4) (Credit/No Credit) (Formerly Nursing 44)

Four lecture hours per week. Prerequisites: Completion of Nursing 5 or equivalent, or current R.N. License.

Care of patients with acute conditions requiring medical/surgical intervention, long-term care and rehabilitation. Prerentive, therapeutic, pharmacological and nutritional aspects are included. Principles of growth and development, mental health and homeostasis are investigated in greater depth.

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 1, 2, 3, and 4; focus on study habits, test taking, developing and evaluating nursing care plans. (May be repeated three times for credit.)

47 COOPERATIVE EDUCATION (1-4)

Work experience in a field related to career goal, supplemented by individual counseling from an instructor-coordinator. (See Page 127.)

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 Nursing Department in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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.)

50 PRE-NURSING (2) (Credit/No Credit)

Two lecture hours per week.

Introduction to basic concepts and skills in nursing — the role of the nurse, problem solving, interpersonal relationships, medical terminology, learning and communication skills.

Nursing — Vocational

51 MEDICAL-SURGICAL NURSING I (7)

Five lecture and 6 lab hours per week. Prerequisite: Registration in Vocational Nursing curriculum and concurrent enrollment in (or satisfactory completion of) Biology 7, Nursing I and Psychology Ia.

Correlation of theory and laboratory experience in chronic and subacute medical and surgical conditions of adults and children. Principles of growth and development, mental health and the maternity cycle are included.

52a MEDICAL-SURGICAL NURSING II (15)

Seven lecture and 24 lab hours per week. Prerequisite: Grades of C or better in V.N. 51, Nursing 1, Psychology 1a and Biology 7, and concurrent enrollment in or satisfactory completion of Biology 52.

Continuation of 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.

52b MEDICAL-SURGICAL NURSING III (9)

Four lecture and 36 lab hours per week. Prerequisite: Grades of C or better in V.N. 52a and Biology 52.

Continuation of V.N. 52a. (Completion of course with C grade or better is required for certification and eligibility for license examination.)

Oceanography

10 OCEANOGRAPHY (3)

Three class 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.

Paleontology

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.

Philosophy

See also Humanities

6a INTRODUCTION TO SOCIAL AND POLITICAL PHILOSOPHY (3)

Three class hours per week.

A course intended to help students understand some basic philosophical issues and use the critical methods of philosophy. Selected political and social theories, with various views about humanity, the physical world and God are analyzed and evaluated.

6b INTRODUCTION TO THEORY OF KNOWLEDGE (3)

Three class hours per week.

A critical study of the possible sources and limits of human knowledge; the ability of sense experience, reason, faith, 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, Yoga philosophy, Buddhism, Sufism, Christian mysticism, and varieties of meditation techniques.

7 INTRODUCTION TO LOGIC (3)

Three class hours per week.

Conditions of clear statements; procedures and criteria for evaluating arguments with attention to both their content and their form; questions of the adequacy and relevance of statements used to support conclusions.

8 LOGIC: SCIENTIFIC METHOD (3)

Three class hours per week.

A study of the scientific method in the physical and social sciences. Inductive inference; hypothesis formulation and test-

ing; analogy; probability; causality; nature of scientific explanation. Recommended for physical and social science majors. (Not offered in 1977-78.)

12 INTRODUCTION TO SYMBOLIC LOGIC (3)

Three class hours per week.

A study of the logical structure of language, the validity of arguments expressed symbolically. Introduction to the logic of classes and relations. Introduction to the logic of mathematics. (Identical to Math. 17.) (Not offered in 1977-78.)

20a HISTORY OF PHILOSOPHY (3) Fall only

Three class 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 development of Christian philosophy in the Middle Ages.

20b HISTORY OF PHILOSOPHY (3) Spring only

Three class 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.

20c HISTORY OF PHILOSOPHY (3)

Three class hours per week.

A study of 19th and 20th Century philosophical positions, including those of Hegel, Nietzsche, Schopenhauer, the Utilitarians, Pragmatists, Logical Positivists, Existentialists and contemporary analytic philosophers.

23 ETHICS (3)

Three class 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. Among the topics discussed are the concept of the good, duty, egoism, altruism, freedom, personal social responsibility.

24a INTRODUCTION TO RELIGION, RELIGIONS OF THE WORLD (3)

Three class 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.

24b INTRODUCTION TO RELIGION, PHILOSOPHY OF RELIGION (3)

Three class 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.

35 ASIAN PHILOSOPHY (3)

Three class 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 their major philosophic traditions and their contemporary approaches to problems of man and society.

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 Sciences Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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 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 66 for physical education requirement.

The Schedule of Classes will list activity classes offered each semester as follows:

Physical Education 1 (Men)
Physical Education 2 (Coed)
Physical Education 3 (Women)

AQUATICS

AQUATIC FITNESS (1)

Two lab hours per week. Prerequisite: Ability to swim 200 yards continuously, demonstration of the crawl stroke.

Endurance swimming stressed, based on an interval training system. A class goal will be to be able to swim one mile within a 40-minute time period. Occasional participation in officiating home swimming meets may be required.

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.

LIFE SAVING (1)

Two lab hours per week. Prerequisite: Ability to swim 400 yards continuously, demonstration of the crawl, side and breast stroke; 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.

ELEMENTARY SKIN AND SCUBA DIVING (2)

One lecture and two lab hours per week. 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. All scuba equipment utilized in CSM pools is provided by the College.

ELEMENTARY/INTERMEDIATE/ADVANCED SWIMMING (1)

Two lab hours per week.

Instruction in water adjustment, treading, floating, breathing techniques, crawl, breast stroke, side stroke, back stroke, and elementary diving; also personal water safety procedures. Class is divided by levels of ability. (Offered Summer Session only.)

INTERMEDIATE SWIMMING AND ELEMENTARY WATER POLO (1)

Two lab hours per week. Prerequisite: The ability to swim comfortably in deep water.

Instruction in the basic swimming strokes plus basic water polo fundamentals and actual competitive scrimmages. 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 and simple rules of water safety. Practical assignments involving officiating responsibilities for home contests. For students with no previous water polo experience.

ELEMENTARY WATER POLO (1)

Two lab hours per week. Prerequisite: Ability to swim 50 yards using a "head high" crawl stroke, to swim 50 yards using the breast stroke, to tread water for 4 minutes and to tread water for 1 minute with the hands out of water.

Progressive skill development in picking up a ball in the water, passing, receiving, shooting, dribbling and playing the game of water polo. Knowledge of water polo rules and simple rules of water safety. Practical assignments involving officiating responsibilities for home contests. For students with no previous organized water polo experience.

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.

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 review various offensive and defensive styles as well as provide knowledge regarding the techniques and psychology of goal tending. (Offered during Summer Session only.)

WATER SAFETY INSTRUCTOR (1½)

Three lab hours per week. Prerequisite: Demonstration of competency.

Development of effective performance in the basic swimming strokes and the various life saving and water safety skills. Teaching techniques, methods and knowledge necessary to teach American Red Cross swimming and life saving courses.

COMBATIVES

ELEMENTARY 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.

WOMEN'S JUDO (1)

Two lab hours per week.

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 on judo as a sport. Self-defense techniques will be covered during the latter part of the class.

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 upon maximum use of the mind and the body.

ELEMENTARY 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).

ELEMENTARY/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.

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.

CONDITIONING

ADULT CONDITIONING ACTIVITIES (1)

Three lab hours per week.

A program of exercise designed to promote cardiovascular and respiratory fitness. Participation in recreational activities including badminton and volleyball.

ADULT FITNESS (1)

Two lab hours per week.

This course is designed to re-acquaint the adult with exercise and to increase cardio vascular fitness. Exercise for flexibility, strength and agility; jogging for conditioning of the vascular and respiratory systems; and relaxation for release of tension.

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.

CIRCUIT TRAINING (1) (Weight Conditioning)

Two lab hours per week.

Vigorous group 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.

CIRCUIT TRAINING (1½) (Weight Conditioning)

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 machine is utilized.

CONDITIONING FOR THE WOMAN ATHLETE (1½)

Three lab hours per week.

A vigorous conditioning program designed to assist the woman athlete overcome individual muscular weakness as related to each sport. Progressive work with weight machine and with interval training is utilized.

EXHIBITION GYMNASTICS (2)

Eight lab hours per week. Prerequisite: Demonstration of competency.

Group gymnastic routines designed for public presentation.

FIGURE CONTROL (1)

Two lab hours per week.

Introductory resistant weight training program designed to help students control, maintain and firm the conformation of their bodies. Provides for increase in strength, flexibility, and agility.

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.

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 may specialize in one area of interest.

JOGGING (1)

Two 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.

MASSAGE, BEGINNING (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.

OVER 30s (½)

Two lab hours per week for eight weeks.

Learning experience in a variety of lifetime sports. Provision is made for personalized exercise programs.

SLIM /TRIM (1)

Two lab hours per week.

Exercises for fitness and body conditioning and body contouring; instruction in the health aspect of a balanced diet and proper weight. Analysis of individual needs and development of program to achieve the student's goal.

TRAMPOLINE (1)

Two lab hours per week.

Trampoline activity for elementary, intermediate and advanced students. Safety skills and fundamental processes of trampolining.

ELEMENTARY WEIGHT CONDITIONING (1)

Two 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.

ELEMENTARY WEIGHT CONDITIONING (1½)

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 the various exercises and associated safety procedures utilizing free weights and/or weight machine.

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. Barbells and weight machine are used.

INDIVIDUAL PROGRAMS IN WEIGHT CONDITIONING (2)

Four and one-half hours per week. Evening class meets once a week for two hours (one 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.

CIRCUIT WEIGHT CONDITIONING (1)
(Formerly Weight Conditioning for Aquatics)

Two lab hours per week.

Designed to develop additional strength and flexibility, through the use of circuit training machines, for those students primarily interested in improving their proficiency in the area of aquatics. Many of the stations used are conducive to improved overall physical conditioning.

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.

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.

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.

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 over-all condition of the body.

YOGA I (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.

YOGA II (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.

DANCE

Descriptions of the following courses may be found on Page 129 under DANCE. Students may enroll in either Dance or Physical Education, but not both.

Folk/Square Dance (1)
Movement and Body Awareness (1)
Elementary Ballet and Modern Dance (1)
Dance and Movement for Theater (2)
Ballet I (1)
Ballet II (1)
Contemporary Modern Dance (1)
Jazz Dance (1)
Dance Production I (1)
Dance Production II (2)

INDIVIDUAL SPORTS

ELEMENTARY ARCHERY (1)

Two lab hours per week.

Fundamentals of target archery. Individual and team competition in; the Junior Scholastic, Junior Columbia, P.A.A. and Rounds safety rules, scoring, terminology, and care and selection of equipment.

INTERMEDIATE ARCHERY (1)

Two lab hours per week. Prerequisite: Elementary Archery or equivalent.

Introduces the student to the qualities of poise, skill, and strength embodied in this ancient activity. Tournament competition is included.

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 include equipment, food, safety standards, and map and compass reading, Transportation is not provided. Expenses: Equipment and/or equipment rental is required.

ELEMENTARY 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.

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.

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. Tournaments of different types will be played in class. Students are encouraged to enter outside tournaments.

ELEMENTARY BOWLING (1)

Two lab hours per week.

Learning opportunities in the stance, approach, release and roll; participation in a league bowling situation, knowledge of rules, scoring and etiquette. (Approximately $2 per day is required at off-campus facility.) Students must provide own transportation.

INTERMEDIATE BOWLING (1)

Two lab hours per week. Prerequiste: Elementary Bowling.

Fundamental techniques emphasized. (Approximately $2 per day is required at off-campus facility.) Students must provide own transportation.

INTERMEDIATE/ADVANCED BOWLING (1)

Two lab hours per week. Prerequisite: Successful completion of Elementary Bowling, or Blue Book average of 140.

Participation in individual Peterson point league bowling in intermediate, advanced, and intermediate/advanced. (Approximately $2 per day is required at off-campus facility.) Students must furnish own transporation.

ADVANCED BOWLING (1)

Two lab hours per week. Prerequisite: Demonstration of competency.

Participation in advanced league bowling competition; individual scoring statistics are maintained. (Approximately $2 per day required at off-campus facility.) Students must provide own transportation.

ELEMENTARY/INTERMEDIATE/ADVANCED FENCING (1)

Two lab hours per week.

Techniques and practice in form, attacks, parries, counter-attacks, bouting, timing, strategy, history, safety, etiquette, rules, terminology, judging, directing, scorekeeping, and tournament.

ELEMENTARY GOLF (1)

Two lab hours per week. (Not open to students who have had prior golfing experience.)

Instruction concerning the techniques, rules, etiquette and philosophy for the beginning golfer; stance, grip, position, swing as associated with iron and wood shots. Outside assignments include playing 9 holes of golf. (Approximately $5 per semester is required at off-campus facility. Equipment and/or equipment rental is required.)

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.

ICE SKATING (1)

Two lab hours per week.

Fundamentals of figure skating — including "Alpha," "Beta," and "Gamma" tests. Free style skating also included. Course taught off campus and transportation not provided. (Approximately $20 per semester is required at off-campus facility.)

ELEMENTARY HANDBALL (1)

Two lab hours per week.

Basic handball skills involving serving and strokes. Features in doubles competition including theory and strategy. Understanding of the rules pertaining to one-wall handball will be stressed.

ELEMENTARY PADDLE BALL (1)

Two lab hours per week.

Basic paddle ball skills involving the serve, forehand and backhand strokes. A thorough understanding of the rules and strategy of the game is provided. Tournament play is offered in one-wall doubles.

RACKETBALL/HANDBALL (4 wall) (1)

Two lab hours per week.

Offers rules, fundamentals, techniques, and philosophy of four-wall racketball/handball. Provides opportunity for increased cardiovascular, hand-eye coordination and overall body quickness.

ELEMENTARY/INTERMEDIATE SAILING (1)

Five hours per week for 8 weeks. Prerequisite: Demonstration of swimming ability.

Theory and practice in handling, care, and safe use of small sailboats (El Toro class). Includes basic techniques and provides some racing for the intermediate students. Transportation is not provided. (Approximately $15 per semester is required at off-campus facility for equipment.)

ELEMENTARY 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.

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.

ADVANCED TENNIS (1)

Two lab hours per week. Prerequisite: Demonstration of competency.

Advanced aspects of tennis play. Instruction in advanced strategy, philosophy, and techniques; tournament play in singles and doubles; testing program in skills, techniques, and rules.

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.

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.

TEAM SPORTS

ELEMENTARY BASEBALL (1)

Two lab hours per week.

Activity in the basic skills of baseball. Rules of play and team strategies stressed.

ADVANCED BASEBALL (2)

Six lab hours per week. Prerequisite: High school baseball or equivalent.

Designed as training class for students seeking to participate in Varsity Baseball. Advanced skills and techniques in baseball. Written and practical testing.

ELEMENTARY 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.

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 continuance of elementary skills; advanced techniques of offensive and defensive play; Round Robin team play.

ADVANCED BASKETBALL FOR WOMEN (2)

Four lab hours per week. Required class for women wishing to compete on Women's Varsity (formerly Women's Intercollegiate).

Advanced skills of basketball play; advanced techniques of offensive and defensive play; development of team play.

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.

ADVANCED VOLLEYBALL FOR WOMEN (2)

Four lab hours per week. Prerequisite: Knowlege, 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.

ADVANCED FOOTBALL AND CONDITIONING (2)

Four and one-half 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.

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.

ADVANCED SOCCER (1)

Two lab hours per week. Prerequisite: Demonstration of competency.

Advanced soccer techniques; written and practical testing program; league play.

ADVANCED SOCCER (1½)

Three lab hours per week. Class meets three times per week. Prerequisite: Demonstration of competency.

Advanced soccer techniques; written and practical testing program; league play.

ELEMENTARY 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.

ADVANCED TRACK AND FIELD (2)

Four and one half hours per week.

Designed to increase conditioning through weight training, with emphasis placed on individual needs in specific track events. Running and instruction on all aspects of track and field are included.

ELEMENTARY VOLLEYBALL (1)

Two lab hours per week.

Fundamentals of serving, passing, setting and spiking; team competition under national and international rules of play; testing program in all skills taught and on knowledge of rules.

INTERMEDIATE VOLLEYBALL (1)

Two lab hours per week. Prerequisite: Elementary volleyball.

Continuation of fundamental skills in tournament play. Team competition.

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; advanced emphasis on team play and strategy; tournament play is offered.

PEP SQUAD (1)

Two lab hours per week. Prerequisite: Demonstration of competency.

Designed to teach the skills and techniques necessary for performing as a cheerleader or pompon girl. Routines are taught during scheduled meetings and members will perform at athletic contests.

INTERCOLLEGIATE SPORTS

These courses are designed for those students who desire to compete in intercollegiate athletics and may be limited to those who present 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.

4 VARSITY CROSS COUNTRY (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; participation in Conference meets, invitational meets, Northern California meets and State Championship for those who qualify. Candidates should also enroll in Weight Conditioning for Cross Country (2 units).

5 VARSITY BASKETBALL (2)

Fifteen hours per week by arrangement. Prerequisite: Demonstration of competency.

Intercollegiate varsity basketball competition in the Golden Gate Conference; participation in regional tournaments.

6 VARSITY WRESTLING (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.

7 VARSITY TRACK AND FIELD (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 the State meets for those who qualify. Candidates should also enroll in Weight Conditioning for Track (2 units).

8 VARSITY BASEBALL (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.

9 VARSITY TENNIS (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.

10 VARSITY GOLF (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.

11 VARSITY SWIMMING (2)

Fifteen hours per week by arrangement. Prerequisite: Demonstration of competency.

Intercollegiate varsity swimming competition in the Golden Gate Conference, Northern California and State Community College swimming championships

12 VARSITY FOOTBALL (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 participate if enrolled in 12 or more units at either Skyline or Canada College.

13 VARSITY WATER POLO (2)

Prerequisite: Demonstration of competency.

Intercollegiate competition in the Golden Gate Conference, Northern California and State Championships.

21 WOMEN'S VARSITY VOLLEYBALL (2)

Fifteen hours per week minimum. Prerequisite: Demonstration of competency.

Intercollegiate competition in the G.G.C. Conference, Northern California, and State Championships.

22 WOMEN'S VARSITY BASKETBALL (2)

Fifteen hours per week minimum. Prerequisite: Demonstration of competency.

Intercollegiate competition in the G.G.C. Conference, Northern California, and State Championships.

23 WOMEN'S VARSITY SOFTBALL (2)

Fifteen hours per week minimum. Prerequisite: Demonstration of competency.

Intercollegiate competition in the G.G.C. Conference, Northern California, and State Championships.

24 WOMEN'S VARSITY TENNIS (2)

Fifteen hours per week minimum. Prerequisite: Demonstration of competency.

Intercollegiate competition in the G.G.C. Conference, Northern California, and State Championships.

THEORY

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, participate in panel discussions, symposiums and subjective testing.

41a-41b OFFICIATING FOR MEN'S SPORTS (2-2) (Formerly The Theory of Sports Officiating)

Two lecture hours per week plus lab hours by arrangement.

A course designed for Physical Education majors. Officiating procedures in a variety of activities. Laboratory experience. Assignments are given as related to the intramural and physical education instructional program.

42a-42b OFFICIATING FOR WOMEN'S SPORTS (2-2) (Formerly Women's Sports Officiating)

Two lecture and two lab hours per week. Prerequiste: Basketball, volleyball, and softball training or equivalent.

Designed for women Physical Education or Recreation students with training and lab work in intermediate or advanced classes and high school.

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 127.)

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.

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

10 INTRODUCTION TO THE PHYSICAL SCIENCES (3)

Three class 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 will be emphasized. (Intended for non-science majors.)

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 127.)

48 SELECTED TOPICS IN PHYSICAL SCIENCE (1-3) (Credit/No Credit)

Hours by arrangement.

Selected topics in Physical 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.

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.)

Physics

2a-2b GENERAL PHYSICS (4-4)

Three lecture and three lab hours per week. Prerequisite: 2a — Elementary Algebra and Plane Geometry; 2b — Physics 2a.

2a — Mechanics, heat and sound. **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 of Forestry.)

4a-4b-4c GENERAL PHYSICS (4-4-4)

Three lecture, one recitation and two lab hours per week. Prerequisite: 4a — Math. 31 and concurrent enrollment in Math. 32; 4b — Physics 4a, Math. 31 and 32 and concurrent enrollment in Math. 33; 4c — same as 4b. Students whose majors require only Math 23a-23b should consult the instructor.

4a — Mechanics, wave motion and special relativity. **4b** — Electricity and magnetism. **4c** — Heat, light and modern physics. (4a-4b-4c constitute a three-semester program designed to give the student majoring in Engineering, Physics or Chemistry a thorough foundation in the fundamentals of physics.)

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 2a or Physics 4a.

A description with experimental demonstrations of the more important phenomena of physics.

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.

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.)

Political Science

1 INTRODUCTION TO POLITICAL SCIENCE (3) Fall only

Three class 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.

2 CONTEMPORARY FOREIGN GOVERNMENTS (3)

Three class hours per week. Prerequisite: One of the following: Pol. Sci. 1, 5, 21, 22, or 25.

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.

3 INTERNATIONAL RELATIONS (3) Spring only

Three class hours per week.

An introductory survey of the nature of relations among states focusing upon 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.

5 INTRODUCTION TO POLITICAL THEORY (3)

Three class hours per week. Prerequisite: Successful completion of at least 12 semesters 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.

7 CIVIL LIBERTIES AND CIVIL RIGHTS (3) (Formerly Survey of Problems)

Three class 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 laws; the interaction of the Supreme Court with the President, Congress, political parties and interest groups. (Satisfies the American Institutions requirement.)

9 CONTEMPORARY ETHNIC POLITICS (3)

Three class hours per week.

A survey of the political perspectives, goals, and strategies of Black, Asian, Hispanic and Native American minorities within the contexts 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.)

12 STATE AND URBAN GOVERNMENT (3)

Three class hours per week.

The structure and dynamics of urban democracy with special reference to city and state government in California. Emphasis is placed on the problems of urban and metropolitan communities in such areas as law enforcement, ghetto conditions, school integration, welfare programs, and other related problems. The course includes an examination of the process of decision-making within the context of local and community politics. (Satisfies the California State and Local Government requirement.)

18 THE GOVERNMENTS AND POLITICS OF AFRICA (3)

Three lecture hours per week.

A critical analysis of the processes and practices in African political life and the forces that shape them. (Identical to Ethnic Studies 18.)

21 AMERICAN INSTITUTIONS (3)

Three class hours per week.

Thorough study of the Constitution, a survey of the organization and functions of the branches of the Federal govenment, and an examination of the dynamics of the American political process. (Satisfies the American Institutions requirement.)

22 THE PRESIDENCY — AN AMERICAN POLITICAL INSTITUTION (3) (Formerly American National Gov't)

Three class 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.)

23 CALIFORNIA STATE AND LOCAL GOVERNMENT (2)

Two class 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.)

25 NATIONAL, STATE AND LOCAL GOVERNMENT (5)

Five class hours per week. Not open to students who have had Pol Sci. 21 or 24,or a comparable course in American or state in-

stitutions. 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 are 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. (Satifies the American Institutions and the California State and Local Government requirements.)

27 AMERICAN SOCIETY (5)

Five class 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 attention given to 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.)

30 CONTEMPORARY ISSUES IN AMERICAN POLITICS (3)

Three class hours per week.

An exploration of issues in areas of current 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.)

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.)

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.)

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.

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.)

Psychology

1a GENERAL PSYCHOLOGY (3)

Three class 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 is placed on experimental evidence.

1b EXPERIMENTAL PSYCHOLOGY (3) Spring only

Three class hours per week. Prerequisite: Psych. 1a, with a minimum grade of C. Recommended: Psych. 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.

3 THE SOCIAL PSYCHOLOGY OF ETHNIC MINORITIES (3)

Three class hours per week.

Social psychology 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. (Identical to Sociology 3.)

4 COURTSHIP, MARRIAGE AND THE FAMILY (3)

Three class 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 4.)

5 CHILD DEVELOPMENT (3)

Three class hours per week. Prerequisite: Psych. 1a.

Consideration of perceptual, cognitive, social and emotional development extending from birth through adolescence with an emphasis on current research.

6 SOCIAL PSYCHOLOGY (3) Spring only

Three class hours per week. Prerequisite: Psych. 1a or Sociology 1.

Student of human interaction, with emphasis on social patterning and processes of perception, identity, roles and attitudes. (Identical to Sociology 6)

7 BASIC STATISTICAL CONCEPTS (3) Spring only

Three class hours per week. Prerequisites: Math. 20 or four semesters of high school level Algebra with a C average. Psych. 1a, or Sociology 1, or Anthro. 2. Recommended: Psych. 1a.

Introduction to the basic descriptive techniques and statistical inferences used in the behavioral sciences.

10 PSYCHOLOGY IN PRACTICE (3)

Three class hours per week.

Application of psychological principles to problems of everyday living rather than the technical-scientific approach of Psych. 1a. (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. 1a.)

13 INTRODUCTION TO PARAPSYCHOLOGY (3)

Three class hours per week. Prerequisite: Any course in Psychology or Physics.

Introduction to parapsychology, including report of spontaneous phenomena and laboratory research. Emphasis on understanding current developments, methods of investigation and the philosophical and scientific implications of parapsychology and physical research.

14 GROUP DYNAMICS (2) (Credit/No Credit)

Three hours of group participation per week. (May be repeated for credit.)

Group interaction within a relatively 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.

28 PSYCHOLOGY OF WOMEN (3)

Three lecture hours per week.

Within the framework of standard psychological concepts, this course examines the ways in which culture influences feminine and masculine role behavior. The unusual demands that rapidly changing society places upon both men and women are considered against this background.

33 PSYCHOLOGY OF ADJUSTMENT (3)

Three class hours per week. Prerequisite: Psych. 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.

34 ABNORMAL PSYCHOLOGY (3)

Three class hours per week. Prerequisite: Psychology 1a or 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.

39 HUMAN SEXUALITY (3)

Three lecture hours per week.

Objective is to consider human sexuality from a psychological, physiological and cultural perspective with a review of sex research. Topics include: reproductive process; the dimensions of sexuality; sexual arousal and response; sexual inadequacies and deviations; drugs and sexuality.

40 GROUP FACILITATOR TRAINING (2) (Credit/No Credit)

Two class hours per week. Prerequisite: Psychology 14 or equivalent.

Methods and therories of small group facilitation. Emphasis is on experience and application of techniques from humanistic psychology. (May be repeated for credit.)

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.

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.)

Real Estate

See Business

Recreation Education

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.

41 RECREATIONAL LEADERSHIP (3)

Two lecture 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.

Russian

100a CONVERSATIONAL RUSSIAN, ELEMENTARY (2) (Credit/No Credit)

Three class hours per week.

Intensive drill in the formulas and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

When student demand is light Russian 100b,c,d may be offered as 1.5 hours modules.

100b CONVERSATIONAL RUSSIAN, ADVANCED ELEMENTARY (2) (Credit/No Credit)

Three class hours per week. Prerequisite: Russian 100a or equivalent.

Further work in conversation following the model of Russian 100a. (This course will not fulfill language requirement at California State Colleges or at the University of Caifornia.)

100c CONVERSATIONAL RUSSIAN, INTERMEDIATE (2) (Credit/No Credit)

Three class hours per week. Prerequisite: Russian 100b or equivalent.

More advanced work in conversation following the model of Russian 100b. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

100d CONVERSATIONAL RUSSIAN, ADVANCED INTERMEDIATE (2) (Credit/No Credit)

Three class hours per week. Prerequisite: Russian 100c or equivalent.

Further advanced work in conversation following the model of Russian 100c (This course will not fulfill language requirement of California State Colleges or at the University of California.)

Social Science

10a-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.

10a Historical Geography of California
Analysis of the interacting relationships between time and space in the evolution of the California landscape.

10b Politics and Society in California
Contemporary social problems examined in the context of their relationship to political institutions and processes.

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.

10d Political Economy of California
Interaction between economic forces and political power brought to bear on the evolution and functioning of governmental services.

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. (Not offered in 1977-78.)

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 this country. The course is designed to give students of the United States a chance to discuss current problems with students from other countries.

33 AFRO-AMERICAN CULTURE (3)

Three class hours per week.

A contemporary view of Black America. Current political and social movements in Black communities with an emphasis on the urban area. The contemporary Black family and the culture of the contemporary Black community in present and historical perspective. (Identical to Ethnic Studies 33.)

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 127.)

48 SELECTED TOPICS IN SOCIAL SCIENCES (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.)

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.)

Sociology

1 INTRODUCTION TO SOCIOLOGY (3)

Three class 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.

2 SOCIAL PROBLEMS (3)

Three class hours per week.

Theories of social problems involving functionalism and interactionism as opposed to individualistic 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.

3 THE SOCIAL PSYCHOLOGY OF ETHNIC MINORITIES (3)

Three class hours per week.

Social psychology 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. (Identical to Psychology 3.)

4 COURTSHIP, MARRIAGE AND THE FAMILY (3)

Three class 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. 4.)

6 SOCIAL PSYCHOLOGY (3) Spring only

Three class hours per week. Prerequisite: Sociology 1 or Psychology 1a.

The study of human interaction, with emphasis on social patterning and processes of perception, identity, roles and attitudes. (Identical to Psych. 6.)

12 URBAN SOCIOLOGY (3)

Three class 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.)

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 16.)

40a-40b PATTERNS OF PREJUDICE AND RACISM (3-3)

Three lecture hours per week.

40a — Problems of prejudice and racism. Personality development. Psychoanalytic theories of prejudice, and racist-oriented trends and patterns are explored in depth, with a consideration of the mythical and factual concepts employed to substantiate prejudice. **40b —** Concentration on specific cultural traditions. The origins of racial prejudice are traced to man's first recognition of racial differences and his subsequent historical reaction. (Identical to Ethnic Studies 6a-6b.)

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 Sciences Division in relation to community-student need and/or available staff. May be offered as a seminar, lecture, or lecture/laboratory class.

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.)

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 an integral feature of the study of a foreign language at the College.

1 ELEMENTARY SPANISH (5)

Five class 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.

1a ELEMENTARY SPANISH (3)

May be offered either for eight weeks on a daily basis plus two lab hours, or in a semester-long program for three class hours and one lab hour per week.

Approximately half of the semester's work in Spanish 1 is covered in this course.

1b ELEMENTARY SPANISH (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 class hours and one lab hour per week. Prerequisite: Spanish 1a or equivalent.

Approximately the second half of the semester's work in Spanish 1 is covered. (Spanish 1a and 1b are equivalent to Spanish 1.)

1n ELEMENTARY SPANISH FOR STUDENTS WITH SPANISH-SPEAKING BACKGROUND (3)

Three class hours and one lab hour per week. Prerequisite: Spanish-speaking background and some ability to converse in Spanish.

Conversation in the language; study of the phonetic principles of Spanish; learning how to read and spell; study of the fundamentals of Spanish grammar.

2n ADVANCED ELEMENTARY SPANISH FOR STUDENTS WITH SPANISH-SPEAKING BACKGROUND (3)

Three class hours and one lab hour per week. Prerequisite: Spanish-speaking background and Spanish 1n or equivalent.

Continuation of Spanish 1n. Continued practice in speaking, reading, and writing. Reading of simple Spanish-American short stories. Further study of the principles of Spanish grammar.

2 ADVANCED ELEMENTARY SPANISH (5)

Five class hours and two lab hours per week. Prerequisite: Completion of Spanish 1a-1b with a passing grade; or assignment by the Foreign Language Department on the basis of the Foreign Language Placement Test in Spanish.

Continuation of Spanish 1. Reading of Spanish short stories to serve as a basis for classroom conversation.

2a ADVANCED ELEMENTARY SPANISH (3)

May be offered either for eight weeks on a daily basis plus two

lab hours, or in a semester-long program for three class hours and one lab hour per week. Prerequisite: Spanish 1 or 1b.

Approximately half of the semester's work in Spanish 2 is covered.

2b ADVANCED ELEMENTARY SPANISH (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 class hours and one lab hour per week. Prerequisite: Spanish 2a or equivalent.

Approximately the second half of the semester's work in Spanish 2 is covered. (Spanish 2a and 2b are equivalent to Spanish 2.)

3 INTERMEDIATE SPANISH (5)

Five class hours and 1½ lab hours per week. Prerequisite: Spanish 2 or 2b with a passing grade, or assignment by the Foreign Language Department on the basis of the Foreign Language Placement Test in Spanish.

Practice of conversation and composition; review of grammar; class and collateral reading of Spanish and Spanish-American literature.

3n SPANISH FOR STUDENTS WITH SPANISH-SPEAKING BACKGROUND (3)

Three class hours per week. Prerequisite: Demonstration of ability to converse in Spanish.

Reading of contemporary Latin-American plays; study of vocabulary, spelling and grammar; geared to the special needs of the students enrolled in the class.

4n ADVANCED INTERMEDIATE SPANISH (3)

Three class hours and one lab hour per week. Prerequisite: Spanish 3 with a passing grade, or assignment by the Foreign Language Department on the basis of the Foreign Language Placement Test in Spanish. Concurrent enrollment in Spanish 8 recommended.

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.

8a-8b SPANISH CONVERSATION (2-2)

Two class hours and two lab hours per week. Prerequisite: Successful completion of Spanish 3 or higher. May be taken concurrently with Spanish 3 with permission of the instructor.

Practice in conversation based on Spanish customs and culture.

25a-25b READINGS IN SPANISH LITERATURE (3-3)

Three class hours per week. Prerequisite: 25a — Spanish 4; 25b — Spanish 25a.

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 study of a review of grammar.

29 HISPANOAMERICA CONTEMPORÁNEA (3)

Three class hours per week. Prerequisites: Spanish 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.

30 INDIVIDUAL READING (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 25b.

Reading of Spanish and Latin-American representative 19th and 20th Century literature. (May be repeated for credit.)

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.

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.)

100a CONVERSATIONAL SPANISH, ELEMENTARY (2) (Credit/No Credit)

Three class 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.)

When student demand is light, Spanish 100b, c, and d may be offered as 1.5 hour modules.

100b CONVERSATIONAL SPANISH, ADVANCED ELEMENTARY (2) (Credit/No Credit)

Three class hours per week. Prerequisite: Spanish 100a or equivalent.

Further work in conversation following the model of Spanish 100a. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

100c CONVERSATIONAL SPANISH, INTERMEDIATE (2) (Credit/No Credit)

Three class hours per week. Prerequisite: Spanish 100b or equivalent.

More advanced work in conversation following the model of Spanish 100b. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

100d CONVERSATIONAL SPANISH, ADVANCED INTERMEDIATE (2) (Credit/No Credit)

Three class hours per week. Prerequisite: Spanish 100c or equivalent.

Further advanced work in conversation following the model of Spanish 100c. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

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 1a or Speech 10.

1a FUNDAMENTALS OF SPEECH AND PERSUASION (3)

Three class 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.

2a-2b FUNDAMENTALS OF ORAL INTERPRETATION OF LITERATURE (3-3)

Three class hours per week. Prerequisite: 2a — none; 2b — Speech 2a.

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.

10 INTERPERSONAL COMMUNICATION (3)

Three class 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.

33 VOICE AND ARTICULATION (3)

Three class 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.

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.

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.)

57a-57b SPEECH FOR NON-NATIVE SPEAKER (3-3)

Three class hours per week.

Practice in pronunication and diction, usage; extemporaneous speaking.

Technical Art/Graphics

Extra supplies may be required in all Technical Art/Graphics courses.

14 BASIC GRAPHIC REPRODUCTION SYSTEMS (3)

Two lecture and three lab hours per week. (Not open to students majoring in Technical Art/Graphics.)

Introduction to methods of reproduction of original copy used in industry; laboratory experiences with preparing art and copy to a camera-ready state and reproducing by the offset lithographic method.

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.

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.)

52a-52b TECHNICAL ILLUSTRATION (6-6)

Three lecture and nine laboratory hours per week. Prerequisites: 52a — concurrent enrollment in T.A.G. 54; 52b — 52a.

52a — Basic practices and procedures used in technical drawing with emphasis on ink line techniques and the systems of projection used in technical illustration. **52b —** Working from sketches, blueprints, photographs, and objects, students prepare technical illustrations and develop a professional portfolio.

54 GRAPHIC DESIGN (4)

Two lecture and six laboratory hours per week. Prerequisite: Concurrent enrollment in T.A.G. 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 complex color presentations.

55 VISUAL PRESENTATION (4)

Two lecture and six laboratory hours per week. Prerequisite: Concurrent enrollment in T.A.G. 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 35 mm slides. Each student will prepare, and present before the class, a sequence of visuals on a designated subject.

63 GRAPHIC REPRODUCTION (2)

One lecture and three laboratory hours per week. Prerequisite: T.A.G. 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.

64 INDUSTRIAL DESIGN (4)

Two lecture and six laboratory hours per week. Prerequisites: T.A.G. 52a and 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.

65a-65b PHOTO LITHOGRAPHY (2-4)

65a — One lecture and three laboratory hours per week; 65b — Two lecture and six laboratory hours per week. Prerequisites: 65a — T.A.G. 63; 65b — T.A.G. 65a.

65a — Designing original, continuous tone camera-ready art work and reproducing the subject by the offset method on metal plates. **65b —** Planning multi-color camera-ready art work and reproducing the subject on high-production offset equipment with emphasis on finishing procedures.

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 individual projects in consultation and under the direction of the instructor. Emphasis on initiative, innovation, and perseverance in the completion of these projects.

100 INTRODUCTION TO TECHNICAL ILLUSTRATION (2)

Six laboratory hours per week.

A survey of art used in industry. Introduction to techniques and systems of visualization used to make pictorial camera-ready art. Emphasis on inking tools, line and surface delineation.

Technology

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 127.)

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.

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.)

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.

72 INDUSTRIAL MATERIALS (2)

Two lecture hours per week. Recommended: Concurrent enrollment in Tech. 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.

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.

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.

76 MACHINE SHOP FOR TECHNOLOGY (2)

One lecture and three shop hours per week.

A survey course for the technology student who requires a generalized experience in Machine Tool. Subjects covered: bench work, measurement, threads, cutting tools, lathe, mill, grinding, saws and others. (Extra supplies may be required.)

79 PRINCIPLES OF MACHINE TOOL MANUFACTURING (2)

Two lecture hours per week.

Basic tool operations and set-ups for machine tools, welding, and quality control as used in manufacturing processes. Applications and theory of operations are demonstrated and discussed. (Not open to machine tool or welding technology majors.)

Telecommunications

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 127.)

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.

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.)

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 procedures.

52a-52b RADIO STUDIO TECHNIQUES (3-3)

One lecture hour and six lab hours per week by arrangement.

Prerequisites: 52a — concurrent enrollment in or satisfactory completion of Telecommunications 65a, or valid third-class license with broadcast endorsement; 52b — Telecommunications 52a plus demonstration of acceptable operational ability.

52a — 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 engineer-announcer types of programs. **52b —** Advanced students operate the radio broadcast station KCSM-FM as part of their laboratory assignment.

53 ADVANCED RADIO OPERATIONS (3)

One lecture hour and six lab hours per week by arrangement. Prerequisite: Telecommunications 52b or equivalent.

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 67 to produce weekly programs.

60a-60b TELEVISION STUDIO TECHNIQUES (3-3)

One lecture hours and six lab hours per week by arrangement. Prerequisite: 60a — None: 60b — Telecommunications 60a.

60a — Study of the equipment used in a television studio with emphasis on lighting, camera operation, audio control, video mixing, and production work. **60b —** Advanced students operate the television broadcast station KCSM-TV as a part of their laboratory assignment.

61a-61b-61c PROJECTS IN TELEVISION (3-3-3)

One lecture and six lab hours per week by arrangement. Prerequisite: Telecommunications 60a-60b, or 101a-101b.

61a — 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. **61b —** Study of television operations and production with emphasis on the total station function. KCSM-TV laboratory assignments continued. **61c —** Advanced activity in television operations and production programs suitable for televising are produced for KCSM-TV.

65 COMMERCIAL LICENSES (3)

Three lecture and three lab hours per week. Recommended: Electronics Technology 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.)

66 BROADCAST ANNOUNCING (3)

Two class hours per week and one additional hour per week by arrangement.

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.

67 RADIO PRODUCTION PROJECTS (3)

One lecture hour and six lab hours per week to be arranged. Prerequisite: Telecommunications 66 or equivalent.

Instruction in the area of broadcast production, with a 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.

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.

70 MOTION PICTURE PRODUCTION TECHNIQUES (3)

Two lecture and five hours per week.

Introduction to the basic photographic and cinematographic techniques used in television and motion picture production. Includes graphics for television, sound-on-film techniques. (Identical to Fine Arts 17a.)

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.

101a-101b RADIO AND TELEVISION TECHNICAL OPERATIONS AND MAINTENANCE (3-3)

Two lecture and five lab hours per week.

101a — Construction, installation and maintenance of equipment used in KCSM-FM and KCSM-TV, and related studio equipment, including lighting, audio and video console equipment. **101b —** Advanced instruction in the areas presented in Telecommunications 101a, in addition to intercommunications equipment, video tape recorders, and FM and TV transmitters.

Trade and Industrial

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.

62 CONTRACTOR'S LICENSE AND LAW (3)

Prerequsite: 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 primarily for indentured apprentices.

71a-71b FIRST LEVEL APPRENTICESHIP MACHINE SHOP THEORY (1-1)

71aL-71bL FIRST LEVEL APPRENTICESHIP MACHINE SHOP LABORATORY (1-1)

72a-72b SECOND LEVEL APPRENTICESHIP MACHINE SHOP THEORY (1-1)

72aL-72bL SECOND LEVEL APPRENTICESHIP MACHINE SHOP LABORATORY (1-1)

73a-73b THIRD LEVEL APPRENTICESHIP MACHINE SHOP THEORY (1-1)

73aL-73bL THIRD LEVEL APPRENTICESHIP MACHINE SHOP LABORATORY (1-1)

74a-74b FOURTH LEVEL APPRENTICESHIP MACHINE SHOP THEORY (1-1)

74aL-74bL FOURTH LEVEL APPRENTICESHIP MACHINE SHOP LABORATORY (1-1)

85 CARPENTRY (APPRENTICESHIP) (1)

87 ELECTRICAL WIRING (APPRENTICESHIP) (1-2½)

91 PLUMBING (APPRENTICESHIP) (1-3½)

95 TOOL AND DIE MAKING (APPRENTICESHIP) (1)

97 SHEETMETAL (APPRENTICESHIP) (1-2½)

Welding Technology

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.

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.)

51 APPLIED WELDING MATHEMATICS (3)

Three lecture hours per week.

Areas, volumes, logarithmic calculations, fundamentals of algebra, calculation of irregular areas and volumes, metric conversions.

52a ELEMENTARY WELDING THEORY (4)

Four lecture hours per week, Prerequisite: Concurrent enrollment in W.T. 52aL.

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.

52aL ELEMENTARY WELDING PRACTICE (4)

Four three-hour periods per week. Prerequisite: Concurrent enrollment in W.T. 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.)

52b ELEMENTARY WELDING THEORY (4)

Four lecture hours per week. Prerequisite: W.T. 52a.

Introduction to conventional arc welding of steel, stainless steel and TIG welding of aluminum. Study of metallurgy and blueprint reading for welders.

52bL ELEMENTARY WELDING PRACTICE (4)

Four three-hour periods per week. Prerequisite: W.T. 52aL.

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.

53 METAL FABRICATION FOR WELDERS (2)

One lecture and three lab hours per week. Prerequisite: Concurrent enrollment in W.T. 52b. Student must be a Welding Technology major.

Instruction in the application of manipulative skills required in metal fabrication processes: hand and power shearing, punching, forming, mechanical fastening, and sheet metal layout.

62a ADVANCED WELDING THEORY (3)

Three lecture hours per week. Prerequisite: W.T. 52 a-b.

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.

62aL ADVANCED WELDING PRACTICE (5)

Fifteen lab hours per week. Prerequisite: W.T. 52aL and 52bL; concurrent enrollment in W.T. 62a.

Practical experience in TIG, MIG, and low hydrogen arc welding with emphasis on steel, stainless steel, and aluminum. Extra supplies may be required.

62b ADVANCED WELDING THEORY (3)

Three lecture hours per week. Prerequisite: W.T. 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.

62bL ADVANCED WELDING PRACTICE (5)

Fifteen lab hours per week. Prerequisite: W.T. 62aL.

Practical experience in the welding of exotic metals, flame spraying, pulsed TIG and pipe welding. Practical experience in job estimating and production welding techniques as well as maintenance welding techniques. Extra supplies may be required.

75 WELDING FOR TECHNOLOGY (2)

One lecture and three shop hours per week.

Theories of oxyacetylene, bronze, arc and TIG welding, silver brazing , with emphasis on associated equipment and supplies. Designed for the student who is not a welding major. Extra supplies may be required.

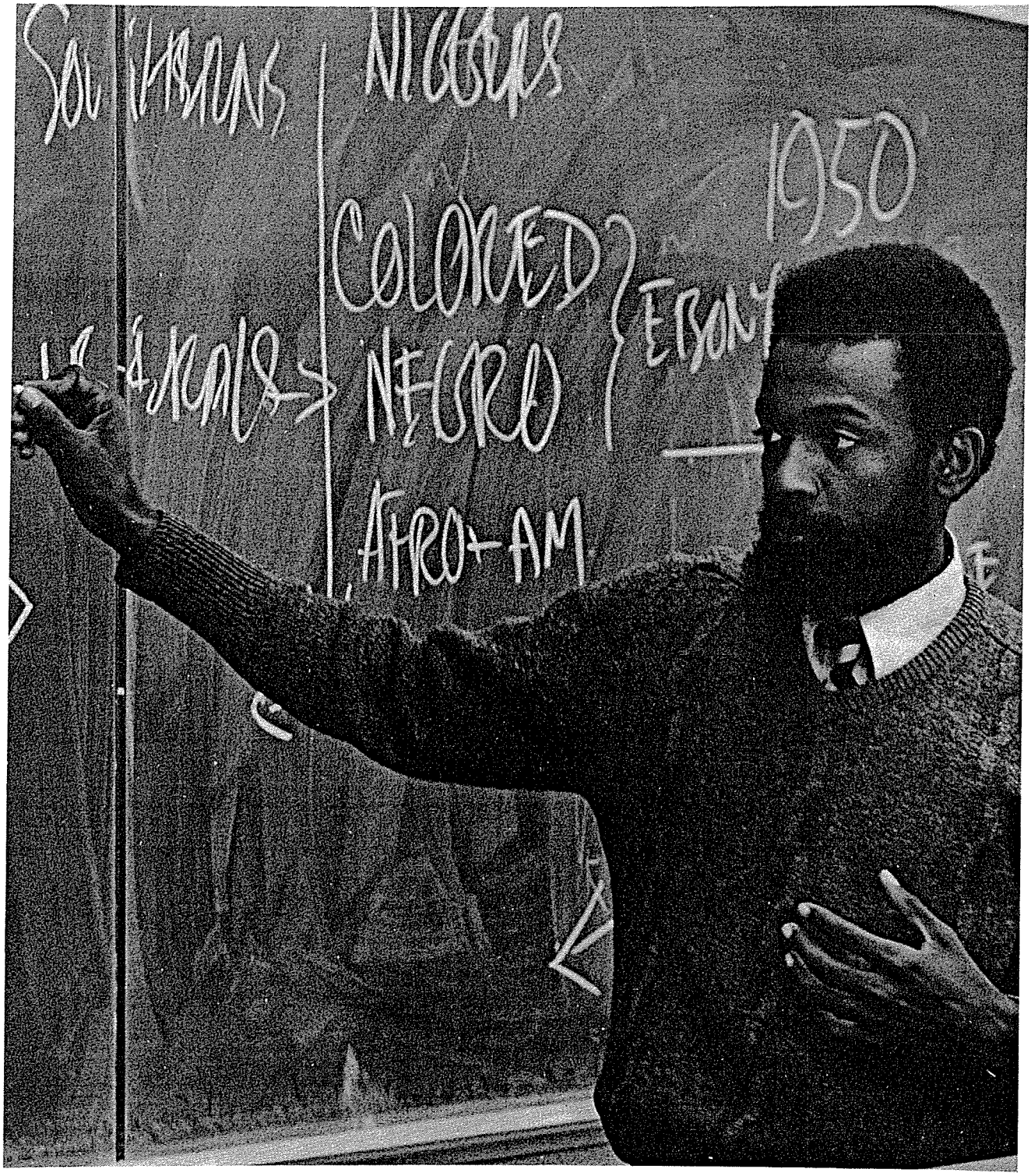
103 TIG WELDING TECHNOLOGY (4)

Two lecture and six lab hours per week. Prerequisite: W.T. 75, previous course in welding or equivalent.

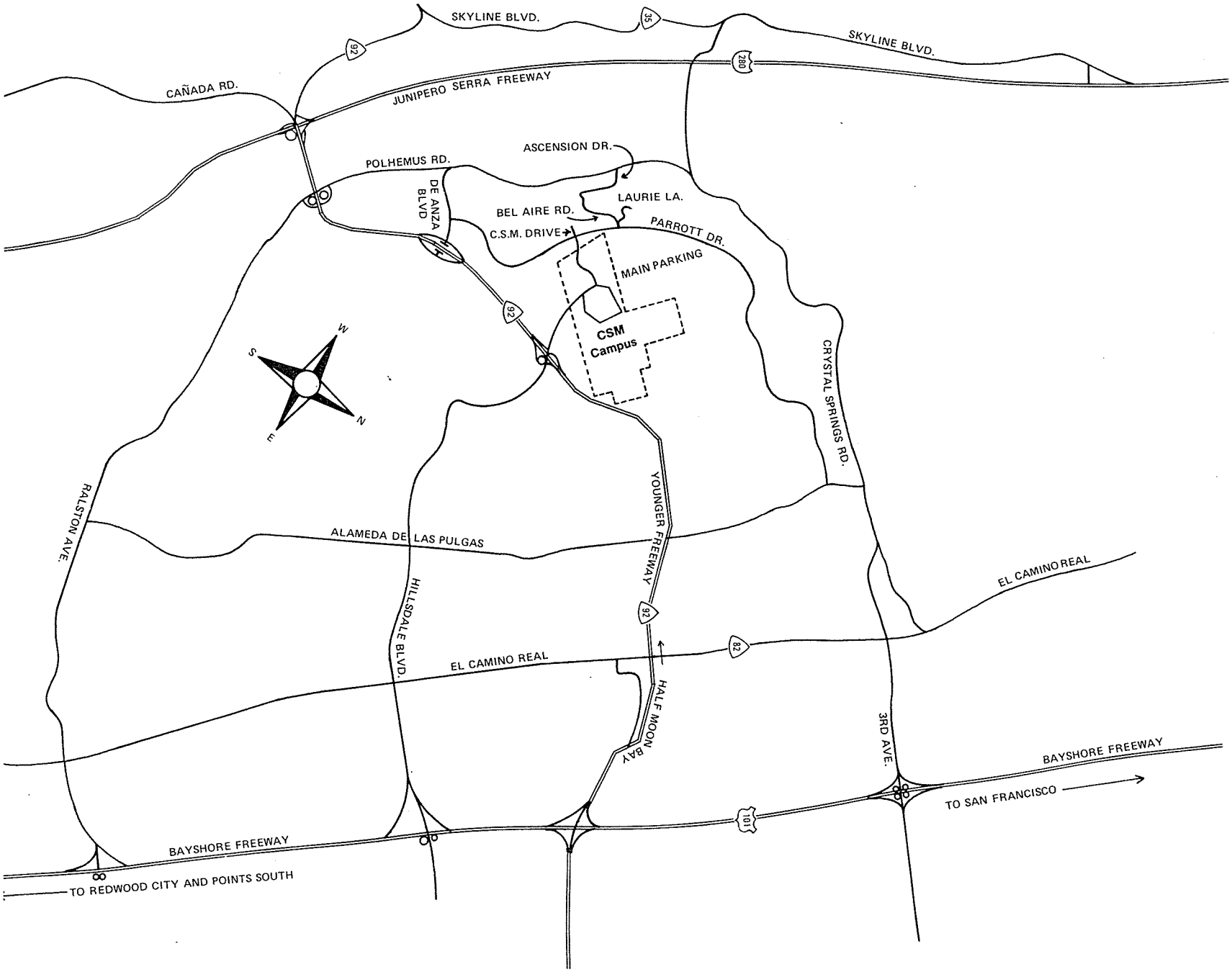
Practical experience in welding of aluminum, steel, and stainless steel. The types of weldments made are corner, fillet, and butt. Study of TIG welding aluminum, steel, and stainless steel, basic metallurgy and welding symbols as they apply to blueprints.

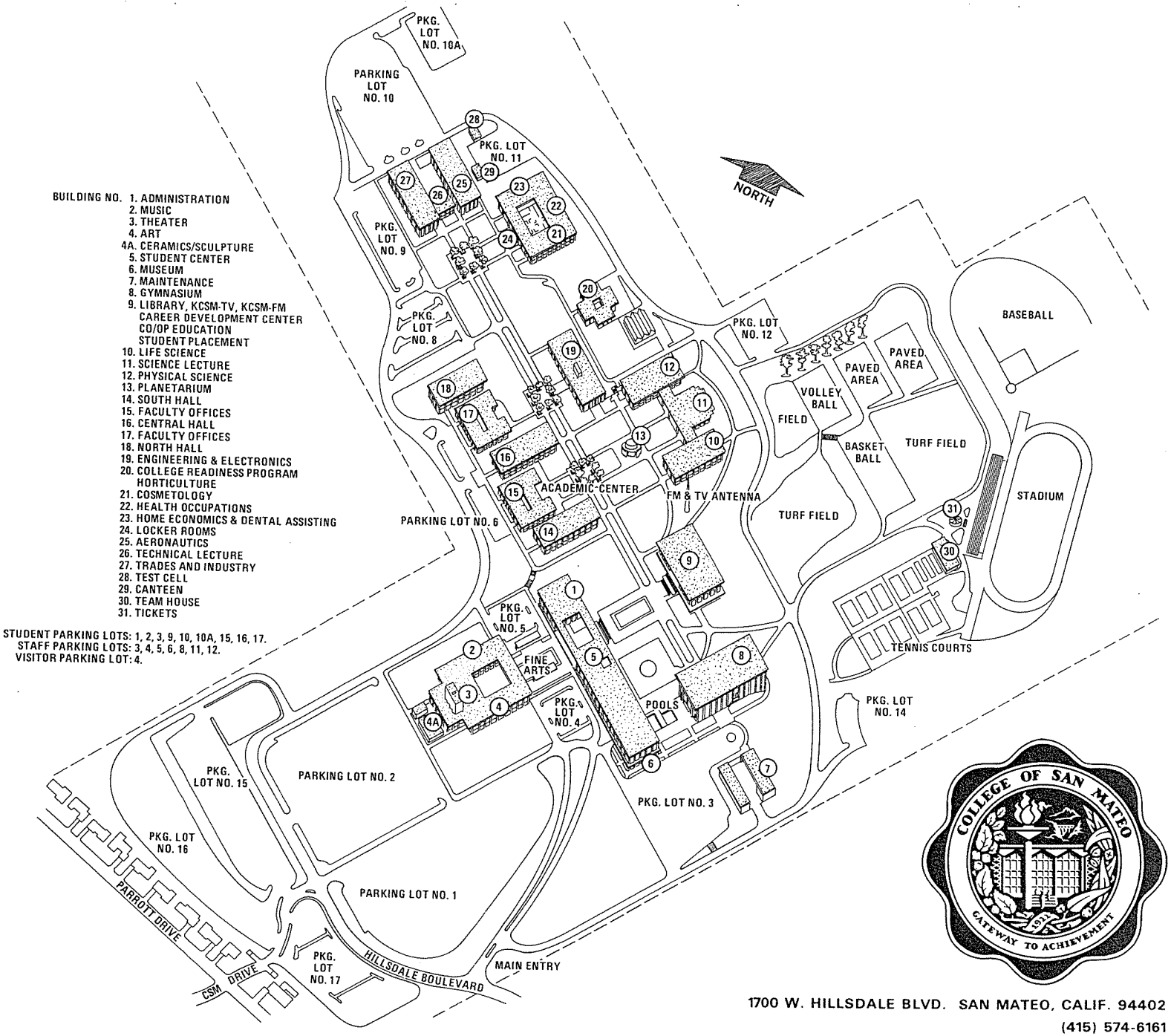
Women's Studies

Women's Studies courses are currently being offered by the English, History and Psychology departments.


1950
COLORED
NEGRO
AFRO-AM

Index


SKYLINE BLVD.
35
SKYLINE BLVD.
280
CAÑADA RD.
JUNIPERO SERRA FREEWAY
ASCENSION DR.
POLHEMUS RD.
DE ANZA BLVD
LAURIE LA.
BEL AIRE RD.
C.S.M. DRIVE
PARROTT DR.
MAIN PARKING
CSM Campus
82
CRYSTAL SPRINGS RD.
W
S
N
E
RALSTON AVE.
ALAMEDA DE LAS PULGAS
YOUNGER FREEWAY
EL CAMINO REAL
HILLSDALE BLVD.
EL CAMINO REAL
HALF MOON BAY
3RD AVE.
BAYSHORE FREEWAY
TO SAN FRANCISCO
101
BAYSHORE FREEWAY
TO REDWOOD CITY AND POINTS SOUTH



COLLEGE OF SAN MATEO
GATEWAY TO ACHIEVEMENT

1700 W. HILLSDALE BLVD. SAN MATEO, CALIF. 94402
(415) 574-6161

COLLEGE OF SAN MATEO
1700 West Hillsdale Boulevard
San Mateo, California 94402
Phone: 574-6161

Non-Profit Org.
U.S. POSTAGE PAID
San Mateo, Calif.
Permit No. 27