

ALAMEDA COUNTY STATE  
COLLEGE BULLETIN  
1963-1964



ALAMEDA COUNTY STATE  
COLLEGE BULLETIN  
1963-1964

General Catalog

25800 Hillary Road  
Hayward, California

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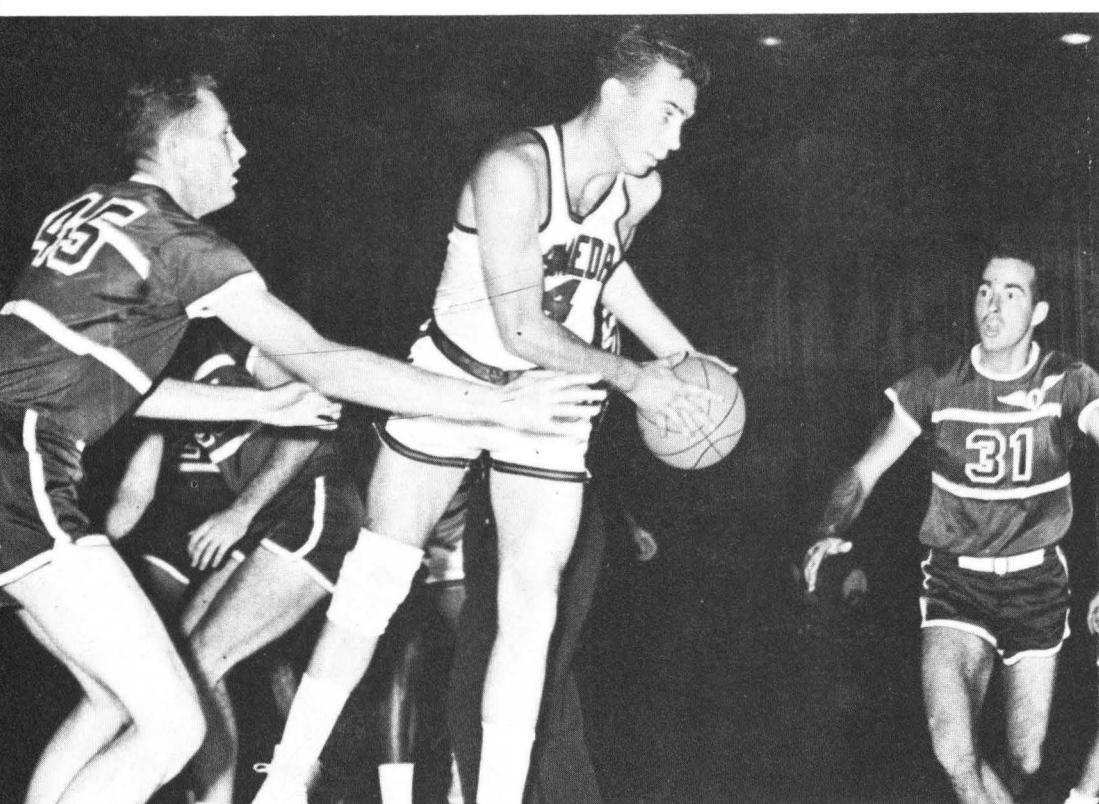
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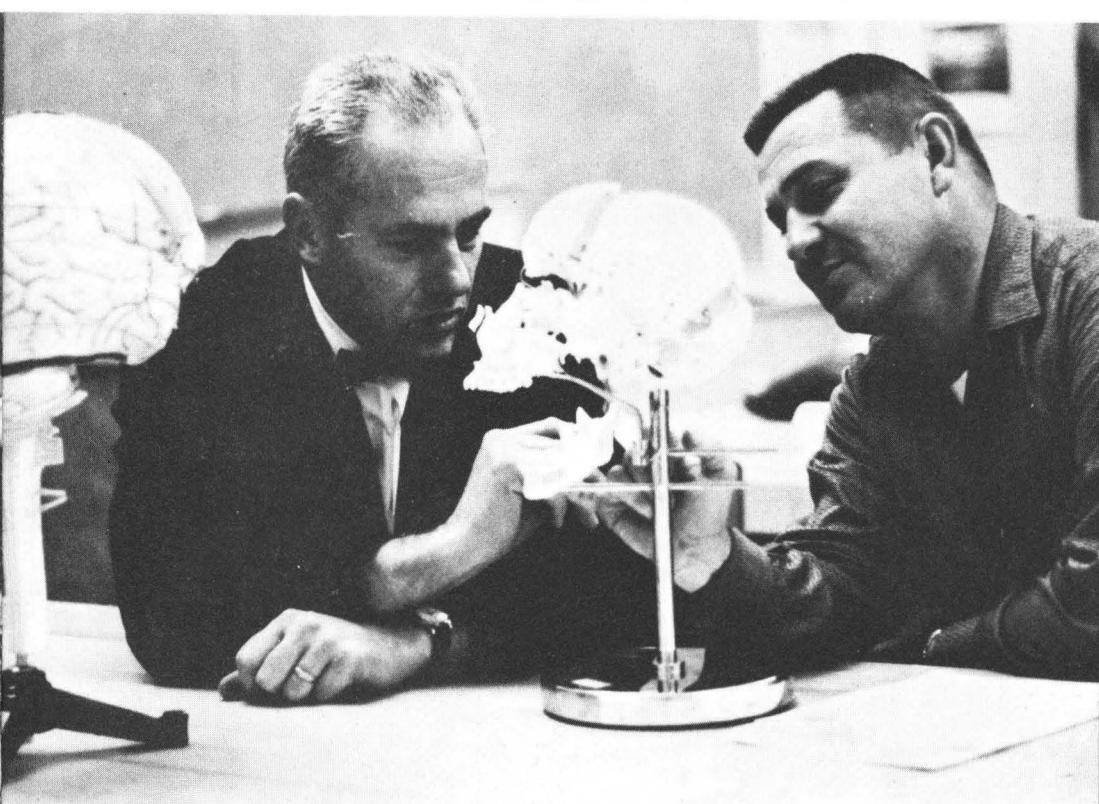
COLLEGE UNDER CONSTRUCTION



CHORAL GROUP ON TV



BASKETBALL



SCIENCE LABORATORY



DRAMA



GOLF TEAM

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1963																							
JULY						AUGUST						SEPTEMBER											
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
7	8	9	10	11	12	13	4	5	6	7	8	9	10	1	2	3	4	5	6	7			
14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21			
21	22	23	24	25	26	27	18	19	20	21	22	23	24	22	23	24	25	26	27	28			
28	29	30	31				25	26	27	28	29	30	31	29	30	31	29	30	31				
OCTOBER												NOVEMBER						DECEMBER					
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
6	7	8	9	10	11	12	3	4	5	6	7	8	9	1	2	3	4	5	6	7			
13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21			
20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28			
27	28	29	30	31			24	25	26	27	28	29	30	29	30	31	29	30	31				
1964												JANUARY						FEBRUARY					
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
5	6	7	8	9	10	11	2	3	4	5	6	7	1	1	2	3	4	5	6	7			
12	13	14	15	16	17	18	9	10	11	12	13	14	15	8	9	10	11	12	13	14			
19	20	21	22	23	24	25	16	17	18	19	20	21	22	15	16	17	18	19	20	21			
26	27	28	29	30	31		23	24	25	26	27	28	29	22	23	24	25	26	27	28			
APRIL												MAY						JUNE					
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
5	6	7	8	9	10	11	3	4	5	6	7	8	1	2	3	4	5	6	7				
12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20			
19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27			
26	27	28	29	30			24	25	26	27	28	29	30	28	29	30	29	30					

## CALENDAR FOR 1963-64

### Fall Quarter 1963

Sept. 9-14	Testing, orientation and academic advisement
Sept. 16-17	Registration and payment of fees
Sept. 18	Classes begin
Sept. 18-25	Late registration period
Sept. 25	Last day for enrolled students to add classes or to drop classes without a grade mark
Oct. 23	Last day to file application for teaching credentials
Nov. 11	Veterans Day (All-college holiday)
Nov. 21-27	Academic advisement for continuing students
Nov. 27	Last day to file application for graduation in fall quarter. Last day for winter quarter graduates to complete graduation checks
Nov. 28	Thanksgiving Day (All-college holiday)
Nov. 28-29	Thanksgiving recess
Dec. 5-11	Final examinations to be given during scheduled class periods
Dec. 11	Last day of classes
Dec. 13	End of quarter. Grades due in Records Office
Dec. 16-Jan. 1	Academic recess

### Winter Quarter 1964

Jan. 2-3	Registration and payment of fees
Jan. 6	Classes begin
Jan. 6-13	Late registration period
Jan. 13	Last day for enrolled students to add classes or to drop classes without grade mark
Feb. 7	Last day to file application for teaching credentials
Feb. 28-March 4	Academic advisement for continuing students
March 6	Last day to file application for graduation in winter quarter. Last day for spring quarter graduates to complete graduation checks
March 12-18	Final examinations to be given during scheduled class periods
March 18	Last day of classes
March 20	End of quarter. Grades due in Records Office
March 23-29	Academic recess

### Spring Quarter 1964

March 30-31	Registration and payment of fees
March 31	Classes begin
April 1-8	Late registration period
April 8	Last day for enrolled students to add classes or to drop classes without a grade mark
April 15	Last day to file application for graduation in spring quarter
May 5	Last day to file application for teaching credentials
May 17	Last day for summer and fall 1964 graduates to complete graduation checks
May 25-29	Academic advisement for students continuing in the fall
May 30	Memorial Day (All-college holiday)
June 4-10	Final examinations to be given during scheduled class periods
June 10	Last day of classes
June 12	Grades due in Records Office
June 13	Commencement
June 13	End of quarter

### Six-week Summer Session 1964

June 22	Registration
June 23	Classes begin
July 4	Independence Day (All-college holiday)
July 31	Last day to file application for graduation (summer) End of session. Grades due in Records Office

### Four-week Summer Session 1964

July 31	Registration
Aug. 3	Classes begin
Aug. 28	End of session. Grades due in Records Office

### OTHER IMPORTANT DEADLINE DATES FOR STUDENTS

#### Fall Quarter 1963

Oct. 16	Last day to make application for admission to teaching credential programs
Nov. 15	Last day to make application for Ed. 4250, 4264, or 4500 for Winter quarter
Nov. 15	American Institutions, U.S. Constitution, Calif. government exams

#### Winter Quarter 1963

Jan. 29	Last day to make application for admission to teaching credential programs
Feb. 14	American Institutions, U.S. Constitution, Calif. government exams
March 4	Last day to make application for Ed. 4250, 4264, or 4500 for Spring quarter

#### Spring Quarter 1963

April 15	Last day to make application for admission to teaching credential programs
April 24	American Institutions, U.S. Constitution, Calif. government exams
May 29	Last day to make application for Ed. 4250, 4264, or 4500 for Fall quarter, 1964

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CALIFORNIA STATE COLLEGES**

**2930 West Imperial Highway  
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**2930 West Imperial Highway  
Inglewood, California**

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Vice Chancellor	Don M. Muchmore
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Vice Chancellor, Business Affairs	John F. Richardson
Assistant Chancellor, Faculty and Staff Affairs	C. Mansel Keene

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Dale P. Wren	Executive Dean	
Albert R. Lopore	Dean of Instruction	
Lyle D. Edmison	Dean of Students	
Earle W. Nordstrom	Business Manager	

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Coordinator of Publications	John A. Gothberg
Director of College-Community Relations	
Chief of Plant Operation	Allen P. Rodda

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Personnel Coordinator, Financial Office	Richard Quey
Purchasing Coordinator	William Wallace
Property-Receiving Coordinator	Paul Worthington

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Associate Dean of Instruction; Curriculum	Jon S. Peters
Assistant Dean of Instruction	H. Duane Heath
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Head, Division of Education	Robert O. Hall
Head, Division of Humanities	Arnold P. Biella
Head, Division of Science and Mathematics	P. Victor Peterson, Jr.
Head, Division of Social and Behavioral Science	Charles W. Merrifield
Director of Audio Visual Services	Sidney C. Eboch
Director of Libraries	Floyd R. Erickson

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Associate Dean of Students and Dean of Men	Howard A. Slatoff
Associate Dean of Students and Dean of Women	Joan M. Seavey
Associate Dean of Students, Placements and Financial Aids	Paul F. Lawrence
Director of Counseling Services	Donald Strong
Director of Health Services	C. J. Lutt
Director of Testing Services	

## FACULTY OF THE COLLEGE

HARCLEROAD, FRED F. (1959)	President
B.A., 1939, M.A., 1942, Colorado State College; Ph.D., 1948, Stanford University	
ALTMAN, ROBERT LEON (1962)	Assistant Professor of Chemistry
A.B., 1952, New York University; Ph.D., 1959, University of Southern California	
ARVESON, RAYMOND (1962)	Assistant Professor of Education
B.A., 1942, Mayville State Teachers College; M.A., 1948, University of Minnesota; Ed.D., 1962, University of California. (Part time)	
BABLADELIS, GEORGIA (1963)	Assistant Professor of Psychology
B.A., 1953, University of Michigan; M.A., 1957, University of California; Ph.D., 1959, University of Colorado	
BARDELLINI, JUSTIN M. (1961)	Assistant Professor of Mathematics
B.A., 1950, M.A., 1954, University of California. (Part time)	
BARTLETT, HARRY R. (1962)	Assistant Professor of Music
M.B., 1954, M.M., 1955, DePaul University. (Part time)	
BERTSCH, PHILLIP O. (1962)	Assistant Professor of Music
A.B., 1949, Whittier College. (Part time)	
BIELLA, ARNOLD P. (1960)	Head, Division of Humanities; Professor of English
B.A., 1939, University of Colorado; M.A., 1940, State University of Iowa; Ph.D., 1954, Stanford University	
BLACK, JAMES M. (1962)	Assistant Professor of Art
B.S., 1951, M.S., 1952, University of Wisconsin; M.F.A., 1953, Cranbrook Academy of Fine Arts. (Part time)	
BLANK, STANLEY S. (1962)	Assistant Professor of Education
B.A., 1957, M.A., 1960, University of British Columbia	
BLAWIE, MARILYN-JUNE (Mrs.) (1959)	Associate Professor of Political Science
B.A., 1952, University of Connecticut; J.D., 1955, University of Chicago Law School	
BLOOMBERG, MAX ARTHUR (1963)	Librarian
B.A., 1960, Texas Christian University; M.A., 1961, University of Denver	
BROWN, CHARLOTTE (1961)	Librarian
B.A., 1952, San Jose State; B.S., 1954, University of California School of Librarianship	
BURKE, JOHN THOMAS (1963)	Assistant Professor of Music
B.M., M.M., 1941, Westminster Choir College. (Part time)	
BURMEISTER, ELSE (1962)	Librarian
B.A., 1951, University of Minnesota; M.S., 1952, Columbia University	
BURNETT, LEWIE W. (1962)	Professor of Education
B.S., 1935, Central Washington State College; E.D., 1948, Stanford University	
BUTTIMER, HARRY R. (1960)	Coordinator, Business Management Curriculum; Associate Professor of Business Administration
B.S., 1944, and M.B.A., 1945, University of California; Ph.D., 1959, Stanford University	
CARLSON, RUTH K. (Mrs.) (1959)	Associate Professor of Education
A.B., 1932, M.A., 1944, Ed.D., 1959, University of California	
CARTER, ROBERT M. (1961)	Assistant Professor of Sociology
A.B., 1950, William and Mary; M.A., 1953, M.A., 1958, University of California. (Part time)	
CLARKE, WILLIAM C. (1962)	Instructor of Geography
B.A., 1952, M.A., 1959, University of California	
COBURN, MAUDE F. (1960)	Assistant Professor of Mathematics
A.B., 1937, Chico State College; M.A., 1938, Teachers College, Columbia University. (Part time)	
COLBURN, IVAN P. (1960)	Assistant Professor of Geology
B.A., 1951, Pomona; M.A., 1953, Claremont College; Ph.D., 1960, Stanford University	
CONNER, JACK E. (1962)	Associate Professor of English
B.A., 1939, B.S., 1942, Texas College of Arts and Industries; Ph.D., 1952, Stanford University	
CORY, NORMAN (1963)	Assistant Professor of Music
B.S., 1938, Miami University; B.M., 1939, Miami University; M.F.A., University of Oregon	
DAVIES, GORDON F. (1960)	Assistant Professor of Education
B.E., 1948, University of Alberta; M.E., 1949, University of Oregon; Ed.D., 1962, Stanford University	
DAVIS, JOHN K. (1961)	Assistant Professor of Art
B.A., 1948, M.A., 1950, Central Washington College of Education. (Part time)	
DENKE, FRANK R. (1961)	Assistant Professor of Music
Chicago Musical College (Roosevelt University), 1950, Teachers Certificate. (Part time)	
DESROSIERS, WILFRED, JR. (1963)	Instructor of Music
A.B., 1958, M.A., 1959, San Francisco State College. (Part time)	
DE SOTO, FERN B. (1963)	Assistant Professor of Education
A.B., 1935, University of Pacific; M.A., 1960, Chico State College. (Part time)	
EBOCH, SIDNEY C. (1962)	Director of Audiovisual Services; Associate Professor of Education
B.A., 1946, Pennsylvania State University; M.S., Ed.D., 1962, University of Southern California	

EDMISON, LYLE D. (1959) Dean of Students; Professor of Psychology  
 B.A., 1950, M.A., 1951, Ph.D., 1955, University of Nebraska

ELLIOTT, HUGH R. (1962) Assistant Professor of Business and Economics  
 B.A., 1950, Harvard University; M.A., 1953, University of Chicago

ERICKSON, FLOYD R. (1959) Director of Libraries and College Archivist  
 B.E., 1940, State Teachers College, Superior, Wisconsin; B.S.L.S., 1946, University of Minnesota; M.A., 1958, Long Beach State College

ERNST, KARL D. (1959) Head, Division of Creative Arts; Chairman, Department of Music; Professor of Music  
 B.M., 1932, M.M., 1936, University of Washington; Ed.D., 1955, University of Oregon

EVENS, MARTHA W. (Mrs.) (1961) Instructor of Mathematics  
 A.B., 1955, Bryn Mawr College; M.A., 1957, Radcliffe College. (Part time)

FORBES, ROBERT L. (1960) Assistant Professor of Social Science  
 B.S., 1949, New York University; M.A., 1950, Harvard University

FOSTER, LARRY L. (1962) Associate Dean of Students, Dean of Admissions and Records; Assistant Professor of Geography  
 B.S., 1959, Western Illinois University; M.S., 1960, University of Wisconsin; Ph.D., 1962, Michigan State University

FREITAG, OTTO F. (1960) Chairman, Department of Political Science; Professor of Political Science  
 B.A., 1939, M.A., 1940, University of Denver; Ph.D., 1942, State University of Iowa

FRY, HILARY GLEN (1960) Special Assistant to the President; Professor of Social Science  
 B.S., 1948, University of Illinois; M.A., 1951, Ph.D., 1957, University of Chicago

GAFFNEY, CATHLEEN WATERS (Mrs.) (1961) Instructor of English  
 B.A., 1956, M.A., 1960, University of Wichita. (Part time)

GILES, MARY E. (Mrs.) (1961) Assistant Professor of Foreign Languages  
 A.B., 1955, University of Idaho; M.A., 1957, State University of Washington; Ph.D., 1961, University of California

GLASOW, GLENN L. (1961) Assistant Professor of Music  
 B.A., 1948, M.A., 1948, Hamline University. (Part time)

GOESER, ISABELLE McCLUNG (Mrs.) (1962) Assistant Professor of Music  
 B.A., 1943, State University of Iowa; M.A., 1949, Teachers College, Columbia University. (Part time)

GORDON, WESLEY D. (1963) Assistant Professor of Science  
 A.B., 1936, San Jose State College. (Part time)

GOTHBERG, JOHN A. (1960) Coordinator of Publications; Assistant Professor of Journalism  
 B.A., 1949, San Jose State College; M.A., 1950, Stanford University

GRILLOS, STEVE J. (1961) Associate Professor of Biological Science  
 B.S., 1951, University of Denver; M.S., 1952, University of Wyoming; Ph.D., 1956, Oregon State University

GROODY, TOM C. (1960) Professor of Biological Science  
 B.S., 1936, Kansas State University; M.S., 1937, Ph.D., 1952, University of California

GUTHRIE, ANDREW (1960) Professor of Physics  
 B.A., 1934, University of British Columbia; M.S., 1939, Ph.D., 1941, Purdue University

HAGEN, H. STANLEY (1960) Librarian  
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HALL, JEANNE L. (Mrs.) (1960) Assistant Professor of Speech and Drama  
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HALL, ROBERT O. (1960) Head, Division of Education; Professor of Education  
 B.S., 1939, M.S., 1941, Ed.D., 1954, University of Southern California

HANCOCK, JOHN D. (1960) Associate Professor of Mathematics  
 B.A., 1948, University of Southern California; M.A., 1949, Stanford University; Ed.D., 1961, Stanford University

HARO, ROBERT PETER (1962) Librarian  
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HEATH, HARRISON DUANE (1960) Associate Dean of Instruction; Associate Professor of Biological Science  
 A.B., 1944, A.M., 1946, Ph.D., 1951, Stanford University

HENDRICKSON, DALE (1960) Assistant Professor of Education  
 B.S., 1950, M.S., 1954, University of Southern California; Ed.D., 1960, University of California

HOOD, JAMES H. (1962) Instructor of Mathematics  
 A.B., 1940, San Jose State College; B.D., 1945, San Francisco Theological Seminary

HUPPERT, GEORGE (1962) Assistant Professor of History  
 B.A., 1958, University of California; M.A., 1959, University of Wisconsin; Ph.D., 1962, University of California

INBERG, CAROL (1963) Assistant Professor of Business  
 A.B., 1943; M.B.A., 1960, University of California. (Part time)

JACKSON, WILLIAM D. (1960) Audio-Visual Services; Assistant Professor of Education  
 B.S., 1952, Auburn University; M.S., 1958, Ed.S., 1960, Indiana University

JAEGER, DANIEL J. (1960) Librarian  
 B.A., 1950, University of Denver; M.A., 1955, University of Minnesota

KALLGREN, JOYCE K. (1962) Assistant Professor of Sociology  
 B.A., 1953, M.A., 1955, University of California. (Part time)

KJELSON, LEE R. (1960) Associate Professor of Music  
 B.M.E., 1948, M.M., 1951, University of Nebraska; Ph.D., 1957, State University of Iowa

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 B.A., 1941, M.A., 1951, University of Washington. (Part time)

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 B.S., 1935, State Teachers College of New Jersey; M.A., 1946, Ed.D., 1948, Stanford University

LE PELL, CORBAN (1962) Assistant Professor of Art  
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LEPORE, ALBERT R. (1959) Dean of Instruction; Professor of Education  
 B.A., 1942, San Diego State College; M.A., 1949, Teachers College, Columbia University; Ph.D., 1960, Columbia University

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 B.M., 1948, M.M., 1950, Catholic University of America. (Part time)

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 B.M., 1948, M.M., 1949, Boston University. (Part time)

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LUTT, CARL J. (1960) Director of Health Services; Professor of Biological Science  
 B.S.M., 1942, Creighton University; M.D., 1945, Creighton University School of Medicine

MAHANEY, DAVID W. (1961) Coordinator of Building Program; Lecturer in Engineering  
 B.S., 1937, Virginia Polytechnic Institute

MARSH, JACK N. (1962) Professor of Education  
 B.A., 1939, San Jose State College; M.A., 1952, Ed.D., 1957, Stanford University

MARTIN, MARGERY M. (1962) Assistant Professor of Physical Education  
 B.S., 1954, Valparaiso University; M.S., 1961, University of Wisconsin

MARTIN, ROBERT C. (1962) Chairman, Department of Speech and Drama; Professor of Speech and Drama  
 B.S., 1940, M.A., 1943, Ph.D., 1953, Northwestern University

MARTIN, RUTH L. (Mrs.) (1960) Assistant Professor of Education  
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 A.B., 1937, Colorado State College; M.S., 1938, University of Denver; Ph.D., 1949, University of Pittsburgh

MAYERS, EUGENE D. (1963) Professor of Philosophy  
 A.B., 1936, Yale College; LL.B., 1940, Yale School of Law; Ph.D., 1950, Columbia University

McHUGH, WALTER J. (1960) Associate Professor of Education  
 B.S., 1953, Lowell State College; Ed.M., 1957, Ed.D., 1960, Boston University

MECHANIC, ARNOLD (1961) Assistant Professor of Psychology  
 B.A., 1954, Queens College; M.A., 1955, Ohio State University; Ph.D., 1960, University of California

MERRIFIELD, CHARLES WARREN (1960) Head, Division of Social and Behavioral Science; Professor of Social Science  
 A.B., 1935, M.A., 1935, University of Chicago; Ph.D., 1952, Claremont Graduate School

MICHELSON, HERBERT A. (1962) Assistant Professor of Journalism  
 B.S., 1954, Indiana University. (Part time)

MOREHOUSE, WADE A. (1960) Assistant Professor of Business  
 B.M.E., 1948, Rensselaer Polytechnic Institute; M.B.A., 1959, University of California

MUIR, DONALD BELDEN (1960) Assistant Professor of Speech and Drama  
 B.A., 1951, George Washington University; M.A., 1955, Stanford University

NELSON, ARTHUR EDWARD (1959) Librarian  
 B.A., 1950, College of St. Thomas; M.A., 1951, M.A., 1954, University of Minnesota

NELSON, MARVIN D. (1962) Assistant Professor of Music  
 B.M., 1951, Lewis and Clark College. (Part time)

NIEPOTH, EDWARD W. (1960) Coordinator, Recreation Curriculum; Assistant Professor of Recreation  
 A.B., 1949, M.A., 1950, Chico State College; Ed.D., 1962, Stanford University

NORDSTROM, EARLE W. (1962) Business Manager and Lecturer in Business Administration  
 B.A., 1950, University of California

OVALLE, JOSEPH F. (1961) Instructor of Foreign Languages  
 B.A., 1955, St. Mary's College. (Part time)

OZAKI, ROBERT SHIGEO (1960) Assistant Professor of Economics  
 B.A., 1956, Ohio Wesleyan; M.A., 1958, Ph.D., 1960, Harvard University

PECKENHAM, JESSE K. (1962) Assistant Professor of Mathematics  
 B.E., 1941, Northwestern University; M.A., 1950, Arizona State University. (Part time)

PETERS, JON S. (1961) Associate Dean of Instruction; Curriculum; Professor of Education  
 B.A., 1937, University of Wyoming; M.A., 1942, Colorado State College; Ed.D., 1954, Stanford University

PETERSEN, PHILLIP B. (1962) Assistant Professor of Foreign Language  
 A.B., 1942, M.A., 1947, University of California at Los Angeles; Ph.D., 1955, University of California

PETERSON, DOUGLAS L. (1960) Associate Professor of English  
 B.A., 1949, M.A., 1950, Ph.D., 1957, Stanford University

PETERSON, P. VICTOR, JR. (1959) Head, Division of Science and Mathematics; Professor of Chemistry and Conservation  
 B.A., 1947, San Jose State College; M.S., 1950, Stanford University; Ph.D., 1952, Cornell University

PHILLIPS, JOHN DAVID (1963) Instructor of History  
 B.A., 1959, Williams College; M.A., 1961, University of Oregon. (Part time)

PURDY, C. RICHARD (1959) Professor of Mathematics  
 A.B., 1932, Iowa State Teachers College; M.S., 1939, University of Chicago; Ed.D., 1949, Stanford University

PURVIS, COLBERT T. (1960) Professor of Mathematics  
 B.S., 1940, Georgia Teachers College; M.S., 1948, East Texas State Teachers College; Ph.D., 1957, George Peabody College

PYLE, JOYCE S. (1961) Librarian  
 B.A., 1944, Reed College; M.L.S., 1945, Columbia University

RANDALL, ARNE WILLIAM (1960) Chairman, Department of Art; Professor of Art  
 B.A., 1938, University of Washington; M.A., 1940, Teachers College, Columbia University

RICKE, RICHARD B. (1960) Administrative Assistant to the President; Assistant Professor of History  
 B.A., 1945, M.A., 1947, Ph.D., 1957, University of California

ROOSSINCK, ESTHER P. (1960) Assistant Professor of Education  
 B.S., 1951, Western Michigan University; M.S., 1955, University of Michigan; Ed.D., 1960, University of Illinois

ROSENBAUM, MORTON (1960) Associate Professor of English  
 B.A., 1943, M.A., 1947, Wayne State University; Ph.D., 1952, University of Wisconsin

SABATH, MILDRED R. (1960) Assistant Professor of Education  
 B.S., 1945, University of Illinois; M.E., 1951, Ed.D., 1960, Wayne State University

SALERA, VIRGIL (1959) Head, Division of Business and Economics; Professor of Business and Economics  
 B.S., 1935, University of California; Ph.D., 1941, Columbia University

SAWREY, WILLIAM L. (1960) Acting Chairman, Department of Psychology; Professor of Psychology and Statistics  
 A.B., 1949, Indiana University; Ph.D., 1952, University of Nebraska

SAXTON, S. EARL (1962) Assistant Professor of Music  
 A.B., 1947, University of California; M.A., 1960, San Francisco State College. (Part time)

SCHUNHOFF, HUGO F. (1962) Professor of Education  
 A.B., 1931, Illinois College; M.A., 1933, Gallaudet College; M.Ed., 1949, University of Missouri; Ed.D., 1956, University of Maryland. (Part time)

SEAVEY, JOAN (1962) Associate Dean of Students; Dean of Women; Associate Professor of Education  
 B.A., 1939, M.E., 1950, University of Oregon; Ed.D., 1958, Stanford University

SEDERHOLM, ALICE SHARP (Mrs.) (1961) Instructor of English  
 A.B., 1949, University of North Carolina; M.A., 1952, University of Florida. (Part time)

SHIVELY, THORNTON T. (1963) Librarian  
 B.A., 1934, Hastings College; M.L.S., 1958, University of California

SHRINER, WILLIAM C. (1959) Coordinator of Field Experience; Professor of Education  
 B.A., 1936, M.A., 1941, University of California; Ed.D., 1951, Columbia University

SLATOFF, HOWARD A. (1960) Associate Dean of Students; Dean of Men; Associate Professor of Art  
 A.B., 1948, San Jose State College; M.A., 1949, Stanford University

SMITH, ARTHUR C. (1959) Professor of Biological Science  
 A.B., 1939, San Jose State College; Ph.D., 1951, Cornell University

SOUTHARD, THOMAS H. (1960) Chairman, Department of Mathematics; Professor of Mathematics  
 B.A., 1932, M.A., 1933, Ph.D., 1936, Ohio State University

STERN, DANIEL S. (1962) Assistant Professor of Music  
 B.A., 1962, University of California. (Part time)

STRONG, DONALD (1963) Associate Professor of Psychology; Director of Counseling  
 A.B., 1950, Houghton College; M.A., 1951, University of Michigan; Ph.D., 1959, University of Denver

SUMMERS, JOHN W. (1961) Assistant Professor of Mathematics  
 A.B., 1951, M.A., 1955, San Jose State College; Ph.D., 1961, University of California

TAPPIN, WARREN R. (1961) Associate Professor of Physical Education  
 A.B., 1940, University of Massachusetts; M.Ed., 1947, Boston University; Ph.D., 1957, University of Washington

TAYLOR, DEAN CHASE (1963) Instructor of Sociology  
 B.A., 1956, San Jose State College; M.A., 1959, University of California

THOMPSON, JOHN B. (1961) Assistant Professor of Philosophy  
 B.A., 1926, Beloit College; B.D., 1932, Union Theological Seminary. (Part time)

TRACEWELL, THEODORE N. (1962) Assistant Professor of Mathematics  
 B.A., 1959, University of California

VAN AKEN, MARK J. (1960) Associate Professor of History  
 A.B., 1944, University of Michigan; M.A., 1950, Ph.D., 1955, University of California

VANDENBURGH, WILLIAM G. (1960) Chairman, Department of Health and Physical Education; Professor of Physical Education  
 B.S., 1949, M.S., 1950, University of Washington; Ed.D., 1953, Columbia University

WALLACE, PAUL (1963) Instructor, Political Science  
 A.B., 1953, M.A., 1957, University of California. (Part time)

WARNKEN, HENRY F. (1960) Assistant Professor of Education  
 A.B., 1948, Haverford College; M.A., 1952, Ed.D., 1959, University of California. (Part time)

WHELAN, HAROLD P. (1962) Assistant Professor of Music  
 B.A., 1937, University of Washington; M.M., 1946, Northwestern University

WHITE, ROBERT M. (1962) Coordinator of Guidance and Counseling; Professor of Education  
 B.A., 1947, Dakota Wesleyan University; Ph.D., 1958, University of Minnesota

WILLIAMS, ROBERT C. (1963) Assistant Professor of Education  
 A.B., 1949, A.M., 1953, Ed.D., 1960, Stanford University. (Part time)

WINSLOW, JOHN H. (1960) Assistant Professor of Social Science  
 A.B., 1954, University of Michigan

WOODS, MARION C. (1960) Professor of Chemistry  
 B.S., 1947, Colorado State University; M.S., 1948, California Institute of Technology; Ph.D., 1950, Cornell University

WORLAND, CHARLES W. (1960) Assistant Professor of Education  
 A.B., 1948, Indiana University; M.A., 1950, University of Michigan; Ed.D., 1960, Columbia University

WREN, DALE P. (1959) Executive Dean, Professor of Business  
 A.B., 1946, San Jose State College; M.A., 1950, Ed.D., 1952, Stanford University

WRIGHT, DAVID GLEN (1961) Assistant Professor of Journalism  
 B.A., 1956, San Jose State College; M.S., 1959, University of California. (Part time)

YEAGER, HERMAN V. (1960) Associate Coordinator of Field Experiences; Assistant Professor of Education  
 A.B., 1950, San Jose State College; M.A., 1951, Ph.D., 1959, Stanford University

ZEITLIN, HARRY (1960) Assistant Professor of Education  
 B.S.S., 1948, College of the City of New York; M.A., 1949, Teachers College, Columbia University; Ph.D., 1958, Columbia University

ZIPF, SHEILA GORDON (1962) Assistant Professor of Psychology  
 B.A., 1954, M.A., 1956, Ph.D., 1958, University of Michigan

## THE CALIFORNIA STATE COLLEGES

The California State Colleges are a unique development of the democratic concept of tuition-free public higher education for all qualified students.

Spanning the state from Humboldt County in the north to San Diego in the south, the 16 campuses of the California State Colleges (with two additional campuses in the planning stage) represent the largest system of public higher education in the Western Hemisphere and, one of the largest in the world. Current enrollment is some 118,000 full- and part-time students. The faculty and administrative staff numbers some 7,000.

The individual colleges, each with a geographic, curricular and academic character of its own, offer a solid basic program in the liberal arts. Beyond this, each college is noted for its individuality in academic emphasis which makes for a diversified system. Course offerings leading to the bachelor's and master's degree are designed to satisfy existing student interests and to serve the technical and professional manpower requirements of the state.

The California State Colleges are dedicated to rigorous academic standards. Constant striving for academic excellence is at the heart of the system. Each faculty within the system is a 'teaching faculty' whose primary responsibility is the instructional process on the teacher-student level, with appropriate recognition of the necessary and constructive role of research in any institution of higher education.

Responsibility for the California State Colleges is vested in the Board of Trustees, which is appointed by the Governor, and the Board's administrative arm, the Chancellor. The Trustees and the Chancellor set broad policy for the colleges while delegating considerable independent responsibility for implementation at the college level.

Although the oldest of the colleges, San Jose State College, dates back a century, the California State College system under an independent Board of Trustees was created by the Donahoe Act of 1960. Formerly, the colleges were under the jurisdiction of the State Board of Education.

Today, the California State Colleges are in a particularly dynamic period of their development. Prior to World War II, there were seven State Colleges with a peak total enrollment of some 13,000. Since 1947, nine new campuses have been developed and two more are scheduled to begin operation within the next three years. Enrollment in the system is expected to reach 180,000 by 1970.

## ALAMEDA COUNTY STATE COLLEGE

Alameda County State College was established by the State Legislature under Chapter 1681, Statutes of 1957. The new College began its first year of operation in the fall of 1959.

Upon completion of the Science and Fine Arts buildings in September 1963, the college will occupy its new 365-acre campus in the hills of southeastern Hayward. The new facilities are being designed to accommodate an ultimate enrollment of 15,000 full-time students.

During its first three years of operation the college has grown from an initial enrollment of 175 in September of 1959 to approximately 1,800 in the fall of 1962.

Twenty-one new members joined the faculty in September 1962, bringing the total number of full- and part-time faculty to 91. In the fall of 1963, 25 additional full-time professors will be added to the college staff. During the 1962-63 college year 88 percent of the full-time faculty held the doctorate degree.

With the addition of six new majors to be offered for the first time in the fall of 1963, the college will offer a total of 21 programs leading to the bachelor's degree. The new programs are political science, psychology, Spanish, chemistry, physics, and speech-drama.

The Trustees of the California State Colleges have accredited the College to recommend qualified applicants for the general elementary credential. Courses also are offered that may be applied toward satisfaction of other California credentials.

The College library collection now includes approximately 75,000 volumes. In addition, the College maintains a California State textbook collection of more than 6,000 texts. The library also subscribes to 800 periodicals, including 25 different newspapers representing the major cities of the world.

Alameda County State College is accredited by the Western Association of Schools and Colleges, official accrediting group for colleges and universities in this area.

## ADMISSION TO THE COLLEGE\*

### Plan of Admission

Students may be admitted to Alameda County State College for the 1963-64 academic year at any of the following three levels:

1. *Freshman standing*—Since the freshman program is essentially a day program, students seeking to enroll for fewer than 12 units per quarter will be granted deferred preference for admission.
2. *Advanced standing*—This includes students transferring a minimum of 54-semester units of acceptable college credit. (See the section "Admission with Advanced Standing.")
3. *Graduate standing*—This includes students holding at least a baccalaureate degree from an accredited institution.

Beginning in the fall term of 1964, students at all levels will be considered for admission to Alameda County State College.

Students with good academic records may qualify for admission by filing required materials showing that they meet the standards appropriate to their entrance level which are described in greater detail below. These admission standards are in accordance with the policies stated in the "California Administrative Code, Title 5, Education," which provides uniform admission regulations for all California State Colleges. Selected paragraphs from the Code are quoted below and then further elaborated upon in later sections of this chapter as to how they specifically apply to Alameda County State College.

The "Administrative Code" provides as follows:

#### Admission With Freshman Standing

40800. *High School Graduates.* For admission to a state college, a high school graduate, or other applicant must, as a minimum, meet one of the following:

- (a) Have earned 14 or more semester grades of A or B (70 semester periods or 7 Carnegie units) on a five-point scale in subjects other than physical education, military science, and remedial courses during the last three years in high school, including at least six college preparatory subject grades.

College preparatory courses include one or more of the following fields:

- (1) English, including speech, drama and journalism, other than activity courses.
- (2) Foreign languages.
- (3) Mathematics.
- (4) Natural sciences.
- (5) Social sciences.

\* NOTE: Students are held individually responsible for information contained in these pages. Failure to read and understand these deadlines and regulations will not exempt a student from whatever penalties he may incur.

- (b) Have earned 10 or more semester grades of A or B (50 semester periods or 5 Carnegie units) on a five-point grading scale in subjects other than physical education, military science, and remedial courses during the last three years in high school and have attained the 30th percentile on national college freshman norms of a standard college aptitude test.

An applicant may be admitted to a state college when in the judgment of the appropriate college authorities, he has equivalent preparation to that in (a) or (b) above.

#### Admission With Advanced Standing

40901. *Applicants Who Were Eligible for Admission With Freshman Standing:* An applicant is eligible for admission to a state college with advanced undergraduate standing if he meets all of the following standards:

- (a) At the time of his graduation from high school, he was eligible for admission with freshman standing in accordance with subsection (a) or (b) of Section 40800.

(b) He has earned college credit in one or more accredited degree-granting colleges\* or universities and attained a grade point average of 2.0 (grade of C on a five-point scale) or better in the total program attempted at such colleges or universities.

(c) He was in good standing at the last accredited degree-granting college or university attended.

40902. *General Applicants Who Were Not Eligible for Admission With Freshman Standing.* An applicant who was ineligible for freshman admission under subsection (a) or (b) of Section 40800 is eligible for admission with advanced undergraduate standing if he was in good standing at the last accredited degree-granting college or university attended and meets all of the requirements set forth in either of the following subsections:

(a) He has earned in one or more accredited degree-granting colleges or universities 60 semester units of college credit with a grade point average of 2.0 (grade of C on a five-point scale) or better in the total program attempted at such colleges or universities.

(b) He has earned in one or more accredited degree-granting colleges or universities 24 semester units of credit with a grade point average of 3.0 (grade of B on a five-point scale) or better in the total program attempted at such colleges or universities.\*\*

40903. *Applicants With Particular Majors.* An applicant who was ineligible for freshman admission under subsection (a) or (b) of Section 40800 may be admitted if his major is such that 60 units of work appropriate to state college degree requirements in the particular major are not offered by the accredited degree-granting institution from which he seeks to transfer, and if he meets all of the following standards:

(a) He has earned college credit in one or more accredited degree-granting colleges or universities and attained a grade point average of 2.0 (grade of C on a five-point scale) or better in the total program attempted at such colleges or universities.

(b) He was in good standing at the last accredited college or university attended.

(c) In the opinion of the proper college authorities, he can succeed in the major in the state college.

40904. *Other Applicants.* An applicant who does not meet the requirements set forth in Sections 40901, 40902 or 40903 is eligible for admission with advanced undergraduate standing on probation if in the opinion of the proper college authorities he can succeed in college.

\* Including junior colleges.

\*\* Not to be accepted at Alameda County State College until September of 1964.

**40409. Junior College Credit.** A maximum of 70 semester units earned in a junior college may be applied toward the degree, with the following limitations:  
 (a) No upper division credit may be allowed for courses taken in a junior college.

(b) No credit may be allowed for professional courses in education taken in a junior college, other than an introduction to education course.

#### Admission With Graduate Standing

**41000. Admission With Graduate Standing: Unclassified.** (a) For admission with graduate standing as an unclassified graduate student, a student shall have completed a four-year college course and hold an acceptable baccalaureate degree from an accredited institution; or shall have completed equivalent academic preparation as determined by the appropriate college authorities.

(b) Admission to a state college with graduate standing does not constitute admission to graduate degree curricula.

**41001. Admission to Graduate Degree Curricula: Classified.** A student who has been admitted to a state college under Section 41000 may, upon application, be admitted to an authorized graduate degree curriculum of the college as a classified graduate student if he satisfactorily meets the professional, personal, scholastic, and other standards for graduate study, including qualifying examinations, as the appropriate college authorities may prescribe. Only those applicants who show promise of success and fitness will be admitted to graduate degree curricula, and only those who continue to demonstrate a satisfactory level of scholastic competence and fitness, as determined by the appropriate college authorities, shall be eligible to continue in such curricula. Students whose performance in a graduate degree curriculum is judged to be unsatisfactory by the authorities of the college may be required to withdraw from all graduate degree curricula offered by the college.

### General Admission Policies and Procedures

#### Who Must Apply

1. *All new students* planning to enroll at this college must submit a formal application for admission.

2. *All former students* (regular and part-time), who did not enroll for, or who enrolled but withdrew from, residence credit or audit courses in the *regular* term (excluding summer-session work) immediately preceding the quarter in which they plan to enroll must file an application for readmission. Official transcripts from each institution attended since leaving this college must be filed in the Office of Admissions. Students disqualified from this college are referred to the section, "Scholarship Status," in order to determine their eligibility for readmission.

#### When to Apply

An application for admission or readmission should be filed at least one month prior to the beginning of the term for which the student plans to enroll. The final date for filing applications for admission and readmission for each term is as follows:

August 15	Fall Term
December 1	Winter Term
March 1	Spring Term

Students who file their applications for admission or readmission before the final date for a particular term, and whose records are complete by this date, can be assured of consideration for admission.

More specifically, freshman applicants should follow one of the procedures listed below:

1. A high school student, who qualifies for admission at the end of seven (7) semesters of high school work, will be granted a provisional acceptance. Upon receipt of a subsequent transcript which shows the granting of the high school diploma, the student will be notified that his admission status is clear.
2. A student who has graduated from high school may file an application, required transcripts, and application fee at any time before the deadline dates and be considered for admission to this institution.

#### Where to Apply

An application form appropriate for each type of student classification may be picked up in person or requested by telephone or letter from: Office of Admissions, Alameda County State College, Hayward, California.

#### Policy Regarding Transcripts

It is the applicant's responsibility to see that the official transcript(s) (those required for his type of admissions classification) be sent directly from the high schools and/or colleges attended. The college reserves the right to determine whether a transcript can be accepted as official. All transcripts and records submitted for admission or readmission become the property of the college and cannot be returned to the applicant.

Failure to declare enrollment in *each* school attended (when asked for on the application form) will constitute grounds for denial of admission, readmission, or dismissal from the college for unethical conduct.

*It is highly recommended that applicants have a complete personal set of transcripts which they may take to their advising sessions each term.*

#### Application Fee

All persons applying for admission to this college for the 1963-64 academic year will be required to pay a \$5 application fee. This fee *cannot* be refunded or applied toward any other charges or fees the student may incur. The fee should be enclosed or submitted with the application for admission. Checks or money orders should be made payable to: ALAMEDA COUNTY STATE COLLEGE. Please do not send cash.

**Required Examination**

All new undergraduate students are required to take the American College Testing Program (ACT) examination prior to their first registration at this institution. Students who have completed this test for another institution should arrange to have the results sent to the Records Office in lieu of taking the test a second time.

For most applicants, particularly those freshman students admitted under Provision I, as described in the section "Admission With Freshman Standing," the results are used primarily for advising and placement purposes. The test results are *not* used in these cases to determine a student's admissibility to the college. For freshman students qualifying for admission under Provision II, however, the ACT results will be used in determining their admissibility to the college.

The ACT may be taken at testing centers throughout the United States on established national testing dates during the year, or at specially designated testing sessions at Alameda County State College.

**Additional Matriculation Requirements**

After a student has been accepted for admission, but before he completes registration, he must complete the following matriculation requirements:

1. *Health Data.* Each student will be required to complete a health history and take a physical examination before registering at this college. The required two-part form will be sent to the student with the notification of acceptance. The first section (health history) must be completed by the applicant. The second section (physical examination) must be completed by the applicant's family physician. Both sections of the form, however, must be completed and filed *before* the student will be permitted to register.
2. *Statement of Residence.* An official statement of residence must be completed by each student *during* his first registration at this college. These statements may not be completed by mail or by another person. Final decisions relative to residence status will be made by the college attorney and will be based upon the residence laws of the State of California. Students will be held responsible for reporting any changes which effect their residence classification.

**Notification That Application Materials Are Complete**

When a student's application, \$5 application fee, and all required transcripts have been received by the Office of Admissions, he will be notified that the application materials are complete and that they are being reviewed to determine if he meets the qualifications for admission. An applicant not receiving this notification within a reasonable period of time is responsible for contacting the Office of Admissions.

**Notification of Acceptance and Evaluation**

After completing a review of a student's application materials, the Office of Admissions will notify the student that he has been accepted or denied admission to this college, and under what conditions.

An undergraduate transfer student accepted for admission will also receive an unofficial preliminary credit summary with the notification of acceptance. A subsequent official evaluation of the student's previous college work will be completed and sent to the student before the end of his first term of attendance at this college. This latter document will remain valid as long as the student remains in continuous attendance. Such students will not be held to additional requirements unless such requirements are the result of changes made by the Trustees of the California State Colleges and/or State Legislature.

**Cancellation of Admission**

A student who is accepted for admission to the college for a given term, but does not register, will have this admission cancelled. A subsequent application for admission must be in accordance with current admission requirements. Transcripts, test scores, and evaluations on file may be used with the new application. An application fee must be submitted with each new application for admission.

**Admission With Freshman Standing****General Qualifications**

A high school graduate who applies for admission to this institution as a freshman must qualify under one of the following provisions:

*Provision I.* Have completed, during the last three years of high school, a minimum of 14 courses, each of a semester duration (this requirement is equal to 7 Carnegie units or 70 semester periods) with earned grades of A or B on a five-point grading scale (exclusive of work in physical education, military science, and remedial courses). At least 6 of the 14 semester courses must have been in college preparatory subjects. These required preparatory courses must have been taken in one or more of the following subject fields:

- a. English, including speech, drama and journalism (excluding activity courses)
- b. Foreign languages
- c. Mathematics
- d. Natural sciences
- e. Social sciences

*Provision II.* Have completed, during the last three years of high school, a minimum of 10 courses, each of semester duration (this requirement is equal to 5 Carnegie units or 50 semester periods) with earned grades of A or B on a five-point grading scale (exclusive of work in physical education, military science, and remedial courses).

In addition, the applicant must have attained the 30th percentile or higher on the national college freshman norm of a standard college aptitude test. (Preparatory courses are not a requirement in this provision.)

*Provision III.* An applicant may be admitted to this institution when in the judgment of appropriate college authorities he has equivalent preparation to that in (1) and/or (2) above.

#### Admission Procedures

1. Submit an application for admission and \$5 application fee.
2. File official transcripts which show the courses completed and grades earned during the last three years of high school.
3. Arrange to take the American College Testing Program (ACT) examination sometime *before* the first registration at this college. (See the section "Required Examinations.")
4. Complete and file the two-part health form *before* first registration.
5. Complete a Statement of Residence *during* the first registration at this college.

#### Admission With Advanced Standing

##### General Qualifications

Undergraduate transfer students seeking admission to this college should have completed most of the lower-division general education requirements. They must also be in good standing at the last college or university attended.

In addition to the above, transfer students must qualify for admission under one of the following provisions \*:

1. Students who were eligible to attend a California state college upon graduation from high school must present at least 81 quarter (54 semester) units of previous college credit from an accredited college or university with an average grade of "C" or better.
2. Students who were ineligible for admission to a California state college upon graduation from high school must present 90 quarter (60 semester) units of previous college credit from an accredited college or university with an average grade of "C" or better.

##### Admission Procedure

1. Submit an application for admission and \$5 application fee.
2. File official transcripts from *each* college attended. Students with fewer than 60 units of acceptable college transfer credit must file transcript(s) of all course work completed and grades earned during the last three years of high school.

3. Arrange to take the American College Testing Program (ACT) examination sometime *before* the first registration at this college.
4. Complete and file the two-part health form *before* first registration.
5. Complete a Statement of Residence *during* the first registration at this college.

\* NOTE: Eligibility to attend a California state college upon graduation from high school is in accordance with the requirements stated in the section, "Admission with Freshman Standing."

## EVALUATION OF TRANSFER CREDITS

### General Policy

Credits earned in accredited colleges and universities will be evaluated during the first quarter of attendance by the Office of Admissions and advanced standing allowed on the basis of the evidence submitted. Credits toward the fulfillment of graduation requirements will be allowed only insofar as the courses satisfactorily completed meet the standards and the requirements of the basic course pattern of the college. Vocational and remedial courses are examples of credit not accepted on a transfer basis.

Credits earned in nonaccredited colleges may be accepted as a basis for advanced standing; however, they may not be counted toward graduation requirements until completion at this college of 36 quarter units of course work with at least a "C" average.

### Credit for Junior College Work

Credits earned in accredited junior colleges will be evaluated by the Office of Admissions in accordance with the following provisions:

1. Not more than 105 quarter (70 semester) units of credit may be allowed for junior college work. Junior college credit earned after the student has attained upper-division standing may be used to satisfy subject requirements, but may not be applied toward the total units required for the bachelor's degree.
2. Introduction to Education credit of 3 quarter (2 semester) units of credit may be transferred from the junior college. No other credit is allowed for professional courses in education.

### Credit for Extension and Correspondence Work

A maximum of 36 quarter (24 semester) units of extension and correspondence work may be counted toward graduation at Alameda County State College, but of the total units accepted no more than half or 18 quarter (12 semester) units may be transferred from other institutions. Within this latter total, no more than 9 quarter (6 semester) units of correspondence credit can be accepted for a degree at this college.

No extension or correspondence credit may be applied toward the residency requirement as explained under the section "Residence Requirements."

### Credit for Military Training

The college grants credit for military training in accordance with the American Council on Education Guide to the Evaluation of Educational Experiences in the Armed Forces.

### Credit for Experience

A maximum of 12 quarter (8 semester) units in student teaching may be allowed toward the bachelor of education degree, upon verification of sufficient and satisfactory teaching experience, and providing the student has not received that amount of credit for student teaching in an accredited college.

No unit credit is allowed toward other bachelor's or master's degrees for teaching or other practical experience. An exemption allowed for experience will not carry units of advanced standing nor diminish the number of units required for graduation.

### Credit by Examination

The college recognizes that exceptional students by reason of special studies or experiences may already have achieved the objectives of certain courses in the basic program; therefore, students with these types of backgrounds can make arrangements to obtain credit in selected courses by special examination.

Students wishing to secure credit under this plan must register at a regular registration period for the units to be earned by examination. An application for credit by examination should be secured from the Office of the Dean of Instruction. When the required approval has been obtained the student will be given an examination by the instructor of the course in question. Such examinations are normally from three to six hours in length and may be oral as well as written. Each course may be challenged only once. If the examination is passed, the Records Office will indicate credit for the course by examination on the student's permanent record. If the student fails the examination, he must either continue taking the course formally, or officially withdraw from it in the Records Office.

Not more than 36 quarter units of credit obtained by examination may be applied toward the baccalaureate degree. No credit earned by examination may be used to satisfy residence requirements of the college.

### Admission With Regular Graduate Standing

#### General Qualifications

A graduate of an accredited college or university is eligible for admission to this college with graduate standing if he:

1. Holds a baccalaureate degree from an accredited institution; and,
2. Is eligible to return to the last college or university attended.

Admission to this college with graduate standing does not constitute admission to a specific graduate program.

#### Admission Procedure

1. Submit an application for admission and \$5 application fee.
2. File an official transcript from the college or university granting the baccalaureate degree.
3. Complete the required two-part health form *before* first enrollment.
4. Complete a Statement of Residence *during* the first registration at this college.

### Admission of Teachers With Class II Graduate Standing

#### General Qualifications

A teacher interested in entering this college for the primary purpose of taking courses for professional growth can be admitted as a "Class II" graduate student, but must still meet certain matriculation requirements according to state law. To be eligible to enroll as a Class II student, the applicant must first meet *all* of the following qualifications:

1. Must hold an acceptable baccalaureate degree.
2. Must be teaching full-time on a regular credential. (Persons on a provisional credential or teaching on a part-time basis are excluded.)
3. Must be carrying 6 or fewer quarter units of work.
4. Must *not* be working toward a degree or credential objective at this college.

Graduate students not meeting *all* these criteria must submit an application for regular graduate standing.

#### Admission Procedure

1. Submit a special Class II application for admission and \$5 application fee.
2. File an official transcript from the institution granting the baccalaureate degree.
3. Complete a Statement of Residence *during* the first registration at this college.

### Special Types of Admission

#### Admission of Summer Session Students

Adult students who wish to enroll for summer session courses only are not required to file an application or transcripts. (Such students should contact the Summer Session Office before registration.) Students are expected, however, to have satisfied the prerequisites for the particular courses in which they enroll. Students under scholastic disqualification

from Alameda County State College or any other college may not enroll in the summer sessions without approval in advance by the Office of Admissions.

#### Admission of Foreign Students

Foreign students wishing to transfer to this college from another college in the United States should follow the regular admission procedures as directed above.

Foreign students wishing to be admitted to this college from their native country must present convincing evidence of having adequate knowledge of oral and written English to succeed at this institution. The Student will also be expected to file an application form and official certified records of his previous schooling.

Students who come to this country on a student visa are required by the Immigration Department to carry a minimum study load of 12 quarter (8 semester) units per term. When enrolled at this college they are expected to comply with all of the regulations of the Immigration Department, as well as those of the college. Special counseling and additional information can be obtained from the Dean of Men who serves as Foreign Students' Adviser.

#### Admission of Nonresident Students

Admission requirements for nonresident students are the same as those for resident students. A nonresident tuition fee is payable by all regular and part-time students who have not been legal residents of the State of California for one year immediately preceding the date of enrollment. See section, "Statement of Residence."

#### Admission of Adults to Special Status

An applicant who has attained the age of 21 years and is not a high school graduate may be admitted to this college as an adult special student, when, in the judgment of the appropriate college authorities, he has equivalent preparation to that required of high school graduates described in the section "Admission With Freshman Standing." An applicant's test scores and experience are evaluated in terms of evidence of ability to do college level work. Further information regarding this type of admission can be obtained from the Office of Admissions.

#### Admission of Part-time Students

Persons who plan to enroll for six or less quarter units per term must qualify and follow the procedures under one of the provisions listed previously for admission with freshman standing, admission with advanced standing, admission with regular graduate standing, admission with Class II graduate standing, or admission of adults to special status.

**Admission of Veterans**

Veterans who meet the admission requirements outlined above, and who present certificates of eligibility for curricula offered by this college, may attend Alameda County State College under full benefits extended to veterans. Information concerning veterans' programs can be obtained from the Veterans Affairs Representative in the Records Office.

**Admission to Teacher Education**

Admission to the college does not guarantee that the student will be admitted to teacher education. See Division of Education section for criteria which will be used in admitting students to teacher education programs.

**REGISTRATION AND ACADEMIC REGULATIONS****Registration****General Policies**

1. All students who register at Alameda County State College must be properly admitted to the college by the Office of Admissions.
2. Registration by proxy is not permitted.
3. Registration is complete only when program cards have been properly filed and all fees, deposits, and charges are paid. Students are required to pay all monies due the college at the time they register.
4. Students are given credit only for those courses in which they are officially registered at the conclusion of the late registration period.
5. Students will be held responsible for completing all courses for which they initially register, excepting those courses which are officially dropped by filing a "Drop Card" in the Records Office.

**Schedule of Classes**

A Schedule of Classes is prepared by the Dean of Instruction each term for publication. This schedule includes a listing of general registration information, courses offered, hours, and rooms. The schedule is available prior to registration each term and may be obtained in the Office of Admissions.

**Course Numbering System**

1000-1999	Freshman level.
2000-2999	Sophomore level.
3000-3999	Junior level.
4000-4999	Senior level.
5000-5999	Senior level, but may be taken for graduate credit by graduate students.
6000-6999	Graduate level. Open only to graduate students.

At least 60 of the 186 units required for graduation with the bachelor's degree must be in courses numbered 3000 and above and must be earned in the junior and senior years.

Courses numbered 3000 or higher, when appropriate to the student's objective at Alameda County State College, may be taken for graduate credit.

**Quarter Unit**

A quarter unit of credit represents three or more hours of classwork and outside study per week for one quarter. One and one-half (1½) quarter units are equivalent to one (1) semester unit of credit.

**Classification of Students**

The following classifications apply to students enrolled in the fall, winter, or spring terms (excluding summer sessions):

1. *Regular (full-time) students* are those enrolled for 12 or more units of course work in any regular term.
2. *Regular (part-time) students* are those enrolled for more than 6, but less than 12 units of course work in any regular term.
3. *Part-time students* are those enrolled for 6 units or less in any regular term.

**Class Rank of Students**

Students are assigned class rank according to the following plan:

1. Lower Division:
 

Freshmen	0-45	quarter units
Sophomores	46-90	quarter units
2. Upper Division:
 

Juniors	91-135	quarter units
Seniors	136 or more	units
3. Graduate:
 

Possession of baccalaureate degree from an accredited institution.		
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**Academic Load**

1. *Undergraduate Students.* The normal academic load for full-time undergraduate students is assumed to be 15 units of course work per term. Generally two hours of preparation for each hour of regular class work can be expected. Any student desiring to enroll for more than 18 units of credit per term must have the written approval of his academic adviser and the Dean of Instruction.
2. *Graduate Students.* The normal academic load for a full-time graduate student is assumed to be 12 units of course work per term. Higher standards of performance and more intensive preparation for class work is expected of graduate level students.

**Individual Study Programs**

Students with special needs which may not be satisfied under regular courses listed in the schedule of classes may under special circumstances enroll in individual study courses. Registration for individual study courses is to be made during the regular registration period and must be accompanied by a signed petition for individual study available through the instructor of the course.

**Honors Program**

The College provides a Program in General Honors, both lower and upper division, which is open to superior students in all majors. The lower division includes special sections in general education courses;

the upper division program offers colloquia which can be taken as electives, or to satisfy the upper division general education requirements. All students have the privilege of applying for admission to the program, but admission is normally gained through invitation of the College Honors Committee, based on recommendation of the student's previous institution and screening by the committee, or nomination by a member of the faculty of Alameda County State College. Inquiries should be addressed to the Dean of Instruction.

The divisional and departmental honors programs, offered presently in the departments of English and History, are upper-division programs designed to provide special courses and advanced, independent reading and research for superior students in the individual majors. Several departments are now considering the development of programs. Inquiries should be addressed to the chairman of the department.

**Dual Registration**

Simultaneous matriculation in two academic institutions is not recommended. In exceptional cases should this condition be considered important or necessary, the total academic program must be planned and approved in conjunction with the student's adviser. Approval for dual matriculation must be made before the student registers at this college. Forms and instructions for obtaining approval can be secured from the Dean of Instruction's Office. Failure to file this official notification of dual registration in the Office of Admissions may result in loss of credit for units simultaneously earned at other institutions.

**Late Registration**

A late registration period of six instructional days is available to students who were unable to be present during the regular registration period. Students completing the registration process during this late registration period will be assessed a late registration fee of \$5. Requests to register after the last day of late registration will not be considered.

**Residence Status**

During a student's first registration at this college, he must complete a Statement of Residence document, required by the State of California, attesting to his legal domicile. Any student classified as a nonresident is subject to nonresident tuition in addition to the regular material and service fee. Additional information can be obtained in the sections headed, "Additional Matriculation Requirements" and "Admission of Nonresident Students." Specific questions concerning resident status should be referred to the Office of Admissions.

**Cancellation of Enrollment**

Any student who fails to fulfill matriculation requirements or who otherwise fails to adhere to academic or college regulations is subject

to being placed on immediate probation or having his enrollment for that term cancelled. Application for readmission in a subsequent term may be considered provided the deficiency which resulted in the cancellation has been removed.

### Changes in Registration

#### Adding Courses

During the first six (6) days of instruction, a student may add courses to a program already filed. An "Add Card" must be filed in the Records Office for each course added. A small service charge will be made for each course added to a student's program during this period. Add cards can be obtained in the Records Office. (See also the section, "Late Registration.")

#### Dropping Courses

During the first six (6) days of instruction, a student may drop a course without a grade mark being recorded. A "Drop Card" must be filed in the Records Office for each course dropped. A small service charge will be made for each course dropped from a student's program during this period. A grade of "F" will be entered on a student's permanent record when he registers for a course and then drops out of it without filing an official Drop Card.

#### Withdrawal From Courses

A student who finds it necessary to withdraw from a course after 10 instructional days have lapsed, and before the end of the sixth week of instruction, must file a special "Withdrawal Card" in the Records Office. If the student is passing the course at the time of withdrawal, a mark of "W" will be entered on the permanent record. If the student was failing the course at the time of withdrawal, a mark of "WF" will be entered on his permanent record and the units of credit for that course will be included in the computation of the student's grade-point average. A student who withdraws from a course without filing the required form in the Records Office will be automatically assigned a grade of "F" in the course.

Students may not withdraw from individual classes after the end of the sixth week of instruction. The only possible exceptions to this regulation can be found under the section, "Marking Policies and Procedures."

#### Withdrawal From College

Students contemplating withdrawal from college because of personal or academic problems are encouraged to consult with the Dean of Men or the Dean of Women before taking official steps to withdraw.

If complete withdrawal from the college is necessary, official withdrawal forms can be secured from the Records Office, approved by the student's adviser, his instructor(s), and the Dean of Students. The grading policy for students who withdraw from the college after the second week of classes is the same as for students who withdraw from individual courses after this date (see above).

Students called into the armed forces are referred to the section headed "Military Service Withdrawal."

### Schedule of Fees

The regular fees of the college are given below. The fees for auditors are the same as for those receiving credit for a course. "Fees are subject to change upon the approval by the Trustees of the California State Colleges."

#### I. Registration Fees (Payable at time of registration)

##### A. Fall, Winter, and Spring Terms:

	Fall	Winter	Spring
Material and service fee	\$25.50	\$25.50	\$25.50
Student Body Fee	7.00	7.00	6.00
Totals	\$32.50	\$32.50	\$31.50

	Fall	Winter	Spring
Material and service fee	\$13.00	\$13.00	\$13.00
Student body fee	2.00	2.00	2.00
Totals	\$15.00	\$15.00	\$15.00

	Fall	Winter	Spring
1 to 14 units	\$11.50 per unit		
15 or more units		\$167.00 total	
Foreign student tuition, per quarter (in addition to fees in 1 or 2 above):			
1 to 14 units	\$5.75 per unit		
15 or more units		\$85.00 total	

	Fall	Winter	Spring
Extension Division			\$6.50 per unit
First 6-week Session			

	Fall	Winter	Spring
Material and service fee	\$7.75 per unit	\$7.75 per unit	\$7.75 per unit
Student body fee*	\$3.00 only	\$3.00 only	\$3.00 only
There is no nonresident tuition for summer sessions.			

#### II. Other Costs (Payable when service is rendered):

A. Application fee	\$5.00
B. Late registration fee	5.00
C. Change of program after final filing date	1.00
D. Failure to meet administratively-required appointment or time limit	2.00
E. Graduation fee (not a state fee)	10.00
F. Check returned for any cause	2.00
G. Official transcript of record (no charge for first copy)	1.00
H. Items lost or broken	Cost

\* NOTE: No student body fees are necessary for either session if the student paid \$20 during the previous academic year.

### III. Refund Regulations

- A. Any student who finds it necessary to withdraw officially from the college is eligible for a refund of a portion of the material and service fee provided the application is filed in the Records Office not later than two weeks (14 calendar days) after the term begins.
- B. Any student who reduces his academic load from a regular to a limited category during the period for adding and dropping classes, is eligible for a partial refund of the material and service fee, and should apply to the Records Office not later than two weeks (14 calendar days) after the term begins.
- C. Partial refunds may be granted to students receiving administrative suspension providing a request is filed by the student in the Records Office.
- D. Upon withdrawal from college, *nonresident or foreign student tuition* will be refunded upon formal application according to the following schedule:

Before or during the first week of the quarter	100%
During the second week of the quarter	75%
During the third week of the quarter	50%
During the fourth week of the quarter	25%

### Scholarship Status

#### Satisfactory Scholarship

Satisfactory scholarship means the maintenance of at least a "C" average (2.0 grade-point average or twice as many grade points as units attempted). A student is considered in good standing scholastically if he is not on probation or disqualified. To be eligible for a bachelor's degree, a student must have a grade-point average of at least 2.0 in the courses taken at Alameda County State College, as well as a grade-point average of 2.0 or better on his entire collegiate record, and also in his major field.

#### Policy on Probation and Disqualification

##### I. UNDERGRADUATE STUDENTS

###### A. Probation

1. A student who, by special action, is admitted to Alameda County State College with a cumulative grade point average of less than "C" in all previous work attempted, shall be placed on probation.
2. Any undergraduate student (regular or limited) will be placed on probation when he fails to achieve or maintain a cumulative grade point average of "C" (2.0) in all units attempted at this college.
3. A student shall be placed on probation if reinstated following disqualification.
4. Probationary standing is cleared when a student achieves a cumulative grade point average of "C" (2.0) in (a) all work at this college, and in (b) all college work attempted.

###### B. Disqualification

Disqualification will be preceded by a quarter of probation status, except that a student earning a grade point average of less than "D" (1.0) in any quarter may be disqualified without previous warning.

A student is subject to disqualification by action of the appropriate college authority under any one of the following conditions:

1. If a probationary student earns a grade point average of less than "C" (2.0) during any quarter in residence.

2. If a probationary student has failed to earn a cumulative grade point average of "C" (2.0) on *all* college work at the end of three quarters of residence.

##### II. POST BACCALAUREATE STUDENTS

At the discretion of appropriate college authorities any post-baccalaureate student is subject to disqualification:

1. If he earns a grade point average of less than "C" (2.0) during any quarter; or,
2. If he fails to earn a cumulative grade point average of "C" (2.0) or better on (a) all post-baccalaureate work at Alameda County State College, and also (b) all post-baccalaureate college work attempted. Students whose performance in a graduate degree curriculum is judged to be unsatisfactory by authorities of the college may be required to withdraw from all graduate degree curricula offered by the college.

#### Petition for Leniency

A student who because of low grades due to illness or other extenuating circumstances believes that he may be disqualified should consult the Associate Dean of Instruction concerning the procedure for presenting his petition. This petition must be presented during the last two weeks of the quarter. If a petition for leniency is filed as a result of this conference, it may be possible for the student to be continued in school. In case a student is disqualified, no immediate reinstatement is granted.

#### Reinstatement

Immediate reinstatement of students disqualified on the basis of academic performance is not considered. If the student shows evidence of profitable use of the disqualification period, such as acceptable credits from another institution showing superior academic performance, he may be considered for readmission. Questions regarding the reinstatement of disqualified students should be addressed to the Dean of Students.

### Marking Policies and Procedures

#### Marking System

The marking system employed at the college is listed below:

##### 1. Regular Grades

Grade Symbol	Explanation	Grade Points
A	Outstanding	4
B	Commendable	3
C	Satisfactory	2
D	Passing	1
F	Failure	0
W	Withdrawn Passing	0
WF	Withdrawn Failing	0
IN	Incomplete	0
AU	Auditor	0
P	Passed	0

### 2. Withdrawals ("W" and "WF" Marks)

The Withdrawal mark "W" is reserved for students who, after the last day to drop classes without a grade mark \* and prior to the end of the sixth week of the quarter, find it impossible to complete all, or a part of their program of courses; who are passing the course(s); and who file an approved withdrawal card in the Records Office, approved by the student's adviser, his instructor and the Dean of Students. Students who withdraw from a course after the last day to drop classes without a grade mark and prior to the end of the sixth week of the quarter, will receive the mark "WF" when withdrawing from the course if they are failing the course at the time of withdrawal. A mark of "WF" is counted as units attempted and figured in the grade-point average.

Students who withdraw after the end of the sixth week will receive a grade of "F," unless they are eligible to receive an "Incomplete" grade under the incomplete policy as explained in this Bulletin.

Students who withdraw from courses without filing withdrawal forms or Request-to-Drop forms in the Records Office will be assigned a grade of "F" in the course(s).

### 3. Incompletes ("IN" Marks)

A student may be considered for a grade of "Incomplete" only if he has attended class and completed course requirements up to at least the beginning of the seventh week of the quarter. The "Incomplete" grade may be received by a student only for reasons beyond the control of the student. Normally such reasons are:

- a. Extended absence for health problems; or,
- b. Failure to complete term assignments or final examination because of ill health or family emergencies. A statement from the doctor should be presented to the instructor at the time the student returns to class and before the Incomplete is recorded. An Incomplete must be cleared during the next quarter of attendance unless specially deferred by the instructor and approved by the head of the division offering the course. Incomplete courses automatically revert to grades of "F" if not completed *within* the next calendar year.

### 4. Military Service Withdrawal

Any student who presents evidence of being called into the armed forces may petition the Records Office for an honorable dismissal up to the last week of the academic term. No academic penalties will be assessed under the conditions and a mark of "W" will be entered on the student's permanent record.

### 5. Repeated Courses

A student may repeat a course in which he has received a grade of "D" or "F," but may not receive credit for the course more than once. A repeated course is counted as units attempted and is credited with the grade-points earned, the effect being an averaging of the grades. If a student repeats a course in which he has received a grade higher than "D," the repeated course will not be counted as units attempted nor will grade points be counted in the student's record.

### Grade Reports

At the end of each quarter notification of the student's academic standing and report of the grades achieved while in attendance at this college are mailed to each student. If there are unpaid charges or other penalties recorded against any student, the grade report and transcripts

\* See college calendar.

of the student's work while at Alameda County State College will be withheld. Grades are normally mailed approximately ten days to two weeks following the last day of the term.

Questions regarding grade reports, academic credit, or transcripts should be referred to the Records Office.

### Honors List

Students pursuing a full-time program of 12 or more units who achieve academic distinction as evidenced by a grade-point average of 3.50 or better are eligible for inclusion on the Honors List. Students enrolled on a regular full-time basis who achieve a grade-point average of 3.75 or better for any academic quarter will be included on the Dean's List. To determine eligibility to graduate with honors, see the section "Requirements for Graduation."

### Additional Regulations

#### Declaration of Objective

At the time of applying for admission, each student is required to state an objective to be pursued at this college. After the student has declared a definite objective and been admitted to the college, faculty advisory services are available to assist the student in the attainment of that particular goal, but the responsibility for meeting the specific requirements rests with the student.

#### Change of Objective

A student who wishes to change his objective—that is, the curriculum in which he is enrolled—should obtain required forms in the Office of Admissions. The student must then obtain permission from the advisers and division heads affected by the change of objective. No change is official until the appropriate forms are signed and filed with the Office of Admissions.

#### Auditing Courses

A student who wishes to "audit" a course instead of enrolling for credit must meet all admission requirements and secure the permission of the instructor in which the course is offered. An auditor pays the same fees and has the same privileges as do students who take equivalent work for credit, but is not held for final examinations and does not receive final grades or credit. Auditors may not apply for credit in a course after the last day to add classes.

Students enrolled in classes for credit may not change to audit status after the last day to drop classes.

#### Credit by Examination

(See "Credit by Examination" in the section on admissions.)

### Class Attendance

Students are expected to attend all meetings of their classes. Excessive unexcused absences will be sufficient reason for lowering a grade or refusing to allow a student to take final examinations. The Dean of Students will issue excuses for college-authorized absences.

### Course Examinations

It is general policy in most courses to have several examinations during the term, and a comprehensive final examination. No final examinations will be given to individual students before the regular scheduled examination period. Any student who finds it impossible to take final examination on the date scheduled must make arrangements *in advance* with the instructor to have an "Incomplete" mark reported and must then follow the regulations concerning makeups of "Incomplete" marks. No exceptions will be made to these rules without the written approval of the instructor, the division head, and the Dean of Instruction.

### Selective Service Regulations

In order to qualify for a deferment or postponement of military service under Selective Service procedures a student must be registered for 12 or more units per term. The college serves as a reporting agency only, and any decisions affecting the student's Selective Service status will be made by the student's local board. Certification of registration and attendance to the Selective Service Board is accomplished by the Records Office upon request.

### Veterans Information

Any student attending college under Provisions of Veterans Administration or the Cal-Vet Program is expected to clarify his status with the Records Office at the beginning of each quarter during the registration period. Information about Veterans Administration or Cal-Vet regulations is available in the Records Office through the Veterans Affairs Representative.

### Observance of Bulletin Requirements

A student at Alameda County State College will follow the *Bulletin* in effect at the time of admission for all requirements as long as he remains in continuous attendance and pursues the originally specified objective. The student will be held responsible, however, for complying with changes in requirements which may be effected during this subsequent attendance at the college or by requirements imposed at any time by the Trustees of the State Colleges and/or State Legislature.

## STUDENT LIFE

The student personnel office provides special services to individual students and groups of students, and serves in a consultant capacity to academic advisers and academic departments of the college.

### Counseling

Alameda County State College provides a counseling service to assist students with academic and personal adjustment and to offer professional advice on questions of a non-academic nature.

Counselors work with department heads in the administration of the advising program. Information concerning incoming students is compiled and distributed to academic advisers for their guidance in planning student programs. The adviser who assists in the initial planning usually coordinates the educational program throughout the student's stay at the college.

The counseling service also assists students with career planning.

### Scholarships

Scholarships ranging from \$100 to \$400 are granted to outstanding students by Divisional Scholarship Committees or the College Committee on Scholarships. Applications for scholarships for the 1963-64 academic year will be available after March 15, 1963, and should be returned to the Financial Aids Office not later than April 1. Each applicant will be considered for every scholarship for which he is eligible. Recipients will be selected by the respective committees on the basis of scholarship, financial need, leadership, and promise of success in their chosen fields, or in terms of criteria as may be established by the donor. All students receiving scholarships must be enrolled for 12 or more units of credit during each quarter of the college year. The amounts awarded will be paid in equal installments, one at the beginning of each quarter. The following scholarships are among those to be awarded during the 1963-64 academic year:

The Niles-Fremont Community Scholarship for Elementary Teachers  
Alpha Gamma Chapter of Phi Epsilon Phi Sorority  
California Congress of Parents and Teachers for Elementary Teachers  
California Congress of Parents and Teachers Music Scholarship  
Alpha Alpha Chapter of Alpha Delta Kappa Sorority.

### Loans

Short-term loans are available through student loan funds established by the Faculty, the Dorothy Donahoe Memorial Fund, Sertoma, Inc. of Hayward, California, Laura Settle, California Retired Teachers Associa-

tion Loan Fund, and the Alpha Gamma Chapter of Phi Epsilon Phi Sorority. Details concerning the granting of loans are available through the Financial Aids Office.

Alameda County State College is participating in the National Defense Act Student Loan Program. To be eligible for an application a student must be a United States national or a permanent resident pursuing full-time graduate or undergraduate work and must be in good standing at the institution.

Continuing students should deliver completed applications for 1963-64 National Defense Student Loans to the office not later than June 15, 1963; new students not later than July 15, 1963.

Alameda County State College students are establishing a loan fund by raising money which will be matched approximately twelve to one by the United Student Aid Funds, Inc.

#### **Placement Services**

The college offers occupational counseling and assistance in finding suitable employment opportunities for graduates and part-time work for students. The major objectives of the Placement Service include providing teachers for public school work; assisting graduates to find employment which best fits their needs and training; and finding part-time work for students to aid in financing their education. There is no fee for placement service.

Students and graduates seeking full-time career placement must have completed, or be in the process of completing, degree and/or credential requirements in order to be eligible for placement. Students who have completed 24 units of work at the college are eligible for limited service.

#### **Part-time Student Employment**

Students seeking part-time employment may register with the Financial Aids Office at the beginning of each quarter.

#### **Housing**

The Student Personnel Office assists students in finding suitable housing within the college community. Students living away from home must find their own housing in town. Women students under 21 years of age must have written approval from parents for any off-campus residence away from home.

#### **Alumni Association**

A strong enthusiastic Alumni Association works closely with the students of Alameda County State College to promote and foster good relationships between the students of the college and the graduates. Funds of the Alumni Association from dues and other sources are used to grant awards to students of the college.

#### **Foreign Students**

Students from other countries consult with the Student Personnel Office on matters affecting their visas, eligibility for employment, financial aid, travel programs, special workshops, and housing.

#### **Student Insurance**

Voluntary insurance plans covering sickness and accidents are available to students. Further information may be obtained from the student business manager or the Student Personnel Office.

#### **Student Organizations**

*Associated Students:* The Associated Students is represented by a Student Council composed of a president, vice-president, secretary, and one representative from each of the six academic divisions. The Council plans and executes student activities, recognizes and charters clubs and organizations, prepares the student budget, supervises student elections, initiates activities and cultural events, and forms committees to further the work of the Student Association.

*Clubs and Organizations:* Among the many interest groups which contribute to the well-balanced student life and supplement the academic program of the college are the Political Affairs Club, International Club, Student California Teachers Association, Veteran's Club, Alpha Phi Beta, The Honor Society, Women's Service Club and an Interfaith Council. Membership in student organizations depends solely upon individual qualifications without regard for race, color, religion, or national ancestry.

*Publications:* The Pioneer, the weekly college newspaper, is published by the Associated Students as a part of the journalism curriculum. Atomus, a college calendar, is available to students to support their International Scholarship Program. The Literary Quarterly is published by the Humanities Division, and the yearbook is published by the Associated Students.

#### **Intercollegiate Athletics**

The college is a member of the Far Western Athletic Conference and competes on both varsity and freshman levels in cross country, basketball, track, tennis and golf.

## CURRICULA AND DEGREES

### *Baccalaureate Degrees With Major in:*

Art (BA)	Music (BA)
Biological Science (BS)	Physical Education (BS)
Business Administration (BS)	Physical Science (BS)
Business Education (BS)	Physics (BA)
Chemistry (BA, BS)	Political Science (BA)
Economics (BA)	Psychology (BA)
Elementary Education (BS)	Recreation (BS)
English (BA)	Social Science (BA)
History (BA)	Spanish (BA)
Language Arts (BA)	Speech & Drama (BA)
Mathematics (BS)	Special Major (BA) or (BS) *

### *School Service Credentials*

*The college is accredited to recommend for:*

#### *General Elementary Credential*

*Courses are offered that may be applied toward satisfaction of the following state credential requirements:*

<i>Elementary Administration Credential</i>
<i>General Junior High School Credential</i>
<i>General Secondary Credential</i>
<i>General Pupil Personnel Services Credential</i>
<i>Kindergarten-Primary Credential</i>
<i>Supervision Credential</i>

## LIBRARY AND AUDIOVISUAL SERVICES

The library now has over 75,000 volumes and 800 different periodical subscriptions to meet the needs of the growing student body. For students in the teacher-education program the college has developed a curriculum library consisting of a wide selection of textbooks and other educational materials.

Audiovisual facilities include an equipment room, materials-preparation area, film-storage center and dark room. The A-V equipment has quadrupled during the past three years, and the film library has increased from 80 to over 300 films during the same period.

Professionally trained librarians and audiovisual personnel are available to assist students and faculty.

\* An acceptable combination of course work from existing majors, designed to satisfy special objectives. Advised through the Dean of Instruction.

## REQUIREMENTS FOR GRADUATION

### *Baccalaureate Degree*

For graduation with the bachelor of arts or science degree, a student must:

1. Complete a major as described in this catalog.
2. Complete a minimum of 186-195 quarter units of acceptable college credit; at least 60-quarter units of which must be in courses numbered 3,000 or above and taken after attaining upper-division standing.
3. Complete a minimum of 36-quarter units in residence at this college in order to be eligible for a baccalaureate degree. At least 18 of these units must be completed among the last 30-quarter units counted toward the degree.
4. Satisfy the college general education requirements as described below.

### *General Education*

The general education program is a planned sequence of courses outside the student's field of specialization. These experiences are designed to assure that each student who graduates with a baccalaureate degree possesses, in the major fields of human knowledge, the understandings, skills, and appreciations necessary for informed citizenship and continued growth and effectiveness as an educated person. The flexible design of the program allows the student, in most of the areas of knowledge, to select according to his needs and goals, one of several paths which satisfy specific requirements.

Each student, for graduation with a baccalaureate degree, must complete a minimum of 76 quarter units of general education work satisfying the following pattern and specific requirements. At least 36 units should be completed before attaining upper-division standing. A minimum of 14 units must be completed in the junior and senior years.

Courses that are normally applied in meeting general education requirements are those that are broad in scope. Courses designed specifically to meet the needs of particular majors may not be appropriate. The total program, however, in completing a major in any of the fields listed under general education requirements below will be interpreted as satisfying the general education requirements in that field provided (1) the major includes sufficient units in excess of 36 (B.A.) or 54 (B.S.) units and (2) all specific course requirements are met.

The minimum of 14 units of upper-division courses in general education include <sup>1</sup> courses in two of the three fields of humanities, social and

<sup>1</sup> A current list of these courses is obtained from academic advisers.

behavioral science, and science. (Students majoring in one of these fields take courses in the other two.) As a part of the 14 units, each student must complete the Junior-Senior Symposia which includes selected readings from the three fields listed above.

	<i>Minimum number of units for satisfying general education requirements of 76 units</i>	
I. Upper-division (junior-senior level) requirements	(8)	14
Courses are required in two of the three categories. (Students majoring in one field take courses in the other two):		
1. History (except first course in U. S. History): literature, humanities, philosophy; foreign languages; history of the arts,		
2. Anthropology, economics, geography, sociology, political science.		
3. Science.		
Junior-senior symposia—This requirement can be met only by completing (6) Junior Symposium 3801 (3) and Senior Symposium 4801 (3).		
<i>The eight units taken in the upper-division (1, 2, and 3 above) may be applied, as appropriate, to meet the requirements which follow.</i>		
II. Communications	6	
Expository writing and rhetoric or oral and written expression. The requirement should be met in the lower division.		
Acceptable: Eng. 1001-2 (3-3) or Speech 1001-2 (3-3).		
Hist. of Western Culture 1001-2-3 (5-5-5) satisfies 3 units of this requirement		
III. United States history (code requirement)		
Complete course(s) or pass examination. Course credit is applicable to Section VI.		
Acceptable: Hist. 1101-2 (4-4), Hist. 3400 (4), or Pol. Sci. 1201-2 (4-4).		
IV. Local, state, national government (code requirement)		
Complete course(s) or pass examination. Course credit is applicable to Section V.		
Acceptable: Hist. 1101-2 (4-4), Pol. Sci. 1201-2 (4-4), or Pol. Sci. 3100 (4)		
V. Anthropology, economics, geography, political science, sociology, and social science	12	
Credit earned in satisfying Section IV is applicable to this section. Courses in two of the four fields—anthropology, economics, geography, and sociology—are required. Additional units to meet the total 12 may be taken in anthropology, economics, geography, political science, social science, and sociology. Four units earned in History of Western Culture satisfies one of the “two of four” (anthropology, economics, geography, sociology) requirement.		
VI. History, philosophy, literature, languages, and history of the arts (art, drama, music)	16	
Credit earned in satisfying Section III (U. S. history) is applicable to this section. At least 5 units in courses from literature and/or philosophy		

must be included. A maximum of 9 units of foreign language may be applied to this section. Units earned beyond those required in U. S. history and literature and/or philosophy may come from any of the fields listed in this section. Eight units earned in History of Western Culture is applicable to this section provided the sequence is completed.

VII. Psychology	4
A course in principles of psychology is required. Credit earned in upper-division psychology courses may be applied to Section V provided the 12 unit requirement is met.	
Acceptable: Psy. 2000 (4).	
VIII. Health and physical education	5
Three units of health and 2 units of physical education activity are required. Not more than 6 units of general education physical education activities may be applied toward graduation requirements.	
Acceptable: P. E. 1101 (3) or H. E. 1003 plus P. E. 1011-2 ( $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ ).	
IX. Creative Arts	3
Three units from performance or appreciation courses are required.	
Acceptable: Art 1101 (3), Mus. 2111 (3), Sp. and Dr. 1010 (5), Interpretive Dance.	
X. Science; and mathematics, logic, or statistics	18-19
Fourteen units in science are required; a basic course in biological science and a basic course in physical science must be included. In biological science, a course in principles of biology, biology, botany, or zoology is acceptable; in physical science, a course in principles of physical science, physics, chemistry, geology or astronomy is acceptable. Recommended: Biol. 1000 (5) and Phys. Sci. 1340 (5) or Chem. 1000 (5) or Geol. 1101-2 (5) plus at least four additional units in science.	
A college level course in mathematics, logic, or statistics is required. In mathematics the course should be college algebra or higher and a postulational approach is recommended.	
Acceptable: Math. 1110, Mathematical Logic (4); Math. 1301, Basic Analysis (5); Math. 1060, Math of Finance (4); Stat. 1500, Elements of Statistics (5); Phil. 1000, Symbolic Logic (4); or Math. 3000, Concepts of Mathematics (5).	
XI. Electives	5-6
Electives must be selected from outside the major and related fields.	
Required total	76

#### Residence Requirements

A total of 186 units of credit must be earned for graduation with a bachelor of arts degree. Up to 195 units of credit must be earned for a bachelor of science degree, the total depending on the specific major (see individual B.S. majors). Of these totals, 36 units must be earned at Alameda County State College in resident (not extension) courses.

The bachelor of education degree requirements call for 36 units of credit earned from Alameda County State College. Of that amount, at least 18 units must be earned in courses given on the Alameda County State College campus after the completion of 135 of the required number of quarter units.

**ADDITIONAL GRADUATION REQUIREMENTS AND PROCEDURES****Scholarship Requirements for Graduation**

A student planning to graduate must have an average grade of "C" (2.0) or better on:

1. All units attempted at Alameda County State College;
2. All units in the major; and
3. All units attempted, including those accepted by transfer from other colleges and universities.

**Graduation With Honors**

Any student who has achieved exceptional academic performance and who has maintained an academic average of 3.50 in all courses completed at Alameda County State College may be considered for graduation Magna Cum Laude. Any student who has maintained an academic average of 3.75 or better in courses completed at Alameda County State College is eligible for graduation with honors and may be graduated Summa Cum Laude.

**Making Application for Graduation**

1. A student is responsible for making an appointment with the Office of Admissions to have a graduation check made during the quarter immediately preceding the term in which graduation is anticipated (see college calendar for deadline dates for each term). Division of Education students should plan to have graduation checks made two quarters prior to the term of graduation (excluding students with minors in education).
2. The Application for Graduation (which is secured at the time the graduation check is made) must be completed and filed in the Records Office before the deadline dates indicated in the College Bulletin for graduation in a specified quarter. Students planning to graduate in June must have their applications filed in the Records Office by April 15.

**PUBLIC SCHOOL TEACHERS WHO SUPERVISED STUDENT TEACHERS****1961-62 ACADEMIC YEAR***Castro Valley Elementary School District*

Mary Ackerman	Mary Forward
Ardella Arrasmith	Jennie Johnson
Robert Bagley	Helen Lass
Patricia Bowhen	William Lavin
Bessie Canfield	Nancy Lewis
Robert Dawes	Florence Nelson

Gene Verley

*Decoto Elementary School District*

Maryanne Bergstrom	Eva Jackson
Harriet Gore	Joyce Jelacsty
Constance Sugden	

*Hayward Elementary School District*

Marian Dobbelaire	Joyce Tubbs
Dale Green	Lettie Turner
Robert Houle	Marjorie Spisak
Genevieve Jorgensen	Ardelle Ward
Beulah Linnell	Joanne Weiss
Bonnie Logsdon	Winifred Wilber
Richard Panzica	Olga Wolter

Frank Perry

*Hayward Union High School District*

Harry Adams	Wallace Hennessy
Nicholas Athos	Barbara Henry
Lorraine Bollinger	Vaughan Hitchcock
Bates Brian	Charles Kerr
Dorothy Buckley	Anna Konstantopoulos
John Cristgau	J. C. Levendowski
Walter Dalbok	Robert Mann
Alten Davis	Arden McKillop
Loy Elser	Kenneth Miller
Patricia Furlong	Dorcas Morison
Louis Gappmayer	Clarence Nelson
Leslie Gordon	Jean Orr
William Griffin	Don Osborne
Alvira Heitman	Joseph Ovalle

**Hayward Union High School District—Continued**

Beverly Pape  
 Zelma Jo Perkins  
 Gordon Phillips  
 Frank Poulsen  
 William Roecker  
 Dena Ruble  
 Donna Russell  
 Dick Savage  
 Maurice Schmid  
 John Searle  
 Eleanor Sekerak  
 James Shettler  
 Gordon Smith

**La Vista Elementary School District**

Donna Aguzin  
 Catherine Altucker  
 Maxine Booister  
 Dudley Borowick  
 Carol Cook

**Mt. Diablo Unified School District**

June Baird  
 Mavis Brown  
 Frances Courtney  
 George Anne Coyle  
 Charlotte Eilers  
 Betty Evans  
 William Gripp  
 Marilyn Herz

Evelyn Wolfe

**Mt. Eden Elementary School District**

Hollis Baker  
 Walter Bray  
 Herbert Brown  
 Roxana Flanagan  
 Frances Forsyth

**San Leandro Unified School District**

Elizabeth Bennett  
 Martha Campbell  
 Mina Cramer  
 Martha Etheridge  
 Laura Lundy  
 Marilen Moore  
 Edwina Olsen

Maxine Orton  
 Mary Ann Parachini  
 Althea Parks  
 Joyce Reynolds  
 Paula Simmons  
 Ana Jane Urich  
 Marjorie Lee Wentworth

**San Lorenzo Elementary School District**

Zola Berriman  
 Levinia Bornor  
 Beulah Cameron  
 Marguerite Cameron  
 Stella Cowen  
 David Crowther  
 Doris Guthrie  
 Julia Hight

Janet Jensen  
 Donald Kessler  
 Carl Krause  
 Everett Martin  
 Jean Murphy  
 Virginia Seamans  
 Ann Schofield  
 Rose Tassielli

## INTERDIVISIONAL PROGRAMS IN GENERAL EDUCATION

### HISTORY OF WESTERN CULTURE

This integrated, interdivisional general education sequence is one way to meet: (1) 3 units of communications, (2) 8 units of humanities (literature and philosophy only), and (3) 4 units of social science exclusive of code requirements in U.S. history and institutions. With the completion of HWC 1001, five units of humanities electives will be met; with the completion of HWC 1001-2, two units of communications and five units of literature and philosophy (total of 8 units of humanities) will be met; and with the completion of HWC 1001-2-3 a third unit (total 3) of communications and four units of social science, including one course of the two of four courses (anthropology, economics, geography, sociology) requirement, will be met.

#### 1001. The Ancient and Medieval World

Philosophic, scientific, social, and aesthetic foundations of the Western tradition. Five units.

#### 1002. The Renaissance and Early Modern Times

Continuation of History of Western Culture 1001. Prerequisite HWC 1001. Five units.

#### 1003. The Modern Western World

Continuation of History of Western Culture 1002. Prerequisite HWC 1002. Five units.

### JUNIOR-SENIOR SYMPOSIA

The Junior and Senior Symposia are courses required of all undergraduates as follows: 1. Freshmen who enroll in September 1963 and thereafter; 2. Transfers who enroll for the first time at this institution in September 1965 and thereafter; 3. Transfers who enroll as lower-division students in September 1964 and thereafter; 4. Upper-division transfers who have been in continuous enrollment at other institutions and who transfer to this college prior to September 1965 will be required to enroll in the Junior Symposium. It is recommended that these transfers take the complete sequence.

#### 3801. Junior Symposium

An interdisciplinary course in which the student examines and relates selected ideas in several disciplines. Includes lectures, readings, papers and discussions. A diagnostic examination will be administered during the quarter to assess the competency of students in the fields of biological and physical science, humanities, and social science. Prerequisite: Junior standing and basic courses in science, humanities, social sciences.

#### 4801. Senior Symposium

A continuation of Junior Symposium 3801. Prerequisite: Junior Symposium 3801. 2 hrs. lect., 2 hrs. act. Three units.

## DIVISION OF BUSINESS AND ECONOMICS

Professors Salera (head), Mayer, Wren; Associate Professor Buttmer; Assistant Professors Elliott, Morehouse, Ozaki; Lecturer Nordstrom.

### CURRICULA OFFERED

#### Baccalaureate Degree Majors and Minors

Business Administration  
Business Education  
Economics

### PURPOSES

This division offers courses designed (1) to equip individuals with the educational background and analytical tools for careers in business, (2) to provide for the development of teachers of business subjects in the secondary schools, and (3) to train students in the skills of the professional economist. Analytical emphasis is a dominant characteristic of work in the division.

### BUSINESS ADMINISTRATION MAJOR

#### Lower Division Requirements

Principles of accounting and principles of economics (both 8 or more units). Completion of these courses is a condition for admission to the upper-division program of the division.

Recommended: a year of college-level mathematics.

#### Core Requirements

The student must arrange his program so as to complete the following courses in the junior year:

	Units
Bus. 3111. Business and Economic Statistics	4
Bus. 3200. Managerial Accounting	4
Bus. 3400. Principles of Marketing	4
Bus. 3600. Principles of Management	4
Bus. 4700. Legal Environment of Business	4
Econ. 4000. Economics of the Business Firm	4
Bus. 3310. Money, Banking and Business Finance	4
	—
Total	28

To be completed in the senior year:

Bus. 3660. Industrial Relations	4
Bus. 4320. Business Fluctuations	4
Bus. 4500. Business and Public Policy	4

Total	12
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#### Fields of Concentration

##### Accounting

Core requirements (all except Bus. 3200 above) 36 units

The concentration:

Bus. 3211, 3212, 3213, 4231, 4232, 4240.

##### Management

Core requirements (see above) 40 units

The concentration:

Bus. 3620, 4300, 4630, 5650.

##### Marketing

Core requirements (see above) 40 units

The concentration:

Bus. 3410, 3420, 4430, 5440.

## ILLUSTRATIVE PROGRAM, BUSINESS ADMINISTRATION

### Freshman Year

Bus. 1151, 1152, 1153	Principles of Accounting
Eng. 1001, 1002	Exposition and Rhetoric, Expository Writing
Hist. 1100, 1101	History of U.S.
Biol. 1000	Principles of Biology
Math. 1301	Basic Analysis
Psy. 2000	General Psychology
Gen. Ed. courses	

### Sophomore Year

Econ. 2301, 2302	Principles of Economics
Eng. 1113	Introduction to Fiction
Chem. 1101, 1102, 1103	General Chemistry and Qualitative Analysis
Phil. 1000	Symbolic Logic
Pol. Sci. 2010	Introduction to Government
Gen. Ed. courses	

### Junior Year

Pol. Sci. 4000	Contemporary World Problems
Bus. 3111	Business and Economic Statistics
Bus. 3200	Managerial Accounting
Bus. 3400	Principles of Marketing
Bus. 3600	Principles of Management
Bus. 4700	Legal Environment of Business
Bus. 3310	Money, Banking and Business Finance
Econ. 4000	Economics of the Business Firm
Jr. Sym. 3801	Junior Symposium
	One or two concentration courses
	General education course

### Senior Year

Bus. 3660	Industrial Relations
Bus. 4320	Business Fluctuations
Bus. 4500	Business and Public Policy
Sr. Sym. 4801	Senior Symposium
	Two or three concentration courses
	Appropriate speech course
	General education and elective courses

## BUSINESS EDUCATION MAJOR

### Lower Division Requirements

Principles of accounting and principles of economics (both 8 or more units), typewriting (3 units or the successful completion of a proficiency examination with an approved course substitution), and business machines (4 units or the successful completion of a proficiency examination with an approved course substitution).

### Core Requirements

To be completed in the junior and senior years:  
Business Administration core and Geog. 3500 or 3510.

### Sub-Fields:

A total of 16-quarter units must be completed in two of the following sub-fields: accounting, secretarial training, or merchandising.

The accounting sub-field: Two upper-division accounting courses (8 units).

The secretarial training sub-field: Bus. 3810 and 3820 or 3840.

The merchandising sub-field: Two upper-division courses in marketing (8 units).

### Professional Business Education:

This comprises Bus. 4800, 5801, 5802, 5803. (The student is to complete two of the last three which correspond to his sub-fields.)

### Business Experience:

This is to consist of six months or 1,000 clock hours in one or more approved business occupations.

### Credential Requirements

Students majoring in business education who wish a teaching credential must complete the specialized subjects in secondary education which are offered by the division of education. Satisfactory completion of the courses outlined above, including student teaching and a bachelor's degree, will meet the requirements for a special secondary credential. A general secondary credential, preferred by administrators, requires a minimum of 45 quarter units during the graduate year. This graduate year will include at least 8 quarter units of 5,000 or 6,000 numbered work in business and economics, and necessary course work in an appropriate minor field with a minimum of 30 quarter units.

## ECONOMICS MAJOR

### Lower Division Requirements

Identical with those for the business administration major.  
See business administration major.

### Core Requirements

A minimum of 40-quarter units of upper-division economics is required for the major, of which the following are core requirements:

Bus. 3111, 3310, 4320, Econ. 4000, 5120, 5140.

### Other Requirements in Economics

The student may complete his major by including business administration courses selected in consultation with his adviser from the following:

Bus. 3420, 3660, 4310, 4430, and 4500.

## DESCRIPTION OF COURSES

## BUSINESS

## Accounting

**1151, 1152, 1153. Principles of Accounting**

An introduction to accounting analysis and practice. Three units each.

**3200. Managerial Accounting**

Applied course with emphasis on the use of accounting information in business decisions. Not accepted as a course in the accounting field of concentration. Prerequisite: One year of accounting. Four units.

**3211, 3212, 3213. Intermediate Accounting**

Accounting theory, practice, and problems. Balance sheets, income and other financial statements, working papers, valuation of assets, reserves, correction of statements, and application of funds. Prerequisite: One year of accounting. Four units each.

**3220. Federal Income Tax Accounting**

Statutes, regulations, administrative rulings, and court decisions relative to the income taxes of individuals. Prerequisite: One year of accounting. Four units.

**4231, 4232. Cost Accounting**

Manufacturing accounting theory and problems, records, and financial statements; elements of cost; elements of process, specific job-order, and standard cost accounting. Emphasis on managerial use of cost data. Prerequisites: One year of accounting. Four units each.

**4240. Advanced Accounting**

Advanced accounting problems and theory. Selected topics from among the following: ventures, insurance, statements of affairs, receivership, branch accounts, foreign exchange, estate accounting, and parent and subsidiary accounting. Prerequisite: Bus. 3213. Four units.

**4250. Auditing**

Principles, techniques and procedures in auditing. Prerequisite: Bus. 3213. Four units.

**5260. Problems of Financial Reporting**

Advanced treatment of the analysis of financial statements. Prerequisite: Bus. 3213. Four units.

## Business Education

**3810. Advanced Dictation and Transcription**

Improvement of dictation and transcription skills and related secretarial procedures. Prerequisite: One year of shorthand theory or by proficiency examination. Four units.

**3820. Office Management**

Study of office procedures with major attention to job analysis, equipment, and management problems. Four units.

**3840. Business Communications and Report Writing**

Study of different types of business communications and practice in specialized business reports. Four units.

**3851. Advanced Typewriting**

Techniques and procedures for skill improvement in typewriting with readings from modern business office applications. 1 hr. lect., 4 hrs. act. Three units.

**3852. Business Office Machines**

Techniques and procedures for operation of business machines with readings from modern business office applications. 1 hr. lect., 4 hrs. act. Three units.

**4800. Principles of High School Business and Distributive Education**

Introductory course for those planning to teach business at the junior or senior high school level. The historical development, present status, course content and future problems from viewpoint of the prospective teacher. Prerequisite: Upper-division standing. Four units.

**5801. Secondary School Business Teaching I**

Methods and materials for teaching bookkeeping, general business, and other basic business subjects. AV techniques included. Prerequisite: Consent of instructor. Three units.

**5802. Secondary School Business Teaching II**

Methods and materials for teaching typewriting, shorthand, business machines and clerical practice. AV techniques included. Prerequisite: Consent of instructor. Three units.

**5803. Secondary School Business Teaching III**

Methods and materials for teaching salesmanship, retailing, and the coordination of cooperative work experience programs. AV techniques included. Prerequisite: Consent of instructor. Three units.

## Management

**3600. Principles of Management**

Introduction to business organization and management practices; interrelationships of complex human, technical, and economic factors in administration of business. Four units.

**3610. Personnel Management**

Principles and methods of organized personnel work; developing optimum utilization of human resources within the organization; recruitment, selection, training, promotion, transfer, motivation and compensation. Prerequisite: Bus. 3600. Four units.

**3620. Industrial Administration**

Essentials of production management and control; organization of the production function, plant location and layout, production planning and control, quality control, production standards; the relationship between production and other business operations. Prerequisite: Bus. 3600. Four units.

**4300. Business Finance**

Financial principles and practices relating to alternative forms of business organization. Sources and uses of financial data. Prerequisites: Bus. 3200 and Bus. 3310. Four units.

**4630. Organization Theory**

A study of human behavior in organizations, with emphasis upon an analysis of the need for organization, the kinds of organizational mechanisms, and theories and findings relevant to individual behavior in formal organizations. Prerequisites: Bus. 3600. Four units.

**5650. Executive Control and Administration**

Application of management principles to top management problems; the responsibilities of an organization's major executive, such as setting company objectives, organizing and coordinating business activities, and controlling performance. Prerequisites: Bus. 3600 and 4630. Four units.

## Marketing

**3400. Principles of Marketing**

Organization and principal operating aspects of the system of distributing goods and services. Four units.

**3410. Advertising**

Marketing and economic functions of advertising, with emphasis on psychological and statistical aspects; includes media, copy, layout, and research. Prerequisite: Bus. 3400. Four units.

**3420. Sales Analysis and Sales Management**

Intermediate level course dealing mainly with the analytical problems of selling goods and services and the management of the sales function. Prerequisite: Bus. 3400. Four units.

**4430. Private and Social Efficiency in Distribution**

Application to marketing of economic analysis of private and social cost; consumer and industrial products distinguished; cost-reducing and cost-increasing marketing tendencies contrasted; basic issues in marketing legislation. Prerequisites: Bus. 3400 and 3420. Four units.

**5440. Marketing Policies and Problems**

Advanced course concerned with major problems in marketing and policy alternatives relating thereto, with emphasis on problem-solving exercises. Four units.

**Other Business Courses****3111. Business and Economic Statistics**

Statistical methods used in business and economic analysis. Four units.

**3310. Money, Banking and Business Finance**

Essentials of commercial and central banking, and highlights of corporation finance. Four units.

**3660. Industrial Relations**

A systematic study of labor-management relations. (Students will not receive credit for both course 3660 and Econ. 4610.) Four units.

**4310. Investment Management**

Angell's theory of investment decision-making, followed by a standard treatment of securities, security markets, and investment management. Four units.

**4320. Business Fluctuations**

Nature and significance of business fluctuations. Four units.

**4500. Business and Public Policy**

An integrating treatment of leading subject matter areas with special reference to the manager's efforts to deal with changes both in business itself and in public policy. Recommended for last quarter. Four units.

**4520. Government and Business**

The competitive economy and the government's regulation and control activities; dynamic relations between business and government. Four units.

**4700. Legal Environment of Business**

A study of the legal setting in which business operates, with emphasis upon legal reasoning and the processes of the law. Four units.

**ECONOMICS****2301, 2302. Principles of Economics**

Introduction to economic analysis and operation of the American economy. Four units each.

**3303. Controversial Economic Issues**

Includes Soviet and American systems for organizing economic resources, monopoly and competition, economic growth rate and inflation, public versus private sector problems, farm policy, and a major international economic issue. Not open to students majoring in the division. Four units.

**4000. Economics of the Business Firm**

The operation of the price system in a free enterprise economy; prices and decision-making. Four units.

**4100. International Economics**

The basis of trade, foreign exchange, and foreign investment and world economic growth. Four units.

**4110. Economic Development**

The economics of underdeveloped countries. Prerequisite: Econ. 4100. Four units

**4510. Comparative Economic Systems**

A comparative study of different systems which man has proposed or used to deal with the economic organization of society. Four units.

**4610. Labor Economics**

Study of labor markets and wages; development of unions and collective bargaining; labor legislation. Four units. (Students will not receive credit for both course 4610 and Bus. 3660.)

**5120. Current Economic Policies**

A study of national issues related to economic stabilization and growth. Prerequisite: Econ. 4000. Four units.

**5130. Inter-American Economic Relations**

Major economic problems, issues and policies in relations between the United States and Latin America. Four units.

**5140. Development of Economic Thought**

The history of economic analysis. Prerequisite: Econ. 4000. Four units.

**5312. Federal Reserve Policies and Money Markets**

Advanced study of monetary policy, debt management and the money system. Prerequisite: Bus. 3310. Four units.

## DIVISION OF CREATIVE ARTS

### Art, Music, Speech and Drama

Professors Ernst (head and chairman, Department of Music), Martin (chairman, Department of Speech-Drama), Randall (chairman, Department of Art); Associate Professors Kjelson, Rosenbaum, Slatoff; Assistant Professors Bartlett, Bertsch, Black, Burke, Cory, Davis, Denke, Desrosiers, Glasow, Goeser, J. Hall, Krenz, LePell, Lewis, Lincoln, Muir, Nelson, Saxton, Stern, Whelan.

### CURRICULA OFFERED

#### Baccalaureate Degree Majors

Art (B.A.)

Music (B.A.)

Speech-Drama (B.A.)

Language Arts (interdivisional major: See Humanities Division for details.)

#### Minors

Art

Music

Speech-Drama

### PURPOSES

This division currently offers instruction in art, music, and speech-drama in order to provide (1) baccalaureate majors for persons with general vocational and avocational interests in the arts, (2) training for the teaching credentials in art, music, and speech arts, (3) methods and basic skill courses which meet the requirements of the various general teaching credentials, and (4) courses designed to broaden the general education pattern through increased knowledge and understanding of the arts.

### ART MAJOR

#### Requirements are as follows:

- I. Complete the 76-unit requirement in general education. Study of one or more modern foreign languages is highly recommended.
- II. Complete the following requirements in the major:

Lower Division	Units
Total of 18 units (at least 3 units in 3 of the 4 areas): (a) Survey of Art or History of Art, (b) Basic Design, (c) Drawing, (d) Composition	18

Upper Division	Units
Minimum of 3 units in 4 of the following areas must be included to complete major (portfolio of work completed in other institutions may be submitted for possible upper-division placement by transfer students; certain courses may be repeated for credit; a portfolio and Senior exhibit will be required of graduating students): (a) Painting, (b) Graphics, (c) Sculpture, (d) Crafts, (e) Advertising Arts	12
Art electives with adviser's approval	32
<i>Elect 3 units in each of Speech-Drama and Music</i>	6

Total	68
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- III. Teaching candidates must complete (a) the requirements for admission to teacher education (see Division of Education section); (b) the upper-division professional courses in teacher education, including Art 4350 (see Division of Education section); (c) the requirements for a teaching minor; (d) approval of advisers for major and minor study.

#### Suggested distribution of courses for a well-rounded program

Degree and Credential Offerings	General Professional Major	General Secondary Major	General Secondary Minor	Elementary Credential
Art 1010 Introduction to Art History (4)	4	4		
Art 1110 Introduction to Art (3)	3	3	3	3
Art 1120 Basic Design (3)	3	3		
Art 1130 Applied Design (3)	3			
Art 2140 Drawing (3)	3	3	3	
Art 2150 Drawing (3)				
Art 3040 Art in the Ancient World (3)				
Art 3050 Medieval (3)				
Art 3060 Renaissance and Baroque (3)				
Art 3070 Development of Modern Art	3	3		
Art 3160 Life Drawing (2)	2	2		
Art 3170 Life Drawing (2)				
Art 3210 Painting (3)	3	3	3	
Art 3220 Painting (3)				
Art 3320 Arts and Crafts—Elementary School (3)				3
Art 3510 Ceramics (5)	5	5	5	
Art 3520 General Crafts (3)	3	3	3	
Art 4230 Painting: Water Color (3)	3	3		
Art 4240 Painting (3)	3			
Art 4350 Art Methods (4)		4	4	
Art 4520 Jewelry (3)	3	3		
Art 4530 Sculpture (3)	3	3	3	
Art 4610 Printmaking (3)	3	3	3	
Art 4630 Lettering (2)	2	2	2	
Art 4650 Advertising Art (3)	3	3	3	
Art 4680 Advanced Studio Practices (3)	3			
Art 4800 Art in Contemporary Society (4)				
Art 5900 Individual Study (2-5)				
Art 5901 Directed Group Study (1-5)				
Music	6	6		
Speech-Drama	6	6	6	
Electives upon advisement				
TOTAL	68-72	68-72	34-36	6

Professional major is a preparatory for advanced professional work and graduate study.

General Secondary Major—See Division of Education.

General Secondary Minor—See Division of Education.

Elementary Credential—See Division of Education.

**Recommended Sequence of Art Courses for  
Four-year Baccalaureate Program**

**First Year**

	<i>F</i>	<i>Units</i>
	<i>W</i>	<i>S</i>
Introduction to Art. Art 1110	3	
Basic Design. Art 1120	3	
Applied Design. Art 1130	3	
Introduction to Art History. Art 1010	3	

**Second Year**

Drawing. Art 2140	3
Ceramics. Art 3510	5
General Crafts. Art 3520	3
Painting. Art 3210	3
Drawing. Art 2150	3
Painting. Art 3220	3

**Third Year**

Development of Modern Art. Art 3070	3
Life Drawing. Art 3160	2
Arts and Crafts in Elementary School. Art 3320	3
Art in the Ancient World	3
Lettering. Art 4630	2
Sculpture. Art 4530	3
Life Drawing. Art 3170	2
Medieval Art. Art 3050	3
Ceramics. Art 3510	5

**Fourth Year**

Renaissance and Baroque Art. Art 3060	3
Jewelry. Art 4520	3
Printmaking. Art 4610	3
Advertising Art. Art 4650	3
Art Methods. Art 4350	4
Painting—Water Media. Art 4230	3
Advanced Studio Practices. Art 4680	2-4

**ART MINOR**

**Requirements**

See adviser for approval.

A minimum of 34 units in courses selected in general areas of art. Recommended are one course each in design, art history, appreciation, drawing, painting, crafts or jewelry, ceramics or sculpture, and art electives to complete requirements

**MUSIC MAJOR**

**(Baccalaureate Degree)**

*Requirements are as follows:*

I. Complete the 76-unit requirement in general education. It is recommended that all music majors meet the creative arts requirement in the general education program by electing courses in art and/or speech-drama. Study of a foreign language is recommended for non-credential candidates.

**II. Complete the following requirements in the major:**

**Lower Division**

**THEORY**

Mus. 1001, 1002, 1003—Music Fundamentals	6
Mus. 1011, 1012, 1013—Music Fundamentals Laboratory	3
Mus. 2001, 2002, 2003—Harmonic Theory and Practice	6
Mus. 2011, 2012, 2013—Harmony Laboratory	3

**PERFORMANCE**

Mus. 5210 through 5260—Applied Music (Major performance media)	6
Mus. 3510 through 3545—Music Activities (Chorus, Band, Orchestra, Ensembles)	6
<sup>1</sup> Mus. 1211, 1212, 1213—Elementary Class Piano	3
<sup>1</sup> Mus. 2211, 2212, 2213—Intermediate Class Piano	3

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**Upper Division**

**HISTORY AND LITERATURE**

Mus. 3141, 3142, 3143—Music History and Literature	9
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**THEORY**

Mus. 3001, 3002, 3003—Analysis and Composition	9
Mus. 4001—Orchestration	3

**PERFORMANCE**

Mus. 5210 through 5260—Applied Music (Major performance media)	6
Mus. 3510 through 3545—Music Activities (Chorus, Band, Orchestra, Ensembles)	6
<sup>2</sup> Electives in music or music education	6

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**Special Requirements of the Department of Music**

- I. Each music major must declare, with the approval of his adviser, a principal performance medium (piano, organ, voice, or orchestral or band instrument) and carry on continuous study of this instrument until reaching a recital standard of excellence. In lieu of this requirement, and with the approval of the department chairman, a student may choose to achieve a high level of performance skill in two or more of these media as measured by his ability to perform acceptably upon each in major activity of small ensemble groups.
- II. Piano majors must perform satisfactorily as accompanists as well as soloists.
- III. Music majors are expected to appear each year in regularly scheduled student recitals. Seniors must appear in a satisfactory joint-recital prior to approval for graduation.
- IV. Proficiency tests in piano, voice, sight singing, ear training, theory, and major instrument will be given to all music majors who transfer to Alameda County State College. Such tests will also be given to Alameda County State College students before they may qualify for upper-division courses. If these examina-

<sup>1</sup> May be met by examination.

<sup>2</sup> Electives are for non-credential students only. Credential students must follow program outlined in following section.

tions reveal deficiencies, additional work will be required before upper-division status will be confirmed. Credential students must show proficiency in piano, voice, and basic instruments before they begin directed teaching.

V. Group performance activities are considered to be an integral part of a student's musical growth. Each music major is required to be in one major activity each quarter. In addition it is expected that he will also participate in selected minor activities and that he will plan his activity program to include some experiences outside his major performance field (instrumental majors in vocal groups, and vocal majors in instrumental groups). No more than 12 units in any one activity will count toward graduation.

VI. Upper-division transfer students who have completed most of their music major in other institutions will be expected to take certain minimal courses at Alameda County State College in each of the principal areas of theory, history and literature, and performance.

#### TEACHING CREDENTIAL MUSIC MAJOR

In addition to the courses required for the baccalaureate major in music, the following special course requirements are made of all credential candidates:

<i>Lower Division</i>	<i>Units</i>
<sup>1</sup> Mus. 2231, 2232, 2241, 2242—Basic Orchestral Instruments (strings and woodwinds recommended)	6
Mus. 2221, 2222, 2223—Basic Voice	3
	9
<i>Upper Division</i>	
<sup>1</sup> Mus. 2251, 2252, 2261—Basic Orchestral Instruments (brass and percussion) the selection of specific courses will depend upon the work on basic instruments taken in the lower division	3
Mus. 3391, 3392—Conducting	6
Mus. 3580—Music Performance Laboratory (3 quarters minimum)	1
	10

Credential candidates must also complete the following:

- (a) The requirements for admission to teacher education (see Division of Education section)
- (b) The upper-division professional courses in teacher education (see Division of Education section) and including
  - Mus. 3330—Music in the Elementary School
  - Mus. 4330—Music in the Secondary School
- (c) The requirements for a teaching minor

#### TEACHING CREDENTIAL MUSIC MINOR

Credential candidates may select music as a teaching minor after obtaining the approval of a music department adviser. The following program of courses is recommended:

<sup>1</sup> Students who have had broad secondary school performance background will be able to meet basic performance requirements without taking all of the basic courses. Majors on a particular instrument will not need additional basic course work on that instrument.

	<i>Units</i>
Music Literature or History	3-4
Selected from Mus. 2111, 2112, 3141, 3142, 3143, or C.A. 4800	
Music Theory	6
Any combination of music theory courses for which the student is eligible	
Conducting (Mus. 3391)	3
<sup>1</sup> Piano, voice, and basic orchestral instruments	9
<sup>2</sup> Music activities	
<sup>3</sup> Music electives	9
<sup>4</sup> Major instrument (or voice)	
	30-31

#### Recommended Sequence of Music Courses for Four-year Baccalaureate Program

<i>First Year</i>	<i>Units</i>		
	F	W	S
Music Fundamentals. Mus. 1001	2		
Music Fundamentals Laboratory. Mus. 1011	1		
* Basic Orchestral Instruments—String. Mus. 2231	1		
Applied Music—Major Performance Area. Mus. 5210 to 5260	1		
Activity. Mus. 3510 to 3530	1		
Elementary Class Piano. Mus. 1211	1		
Music Fundamentals. Mus. 1002	2		
Music Fundamentals Laboratory. Mus. 1012	1		
* Basic Orchestral Instruments—String. Mus. 2232	1		
Applied Music—Major Performance Area. Mus. 5210 to 5260	1		
Activity. Mus. 3510 to 3530	1		
Elementary Class Piano. Mus. 1212	1		
Music Fundamentals. Mus. 1003	2		
Music Fundamentals Laboratory. Mus. 1013	1		
* Basic Orchestral Instruments—String. Mus. 2231	1		
Applied Music—Major Performance Area. Mus. 5210 to 5260	1		
Activity. Mus. 3510 to 3530	1		
Elementary Class Piano. Mus. 1213	1		

#### Second Year

Harmony, Theory and Practice. Mus. 2001	2
Harmony, Theory and Practice Laboratory. Mus. 2011	1
* Basic Orchestral Instruments—Woodwinds. Mus. 2241	1
Applied Music—Major Performance Area. Mus. 5210 to 5260	1
Activity. Mus. 3510 to 3530	1
Intermediate Class Piano. Mus. 2211	1
* Basic Voice. Mus. 2221	1
Harmony, Theory and Practice. Mus. 2002	2
Harmony, Theory and Practice Laboratory. Mus. 2012	1
* Basic Orchestral Instruments—Woodwinds. Mus. 2242	1

\* Required only of credential candidates

<sup>1</sup> Distribution of these 9 units will be determined by adviser after consideration of student's major instrument and his teaching objective.

<sup>2</sup> All music minors are expected to enroll in one music activity each quarter.

<sup>3</sup> With approval of adviser.

<sup>4</sup> Music minors must show proficiency on some one major instrument (or voice) as determined by a faculty jury.

		Units	
	F	W	S
Applied Music—Major Performance Area. Mus. 5210 to 5260...		1	
Activity. Mus. 3510 to 3530		1	
Intermediate Class Piano. Mus. 2212		1	
*Basic Voice. Mus. 2222		1	
Harmony, Theory and Practice. Mus. 2003		2	
Harmony, Theory and Practice Laboratory. Mus. 2013		1	
*Basic Orchestral Instruments—Woodwinds. Mus. 2241		1	
Applied Music—Major Performance Area. Mus. 5210 to 5260...		1	
Activity. Mus. 3510 to 3530		1	
Intermediate Class Piano. Mus. 2213		1	
* Basic Voice. Mus. 2223		1	
<b>Third Year</b>			
Music History and Literature. Mus. 3141	3		
Analysis and Composition. Mus. 3001	3		
* Basic Orchestral Instruments—Brass. Mus. 2251	1		
Applied Music—Major Performance Area. Mus. 5210 to 5260...		1	
Activity. Mus. 3510 to 3530		1	
Music History and Literature. Mus. 3142	3		
Analysis and Composition. Mus. 3002	3		
* Basic Orchestral Instruments—Brass. Mus. 2252	1		
Applied Music—Major Performance Area. Mus. 5210 to 5260...		1	
Activity. Mus. 3510 to 3530		1	
Music History and Literature. Mus. 3143	3		
Analysis and Composition. Mus. 3003	3		
* Basic Orchestral Instruments—Percussion. Mus. 2261	1		
Applied Music—Major Performance Area. Mus. 5210 to 5260...		1	
Activity. Mus. 3510 to 3530		1	
* Conducting. Mus. 3391		3	
<b>Fourth Year</b>			
Orchestration. Mus. 4001	3		
* Music in Elementary School. Mus. 3330	3		
Applied Music—Major Performance Area. Mus. 5210 to 5260...		1	
Activity. Mus. 3510 to 3530		1	
* Music Performance Laboratory. Mus. 3580		0	
* Conducting. Mus. 3392	3		
* Music in Secondary School. Mus. 4330	4		
Applied Music—Major Performance Area. Mus. 5210 to 5260...		1	
Activity. Mus. 3510 to 3530		1	
* Music Performance Laboratory. Mus. 3580		0	
† Music Electives		3	
Applied Music—Major Performance Area. Mus. 5210 to 5260...		1	
Activity. Mus. 3510 to 3530		1	
* Music Performance Laboratory. Mus. 3580		1	
† Music Electives		3	

\* Required only of credential candidates.

† Required only of liberal arts majors.

### SPEECH-DRAMA MAJOR

The baccalaureate major in Speech and Drama is offered to the student interested in pursuing one or more of the following goals: (1) the achievement of a liberal education with special emphasis on understanding of and creative activity in speech and drama; (2) experience, knowledge and training in areas important to careers in business and industry; (3) training for teacher credentials in speech and drama; (4) pre-professional training for those interested in careers in the theater and its allied arts, in law or the ministry; (5) preparation for graduate study in speech or drama. The student majors in Speech and Drama, with emphasis in either aspect of the field, but all students take courses in both.

Requirements are as follows:

I. Complete the 76-unit requirement in general education. Speech/Drama majors should elect courses in music, art, foreign languages, and English.

II. Complete the following requirements in the major:

#### Lower Division

Oral and Written Expression I and II, Fundamentals of Speech, Introduction to Theater, Interpretive Reading, Argumentation and Debate.

#### Upper Division

Minimum of thirty and maximum of fifty units in upper-division Speech and Drama courses, to be approved by departmental adviser. Various combinations of courses in the upper division may be taken so long as prerequisites are observed, though the student is advised to choose either a General Speech or a Theater emphasis.

III. Teaching candidates must complete (a) the requirements for admission to teacher education (see Division of Education section); (b) the upper-division professional courses in teacher education, including Speech/Drama 4355, Teaching of Speech and Dramatics, as well as credential courses in the Division of Education; (c) the requirements for a teaching minor, preferably English or Social Science.

### Recommended Program for the Speech-Drama Major

#### EXAMPLE ONE—THEATER EMPHASIS

##### First Year

	F	W	S
Oral and Written Expression I, 1001	3		
Oral and Written Expression II, 1002		3	
Fundamentals of Speech, 1003			3

##### Second Year

Introduction to Theater, 1010	5
Interpretative Reading, 2310	4
Argumentation and Debate, 2411	5

##### Third Year

Acting, 2012	4
Creative Dramatics, 3650	3
Introduction to Shakespeare, Eng. 3250	4
History of Drama I, Eng. 3800	4
Fundamentals of Production, 4110	5

**Fourth Year**

	Units		
	F	W	S
Advanced Acting, 3012	4		
Advanced Public Speaking, 4350	4		
Shakespeare's Comedies, Eng. 3251 or History of Drama II, Eng. 3801		4	
History of Drama III, Eng. 3802			4
Teaching of Speech and Dramatics, 4355			5

**Recommended Program for Speech-Drama Major****EXAMPLE TWO—GENERAL SPEECH EMPHASIS****First Year**

	Units		
	F	W	S
Oral and Written Expression I, 1001	3		
Oral and Written Expression II, 1002		3	
Fundamentals of Speech, 1003			3

**Second Year**

Introduction to the Theater, 1010	5		
Interpretative Reading, 2310		4	
Argumentation and Debate, 2411			5

**Third Year**

Acting, 2012	4		
Introduction to Radio and Television, 3310	4		
Study of Great Speeches, 4410		5	
Business and Professional Speech, 3412			4

**Fourth Year**

Advanced Public Speaking, 4350	4		
Public and Group Discussion, 3510		5	
Mass Media of Communication, 3210			4
Teaching of Speech and Dramatics, 4355			5

**SPEECH-DRAMA MINOR**

Upon approval of the departmental adviser students may enroll in a program leading to a minor in speech and drama. Such a program should include a minimum of 30 units of approved courses. Consultation with the departmental adviser will result in a special individual minor program for each student, depending upon his major and upon his objectives. A minor in speech and drama will consist of *all* of the courses in the lower division, a total of 23 units, plus at least 7 units of elective speech/drama courses. Electives also should be taken in English, art, and music.

**DESCRIPTION OF COURSES****CREATIVE ARTS****4800. The Arts in Contemporary Society**

A survey of the arts as they function in contemporary life with special emphasis on the fine arts and music. May be elected to fulfill creative arts requirement in general education. Four units.

**ART****1010. Introduction to the History of Art**

A survey of the important media in the history of art; lectures in elementary aesthetics, with particular attention to the evaluation of style from classical art to Abstract Expressionism. Approved elective for Humanities Division. Four units.

**1110. Introduction to Art**

This course is designed to help the student experience and understand the inter-relationship of materials, processes and means of expression in the visual and applied arts. Required prerequisite for most art courses. 1 hr. lect., 4 hrs. act. Three units.

**1120. Basic Design**

Application of design to theoretical and practical art problems. Prerequisite: Art 1110 or approval of staff. 1 hr. lect., 4 hrs. act. Three units.

**1130. Applied Design**

Emphasis on manipulation of three-dimensional media in order to discover their creative potential. Prerequisite: Approval of staff. 1 hr. lect., 4 hrs. act. Three units.

**2140, 2150. Drawing**

Graphic representation through a variety of techniques and media. Emphasis on form, structure, perspective, value, line, proportion. Approval of staff. 1 hr. lect., 4 hrs. act. Three units.

**3040. Art in the Ancient World**

The history of western art from prehistoric cultures through ancient and contemporary primitive arts. Preclassical civilizations and their contributions to the arts of Greece and Rome. Evolution of classical forms to the end of the Roman Empire. Three units.

**3050. Medieval Art**

The influence of Christian art upon the arts of Rome through the Byzantine, Romanesque and Gothic periods. The Renaissance in art in northern and southern Europe. Three units.

**3060. Renaissance and Baroque Art**

Evolution of the arts reflecting tastes from the late Renaissance and Baroque eras and their influence on the art that followed. Three units.

**3070. Development of Modern Art**

A survey of the evolution of contemporary art; philosophies of the "isms"; development of American art. Three units.

**3160, 3170, 3180. Life Drawing**

A development of graphic representation through the study of the human form. Problems dealing with anatomy, form, and structure. Prerequisite: Art 2140 or approval of staff. 1 hr. lect., 2 hrs. act. Two units.

**3210, 3220, 4240. Painting**

Emphasis on individual expression and experimentation with varied media such as oil, tempera, casein, ink, collage, chalk. Prerequisite: Art 1120. 1 hr. lect., 6 hrs. act. Three units.

**3320. Arts and Crafts in the Elementary School**

Aims, methods, and materials for children's arts and crafts, and application to elementary school art experiences. Prerequisite: Art 1110. 1 hr. lect., 4 hrs. act. Three units.

**3510. Ceramics**

Emphasis on designing in clay, decorating, glazing and firing procedures of ceramics. Approval of staff. 2 hrs. lect., 6 hrs. act. Five units.

**3520. General Crafts**

Experience in the processes of the crafts, utilizing wood, clay, metal, leather, and fabric. 9 hrs. lab. Three units.

**4230. Painting, Water Media**

Transparent and opaque watercolor techniques; creative interpretation of structure and form in relation to line and value. Prerequisite: Art 1120. 1 hr. lect., 4 hrs. act. Three units.

**4350. Art Methods**

Fundamentals of teaching art in the elementary and secondary schools. Study of approved practices of art education at these levels. Audio-visual techniques. Required of all art education students. Prerequisite: Consent of instructor. 3 hrs. lect., 2 hrs. act. Four units.

**4520. Jewelry**

Design and execution of simple jewelry, flatware, and hollow-ware, involving the use of silver, gold, copper, and brass. Approval of staff. 2 hrs. lect., 6 hrs. lab. Three units.

**4530. Sculpture**

Basic techniques and processes involving clay, wood, stone, plaster, and metal. Approval of staff. 1 hr. lect., 6 hrs. lab. Three units.

**4610. Printmaking**

Introduction to the field of printmaking, lithography, etching, engraving, wood-cut, and other graphic media. Prerequisite: Approval of staff. 1 hr. lect., 4 hrs. act. Three units.

**4630. Lettering**

A study of basic lettering forms with emphasis on styles and alphabet, their proportion and spacing. The adaptation of lettering to layout and poster design. Approval of staff. 1 hr. lect., 2 hrs. act. Two units.

**4650. Advertising Art**

The elements of visual expression and design related to the technical, psychological and social aspects of advertising. Prerequisite: Art 2630. 1 hr. lect., 4 hrs. act. Three units.

**4680. Advanced Studio Practices**

Preparation and organization of student's art work to meet exhibition and commercial requirements. Approval of staff. Two-four units.

**5900. Individual Study**

Two-four units.

**5901. Directed Group Study**

One-five units.

**MUSIC****A. Music Theory****1001, 1002, 1003. Music Fundamentals**

A study of modes and scales, the significance of chromaticism, rhythm, and intervals; melodic writing. Concurrent registration in 1011, 1012, 1013 required. 2 units each.

**1008. Basic Musicianship**

Basic music skills for non-music majors, including singing, conducting, music reading, functional keyboard, playing simple melody and rhythm instruments, and experience with literature through recordings. Required of elementary credential candidates. 1 hr. lect., 4 hrs. act. Three units.

**1011, 1012, 1013. Music Fundamentals Laboratory**

Sight singing, ear training, melodic and rhythmic dictation, keyboard work related to 1001, 1002, and 1003. 3 hrs. lab. One unit each.

**2001, 2002, 2003. Harmonic Theory and Practice**

A study of 18th and 19th century harmony with practical exercises in different styles. Concurrent registration in 2011, 2012, 2013 required. Prerequisite: Music 1003 and 1013 or equivalent. Two units each.

**2011, 2012, 2013. Harmony Laboratory**

Sight singing, ear training, harmonic and melodic dictation, keyboard work related to 2001, 2002, and 2003. 3 hrs. lab. One unit.

**3001, 3002, 3003. Analysis and Composition**

Analysis of musical structure in representative compositions from the short song form through large cyclic works and contrapuntal forms; creative development of musical ideas into suitable homophonic and contrapuntal compositions. Prerequisite: Music 2003 and 2013 or equivalent. Three units each. 3 quarters.

**4001. Orchestration**

Theory and practice of scoring for various combinations of instruments with examples written to be conducted and performed in class. Prerequisite: Music 3003 or equivalent. Three units.

**B. Music History and Literature****2111, 2112. Music Listening**

A basic course in music understanding designed for the person without formal music training. 2111 will emphasize music as a communicative art, stressing music media, periods, and styles. 2112 will emphasize design and forms. No prerequisites, but it is recommended that 2111 precede 2112. Three units each.

**3141, 3142, 3143. Music History and Literature**

A chronological history of music in western civilization from its origins to contemporary times. Three units each.

**4110. Music Literature for Children**

A survey of music literature especially suited for use in teaching school music, combined with methods of presentation. Emphasis on music available on recordings and supplementary song material not found in state music texts. Three units.

**4800. The Arts in Contemporary Society**

Four units. (See description under Creative Arts listing)

**C. Applied Music****1211, 1212, 1213. Elementary Class Piano**

Basic keyboard techniques with special application to song materials and simple accompaniments used in the elementary school. Recommended for classroom teachers and for fulfilling basic piano requirements of the music major and minor. 2 hrs. act. One unit each.

**2211, 2212, 2213. Intermediate Class Piano**

Continuation of 1211, 1212, 1213. Needed by music majors and minors for fulfilling basic piano requirements. Prerequisite: Music 1213 or equivalent. 2 hrs. act. One unit each.

**2221, 2222, 2223. Basic Voice**

Class instruction in fundamentals of singing. Required of music majors and minors. Open also to other qualified students. May be repeated for credit. Music 2221 prerequisite for others in series. 2 hrs. act. One unit each.

**2231, 2232. Basic Orchestral Instruments (string)****2241, 2242. Basic Orchestral Instruments (woodwind)****2251, 2252. Basic Orchestral Instruments (brass)****2261. Basic Orchestral Instruments (percussion)**

Instruction in the fundamentals of playing orchestral instruments with attention to methods and materials used in teaching instrument classes in the elementary and secondary schools. 2 hrs. act. One unit each. May be repeated for credit.

**5210. Applied Music (piano)****5211. Applied Music (organ)****5220. Applied Music (voice)**

**5230. Applied Music (string)**  
**5240. Applied Music (woodwind)**  
**5250. Applied Music (brass)**  
**5260. Applied Music (percussion)**

Individual advanced instruction for music majors and minors in voice, piano, organ, and on all orchestral and band instruments. May be repeated for credit. One unit.

#### D. Music Performance Activities

##### **3510. Chorus**

Performance of materials representing varied styles and periods of choral literature. May be repeated for credit. One unit.

##### **3520. Orchestra**

Open to college students and to qualified adults in the community. May be repeated for credit. One unit.

##### **3530. Band**

Open to college students and to qualified adults in the community. May be repeated for credit. One unit.

##### **3540. Vocal Ensemble**

Small ensemble experience, open to college students and to qualified adults in the community. May be repeated for credit. One unit.

##### **3545. Instrumental Ensemble**

Small ensemble experience, open to college students and to qualified adults in the community. May be repeated for credit. One unit.

#### E. Music Education

##### **3330. Music in the Elementary School**

Aims, methods, and organization of materials for elementary classroom music with application to the adopted state music texts. Prerequisites: Music 1008 or equivalent competency as determined by Music Department. 2 hrs. lect., 2 hrs. act. Three units.

##### **3391, 3392. Conducting**

Techniques of conducting, score reading, interpretation, and rehearsing, gained through observation and laboratory experience. Music 3391: Choral emphasis; Music 3392: Instrumental emphasis. Prerequisite: upper division standing. Music 3391 must precede Music 3392. One hr. lect., 4 hrs. act. Three units each.

##### **3580. Music Performance Laboratory**

Performance through minor instruments and voice of music suitable for use in school. Opportunity for student conducting. Minimum of 3 quarters required of music majors following completion of conducting and basic instrument courses. One unit credit following completion of 3 quarters work.

##### **4330. Music in the Secondary School**

Place and function of music in grades 7 through 12 with emphasis on general music, choral and instrumental classes; aims, methods, materials, and A-V techniques. 3 hrs. lect., 2 hrs. act. Prerequisite: Consent of instructor. Four units.

##### **4360. General Music Methods and Materials**

Exploring methods and planning activities and projects for the general music curriculum in the junior and senior high schools. Three units.

##### **5300. Seminar in Music Education**

Current issues and problems in the teaching of public school music, instrumental, vocal, and administration. Prerequisite: Graduate standing in music or consent of instructor. Three units.

##### **5310. Seminar in Literature for Group Performance**

A survey of music available for performance at various levels of difficulty with emphasis upon its use in teaching for understanding of music theory, style, and form. Prerequisite: Graduate standing in music or consent of instructor. Three units.

##### **5320. Seminar in Choral Literature**

Designed for the advanced student of choral literature. Particular emphasis given to the study of the best of representative choral works of various periods and styles, utilizing the student in the role of both conductor and performer. Prerequisite: Graduate standing in music or consent of instructor. Three units.

##### **5370. Choral Techniques and Materials**

Technique involved in directing and rehearsing choral ensembles and participation in study and performance of new choral materials. Prerequisite: Mus. 3391 or 3392. Three units.

#### Miscellaneous Courses

##### **5900. Individual Study**

One-four units.

##### **5901. Directed Group Studies**

One-five units.

#### SPEECH-DRAMA

##### **1001, 1002. Oral and Written Expression, I-II**

A theory and skills course covering all aspects of rhetoric, with special attention to oral communication, and work in written expression. Special emphasis is on research, organization, clarity, integrity, and delivery. Three units each term.

##### **1003. Fundamentals of Speech**

A general survey of the field of speech and drama, with introductory units in voice and diction, theater, interpretation, and public speaking. Prerequisite to all Speech and Drama courses. Laboratory required for students with special speech problems. Three units.

##### **1010. Introduction to the Theater**

A survey of the world of the drama, with units in stagecraft, production, selection, acting, etc. A required introduction to the field for majors, a survey-appreciation course for others. Can be used to fulfill the Creative Arts (drama) G.E. requirement. Five units.

##### **2012. Acting**

Techniques of performance in relation to historical modes of production. Play analysis in relation to character, vocal method, body movement, dance. Four units.

##### **2310. Interpretative Reading**

A fundamental course devoted to theory, methods, and practice of oral communication of different types of literature. Four units.

##### **2411. Argumentation and Debate**

A course stressing those elements of logic and rhetoric making up responsible argumentative discourse. Practice in parliamentary, legislative, and forensic debating technique. Five units.

##### **3012. Advanced Acting**

Creative character analysis and portrayal. Use of short plays and scenes to teach advanced techniques in acting. Prerequisite: Speech-Drama 2012. Four units.

##### **3210. Mass Media of Communication**

Importance of periodicals and newspapers, motion pictures, radio, and television. Comparative analysis and evaluation. Development of criteria for responsible judgments. Four units.

##### **3310. Introduction to Radio and Television**

A course designed to improve understanding of the medium, studying programming, elements of production, business management, aesthetics, history. Four units.

##### **3412. Business and Professional Speech**

A course designed to meet the needs of business management. Units in explanations, sales and policy speaking, reading aloud, and conference work. Four units.

**3510. Public and Group Discussion**

Principles and methods of public and group discussion in problem solving and learning situations. Development of individual skills in discussion preparation, participation, and leadership through practical application. Five units.

**3512. Development of Dramatic Art**

Historic development of the theater from the Greek period until the present time, including study of representative plays, physical theater, and production practices for each period. Five units.

**3650. Creative Dramatics**

Theory and techniques for developing the creative capacities of children through improvisations of stories; participation and leadership in creative dramatics provided by means of a creative dramatics class with children. 2 hrs. lect., 2 hrs. act. Three units.

**4050. Trends in Modern Theater**

Lecture and discussion of contemporary drama on the stage, in motion pictures, and television. Study and analysis of current dramatic activity in the Bay Area. Field trips to current dramatic events and production centers. Fulfils Creative Arts general education requirement. Three units.

**4110. Fundamentals of Play Production**

Analysis of dramatic productions. Attention to the physical theater and its equipment, stage scenery; properties; stage lighting and sound; organization and design of stage productions. 3 hrs. lect., 6 hrs. lab. Five units.

**4180. Rehearsal and Performance**

Activity course for students participating in acting, staging, and other phases of production of college-theater performances. Admission by consent of instructor. One-three units.

**4350. Advanced Public Speaking**

Principles of public speaking and the development and presentation of talks designed to achieve specific purposes. May fulfill teaching credential speech requirement. Four units.

**4355. Teaching of Speech and Dramatics**

To develop skills in both curricular and extra-curricular uses and activities in choral reading, creative and formal dramatics, interpretative reading, public speaking, discussion and debate, and informal speech activities as tools for the speech teacher. AV techniques. Prerequisite: Consent of instructor. Four units.

**4410. Study of Great Speeches**

A study of the great American public addresses of all types, and of the speakers who delivered them. Emphasizes elements of rhetoric of use to the student speaker. Five units.

**4650. Children's Theater**

Theory and techniques of selecting, directing, and producing plays by and for children. Opportunity for working with a children's play to be presented for a child audience. 2 hrs. lect., 2 hrs. act. Three units.

**5900. Individual Study**

Two-five units.

**5901. Directed Group Study**

Two-five units.

The following English courses carry credit toward the Speech and Drama major:

Eng. 3250—Introduction to Shakespeare

Eng. 3251—Shakespeare's Comedies and History Plays

Eng. 3252—Shakespeare's Tragedies

Eng. 3800, 1, 2—History of the Drama (I) (II) (III)

Eng. 4060—Introduction to Linguistics

**DIVISION OF EDUCATION****Education, Physical Education, Health Education, Recreation**

Professors Hall (Head), Burnett, Edmison, Lawrence, Lepore, Marsh, Peters, Ruseitka, Shriner, Schunhoff, White, Vandenburg (Chairman, Department of Health, and Physical Education); Associate Professors Carlson, Eboch, McHugh, Seavey, Tappin; Assistant Professors Arveson, Blank, Davies, DeSoto, Forbes, Gillin, Groelle, Hendrickson, Jackson, Lindsey, M. Martin, R. Martin, Niepoth (Coordinator, Recreation Curriculum), Olavarri, Roossinck, Sabath, Warnken, Weatherbe, Williams, Worland, Yeager, Zeitlin; Instructor Williamson.

**CURRICULA OFFERED****Baccalaureate Degree**

Elementary Education (B.S. with general elementary credential)

Physical Education (B.S.)

Recreation (B.S.)

Minor—Physical Education

**Nondegree Credential Programs**

General elementary credential program for holders of baccalaureate degree.

Courses leading to the kindergarten-primary and the junior high school credentials.

Courses leading to the general secondary or general junior high school credential with B.A. or B.S. degree and with majors in:

Art	Music
Biological Science	Physical Education
Business Education	Physical Science
English	Spanish
Language Arts	Speech
Mathematics	Social Science

Courses applicable to special secondary credentials in:

Art
Business Education
Music

**Graduate courses applicable to the following credentials:**

Administration

General Pupil Personnel Services

Supervision

**Health Education Courses****PURPOSES**

The Division of Education is primarily concerned with the professional education of teachers and recreation leaders at the undergraduate and graduate levels. Programs prepare for elementary school teaching, for secondary school teaching, and for recreation leadership. Courses are offered that are applicable to administration and supervision credentials. Also offered are courses for in-service school personnel and other qualified individuals.

Preparatory programs aim at specific, practical competence in the field, firmly rooted in fundamental understanding of children, youth, and school communities, and of education in the American democratic society. The professional programs are interdivisional in nature and are based on general education in the arts, sciences, humanities, and mathematics. Credential programs provide public school laboratory experiences within each major phase of professional education.

## Revision of Public School Service Credentials Under Licensing of Certified Personnel Law of 1961

New requirements for the several credential programs offered by Alameda County State College will be published separately at a later date following adoption of the revised code requirements by the State Board of Education (Title 5, Administrative Code).

According to law, the new requirements will become operational July 1, 1963. Candidates enrolling in credential programs after July 1, 1963 will meet the new requirements. Qualified candidates enrolled in credential programs prior to July 1, 1963 have until September 1, 1966 to complete requirements under the "old" regulations.

### BACHELOR OF SCIENCE DEGREE IN ELEMENTARY EDUCATION

Students planning to obtain the bachelor of science degree and a general elementary credential will be granted the bachelor's degree with a major in education at the same time they complete the requirements for the credential. No degree with a major in elementary education may be granted unless the candidate completes at the same time requirements for the elementary teaching credential. (Foreign students may request conditional waivers.)

Students who plan to enroll in teacher-education programs are encouraged to acquire experience with children and youth by participating in community agencies, in youth-serving organizations, or in camp counseling during lower division.

#### Lower-Division Requirements

The general elementary education candidate should complete the following lower-division courses as well as general education requirements:

	Units
Fundamentals of Music	3-6
Art (color, design, appreciation) <sup>1</sup>	3-6
Health and Physical Education <sup>1</sup>	3-5
Geography (to include physical and cultural) <sup>1</sup>	3-6
Speech	3
General Education Mathematics	4-5
Nature Study <sup>1</sup>	3-5
Introduction to Education (recommended)	3
	25-39

#### Upper-Division Requirements

Ed. 3000. Child, Youth, and School <sup>2</sup>	7
Math. 5020. Content of Elementary School Mathematics <sup>3</sup>	3
Ed. 3100. Psychology in Education <sup>4</sup>	5
Sci. Ed. 4020. Science in the Elementary School	3
Math. Ed. 4020. Teaching Mathematics in Elementary schools	3
P. E. 3200. Health and Physical Education	4
Mus. 3330. Music in the Elementary School	3
Ed. 3200. Elementary Curriculum and Methods <sup>4</sup>	10
Art 3320. Arts and Crafts in the Elementary School	3
Ed. 4100. Evaluation in Education	4
Ed. 4250, 4264. Participation and Audio-Visual Education <sup>4</sup>	5
Ed. 4600, 4601. Student Teaching in Elementary Schools and Seminar	15
	65

<sup>1</sup> May be used to satisfy general education requirement.

<sup>2</sup> Courses accompanied by school and youth-group experiences.

<sup>3</sup> Suggested for students who satisfy the mathematics general education requirement with a college mathematics course other than Concepts of Mathematics, e. g., college algebra.

<sup>4</sup> Courses accompanied by public-school experience.

## General Elementary Credential Program for Holders of a Baccalaureate Degree

Students who possess a baccalaureate degree from an accredited college and who are seeking an elementary credential on the recommendation of Alameda County State College, and who intend to do their student teaching under the supervision of the college, must complete a minimum of 27 units at this college. By proper planning a graduate student with no work in professional education may complete all requirements in four quarters. He should plan his program carefully with his adviser. It is recommended that the program be started in summer session and be completed the following spring quarter.

Before students are admitted to the four-quarter general elementary credential program, they must complete an application form and be interviewed by a member of the education faculty. The student's transcript must show appropriate pre-baccalaureate work in music, art, mathematics, physical education, science, and social science.

Professional Education Program Requirements	Units
Ed. 3000. Child, Youth and School	7
Ed. 3100, 3161. Psychology in Education	5
Ed. 3200. Elementary School Curriculum and Methods	10
Ed. 4250, 4264. Participation and Audio-Visual Education	5
Ed. 4600. Student Teaching in the Elementary School	15
Art 3320. Arts and Crafts in the Elementary School	3
Mus. Ed. 3330. Elementary School Music	3
P.E. 3200. Health and Physical Education	4
Math. Ed. 4020. Mathematics in Elementary Schools	3
Sci. Ed. 4020. Science in the Elementary School	3
Courses selected with adviser to fill in areas of subject-matter deficiencies	10
	68

### SUGGESTED GENERAL ELEMENTARY CREDENTIAL PROGRAM

FRESHMAN YEAR	Units
General Education math requirement	4-5
Phys. Sci. 1340. Principles of Physical Science	5
Mus. 1008. Basic Musicianship	3
Eng. 1001-2. Exposition and Rhetoric or Sp. 1001-2. Oral and Written Expression	(3-3)
H. & P.E. 1100. Health and Physical Activity	3
P. E. 1011. Beginning Activity	½-½
Sp. 1003. Fundamentals of Speech	3
G.E. Requirements and/or Electives (See section on requirements for graduation)	21-22
	48

SOPHOMORE YEAR	Units
Biol. 1000. Principles of Biology	5
P. E. 1011. Intermediate Activity	½-½
Psych. 2000. General Psychology I	4
Geog. 3020. World Environments	4
Biol. 2391. Nature Study	4
G. E. Requirements and/or Electives	30
	48

## SUGGESTED GENERAL ELEMENTARY CREDENTIAL PROGRAM

JUNIOR YEAR		
	Fall	Units
Ed. 3000 Series—Child, Youth, School (Includes Ed. 3010, 3020, 3060, 3061)	7	
Math Ed. 4020 (3)	3	
Electives	6	
		16
Winter		
Ed. 3100. Ed. Psych.	3	
Ed. 3161. Public School Lab. II	2	
J. S. 3801. Junior Symposium	3	
Electives (Upper Division Science)	4-8	
		16
Spring		
Ed. 3200 Series—Elementary Curriculum (Includes Ed. 3210, 3220, 3230, 3263)	10	
Math. Ed. 4020. Math. in Elem. School	3	
Electives	4	
		17
SENIOR YEAR		
	Fall	Units
P.E. 3200. Health & P.E.	4	
Music Ed. 3330. Music in Elem. School	3	
S. S. 4801. Senior Symposium	3	
Electives (Upper Division Humanities)	3-6	
		16
Winter		
Ed. 4100. Evaluation in Education	4	
Ed. 4250. Participation and A-V	2	
Ed. 4264. Public School Lab. IV	3	
Art Ed. 3320. Arts and Crafts Elem. Sch.	3	
Sci. Ed. 4020. Sci. in Elem. School	3	
		15
Spring		
Ed. 4600, 4601. Student Teaching and Seminar	15	
		15

## KINDERGARTEN-PRIMARY CREDENTIAL

The kindergarten-primary credential authorizes the holder to teach in any kindergarten and in grades one, two, and three of any elementary school.

Students who plan to seek this credential may take course work at Alameda County State College to be applied toward fulfillment of state requirements for the credential. Students must make direct application to the California State Department of Education. Those interested in working toward this credential should consult an adviser for program planning.

The lower-division and upper-division requirements for the kindergarten-primary credential are the same as those listed for the general elementary credential, except that students must take the kindergarten-primary sections of the Education 3200 series.

## JUNIOR HIGH SCHOOL CREDENTIAL

The junior high school credential permits the holder to teach in grades seven, eight, and nine of any public elementary or secondary school.

Course work leading to this credential may be taken at the College. Students must make direct application to the State Credential Office. Those interested in working toward this credential should consult an adviser who will assist in planning a program.

## GENERAL SECONDARY CREDENTIAL

Students who plan to seek the general secondary credential may take course work at Alameda County State College to be applied toward fulfillment of state requirements for the credential. Students must make direct application to the California State Department of Education.

The secondary program is a five-year course of study requiring 45-quarter units after the granting of the baccalaureate degree. Of these 45 post-graduate units, nine must be taken in subjects commonly taught in California secondary schools, and nine must be taken in professional education.

All secondary programs are offered jointly by the division of education and the other divisions of the College. For any general secondary credential the student must complete a teaching major and teaching minor and must hold a baccalaureate degree granted by an accredited college and must include 40 units of general education (see adviser for distribution). The College offers teaching majors and minors in nine fields: Social science; life sciences and general science; physical science and general science; English; language arts; mathematics; art; music; physical education and business education. In addition, the College offers teaching minors in speech and in health. (See subject departments for specific course requirements for each teaching major and minor offered.) Students must consult major and minor department advisers for the planning of major and minor programs.

## Lower-Division Requirements

Students who seek a secondary credential in addition to the baccalaureate degree should complete as many of the major and minor subject-matter requirements as possible over and above the general education requirements prescribed for the degree.

## Upper-Division Requirements

Undergraduate students seeking a general secondary credential are encouraged to take Ed. 3000 series and Ed. 3100 as juniors or seniors, and to reserve for graduate study the completion of the balance of the professional education requirements. With the exception of the nine units in teaching subject matter required to be taken in graduate standing, students are advised to complete as undergraduates their teaching major and minor requirements.

	Units
Professional Education Requirements	
Ed. 3000 Series. Child, Youth, and School <sup>1</sup>	7
Ed. 3100, 3161. Psychology in Education <sup>1</sup>	5
Ed. 4100. Evaluation in Education	4
Ed. 4500. Secondary Education: Curriculum, Counseling & Guidance <sup>1</sup>	6
Curriculum and Special Methods (Offered by subject-matter major and minor departments; includes audio-visual instruction and materials preparation appropriate to the fields)	6-8
Ed. 4650. Student Teaching	15
Total	43-45

<sup>1</sup> Courses accompanied by public-school and youth-group experiences.

### SPECIAL SECONDARY CREDENTIAL

The Special Secondary Credential entitles the holder to teach the subject field for which it is issued in elementary and secondary schools. Alameda County State College offers courses leading to special secondary credential in art, business education, music and physical education. It may be obtained upon direct application to the State. Students should see subject departments for specific course requirements.

### ADMISSION TO TEACHER EDUCATION

The selection and admission of students to candidacy in teacher education conforms to requirements established by the State Board of Education (Title V, California Administrative Code) and is a function of the Education Division. The standards to be met by candidates are as follows:

(1) Demonstrate adequate intellectual ability; (2) perform scholastically at a level of "C" (2.0) or higher prior to candidacy and maintain a "C" average during each quarter of candidacy in both over-all college and professional work. (3) complete prerequisites to professional preparation; (4) pass all competency tests required by the college, or complete competency courses with a "C" grade or better; (5) evidence of breadth of aptitudes and personal characteristics appropriate to teaching as a profession; (6) rate satisfactorily on a health examination; (7) demonstrate satisfactory performance in field laboratory work; and (8) complete all general education requirements prior to or concurrent with enrollment in Ed. 4250 (elementary candidates).

In addition, to be recommended for a credential, the candidate must satisfy the following statutory requirements: United States Constitution (when not part of a degree program), audio-visual education, and naturalized or native-born citizenship or declaration of intention to become a citizen of the United States. Individuals who plan to take courses leading to the general secondary credential must complete a total of 45-quarter units (nine in major or minor subjects, and nine in professional education) of post-graduate work. Prospective candidates and candidates who do not meet these standards are subject to denial of candidacy.

Appraisal of candidates is college-wide; the principal settings are in the college classroom and in the field laboratory experience. Although education advisers recommend individuals to candidacy, approval is made only by the Credentials Board. Preliminary approval normally is made prior to enrollment in Ed. 3200 series for elementary credential candidates and prior to Ed. 4500 for secondary candidates. Full candidacy is gained when candidate is approved for student teaching.

Application forms for admission to credential programs and teaching are available at the office of Credentials Secretary of the Education Division.

Students are responsible for observing the deadlines for filing applications.

For detailed information about steps in candidacy, consult an education adviser.

### SCHOOL DISTRICTS PARTICIPATING IN THE TEACHER EDUCATION PROGRAM

The in-school field work feature of the education of teachers, supervisors, and administrators is made possible through the cooperation of a number of public school districts in the service area of the college. The assisting school districts as of the fall quarter, 1962, include:

Castro Valley Elementary School District  
Decoto Elementary School District  
Hayward Elementary School District  
Hayward Union High School District

La Vista Elementary School District  
Mt. Diablo Unified School District  
Mt. Eden Elementary School District  
Newark Elementary School District  
San Leandro Unified School District  
San Lorenzo Elementary School District

### ADMINISTRATION AND SUPERVISION

The College offers courses which, by direct application, may be used to meet state requirements for elementary and secondary administration and supervision credentials. Students who plan to enroll in any of the courses leading to these credentials must meet with an adviser for an evaluation of work previously taken and for the planning of additional courses. Information about other requirements may be obtained from an adviser. Enrollment in Ed. 6661, 6662, 6663 require approval of the department.

Indicated below are the courses offered by the College which are designed to meet specific state requirements for the supervision, elementary and secondary administration credentials.

#### *The Supervision Credential*

**Prerequisites:** A bachelor's degree and five years of verified broad, public school teaching experience.

Philosophy, methods and materials in basic credential field.

Twelve units of work approved by adviser.

Techniques of supervision.

Ed. 6520—Public School Supervision (4)

The dynamics of human behavior.

Ed. 5060—Human Relations in Teaching (4)

Group processes.

Ed. 5060—Human Relations in Teaching (4) and

Ed. 6520—Public School Supervision (4)

The skills of communication.

Ed. 6100—Advanced Curriculum Development (4) and

Ed. 6520—Public School Supervision (4)

Curriculum development

Ed. 5200—Curriculum Development and Evaluation (4) and

Ed. 6100—Advanced Curriculum Development (4)

Community activities, including field practice

Ed. 6661 and 6663

Field Work I: Elementary Administration and Supervision (3-3)

or

Field Work II: Secondary Administration and Supervision (3-3)

Aspects of school plant and equipment.

Ed. 6100—Advanced Curriculum Development (4) or

\* Ed. 6610—School Housing (3)

School finance and school law.

Ed. 6600—Aspects of School Finance and Business Administration (4) and

Ed. 6100—Advanced Curriculum Development (4) or

Ed. 6600—Aspects of School Finance and Business Administration (4) and

\* Ed. 5640—Legal Aspects of Education (4)

Responsibilities and relationships of public school personnel and governing boards.

Ed. 5200—Curriculum Development and Evaluation (4) and

Ed. 6100—Advanced Curriculum Development (4) or

\* Ed. 5600—Federal, State, County and Local School Administration (4)

\* Students who have met requirements partially elsewhere may, by advisement, use a course with an asterisk to meet the indicated requirement.

**Administration Credentials****Elementary School Administration**

**Prerequisites:** A general elementary credential and two years of successful elementary teaching experience.

The scope, function, and place of public education.

Ed. 3010—Principles, Scope, and Function of Education (2)

or

Ed. 5010—Contemporary American Education (4)

Principles, practices of curriculum construction and evaluation.

Ed. 5200—Curriculum Development and Evaluation (4) or

Ed. 6100—Advanced Curriculum Development (4)

Measurement.

Ed. 4100—Evaluation in Education (4)

Pupil personnel, counseling and guidance.

Ed. 5750—Counseling and Guidance in Public Schools (4)

Federal, state, county and city organization.

Ed. 5600—Federal, State, County, and Local School Administration (4)

Ed. 5640—Legal Aspects of Education (4)

Ed. 6600—Aspects of School Finance and Business Administration (4)

Ed. 6610—Schoolhousing (3)

Organization and administration of elementary schools.

Ed. 6500—Organization and Administration of Elementary Schools (4)

Supervision of instruction and curriculum.

Ed. 6520—Public School Supervision (4)

Directed field work.

Ed. 6661, 6662—Field Work I: Elementary Administration and Supervision (3-3)

**Secondary School Administration**

The courses which are designed to meet the requirements for the Secondary School Administration Credential are the same as those indicated for the Elementary School Administration Credential except for the substitution of:

Ed. 6501—Organization and Administration of Secondary Schools for Ed. 6500—Organization and Administration of Elementary Schools.

and

Ed. 6661, 6662—Field Work II: Secondary Administration and Supervision for

Ed. 6661, 6662—Field Work I: Elementary Administration and Supervision.

**GENERAL PUPIL PERSONNEL SERVICES CREDENTIAL WITH  
SPECIALIZATION IN GUIDANCE AND COUNSELING**

The College offers courses which, by direct application, may be used to meet state requirements for the General Pupil Personnel Services Credential with a specialization in pupil counseling. Students who plan to enroll in any of the courses leading to the General Pupil Personnel Credential are encouraged to confer with an adviser. Students who expect to take 6000 level courses at this college must meet with an adviser for an evaluation of courses taken previously and for the planning of additional courses. Students should check course descriptions in Education and Psychology for additional specific course prerequisites. Three courses, Child Development, Educational Psychology, and General Psychology, are basic requirements to all the courses offered by the division. All courses with 6000 numbers require departmental approval before a student can enroll in them.

Requirements established by the state and the courses offered by the college which are designed to meet the specific state requirements appear below. To complete the total of 30 semester hours required for the credential, and to meet program requirements of the college, additional course work is determined in consultation with a college adviser.

**Prerequisites:** A bachelor's degree from an accredited institution and two years of successful teaching experience.

**1. The general area**

Counseling procedures and techniques, including interviewing.

Ed. 5750—Counseling and Guidance in Public Schools (4)

Mental hygiene.

Psy. 5610—Psychology of Personality (4)

Case study and case conference techniques.

Ed. 6720—Seminar in Personal Guidance (3)

Psychology and education of exceptional children.

Ed. 5021—Education and Psychology of the Exceptional Child (3)

The dynamics of family, pupil-teacher, teacher-parent, and pupil-pupil relationships

and

The methods and materials of family counseling.

Ed. 5069—Home and School (3)

The use of community resources.

Ed. 5670—Organization and Administration of Pupil Personnel Services (4)

Laws relating to children and child welfare.

Ed. 5641—School and Child Welfare (3)

Organization, administration, and evaluation of pupil personnel service programs.

Ed. 5670—Organization and Administration of Pupil Personnel Services (4)

**2. The specialized area—Pupil Counseling**

Educational, vocational, and personal guidance.

Ed. 6710—Seminar in Educational and Vocational Guidance (3)

Ed. 6720—Seminar in Personal Counseling (3)

Advance training in procedures of counseling including supervised field experience.

Ed. 6760, 6761—Field Work in Pupil Personnel Services (3-3)

**DESCRIPTION OF COURSES**

**EDUCATION**

The general prerequisite for all professional courses is upper-division or graduate standing.

**3000 Series—Child, Youth, School\***

**3010. Principles, Scope, and Function of Education**

The modern public elementary and secondary school as a community agency; history and development; objectives, operation, scope, and functions. Two units.

**3020. Growth and Development of Child and Youth**

Human growth and development; psychology of child and youth with emphasis on school-related problems. Three units.

**3060. Public School Laboratory I**

Supervised public school laboratory experience, 3 hours. One unit.

**3061. Youth Agency Laboratory**

Supervised youth agency experience, 3 hours. One unit.

**3100. Educational Psychology**

Research and theory in the teaching-learning process; application to school practices; mental hygiene; individual differences in school behavior. Teacher-pupil relationships. Prerequisite: Basic psychology, Ed. 3000 series, concurrent registration in Ed. 3161. Three units.

**3161. Public School Laboratory II**

Supervised public school laboratory experience, 6 hours. Two units.

**3200 Series—Elementary School and Kindergarten-Primary****Curriculum and Methods \***

Prerequisites: Ed. 3000 series, Ed. 3100 series, or equivalent.

**3210. Language Arts in the Elementary School****3211. Language Arts in the Kindergarten-Primary School**

Curriculum, methods, and resource materials in speaking, listening, spelling, writing, and children's literature. 2 hrs. lect., 2 hrs. act. Three units.

**3220. Social Studies in the Elementary School****3221. Social Studies in the Kindergarten-Primary School**

Curriculum, resource materials, and methods in scope and sequence of social studies in the elementary school. 2 hrs. lect., 2 hrs. act. Three units.

**3230. Reading in the Elementary School****3231. Reading in the Kindergarten-Primary School**

Materials and methods of reading development; emphasis on group and individual techniques. 2 hrs. lect., 2 hrs. act. Three units.

**3263. Public School Laboratory III**

Three hours of supervised participation laboratory in public schools. One unit.

**4100. Evaluation in Education**

Principles, techniques, and current practices of evaluation in school; relationships to curriculum; current practices in tests and measurements. Lect. 3 hrs.; lab. 3 hrs. Prerequisite: Ed. 3100 or equivalent. Four units.

**4250. Participation and Audio-Visual Education**

Selection, evaluation, preparation, and use of audio-visual materials. 1 hr. lect., 4 hrs. act. Prerequisites: Ed. 3200 series or equivalent. (Concurrent registration in Ed. 4264.) Two units.

**4251. Audio-Visual Methods and Materials**

Selection, utilization and evaluation of audio-visual methods and materials in the teaching-learning process; operation of audio-visual equipment. (Fulfills credential requirement. No credit for students with prior audio-visual course.) Prerequisite: Teaching experience or permission of instructor. 1 hr. lect., 4 hrs. act. Three units.

**4252. Preparation of Instructional Materials**

Laboratory experience in the preparation of a variety of visual materials. Techniques of illustration, lettering, mounting, coloring, and duplication of graphic materials used to produce pictures, maps, charts, posters, slides, and displays. Prerequisite: Ed. 4251 or equivalent and teaching experience. Lect. 2 hrs., act. 2 hrs. Three units.

**4264. Public School Laboratory IV**

Public school participation preceding student teaching and weekly on-campus group conference; includes use of A-V materials and resources. Lab. 9 hrs. Three units.

**4500. Secondary Education: Curriculum, Counseling, and Guidance**

Scope and sequence of secondary school curriculum; audio-visual equipment operation and material preparation; counseling and guidance; use of cumulative folder; roles of the teacher, student, parent, administrator, supervisor, and counselor. Prerequisite: Ed. 3000 series and Ed. 3100, or equivalent and preliminary candidacy. (Concurrent registration in Ed. 4560.) 5 hrs. lect. Five units.

**4560. Public School Laboratory (Secondary)**

Supervised public school laboratory experience, 3 hrs. One unit.

**4600. Student Teaching in the Elementary Schools**

Full-time student teaching under the supervision of a public-school teacher and a member of the college faculty in conjunction with a student-teaching seminar. Prerequisites: Full candidacy in elementary-education program and approval of Committee on Credentials. (Concurrent registration in Ed. 4601) Thirteen units.

\* Concurrent registration in an entire series required unless special permission is granted.

**4601. Student Teaching Seminar—Elementary Schools**

Weekly conference period required as corequisite with student teaching—Ed. 4600. Two units.

**4650. Student Teaching in the Secondary Schools**

Full-time student teaching under the supervision of a public-school teacher and a member of the college faculty in conjunction with a student-teaching seminar. Prerequisite: Full candidacy in secondary-education program and approval of Committee on Credentials. (Concurrent registration in Ed. 4651) Thirteen units.

**4651. Student Teaching Seminar—Secondary Schools**

Weekly conference period required as corequisite with student teaching—Ed. 4650. Two units.

**4900. Individual Study**

Two-four units.

**5000. Philosophy of Education**

Foundational course in philosophy of education. An examination of philosophical issues in contemporary education, aimed at encouraging individual development of a coherent, consistent philosophy by which educational practice may be guided. Four units.

**5010. Contemporary American Education**

A critical analysis of relationships between major social and historical developments and American education, emphasizing goals, purposes, scope and functioning of elementary and secondary education. (Meets credential requirements in principles of education.) Prerequisites: Ed. 3020 and Ed. 3060, or permission of instructor. Four units.

**5021. Education and Psychology of the Exceptional Child**

Characteristics of children who deviate physically, mentally, socially or psychologically from normal children. Methods of identification and suggested educational adjustments. Prerequisite: Teaching credential or consent of instructor. Three units.

**5040. Teaching the Adolescent**

Characteristics of adolescents; influences affecting adolescent behavior; analysis of current forces upon junior and senior high school students; application to school procedures. (Meets secondary-credential requirements for growth and development.) Prerequisite: Basic psychology course. Three units.

**5060. Human Relations in Teaching**

Teaching procedures and content emphasizing human relations in school setting. Analysis of effects of roles, statuses, and purposes upon the individual. Understanding of group processes. Prerequisite: Consent of instructor. Four units.

**5069. Home and School**

Dynamics of family, pupil-teacher, teacher-parent, and pupil-pupil relationships including methods and materials of family counseling, working with parent groups, parent conferences, home visits and problems of home and school. Prerequisite: Teaching credential or consent of instructor. Lect., 3 hrs. Three units.

**5200. Curriculum Development**

Study of principles, procedures, and issues in public elementary and secondary school curriculum development, improvement and evaluation. (Meets credential requirements for supervision and administration.) Prerequisite: Teaching experience, regular credential, consent of instructor. Four units.

**5210. Improving Language Arts in the Elementary Schools**

Research in psychology and methods of the teaching-learning process in speaking, listening, spelling, and writing; relation to school curriculum materials and resources. Prerequisite: Teaching experience, Ed. 3200 series or equivalent, or permission of instructor. Three units.

**5220. Improving Social Studies in Elementary Schools**

Study of problems in teaching social studies in elementary schools. Development of plans and materials. Review of state framework for social studies. Prerequisite: Teaching experience, Ed. 3200 series, or equivalent, or permission of instructor. Three units.

**5230. Improving Reading in the Elementary Schools**

Research in psychology and methods of the teaching-learning process in reading; pre-diagnosis and evaluation; relation to school curriculum materials and resources. Prerequisite: Teaching experience, Ed. 3200 series or equivalent, or permission of the instructor. Three units.

**5231. Analysis and Correction of Reading Difficulties**

Methods, techniques and research for analysis of reading problems. Use and interpretation of informal and formal tests. Group and individual techniques, case studies, sample lessons and demonstrations of remedial methods. Prerequisite: Teaching experience, Ed. 5230 or consent of instructor. Three units.

**5232. Problems in Reading**

Identification of special problems in teaching and supervising beginning reading. Application of current research, experiments, and practices to individual classrooms. Prerequisite: Ed. 3230 or equivalent; teaching experience. Enrollment may be limited to teacher-principal or teacher-supervisor teams. Three units.

**5240. Children's Literature**

Examination of values in folk tales, classical myths, and legends. Major attention to body of contemporary writing especially created to satisfy interests and needs of children. Criteria for continuing selection and appreciation of children's literature emphasized. Prerequisite: Consent of instructor. Three units.

**5241. Literature for Adolescents**

Examination of the values to be found in folk tales, classical myths and legends, as well as the body of contemporary writing, especially created to satisfy interests and needs of adolescents. Three units.

**5600. Federal, State, County, and Local School Administration**

Relationship of local school district to county, state, and federal agencies. Legal, fiscal, organizational, and administrative bases. Leadership and the several publics. Personnel dynamics. Phenomenon of growth. (Meets credential requirements in administration.) Prerequisite: Teaching experience, regular credential, consent of instructor. Four units.

**5640. Legal Aspects of Education**

Consideration of the legal bases of federal, state, county and local administrative levels. Major legal provisions of the California Education Code and related sources respecting the administration of public schools. (Meets credential requirements for administration and supervision.) Prerequisites: Teaching experience, regular credential, consent of instructor. Four units.

**5641. School and Child Welfare**

Application of federal, state, and local laws relating to education, employment, health and welfare of school-age children. Problems of child welfare and attendance. Prerequisite: Teaching credential or consent of instructor. Three units.

**5670. Organization and Administration of Pupil Personnel Services**

A comprehensive study of pupil personnel services including community resources. Emphasis on the organization, administration, and evaluation of school services that further personal, educational and vocational goals of pupils. Prerequisites: Ed. 3000, 3100, 4100. Four units.

**5700. Teaching the Gifted**

Problems of curriculum, teaching-learning, and patterns of administration and organization of school programs for the gifted. Emphasis on methods, materials, and resources. Prerequisites: Teaching experience, or consent of instructor. Three units.

**5750. Counseling and Guidance in Public School**

Counseling procedures and techniques, including interviewing, child study, parent education. Emphasis given to functional use of cumulative folder data and forms. Roles of the teacher, parent, administrator, supervisor, counselor. Prerequisite: Teaching experience or consent of instructor. Four units.

**5900. Individual Study**

One—five units.

**6020. Research in Education**

Methods and procedures of research tools in education; sources and uses of data. Critical analysis of published research. Preparation of a research project to include references, rationale, and outline. Ed. 4100 and course in statistics recommended. Four units.

**6100. Advanced School Curriculum**

Organization of curriculum development programs; technical aspects of preparing curricula; review of pertinent research; evaluation of curriculum programs. Aspects of school housing, law, and public relations. (Meets credential requirements for supervision and administration.) For school curriculum personnel. Prerequisites: Teaching experience, regular credential. Ed. 5200 or consent of instructor. Four units.

**6500. Organization and Administration of Elementary Schools**

Administration, organization, and duties; includes teaching-learning process and related curriculum development. (Meets elementary school administration credential requirement.) Prerequisite: Teaching experience, regular credential, consent of instructor. Four units.

**6501. Organization and Administration of Secondary Schools**

Study and evaluation of modern developments in the organization and administration of secondary schools with emphasis on local district units. Principles and practices of administering and supervising staff, instruction, and non-instructional activities; relationships with other community agencies. Lect. 4 hrs. Four units.

**6510. Advanced Curriculum Development, Materials**

Development of curriculum resources, school and commercial sources, curriculum laboratory planning and utilization, relation to library service, duplication processes, editing procedures. District, county, state and college services. Prerequisites: Teaching experience, regular credential, Ed. 5200 or consent of instructor. Four units.

**6520. Public School Supervision**

Basic principles and techniques of public elementary and secondary school supervision and coordination; related aspects of curriculum development, teaching-learning process, and skills of communication. (Meets credential requirements for supervision and administration.) Prerequisites: Teaching experience, regular credential, consent of instructor. Four units.

**6600. Aspects of School Finance and Business Administration**

Principles, problems, and practices of educational finance and business management; state and local support; legal aspects of finance. Aspects of planning, financing, and constructing school buildings. (Meets credential requirements for administration and supervision.) Prerequisites: Teaching experience, regular credential, consent of instructor. Four units.

**6610. School Housing**

Study of the problems involved in planning, financing, and constructing school buildings. Surveys, population projections, site problems, educational specifications, equipment, care and maintenance, legal provisions. Includes case studies. Lect. 3 hrs. Three units.

**6661, 6662, 6663. Field Work I (Elementary): Field Work II (Secondary): Administration and Supervision**

Supervised participation in administration, supervision, and curriculum development at local school or district level. For administration credentials take Ed. 6661 and 6662; for supervision credential take Ed. 6661 and 6663. Prerequisite: Approval of department. Lab., 9 hrs. Three units.

**6710. Seminar in Educational and Vocational Guidance**

Advanced study of case data, current research, sources and uses of educational and vocational information as applied to school-age students. Prerequisite: Ed. 4100, Introductory Statistics, and approval of department. 3 hrs. lect. Three units.

**6720. Seminar in Personal Counseling**

Advanced course in case study, case conference techniques and personal guidance. Use of psychodiagnostic techniques; staff development. Prerequisites: Ed. 4100, Introductory Statistics, and approval of department. Lect., 3 hrs. Three units.

**6760, 6761. Field Work in Pupil Personnel Services**

Supervised field work in pupil personnel services in organized program for the various specializations for the pupil personnel services credential. Prerequisite: Approval of department. Lab., 9 hrs. Three-three units.

**6700. Advanced Education Psychology**

(See psychology for description.) Four units.

**6900. Individual Study**

Two-four units.

**6901. Group Study**

Two-four units.

## DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

The Department of Health and Physical Education offers course work enabling a student to obtain a baccalaureate major in physical education, a general secondary credential major and minor in physical education, and a minor in health science.

In addition, the department offers a wide selection of physical education activity courses open to all interested students and sponsors programs in intramural and intercollegiate athletics.

### General Education Requirement in Health and Physical Education

All students are required to complete a total of five units in health and physical education in the general education pattern. A student may elect Option I or Option II in fulfillment of this requirement.

**Option I**

	Units
P.E. 1100 Health and Physical Activity	3
P.E. 1010-2010 Required Activity Courses	2
	<hr/> 5

**Option II**

H. Ed. 1000 Concepts of Health	3
P.E. 1000 Fundamentals of Physical Activity	½
P.E. 1010-2010 Required Activity Courses	1½
	<hr/> 5

All entering freshmen must take Physical Education 1000 or Physical Education 1100, depending on the option chosen, during the first quarter in attendance. Students will be counseled during their first quarter concerning the completion of the general education requirement in health and physical education. The requirement should be completed by the end of the second year. No more than one physical education activity course per quarter will count toward the satisfaction of this requirement.

PHYSICAL EDUCATION MAJOR (B.S. DEGREE) <sup>1</sup>	Units
P.E. 3100—Scope and History	4
P.E. 3400—Kinesiology	4
P.E. 3410—Physiology of Activity	4
P.E. 3420—Analysis of Body Motion	4
P.E. 4100—Seminar in Principles and Program	4
P.E. 4600—Organization and Administration	4
	<hr/> 24
Selected Sports Skills and Techniques <sup>2</sup>	3
Professional Physical Education Electives	6
<i>Requirements from Related Fields</i>	
Anatomy and Physiology 3301	4
Anatomy and Physiology 3302	4
<i>Electives from Related Fields<sup>3</sup></i>	
Biol. 2500—Genetics	5
Stat. 1500—Statistics	4
Zool. 3600—General Embryology	5
Anthro. 3010—Social Anthropology	4
Psy. 2010—General Psychology II	4
Psy. 4300—Motivation	4
Psy. 5410—Behavior Pathology	4
Soc. 2010—Social Problems	4
Rec. 1000—Nature and Scope of Recreation	4
Rec. 3500—Recreation Program	6
H.Ed. 3600—School Health Programs	3
	<hr/> 15-20
	<hr/> 56-61

### Credential Requirements for Physical Education Major

	Units	
	Men	Women
P.E. 3100—Scope and History	4	4
P.E. 3200—Health and Physical Education	4	4
P.E. 3210—Theory of Interscholastic Football and Basketball	3	—
P.E. 3220—Theory of Interscholastic Baseball and Track	3	—
P.E. 3230—Theory of Aquatics and Gymnastics	2	2
P.E. 3240—Theory of Rhythms and Individual Sports	2	2
P.E. 3250—Theory of Combative and Team Sports	2	—
P.E. 3260—Theory of Modern Dance	—	3
P.E. 3270—Theory of Women's Team Sports	—	3
P.E. 3400—Kinesiology	4	4
P.E. 3410—Physiology of Activity	4	4
P.E. 3420—Analysis of Body Motion	4	4
P.E. 4100—Seminar in Principles and Program	4	4
P.E. 4200—Methods and Materials in Health and Physical Education	4	4
P.E. 4600—Organization and Administration of Physical Education	4	4
P.E. 5400—Rehabilitation of Athletic Injuries	3	—
P.E. 5500—Evaluation of Health and Physical Education	3	3
H.Ed. 3600—School Health Programs	3	3
Electives in Professional Physical Education	3	8
Electives in Recreation	3	3
	<hr/> 59	<hr/> 59

<sup>1</sup> Baccalaureate program in physical education is the same for men and women.

<sup>2</sup> An activity course will be required every quarter during the upper-division (junior and senior) years. No activity may be repeated. Activities will be selected in consultation with the adviser.

<sup>3</sup> Students will elect, in consultation with adviser, four courses from the approved list. No more than one course from a single area may be included.

In addition to the course work specified, all general secondary teaching candidates majoring in physical education must complete (a) a series of competency tests in a variety of physical education activities; (b) the requirements for admission to teacher education; (c) the upper-division professional courses in teacher education; and (d) the requirements for a minor.

#### Credential Requirements for a Physical Education Minor

	Units	Men	Women
P.E. 3100—Scope and History	4	4	
P.E. 3200—Health and Physical Education	4	4	
<i>Take either</i>			
P.E. 3210—Theory of Interscholastic Football and Basketball <i>or</i>	3	—	
P.E. 3220—Theory of Interscholastic Baseball and Track	3	—	
P.E. 3230—Theory of Aquatics and Gymnastics	2	2	
P.E. 3240—Theory of Rhythms and Individual Sports	2	2	
P.E. 3250—Theory of Combatives and Team Sports	2	—	
P.E. 3260—Theory and Techniques of Modern Dance	—	3	
P.E. 3270—Theory and Techniques of Women's Team Sports	—	3	
P.E. 3400—Kinesiology	4	4	
P.E. 4200—Methods and Materials in Health and Physical Education	4	4	
P.E. 4600—Organization and Administration of Physical Education	4	4	
<i>Take either</i>			
P.E. 5400—Rehabilitation of Athletic Injuries <i>or</i>	3	—	
P.E. 5500—Evaluation of Health and Physical Education	3	3	
	—	—	
	32	33	

In addition to the course work specified, all secondary teaching candidates minoring in physical education must complete (a) a series of competency tests in a variety of physical education activities; (b) the requirements for admission to teacher education; and (c) the upper-division professional courses in teacher education.

#### Recommended Program for the Physical Education Major

	Units	F	W	S
<i>First Year</i>				
Biol. 1000	5			
Eng. 1001 or Sp. 1001	3			
G.E. and/or electives	8			
P.E. 1000	½			
Zoo. 1001	3			
Eng. 1001 or Sp. 1001	3			
G.E. and/or electives	10			
P.E. 1010	½			
Zoo. 1002	3			
H.Ed. 1000	3			
G.E. and/or electives	9			
P.E. 1030	1			
<i>Second Year</i>				
Phys. Sci. 1340	5			
Psy. 2000	4			
G.E. and/or electives	7			
P.E. 2010	½			

	Units	F	W	S
A & P 3301	4			
G.E. and/or electives	12			
P.E. 2010	½			
A & P 3302	4			
Electives in assoc. fields	4			
G.E. and/or electives	7			
P.E. 2030	1			

#### Third Year

	F	W	S
P.E. 3100	4		
P.E. 3400	4		
Electives in assoc. fields	4		
Electives	3		
P.E. 3011	½		
P.E. 3410	4		
Symposium 3901	3		
Electives in assoc. fields	4		
Electives in P.E.	3		
P.E. 3030	1		
P.E. 3420	4		
Upper Div. G.E.	4		
Electives in assoc. fields	4		
Electives	3		
P.E. 3011	½		

#### Fourth Year

	F	W	S
Upper Div. G.E.	4		
Electives in P.E.	3		
Electives	8		
P.E. 4011	½		
P.E. 4100	4		
Symposium 4901	3		
Electives	8		
P.E. 4030	½		
P.E. 4600	4		
Electives	11		
P.E. 4012	½		

#### HEALTH EDUCATION

For details of health science minor, consult departmental adviser.

##### 1000. Concepts of Health

Analysis of the basic concepts and principles of individual health including the investigation and evaluation of contemporary health problems and information. Meets general education health education requirement. 3 hrs. lect. Three units.

##### 1100. Health and Physical Activity

Three units. (For description see P.E. 1100.)

##### 3600. School Health Programs

The health program in elementary and secondary schools including health services, environment, and instruction. 3 hrs. lect. Three units.

##### 4200. Methods and Materials in Health and Physical Education

Four units. (For description see P.E. 4200.)

**4500. Health Appraisal and Guidance**

Recognition and appraisal of illness or disability in the classroom situation, including handling of emergencies. 3 hrs. lect. Three units.

**4900. Individual Study**

Two-four units.

**PHYSICAL EDUCATION****1000. Fundamentals of Physical Activity**

Instruction in the fundamental physical skills, with emphasis on individual fitness and evaluation of skill achievement. 2 hrs. act. One-half unit.

**1010.<sup>1</sup> 2010.<sup>2</sup> 3010.<sup>3</sup> 4010.<sup>4</sup> Beginning Activity****1011.<sup>1</sup> 2011.<sup>2</sup> 3011.<sup>3</sup> 4011.<sup>4</sup> Intermediate Activity****1012.<sup>1</sup> 2012.<sup>2</sup> 3012.<sup>3</sup> 4012.<sup>4</sup> Advanced Activity**

Instruction in designated physical education activities on the beginning, intermediate and advanced levels. May be repeated for credit. 2 hrs. act. One-half unit.

Archery	Relaxation and Special Exercise
Baseball	Soccer
Basketball	Social Dance
Bowling	Tennis
Cross Country	Track and Field
Field Hockey	Tumbling and Trampoline
Folk and Square Dance	Volleyball
Golf	Weight Lifting and Conditioning
Gymnastics	Wrestling

**1020.<sup>1</sup> 2020.<sup>2</sup> 3020.<sup>3</sup> 4020.<sup>4</sup> Intercollegiate Activity**

Participation in the intercollegiate athletic program on the varsity, junior varsity or freshman level. One unit.

**1030.<sup>1</sup> 2030.<sup>2</sup> 3030.<sup>3</sup> 4030.<sup>4</sup> Activity Laboratory for Major and Minor Students**

Instruction in and practice of necessary skills prerequisite to certain professional courses. 3 hrs. act. One unit.

**1100. Health and Physical Activity**

Analysis and application of the basic concepts of health with particular emphasis on individual fitness and physical activity, including the study of individual health appraisal and problems. Meets general education health education requirement. 2 hrs. lect., 2 hrs. act. Three units.

**3100. Scope and History of Physical Education**

The study of physical education as a fundamental phase of the school curriculum with emphasis on historical development. Includes relationship to recreation, health education, and professional preparation. 4 hrs. lect. Four units.

**3200. Health and Physical Education**

Physical education programs, health services and environment, and methods and materials of instruction in the elementary school. Special emphasis on interpretation of California state program. Prerequisite: Completion of general education requirements in health and physical education including folk and square dancing. 2 hrs. lect., 4 hrs. act. Four units.

**3210. Theory of Interscholastic Football and Basketball**

Theory and technique of coaching interscholastic football and basketball, including practice, game, and schedule organization. 2 hrs. lect., 2 hrs. act. Three units.

**3220. Theory of Interscholastic Baseball and Track**

Theory and technique of coaching interscholastic baseball and track, including practice, game, and schedule organization. 2 hrs. lect., 2 hrs. act. Three units.

<sup>1</sup> Activity courses taken during the freshman year.

<sup>2</sup> Activity courses taken during the sophomore year.

<sup>3</sup> Activity courses taken during the junior year.

<sup>4</sup> Activity courses taken during the senior year.

**3230. Theory of Aquatics and Gymnastics**

Analysis and practice of the skills, techniques, and knowledges involved in teaching and coaching aquatics and gymnastics. Prerequisite: Activity courses in aquatics and gymnastics and/or skill proficiency. 1 hr. lect., 2 hrs. act. Two units.

**3240. Theory of Rhythms and Individual Sports**

Analysis and practice of the skills, techniques, and knowledges involved in teaching folk, square and social dancing, golf, tennis, archery, and badminton. Prerequisite: Activity courses in rhythm and individual sports and/or skill proficiency. 1 hr. lect., 2 hrs. act. Two units.

**3250. Theory of Combatives and Team Sports**

Analysis and practice of the skills, techniques, and knowledges involved in teaching wrestling, boxing, volleyball, soccer, speedball, and softball. Prerequisite: Activity courses in combatives and team sports and/or skill proficiency. 1 hr. lect., 2 hrs. act. Two units.

**3260. Theory of Modern Dance**

Analysis and practice of the skills, techniques, and knowledges involved in modern and creative dance. Dance production is also included. Prerequisite: Activity courses in modern and creative dance and/or skill proficiency. 2 hrs. lect., 2 hrs. act. Three units.

**3270. Theory of Women's Team Sports**

Analysis and practice of the skills, techniques, and knowledges involved in teaching or coaching team sports for women. Prerequisite: Activity courses in team sports and/or skill proficiency. 2 hrs. lect., 2 hrs. act. Three units.

**3400. Kinesiology**

Study of joint articulation, muscular action, and basic principles of body mechanics as a foundation for the analysis of motor performance in physical education activities, athletics, and physical therapy. Prerequisites: Anat. and Phys. 3300 or equivalent. 3 hrs. lect., 2 hrs. lab. Four units.

**3410. Physiology of Activity**

Study of the effects of physical exercise upon the circulatory, respiratory, digestive, and nervous systems. Relationship of endurance, fatigue, training and nutrition to the efficiency of physical performance. Prerequisite: P.E. 3400. 3 hrs. lect., 2 hrs. lab. Four units.

**3420. Analysis of Body Motion**

Analysis of human movement in the performance of various motor skills through the application of anatomical, kinesiological, and physiological concepts. Includes consideration of individual and adapted physical education. Prerequisite: P.E. 3410. 3 hrs. lect., 2 hrs. lab. Four units.

**4100. Seminar in Principles and Programs**

Development of the principles and program of physical education through an analysis and study of the scientific and cultural foundations. Prerequisite: P.E. 3100 and senior standing. Four units.

**4200. Methods and Materials in Health and Physical Education**

Methods of teaching physical education and health education on the secondary level. Instructional materials, audio-visual resources, classroom organization, management and evaluative techniques. Prerequisite: Senior standing, physical education or health education major or minor. 3 hrs. lect., 2 hrs. act. Four units.

**4600. Organization and Administration of Physical Education**

Administration and policy formulation, classification, scheduling, class organization, finances and budgeting, equipment and facilities, and public relations in physical education, athletics, and intramurals. Prerequisite: P.E. 3100. 4 hrs. lect. Four units.

**4900. Individual Study**

Two-four units.

**5200. Elementary School Physical Education**

The elementary school physical education program including games, sports, fundamental rhythms and dances, and other activities commonly taught on the elementary level. Prerequisite: Teaching experience or consent of instructor. Three units.

**5220. Physical Education Programs in Secondary Schools**

Development of total program of instruction in secondary school physical education. Methods of instruction; intramural, extramural, and interscholastic athletics; recreation, rehabilitation, and preparation of courses of study. Prerequisite: Physical education major or consent of instructor. Three units.

**5400. Rehabilitation of Athletic Injuries**

Application of anatomy and physiology to the analysis, care, and prevention of athletic injuries including protective strapping, conditioning and sports medicine. Prerequisite: P.E. 3400. Three units.

**5500. Evaluation of Health and Physical Education**

Principles and techniques in evaluation of instruction in health and physical education. Emphasis is given to test administration and construction, application of statistical procedures, and development and interpretation of research data. Prerequisite: Ed. 4100 or equivalent. Three units.

**5610. Physical Education Facilities and Equipment**

Functional planning of indoor and outdoor physical education facilities and equipment for schools and recreation centers; design and construction of facilities for a complete physical education and recreation program; survey of school plants and recreation facilities in California. Three units.

**5800. Problems in Health and Physical Education**

Research techniques applied to selected problems in health and physical education. Prerequisite: Teaching experience or consent of instructor. Three units.

**Recreation Curriculum**

The purpose of the recreation curriculum is to prepare students for full-time, professional positions in governmental and private agencies which offer recreation services, and in specialized programs such as hospital recreation, employee recreation, and armed-forces recreation. Courses in the curriculum lead to a Bachelor of Science degree in recreation.

Students pursuing this degree must plan their program with a recreation adviser to assure proper selection of courses.

Requirements for the degree are as follows:

**I. GENERAL EDUCATION.** Complete the 76-unit requirement in general education.

**II. MAJOR REQUIREMENTS.**

**A. Foundation Area:** Upper-division courses in psychology and sociology, selected from an approved list (must include at least two courses in each area; psychology area may include courses in education that deal primarily with concepts related to growth and development or learning, and/or anatomy and physiology). 18 units

**B. Professional Area:** Rec. 1000, 3500, 3750, 4000, 4500, 5000, 5001, 5002. 40 units

**C. Elective or Minor Area:** Distributed elective units (including such areas as art, nature study, physical education, etc.) selected from an approved list, or completion of an approved minor 28 units

86 units

**D. Additional Requirements:** Students must demonstrate competency in speech or must have completed satisfactorily a basic course in speech. A valid American Red Cross Standard First Aid Certificate is required of all recreation majors.

**Suggested Four-year Sequence: Recreation Curriculum**

	<b>FRESHMAN YEAR</b>	<b>Units</b>
Sp. 1001-2. Oral and Written Expression	6	
Biol. 1000. Principles of Biology	5	
H.Ed. & P.E. 1100. Health and Physical Activity	3	
P.E. 1011. Activity	1	
Rec. 1000. Nature and Scope of Recreation	4	
Rec. 1500. Social Groups in Recreation	3	
General education requirements and/or electives (includes required course in mathematics)	26	
	—	48
	<b>SOPHOMORE YEAR</b>	<b>Units</b>
Phys. Sci. 1340. Principles of Physical Science	5	
Psy. 2000. General Psychology	4	
Soc. 2010. Social Problems	4	
P.E. 1011. Activity	1	
Rec. 2000. Principles and Practices in Organized Camping	3	
Distributed elective courses, selected from approved list, or courses in minor area *	12	
General education requirements and/or electives	19	
	—	48
	<b>JUNIOR YEAR</b>	<b>Units</b>
Rec. 3500. The Recreation Program	6	
Rec. 3750. The Recreation Setting	6	
Jr. Sym. 3801. Junior Symposium	3	
Courses in Psychology and Sociology, selected from an approved list *	12	
Distributed elective courses, selected from approved list, or courses in minor area *	12	
General Education requirements and/or electives †	9	
	—	48
	<b>SENIOR YEAR</b>	<b>Units</b>
Rec. 4000. Structure of Recreation	5	
Rec. 4500. Trends and Problems in Recreation	3	
Rec. 5000,2. Internship I, II	14	
Rec. 5001. Internship Seminar	2	
Sr. Sym. 4801. Senior Symposium	3	
Courses in psychology and sociology, selected from an approved list *	8	
Distributed elective courses, selected from approved list, or courses in minor area *	4	
General education requirements and/or electives †	9	
	—	48

\* Check with major adviser for details.

† Upper division G.E. electives must include one course each in science and humanities, selected from approved list.

**RECREATION****1000. Nature and Scope of Recreation**

The nature, scope, and significance of recreation, including historical developments; organizational patterns in community recreation. Four units.

**1500. Social Groups in Recreation**

Analysis of social recreation groups; emphasis on participant characteristics, interpersonal relationships in the recreation setting, and the role of the recreator. Laboratory experiences in community agencies. Prerequisite: P.E. 3000 (Folk & Square Dance) or equivalent. 2 hrs. lect., 2 hrs. act. Three units.

**2000. Principles and Practices in Organized Camping**

Principles and current practices related to organized camping, including analysis of uses of outdoor recreation resources. Field trips to school and/or agency camps. 2 hrs. lect., 2 hrs. act. Three units.

**3500. The Recreation Program**

General principles of programming as related to community structure; analysis of the relationship of the recreator to the program, with emphasis on organizing, teaching, group leadership, and professional roles. Prerequisite: Rec. 1000 (or equivalent) or consent of instructor. Four hours lect., 6 hours supervised field work. Six units.

**3750. The Recreation Setting**

Introductory study of recreation and park facilities; general principles related to operation of facilities, with emphasis on staff relationships and supervision. Prerequisite: Rec. 1000 (or equivalent) or consent of instructor. Four hours lect., 6 hours supervised field work. Six units.

**4000. The Structure of Recreation**

Analysis of the structure of recreation agencies, with emphasis on organization, administration, finance, legal aspects, personnel, and interagency relationships. Prerequisites: Rec. 3500 and 3750 or consent of instructor. 4 hours lect., 2 hours act. Five units.

**4500. Trends and Problems in Recreation**

A study of selected trends and problems in recreation, with emphasis on the influence of changing patterns of leisure in contemporary society. Three units.

**5000. Internship I**

Half-time assignment to a public, private or specialized agency (hospital, industry, etc.), under supervision of agency representative and major advisor. Prerequisites: Rec. 4000, concurrent registration in Rec. 5001, and consent of instructor. Six units.

**5001. Internship Seminar**

Consideration of problems related to Internship experiences. Prerequisite: concurrent registration in Rec. 5000. Two units.

**5002. Internship II**

Half-time assignment to a public, private or specialized agency (hospital, industry, etc.), under supervision of agency representative and major advisor. Prerequisites: Rec. 5000 (may be taken concurrently) and consent of instructor. Eight units.

**DIVISION OF HUMANITIES****English, Foreign Languages, History, Philosophy**

Professor Biella (Head); Associate Professors Peterson, Rosenbaum, Van Aken; Assistant Professors Giles, P. Petersen, Rice, Thompson.

**CURRICULA OFFERED****Baccalaureate Degree**

English (B.A.)

History (B.A.)

Language Arts (B.A.) (An interdivisional major)

Social Science (B.A.) (An interdivisional major; see Social and Behavioral Science for details.)

Spanish (B.A.)

**Minors**

English

History

Spanish

**PURPOSES**

This division offers instruction in English, history, foreign languages, and philosophy. The courses lead to liberal arts degrees in English and history and to the general secondary credentials in English, language arts, and social science. Some of the offerings satisfy part of the general education requirements of the College.

**HONORS IN ENGLISH AND HISTORY**

The Division of Humanities offers upper-division English and history honors on the tutorial plan to students who can qualify for admission to honors. The purpose of the program is to offer mature students the opportunity for intensive special project in reading, research, and writing in areas not ordinarily covered in the curriculum. The course includes the two years prior to graduation. Candidates will normally take two or three credits each quarter for five of the six quarters. Applicants for the program will be selected by an honors board, and the actual determination of the honors award will be made by the board in the final quarter of the program. Students who complete the course successfully will receive the citation *Honors in English* or *Honors in History* upon graduation.

**ENGLISH MAJOR**

A candidate for the degree of Bachelor of Arts with major in English will:

- I. Complete 76 units in general education, as prescribed by the faculty of the college. English courses in the 1000 series are designed to satisfy general education requirements.
- II. Demonstrate a reading knowledge of a modern foreign language.
- III. Complete requirements in the major, including
  - A. A course in advanced writing (4 units).
  - B. Eng. 3250, Introduction to Shakespeare, and one other course in Shakespeare (8 units total).
  - C. Eng. 4040, Modern English Grammar (5 units).
  - D. A prescribed list of readings in English and American literature and language, designed to produce familiarity with the several types of liter-

ature, and with the works of the major writers of all periods. The student is advised to begin this reading as soon as he decides to major in English, and to read intensively during summer vacations. The reading program will culminate in . . .

- E. Eng. 4950, Pro-seminar in English. The final examination in this course will be based on the reading list in (d) and will therefore be in effect a comprehensive examination in English (4 units).
- F. Other courses in English, including
  - (1) Not more than 8 units in the 2000 series
  - (2) At least one of these courses: 3100, 3200, 3300, 3400, 3500
  - (3) At least one of these courses: 3600, 3601, 3650
  - (4) At least one of these courses: 4100, 4200, 4300, 4400, 4500, 4650, 4850.

IV. General secondary teaching candidates must also complete (a) the requirements for admission to teacher education; (b) the required professional courses in teacher education; (c) Eng. 5950; (d) an upper-division course in speech; (e) an upper-division course in play production.

NOTE: Eng. 4900 or 4901 may be substituted for any 4-unit section of the course requirements in English except 3250, 4040, and 5950.

**ENGLISH MINOR**  
**Secondary Credential**

**General English Minor**

- I. Complete the following requirements in the Upper Division: 30 quarter-units including Eng. 3250; English 4040; 2 of these courses: Eng. 3100, 3200, 3300, 3400, 3500, 3800, 3801, 3802; 1 of these courses: Eng. 3600, 3601, 3650; 1 of these courses: Eng. 4100, 4200, 4300, 4400, 4500, 4650, 4850.
- II. Complete 5950. See the Division of Education section for requirements in that Division.

**English Minor With Journalism Emphasis**

- I. Complete the following requirements in the Upper Division: 30 quarter-units including Eng. 3250; Eng. 4040; 2 of these courses: Eng. 3100, 3200, 3300, 3400, 3500, 3800, 3801, 3802; 1 of these courses: Eng. 3600, 3601, 3650; Journalism 5200; and either Jour. 3400 or 4500.
- II. Complete Eng. 5950. See the Division of Education section for requirements in professional education.

**LIBERAL ARTS**

Complete the following requirements in the Upper Division: 20 quarter units including Eng. 3250; 2 survey courses; one "Studies" course.

NOTE: Eng. 4900 or 4901 may be substituted for any 4-unit section of the course requirements in English except 3250, 4040, and 5950.

**HISTORY MAJOR**

- I. General Education  
Complete the 76-unit requirement in general education. A minimum of 4 quarter units in political science and 4 quarter units in economics are strongly recommended as a part of the social and behavioral science requirement in general education.  
Demonstrate a reading knowledge of one foreign language. Proficiency may be demonstrated either by course work or by examination.
- II. Complete the following requirements in the major:

*Lower division:* A minimum of 8 quarter units in either world history, western culture, or history of the Americas.

*Upper division:* A minimum of 40 quarter units in history, to include Hist. 4030 and Hist. 4031. Each student must take a minimum of 8 units in

sequence in each of three of the following fields: (a) ancient and medieval; (b) modern Europe; (c) Asia; (d) United States; (e) Latin America. A comprehensive examination must be passed in the senior year.

**Secondary Credential**

History may not be offered as a major for a general secondary credential. For the credential program students may take a 28-unit concentration in history within the social science major. See the social science area major.

**HISTORY MINOR**

A minor in history requires a minimum of 20 units, at least nine of which must be in upper-division courses. History may not be offered as a teaching minor for the general secondary credential; for this, see social science minor, which includes history.

**Illustrative Program for the History Major**

	<i>First Year</i>	<i>Units</i>	<i>F</i>	<i>W</i>	<i>S</i>
Hist. of W. C. 1001		5			
P. E. 1100		3			
Principles of Biology 1000		5			
G. E. Elective		3			
Hist. of W. C. 1002		5			
Hist. 1101		5			
P. E. 1000		½			
Psy. 2000		4			
Pol. Sci. 1201		4			
Hist. of W. C. 1003		5			
P. E. 1011		½			
Soc. 2000		4			
Pol. Sci. 1202		4			
Phil. 1000		4			

**Second Year**

Foreign Language	4	
Humanities 2001	4	
P. E. 1012	½	
Electives	8	
Foreign Language	4	
Humanities 2002	4	
P. E. 1012	½	
G. E. Elective	3	
Elective	4	
Foreign Language	4	
Humanities 2003	4	
Physical Science (G. E.)	4	
Elective	3	

		Units	
	F	W	S
<b>Third Year</b>			
Foreign Language			
Hist. 3410	4		
Hist. 3600	4		
Elective	4		
Foreign Language			
Hist. 3411	4		
Hist. 3601	4		
Electives	4		
Foreign Language			
Econ. 3303 (G. E.)	4		
Biogeography, Bio. 4450	4		
Junior Symposium 3801			3
<b>Fourth Year</b>			
Hist. 4120		4	
Hist. 3412		4	
Pol. Sci. 3210 (G. E.)		4	
Electives		4	
Hist. 4121		4	
Hist. 3413		4	
Hist. 4030		4	
Electives		4	
Hist. 4031		4	
Senior Symposium 4801			3
Electives			7

**LANGUAGE ARTS MAJOR**

- I. Complete the 76-units requirement in general education. Demonstrate a reading knowledge of one foreign language.
- II. Complete the following requirements in the major:
  - A. Courses in English, totaling 29 units beyond the general education requirements, to include a course in advanced writing; Eng. 4040; at least 12 units of upper-division literature courses.
  - B. At least 6 units in journalism courses. (Prospective secondary-school teachers check with journalism adviser; see III, below.)
  - C. Speech and drama courses totaling at least 26 units, including Sp. & Dr. 1003, 1010, 2310, 2411, 3310, 3512.
- III. Secondary teaching candidates will also complete
  - A. The requirements for admission to teacher education;
  - B. The required professional courses in teacher education;
  - C. Jour. 5200 and Eng. 5950.

**SPANISH MAJOR**

- I. Proficiency Examination
 

A proficiency examination designed to place lower division students at appropriate levels of language achievement will be given. Students admitted to a more advanced level through this examination will be held responsible for the remaining number of units in the fulfillment of the lower-division requirement.
- II. Spanish Major
  - A. General Education
 

Complete the 76-unit requirement in general education. Proficiency in another foreign language, both audio-lingual and reading, is strongly recommended.

**B. Spanish**

Lower Division: 24 units including the following courses: Span. 1001, 2, 3; Span. 2001, 2, 3. Span. 2101, 2, 3 are strongly recommended for the Spanish major.

Upper Division: 45 units including the following courses: Span. 3001, 2, 3; Span. 3101, 2, 3; Span. 3301, 2; Span. 4001, 2, 3; Span. 4503 and nine units chosen from the following: Span. 4101, 2, 3; Span. 4201, 2, 3; Span. 4301, 2, 3; Span. 4900, 1.

**III. General Secondary Credential****A. Spanish major**

Complete the Spanish major as outlined under liberal arts.

Complete For. Lang. 5950. See the Division of Education section for requirements in professional education.

**B. Spanish minor**

Lower Division: Same as liberal arts Spanish major.

Upper Division: 18 units: Span. 3001, 2, 3; Span. 3101, 2, 3.

Complete For. Lang. 5950. See the Division of Education section for requirements in professional education.

**DESCRIPTION OF COURSES****ENGLISH****1001. Expository Writing**

The theory and practice of expository writing. Three units.

**1002. Exposition and Rhetoric**

The theory and practice of expository writing. Three units.

**1010. Introduction to Literature**

Studies in prose fiction, verse, and the drama. Five units.

**1111. Introduction to Poetry**

The elements of poetry: a study of structure, imagery, theme and rhythm. Five units.

**1112. Introduction to Dramatic Literature**

Elements of the drama: a study of dramatic structure, characterization, and theme. Five units.

**1113. Introduction to Fiction**

Elements of fiction: a study of plot, characterization, language, and theme. Five units.

**2070. Introduction to Creative Writing**

Introduction to imaginative writing of various types. Four units.

**2700. World Literature I**

Selected writings from the great cultures of the world from ancient times through the Middle Ages. Four units.

**2701. World Literature II**

Selected writings from the great cultures of the world from the Renaissance through the Enlightenment. Four units.

**2702. World Literature III**

Selected writings from the great cultures of the modern world. Four units.

**3020. Advanced Expository Writing**

Expository writing and analysis in relation to traditional and contemporary theories of composition. Four units.

**3100. Beowulf to Marlowe**

Epic and Romance, Chaucer, drama, other poetry and prose. Four units.

**3200. Spenser to Milton**

Elizabethan, Jacobean, and Puritan; drama, poetry, and prose exclusive of Shakespeare; Milton. Four units.

**3250. Introduction to Shakespeare**

Techniques and conventions of the Elizabethan theater; Shakespeare's comedies, histories and tragedies. Four units.

**3251. Shakespeare's Comedies and History Plays**

Analysis of selected comedies and history plays. Prerequisite: Eng. 3250. Four units.

**3252. Shakespeare's Tragedies**

Analysis of selected tragedies. Prerequisite: Introduction to Shakespeare. Four units.

**3300. Dryden to Burns**

Restoration and 18th century poetry and prose; the novel; the drama. Four units.

**3400. Wordsworth to Shaw**

Romantic, Victorian, and *fin de siecle* poetry and prose; the novel; the drama. Four units.

**3500. Contemporary English Literature**

Major trends in British literature from World War I to the present. Four units.

**3600. American Literature to 1865**

Writings of the colonial and revolutionary periods; transcendentalism; major poets and novelists. Four units.

**3601. American Literature from the Gilded Age to 1918**

Realism and naturalism, major poets and novelists. Four units.

**3650. Contemporary American Literature**

Major trends in American literature from World War I to the present. Four units.

**3800. History of the Drama I**

Medieval and Elizabethan drama exclusive of Shakespeare. Four units.

**3801. History of the Drama II**

Jacobean, Restoration, and 18th century drama. Four units.

**3802. History of the Drama III**

19th and 20th century British and American drama. Four units.

**4040. Modern English Grammar**

Review of traditional grammar; overview of modern linguistic theories. Five units.

**4060. Introduction to Linguistics**

Origin, nature and philosophy of language; history and comparison of language systems and structures. Four units.

**4070. Creative Writing**

Writing descriptive sketches, short character studies, brief narrations, short stories and simple poems; reading various types of imaginative writing. Four units.

**4100. Studies in Medieval Literature**

Intensive study of an important literary topic in the period. Maximum total credit 8 units. Prerequisite: Eng. 3100 or equivalent. Four units.

**4200. Studies in Renaissance Literature**

Intensive study of an important literary topic in the period. Maximum total credit 8 units. Prerequisite: Eng. 3200 or equivalent. Four units.

**4300. Studies in Restoration and Eighteenth Century Literature**

Intensive study of an important literary topic in the period. Maximum total credit 8 units. Prerequisite: Eng. 3300 or equivalent. Four units.

**4400. Studies in Nineteenth Century Literature**

Intensive study of an important literary topic in the period. Maximum total credit 8 units. Prerequisite: Eng. 3400 or equivalent. Four units.

**4500. Studies in Contemporary English Literature**

Intensive study of an important literary topic in the period. Maximum total credit 8 units. Prerequisite: Either Eng. 3500 or Eng. 3650 or equivalent. Four units.

**4650. Studies in Contemporary American Literature**

Intensive study of an important literary topic in the period. Maximum total credit 8 units. Prerequisite: Either Eng. 3600 or Eng. 3601 or equivalent. Four units.

**4850. Studies in the Novel**

Intensive study of selected novels. Maximum total credit six units. Three units.

**4900. Individual Study**

One-four units.

**4901. Directed Group Study**

One-four units.

**4950. Pro-seminar in English**

An intensive survey of English and American literature and language. Includes a comprehensive examination in English. Four units.

**4990. Honors in English**

Intensive research and reading open to selected students only. A tutorial program to be taken for five of the six quarters prior to the student's graduation. Two to three units per quarter.

**5670. Literature of California**

Literature of California from the earliest times to the present. Three units.

**5950. Teaching English in the Secondary School**

Methods and curricula for the teaching of English in the junior high school, the high school, and the junior college. Audio-visual techniques. Prerequisite: Consent of instructor. Four units.

**FOREIGN LANGUAGES****FRENCH****1001. Elementary French**

An audio-lingual approach to French, designed to give students skill in understanding, speaking, reading and writing the language. Four units.

**1002. Elementary French**

Continuation of 1001. Prerequisite: French 1001 or consent of instructor. Four units.

**1003. Elementary French**

Continuation of 1002. Prerequisite: French 1002 or consent of instructor. Four units.

**2001. Intermediate French**

A continuation of French 1003 with increased emphasis on audio-lingual facility, written composition and collateral reading. Prerequisite: French 1003 or consent of instructor. Four units.

**2002. Intermediate French**

Continuation of 2001. Prerequisite: French 2001 or consent of instructor. Four units.

**2003. Intermediate French**

Continuation of 2002. Prerequisite: French 2002 or consent of instructor. Four units.

**4201. Readings in Contemporary French Literature**

Readings from the novels and essays of the twentieth century. Prerequisite: Facility in reading and understanding oral French. Three units.

**4202. Readings in Contemporary French Literature**

Readings from the drama and verse of the twentieth century. Prerequisite: Facility in reading and understanding oral French. Three units.

**4900. Individual Study**

One-four units.

**4901. Directed Group Study**

One-four units.

**GERMAN****1001. Elementary German**

An audio-lingual approach to German, designed to give students skill in understanding, speaking, reading and writing the language. Four units.

**1002. Elementary German**

Continuation of 1001. Prerequisite: Ger. 1001 or consent of instructor. Four units.

**1003. Elementary German**

Continuation of 1002. Prerequisite: Ger. 1002 or consent of instructor. Four units.

**2001. Intermediate German**

A continuation of German 1003 with increased emphasis on audio-lingual facility, written composition and collateral reading. Prerequisite: Ger. 1003 or consent of instructor. Four units.

**2002. Intermediate German**

Continuation of 2001. Prerequisite: Ger. 2001 or consent of instructor. Four units.

**2003. Intermediate German**

Continuation of 2002. Prerequisite: Ger. 2002 or consent of instructor. Four units.

**4900. Individual Study**

One-four units.

**4901. Directed Group Study**

One-four units.

**SPANISH****1001. Elementary Spanish**

An audio-lingual approach to Spanish, designed to give students skill in understanding, speaking, reading and writing the language. No prerequisite. Four units.

**1002. Elementary Spanish**

Continuation of 1001. Prerequisite: Span. 1001 or consent of instructor. Four units.

**1003. Elementary Spanish**

Continuation of 1002. Prerequisite: Span. 1002 or consent of instructor. Four units.

**2001. Intermediate Spanish**

A continuation of Span. 1003 with increased emphasis on audio-lingual facility, written composition and collateral reading. Prerequisite: Span. 1003 or consent of instructor. Four units.

**2002. Intermediate Spanish**

Continuation of 2001. Prerequisite: Span. 2001 or consent of instructor. Four units.

**2003. Intermediate Spanish**

Continuation of 2002. Prerequisite: Span. 2002 or consent of instructor. Four units.

**2101. Spanish Conversation**

Practical application of Spanish in present-day experiences. Spanish sounds and intonation; vocabulary building. Prerequisite: Span. 1003 or consent of instructor. Three units.

**2102. Spanish Conversation**

Continuation of 2101. Prerequisite: Span. 2101 or consent of instructor. Three units.

**2103. Spanish Conversation**

Continuation of 2102. Prerequisite: Span. 2102 or consent of instructor. Three units.

**3001. Intermediate Spanish Grammar**

Essentials of Spanish grammar and their application to advanced work in the language. Prerequisite: Major in Spanish or consent of instructor. Three units.

**3002. Spanish Lexicon**

Spanish vocabulary: word formation, cognate and topical vocabularies, and word families. Prerequisite: Major in Spanish or approval of instructor. Three units.

**3003. Spanish Phonetics**

Detailed study of the formation of Spanish sounds and intonation. Particular stress will be given to the problems English-speaking students face in acquiring an authentic pronunciation of Spanish. Prerequisite: Major in Spanish or consent of instructor. Three units.

**3101. Survey of Spanish Literature: Middle Ages and Early Renaissance**

Study of literary Spain of the Middle Ages and Early Renaissance. Prerequisite: Major in Spanish or consent of instructor. Three units.

**3102. Survey of Spanish Literature: Renaissance, Golden Age and Baroque**

Study of Spanish literature from the Renaissance to the 18th century. Prerequisite: Major in Spanish or consent of instructor. Three units.

**3103. Survey of Spanish Literature: 18th, 19th and 20th Centuries**

Study of Spanish literature from the 18th century to the present. Prerequisite: Major in Spanish or consent of instructor. Three units.

**3301. Spanish Culture and Civilization: Prehistoric Period Through Reign of the Catholic Kings**

A study of Spanish culture—history, art, architecture and philosophy from the prehistoric period through the reign of the Catholic Kings. Prerequisite: Major in Spanish or consent of the instructor. Three units.

**3302. Spanish Culture and Civilization: End of Reign of the Catholic Kings to Present**

A study of Spanish culture—history, art, architecture and philosophy from the end of the reign of the Catholic Kings to the present. Prerequisite: Major in Spanish or consent of the instructor. Three units.

**4001. Advanced Spanish Syntax**

Detailed study of synchronic Spanish syntax. Prerequisite: Span. 3001 or consent of instructor. Three units.

**4002. Advanced Spanish Syntax**

Continuation of 4001. Prerequisite: Span. 4001 or consent of instructor. Three units.

**4003. Advanced Spanish Syntax**

Continuation of 4002. Prerequisite: Span. 4002 or consent of instructor. Three units.

**4101. The Golden Age: Prose**

The novel of the Golden Age in its various forms and non-fictional prose. Prerequisite: Major in Spanish or consent of instructor. Three units.

**4102. The Golden Age: Drama**

The major dramatists before Lope de Vega and the dramas of the cycles of Lope de Vega and Calderón. Prerequisite: Major in Spanish or consent of instructor. Three units.

**4103. The Golden Age: Poetry**

Study of the major poets of the Golden Age. Prerequisite: Major in Spanish or consent of instructor. Three units.

**4201. The 19th Century Spanish Literature: Novel**

Selected readings from the major novelists of the 19th century, including Alarcón, Galdós, Pereda and Pardo Bazán. Prerequisite: Major in Spanish or consent of instructor. Three units.

**4202. The 19th Century Spanish Literature: Drama**

Selected readings from major dramatists of the 19th century. Prerequisite: Major in Spanish or consent of instructor. Three units.

**4203. The 19th Century Spanish Literature: Poetry**

Selected readings from the major poets of the 19th century. Prerequisite: Major in Spanish or consent of instructor. Three units.

**4301. Contemporary Peninsular Readings: The Generation of '98**

Study of the major poets, novelists and essayists of the Generation of '98. Prerequisite: Major in Spanish or consent of instructor. Three units.

**4302. Contemporary Peninsular Readings: Novel and Essay**

Study of the major novelists and essayists of the 20th century. Prerequisite: Major in Spanish or consent of instructor. Three units.

**4303. Contemporary Peninsular Readings: Poetry and Drama**

Major poets and dramatists of the 20th century. Prerequisite: Major in Spanish or consent of instructor. Three units.

**4503. Proseminar in Hispanic Studies**

Review of Spanish language, literature and civilization. Prerequisite: Major in Spanish with senior standing or consent of instructor.

**4900. Individual Study**

One-four units.

**4901. Directed Group Study**

One-four units.

**5101. Spanish in Elementary Schools**

Methodology in teaching Spanish at the elementary level. Particular stress will be given to improvement in linguistic skills. Prerequisite: One year of college Spanish and consent of instructor. Three units.

**5102. Spanish in Elementary Schools**

Continuation of 5101. Prerequisite: Span. 5101 or consent of instructor. Three units.

**5103. Spanish in Elementary Schools**

Continuation of 5102. Prerequisite: Span. 5102 or consent of instructor. Three units.

**FOREIGN LANGUAGES****5950. Methodology in the Teaching of Foreign Languages**

Methodology, practice, and A-V techniques in the teaching of modern foreign languages on the secondary level. Particular stress will be given to the audio-lingual and audio-visual approach. Prerequisites: Competence in at least one foreign language and consent of instructor. Four units.

**HISTORY****I. Lower Division**

*HWC 1001, 1002, 1003. History of Western Culture courses are listed at the front of the Bulletin under Interdivisional Programs in General Education.*

**1001. History of the United States to 1865**

A survey of the development of the American nation from colonial times to the close of the Civil War. (With Hist. 1102 meets statutory requirements in U.S. History and American Institutions.) Four units.

**1102. History of the United States Since 1865**

A survey of American history from the Civil War to the present. (With Hist. 1101 meets statutory requirements in U.S. History and American Institutions.) Four units.

**II. Upper Division****A. Ancient and Medieval****3100. Ancient History**

Greece and Rome from the ancient city-states and monarchies to the decline of the Roman Empire. Four units.

**3115. Europe in the Early Middle Ages**

Political, social, intellectual, and economic evolution of Europe from the decline of the Roman Empire to about 1050. Four units.

**3116. Europe in the Later Middle Ages**

A continuation of History 3115. Europe from the 11th century to the 15th century. Four units.

**B. Modern Europe****4125. The European Renaissance**

The culture of Italy, France, Spain, Germany, the Netherlands, and England of the 14th, 15th, and 16th centuries, in the relevant setting of general history. Four units.

**4126. The Reformation Era**

The Protestant revolt and the Catholic Reformation, studied in the context of the general revolution of European culture and society in the 16th century and against the background of medieval doctrine and heresy. Four units.

**4140. Early Modern Europe**

Europe from 1600 to 1789. Post-Renaissance western Europe political and cultural development, including the Age of Enlightenment. Four units.

**4150. The French Revolution and Napoleon**

The French Revolution, 1789-1799, studied as a part of a pattern of democratic revolutions in Europe and America. Four units.

**4160. Europe in the 19th Century**

From Waterloo to Sarajevo. Development of dominant ideologies. Four units.

**4180. Europe in the 20th Century**

The transformation of traditional European institutions and values in the century of total war. Four units.

**5200. England and the British Empire**

Study of the political and economic development of England and the British Empire since 1500. Emphasis on the rise of England as a world power and developments since the Industrial Revolution. Four units.

**5210. History of Russia**

Russia from the 16th century to the present. The internal problems and international relations emphasizing the importance of Russian history for an understanding of modern Soviet Russia. Four units.

**C. Asia****3300. The Ancient Orient**

Introduction to traditional Oriental civilization from the earliest cities to the coming of the Western empire builders. Four units.

**3301. Modern Asia**

Oriental civilizations under the impact of the West, with emphasis on the development of China and Japan since the 19th century. Four units.

**4310. History of China**

China from early times to the present, with emphasis on the modern period. Four units.

**4320. History of Japan**

Japan from early times to the present, with emphasis on the modern period. Four units.

**4330. History of India and Southeast Asia**

India and the lands of southeast Asia from early times to the present; European dominion; achievement of independence; problems of national development. Four units.

**4340. The Moslem World**

History of the Islamic world from the seventh century to the present. Four units.

**D. United States****3400. American History**

Political and social history of the United States from colonial times to the present. A survey of the transformation of an agrarian society into a complex industrial-urban order. (Satisfies statutory requirement in U.S. history.) Four units.

**3410. The United States: Colonial Period**

The thirteen colonies: European background, settlement and expansion, and development to the close of the Revolution. Four units.

**3411. The United States: The New Nation**

History of the United States from 1783 to 1850. The Confederation and the Constitution. Domestic and foreign problems of the new nation to 1845. Four units.

**3412. Emergence of the United States as a World Power**

The United States from 1850 to 1900. The Industrial Revolution in America, Civil War and Reconstruction, the age of "rugged individualism," and the rise of imperialism. Four units.

**3413. Recent United States History**

The United States from 1900 to the present. The Progressive movement, World War I, and the complex problems of the nation as a leading power in the 20th century. Four units.

**3510. History of California**

California history from early Spanish occupation to the present, emphasizing the influence of geography, natural resources, and a growing population. Satisfies requirement in California state and local government. Four units.

**4410. The American Revolution**

The struggle for independence, 1763-1789. Intensive study of the causes of the American Revolution, the Confederation Period, and the Constitution. Four units.

**4420. The Civil War**

Study of the causes of the Civil War, the old South, sectional conflict, slavery, and the War. Four units.

**4441. The New Deal Era**

The Age of the Great Depression to World War II. Origins of the depression, Franklin Delano Roosevelt, and the New Deal. Four units.

**4500. The Westward Movement**

Westward expansion of the United States from 1763 to 1900; development of western states and effect on the history of the nation. Four units.

**4510. Social and Intellectual History of the United States**

The growth of American thought and social patterns from colonial times to the present. Four units.

**4530. Diplomatic History of the United States**

Analysis of the foreign relations and policies of the United States with emphasis on the 20th century. Four units.

**E. Latin America****3600. Latin America: Colonial Period**

Discovery, conquest, and settlement of Spanish and Portuguese America; independence; evolution of society and institutions to 1825. Four units.

**3601. Latin America: Since 1825**

Political, economic, and social development of the Latin American nations in the 19th and 20th centuries. Four units.

**4610. Mexico Since 1821**

The development of Mexico since independence; evolution of political, economic, and social institutions. Four units.

**4620. The A B C Powers**

History of Argentina, Brazil, and Chile since independence. Four units.

**F. General****4000. Contemporary World Problems**

World affairs from 1914 to the present; present foreign policies of the major powers in their historical, political, and economic setting; events leading to World War II; the United Nations; current major issues. Four units.

**4030. Introduction to Historiography**

A critical study of the writings of the great historians. Four units.

**4031. Proseminar in Historical Method**

Introduction to the methods of historical research through the preparation of a research paper. Prerequisite: Senior standing. Four units.

**4520. International Relations**

See Pol. Sci. 4520. Four units.

**4711. Development of Western Political and Social Thought**

See Pol. Sci. 4711. Four units.

**4712. Modern Democratic Thought**

See Pol. Sci. 4711. Four units.

**4900. Individual Study**

One to four units.

**4901. Directed Group Study**

One to four units.

**4990. Honors in History**

Intensive research and reading open to selected students only. A tutorial program to be taken for five of the six quarters before the student's graduation. Two to three units per quarter.

**PHILOSOPHY****1000. Symbolic Logic**

An introductory study of logic and language, methods of proof and deduction, propositional functions, quantifiers and calculus, and alternative systems and notations. Four units.

**1110. Elements of Mathematical Logic**

Same as Math. 1110, Elements of Mathematical Logic. Four units.

**3000, 3001, 3002. History of Western Philosophy**

Great philosophical systems and persistent problems in the history of ideas. Each course may be taken independently, but the full sequence is recommended.

3000. Pre-Socratics to St. Thomas Aquinas. Four units.

3001. William of Occam to Kant. Four units.

3002. Fichte to contemporary philosophers. Four units.

**3100. Introduction to Philosophic Problems**

Representative interpretations of man's place in the universe, studied through selections from the writings of the great philosophers. Five units.

**3102. Historical and Systematic Ethics**

Major types of ethical theory and their relation to social systems and institutions, current social, political and professional practices. Four units.

**3200. Theory of Logical Inquiry**

Same as Math. 5103, Introduction to Sets and Symbolic Logic. Three units.

**4010. Philosophy of Religion**

Nature and significance of religion and of its place in human society and in the life of the self. Four units.

**4050. American Philosophy**

Philosophic thought in America during the past century; selected readings from Peirce, James, Royce, Santayana, Dewey, Whitehead, and Tillich. Prerequisite: An introductory course in philosophy or history of philosophy. Four units.

**5000. Philosophy of Education**

Foundational course in philosophy of education. Examination of philosophical issues in contemporary education. Four units.

## DIVISION OF SCIENCE AND MATHEMATICS

Professors Peterson (head), Groody, Guthrie, Lutt, Purdy, Purvis, Sawrey, Smith, Southard (chairman, Department of Mathematics), Woods; Associate Professors Grillos, Hancock, Heath; Assistant Professors Altman, Colburn, Summers, Tracewell.

### CURRICULA OFFERED

#### Baccalaureate Degree

- Biological science (B.S.)
- Chemistry (B.A., B.S.)
- Mathematics (B.S.)
- Physics (B.A., B.S.)
- Physical Science (B.S.)

#### Minors

(See adviser for requirements)

- Biological Science
- Mathematics
- Physical Science

#### PURPOSES

To offer liberal arts, applied and preprofessional programs, to prepare teachers for the elementary and secondary schools and to offer general education and service courses.

#### INDIVIDUAL STUDY AND DIRECTED GROUP STUDY

Students with special interests not covered in the courses listed below may arrange from one to five units work on an individual study basis by registering for Individual Study. Specific requirements for each individual study program must be worked out with the appropriate faculty member, and approved forms must be filed with the registrar and division office prior to registration. Directed Group Studies, carrying from one to six units of credit, are available at all levels in the several disciplines represented in the division. They will be offered as special circumstances warrant.

#### HIGH SCHOOL MATHEMATICS PREPARATION

Four years of college preparatory mathematics is strongly recommended for students expecting to major or minor in mathematics or sciences. In any case, such students should have completed at least two years of algebra and one year of geometry, or one and one-half years of algebra, trigonometry and one year of geometry. A student not having this minimum preparation should consult his adviser.

#### BIOLOGICAL SCIENCE MAJOR

- I. Complete the 76-unit requirement in general education which is required for all majors. Students completing this major will have satisfied the 19-unit general education requirement in science and mathematics. Study of one or more modern foreign languages is highly recommended.

#### II. Complete the following requirements in the major:

	Units
<i>Lower Division</i>	
Principles of Biology	5
General Chemistry	15
Organic Chemistry	5-15
General Botany	6
College Mathematics	5-10
General Physics	12
General Zoology	6
<i>Upper Division</i>	
Genetics	4
Cellular Physiology or Anatomy and Physiology	4-8
Senior Seminar	3
General Ecology	6
Approved Science Electives	20-39
	<hr/>
	110

- III. Pre-secondary teaching candidates must complete (a) the requirements for admission to teacher education; (b) the upper-division professional courses in teacher education which are required; (c) the requirements for a minor, 6 units of which may be taken in the graduate year; (d) Sci. Ed. 5100, 3 units.

#### Recommended Program for the Biological Science Major

	Units		
	F	W	S
Principles of Biology, 1000	5		
General Chemistry, 1101	5		
Math or G. E.	6-7		
General Botany, 1001		3	
General Chemistry, 1102		5	
Math or G. E.	7-8		
General Botany, 1102			3
General Chemistry, 1103		5	
G. E.	8-9		

#### Second Year

General Physics	4
Organic Chemistry, 3301	5
G. E.	7-8
Organic Chemistry, 3302 and/or G. E.	9-10
General Physics	4
General Zoology, 1001	3
General Physics	4
Organic Chemistry and/or G. E.	9-10
General Zoology, 1002	3

	Units		
	F	W	S
Genetics, 2500	5		
Applicable Science Elective	3-6		
G. E. and/or Elective	6-9		
Cell Physiology, 4100 or Anatomy and Physiology, 3301, 3302	4-8		
Applicable Science Elective	3-6		
G. E. and/or Elective	6-9		
Applicable Science Elective	3-6		
G. E. and/or Elective	10-12		

Senior Seminar, 4801	1	
Applicable Science Elective	5-8	
G. E. and/or Elective	7-10	
Senior Seminar, 4802	1	
General Ecology, 4461	3	
Applicable Science Elective	5-8	
G. E. and/or Elective	4-7	
Senior Seminar, 4803	1	
General Ecology, 4462	3	
Applicable Science Elective	3-6	
G. E. and/or Elective	6-9	

#### CHEMISTRY MAJOR

I. Complete the 76-unit requirement in general education which is required for all majors. Students completing this major will have satisfied 14 of the 19-unit general education requirement in science and mathematics.

II. Complete the following requirements in the major:

	B.S.	B.A.
General Chemistry	15	15
Quantitative Analysis	6	6
Mathematics		
Basic Analysis *	5	5
Analytic Geometry-Calculus	20	12
Geology	-	4
Physics	20	16
Physical Science electives	-	11-15
General Education	33	23-27
Upper Division		
Organic Chemistry	15	10
Physical Chemistry	15	5
Advanced Inorganic	5	-
Instrumental Analysis	3	-
Advanced Chemistry Electives	9-23	-
Minor Electives	0-14	-
Physical Science or Free † Electives	-	43-47
Foreign Language	18	-
General Education (other than for. lang.)	20	35-39
Total	198	193

\* May be waived by examination. The candidate who is qualified to waive this requirement will be expected to take an equivalent number of units in upper-division major or minor electives.

† Maximum of 25 free electives units.

#### Illustrative Program for the Chemistry Major—B.S.

	Units		
	F	W	S
First Year			
General Chemistry, 1101	5		
Basic Analysis, 1301	5		
General Education	7		
General Chemistry, 1102	5		
Anal. Geom.-Calculus, 1302	4		
Physics, 1011	4		
General Education	4		
General Chemistry, 1103	5		
Anal. Geom.-Calculus, 1303	4		
Physics, 1012	4		
General Education	4		
Second Year			
Quant. Analysis	3		
Anal. Geom.-Calculus, 2301	4		
Physics, 2011	4		
General Education	5		
Anal. Geom.-Calculus, 2302	4		
Quant. Analysis	3		
Physics, 2012	4		
General Education	5		
Anal. Geom.-Calculus, 2303	4		
Physics, 2013	4		
General Education	8		
Third Year			
Organic Chemistry, 3301	5		
Physical Chemistry, 4501	5		
Language	4		
Other General Education	3		
Organic Chemistry, 3302	5		
Physical Chemistry, 4502	5		
Language	4		
Other General Education	3		
Organic Chemistry, 3303	5		
Physical Chemistry, 4503	5		
Language	4		
Other General Education	3		
Fourth Year			
Instrumental Analysis, 4240	3		
Adv. Chem. Electives	6		
Language	3		
General Education	4		
Adv. Inorganic Chem., 4151	5		
Adv. Chem. Electives	5		
Language	3		
General Education	3		
Adv. Chem. Electives	12		
General Education	4		

**MATHEMATICS MAJOR**

I. Complete the 76-unit requirement in general education which is required for all majors. Students completing this major will have satisfied the general education requirement in mathematics. Chemistry and physics taken as preparation for the major will apply toward the general education requirement in natural science. Study of one or more modern foreign languages is highly recommended.

II. Complete the following requirements in the major:

	<i>Units</i>
<i>Lower Division</i>	
Recommended preparation for the major:	
College chemistry and physics	15-25
Math. 1302-3 and Math. 2301-3 or equivalent	20
<i>Upper Division</i>	
<i>Upper Division Core</i>	
Math. 3101, 3111	8
Math. 3201	4
	12
<i>Liberal Arts Option</i>	
Math. 3320	5
Math. 4331, 4332	10
Electives selected with aid of adviser	13
	28
<i>Secondary Teaching Option</i>	
Math. 4040	4
A second course in geometry	4
Math. 3600	4
Electives selected with aid of adviser	16
	28
Total upper division mathematics	40

III. Pre-secondary teaching candidates must also complete (a) the requirements for admission to teacher education; (b) the upper-division professional courses in teacher education which are required; (c) the requirements for a teaching minor, 6 units of which may be taken in the graduate year; (d) Math. Ed. 5040, 4 units.

**PHYSICAL SCIENCE MAJOR**

I. Complete the 76-unit requirement in general education which is required of all majors. Students completing this major will have satisfied the 19-unit general education requirement in science and mathematics. Study of one or more modern foreign languages is highly recommended.

II. Complete the following requirements in the major:

	<i>Units</i>
<i>Lower Division</i>	
Mathematics	20-25
General Chemistry	15
Quantitative Analysis	6-9
General Physics	20
Biology	5-10
Physical Science Electives	5-10
	21-39
Total	110

III. Secondary teaching candidates must complete (a) the requirements for admission to teacher education; (b) the upper-division professional courses in teacher education which are required; (c) the requirements for a minor, 6 units of which may be taken in the graduate year; (d) the course Sci. Ed. 5100, 3 units.

**Illustrative Program for the Physical Science Major**

	<i>Units</i>	<i>F</i>	<i>W</i>	<i>S</i>
Math Anal. or G.E.	5-6			
Gen. Chemistry, 1101	5			
Phys. Geol. or G.E.	5			
Anal. Geom. and Calc., 1302				4
Gen. Chem., 1102				5
Gen. Physics, 1011				4
G.E.				3-4
Anal. Geom. and Calc., 1303				4
Gen. Chem., 1103				5
Gen. Physics, 1012				4
G.E.				3-4
<i>Second Year</i>		<i>F</i>	<i>W</i>	<i>S</i>
Anal. Geom. and Calc., 2301	4			
Quant. Anal.	3			
General Physics, 2011	4			
Biology, 1000	5			
Anal. Geom. and Calc., 2302				4
Quant. Anal.				3
General Physics, 2012				4
Science Electives				0-5
G.E.				0-5
Anal. Geom. and Calc., 2303				4
Quant. Anal. or G.E.				3
General Physics, 2013				4
Science Electives				0-5
G.E.				0-5
<i>Third Year</i>		<i>F</i>	<i>W</i>	<i>S</i>
Phys. Sci. Electives	4-6			
G.E. and/or Electives	10-12			
Phys. Sci. Electives				3-6
G.E. and/or Electives				10-13
Phys. Sci. Electives				3-6
G.E. and/or Elect.				10-13
<i>Fourth Year</i>		<i>F</i>	<i>W</i>	<i>S</i>
Phys. Sci. Electives	4-7			
G.E. and/or Electives	9-12			
Phys. Sci. Electives				3-7
G.E. and/or Electives				9-12
Phys. Sci. Electives				4-7
G.E. and/or Electives				9-12

**PHYSICS MAJOR**

I. Complete the 76-unit requirement in general education which is required of all majors. Students completing this major will have satisfied the 14-unit general education requirement in science and mathematics. Study of one or more modern foreign languages is highly recommended.

II. Complete the following requirements in the major:

*Lower Division*

	B.S.	B.A.
General Physics	20	20
General Chemistry	15	15
Mathematics	25	25
General Mathematics Analysis		
Analytic Geometry and		
Calculus		

*Upper Division*

Analytic Mechanics	9	9
Electricity and Magnetism	9	9
Introduction to Atomic Structure	4	4
Radioactivity and Nuclear Structure	4	4
Thermodynamics and Kinetic Theory	4	
Modern Physics Laboratory or		
Advanced Electrical Laboratory	2	2
Physical Optics	4	4
Electronics	6	
Physics Electives	12-16	9
General Education *	62	62
Free Electives	15-19	23
<b>Total</b>	<b>195</b>	<b>186</b>

**Illustrative Program for the Physics Major****First Year**

	Units		
	F	W	S
Basic Analysis, 1301	5		
Gen. Chem. and Qual. Anal., 1101	5		
Electives—G.E.	6		
Anal. Geom. and Calculus, 1302	4		
Gen. Chem. and Qual. Anal., 1102	5		
Mechanics, 1011	4		
Electives—G.E.	3		
Anal. Geom. and Calculus, 1303	4		
Heat and Sound, 1012	4		
Gen. Chem. and Qual. Anal., 1103	5		
Electives—G.E.	3		

**Second Year**

	Units		
	F	W	S
Anal. Geom. and Calculus, 2301	4		
Electricity and Magnetism, 2011	4		
Electives—G.E.	8		
Anal. Geom. and Calculus, 2302	4		
Light, 2012	4		
Electives—G.E.	8		
Anal. Geom. and Calc., 2303	4		
Modern Physics, 2013	4		
Electives—G.E.	8		

\* Includes 9 units of foreign language.

**Third Year**

	Units		
	F	W	S
Analytic Mechanics, 3311	3		
Electronics, 3511	3		
Electricity and Magnetism, 3331	3		
Electives—Physics or G.E.	8		
Analytic Mechanics, 3312	3		
Electronics, 3512	3		
Electricity and Magnetism, 3332	3		
Electives—Physics or G.E.	8		
Analytic Mechanics, 3313	3		
Thermo. and Kinetic Theory, 3320	4		
Elec. and Magnetism, 3333	3		
Electives—Physics or G.E.	7		

**Fourth Year**

	Units		
	F	W	S
Intr. to Atomic Struc., 4150	4		
Applied Math. for Engineers (or equivalent)	3		
Physics Electives or G.E.	9		
Radioactivity and Nuclear Structure, 4160	4		
* Modern Physics Lab., 4181	1		
* Advanced Electrical Lab., 4381	1		
Physics Electives or G.E.	11		
Physical Optics, 3210	4		
* Modern Physics Lab., 4182	1		
* Adv. Electrical Lab., 4382	1		
Physics Electives or G.E.	11		

**DESCRIPTION OF COURSES****ANATOMY AND PHYSIOLOGY****3300. Anatomy and Physiology**

Introduction to structure and function of human systems. Appropriate for all students desiring understanding of the human body. Prerequisite: Biology or zoology. 3 hrs. lect., 3 hrs. lab. Four units.

**3301, 3302. Anatomy and Physiology**

Introduction to structure and function of human systems. Prerequisites: General biology or zoology, organic chemistry; 3301 prerequisite to 3302. 3 hrs. lect., 3 hrs. lab. Four units each.

**4100. Cellular Physiology**

Living activities of cells and tissues including nutrition, response, growth and reproduction; unique problems in different groups of organisms. Prerequisites: General biology or zoology and botany; general chemistry; organic chemistry is recommended. 2 hrs. lect., 6 hrs. lab. Four units.

**ASTRONOMY****1000. Descriptive Astronomy**

A nonmathematical course with emphasis on aspects of interest to the prospective or in-service teacher. 5 hrs. lect. Five units.

\* Either the Modern Physics or Advanced Electrical Lab. can be taken.

**BIOLOGY**

(See Also Botany, Entomology, Zoology)

**1000. Principles of Biology**

Fundamental structures and functions of living organisms, including cellular organization, nutrition, respiration and photosynthesis, control mechanisms, reproduction, heredity, and evolution. Not open to students having credit for a college course in general biology, botany or zoology. 4 hrs. lect., 3 hrs. lab. Five units.

**2500. Genetics**

The basic mechanisms of gene transmission, fundamental structure of genes and chromosomes, gene action in relationship to genetically coded information. Prerequisite: General biology, or botany and zoology. 5 hrs. lect. Five units.

**3300. Microbiology**

The general biology of major groups of microorganisms including their morphology, metabolism, reproduction, genetics, and ecology. Prerequisites: General biology or botany and zoology, general chemistry; organic chemistry recommended. 4 hrs. lect., 6 hrs. lab. Six units.

**3500. Evolution**

Historical development of theories on the origin of species, the impact of 20th Century genetics on evolutionary theory; with consideration of the course of evolution. Prerequisite: Genetics. 3 hrs. lect. Three units.

**4100. Microtechnique**

Theory and practice in the preparation of living and fixed organisms and tissues for microscopic study, with emphasis on histochemistry. Prerequisites: General biology, or botany and zoology, general chemistry, and one other course in the biological sciences. 1 hr. lect., 6 hrs. lab. Three units.

**4220. Marine Biology**

A study of local marine organisms with emphasis on structural and functional adaptations to the sea as a specialized environment. Prerequisite: General biology, or zoology and botany. 2 hrs. lect., 3 hrs. lab., field trips. Three units.

**4270. Limnology**

Principles of fresh-water biology; techniques and practice in the study of fresh-water organisms and their habitats; field work in local streams and ponds. Prerequisites: General biology, general chemistry, or botany and zoology. 2 hrs. lect., 6 hrs. lab. Four units.

**4450. Biogeography**

Origin, development, and the distribution of the major plant and animal units of the world, with emphasis on the Western United States. Prerequisite: General biology or botany and zoology. 3 hrs. lect. Three units.

**4461, 4462. General Ecology**

Study of the relationship of plants and animals to each other and their environment. Prerequisite: General botany and zoology or equivalent; chemistry and physics recommended; 4461 prerequisite to 4462. 4461, 3 hrs. lect.; 4462, 1 hr. lect., 6 hrs. lab. and/or field trips. Three units each.

**4800. History of Biological Concepts**

The development of the major concepts in biology using original writings of key figures from the Greeks to contemporary biologists. Prerequisite: Senior or graduate standing as a biology major, or consent of the instructor. 2 hrs. lect., 2 hrs. discussion. Three units.

**4801, 4802, 4803. Senior Seminar**

Major areas of current biological research will be considered with emphasis on theoretical and practical research as carried on in university, industrial and governmental Bay Area laboratories. Prerequisite: Senior standing as a biology major, or permission of instructor. 1 hr. Lecture-discussion. One unit each.

**4900. Individual Study**

One-four units.

**BOTANY**

(See also Biology, Entomology, Zoology)

**1001. General Botany**

An introduction to the fundamental principles of plant life, with major emphasis on the structure, development, and function of seed plants. Prerequisites: Biol. 1000 or equivalent. 2 hrs. lect., 3 hrs. lab. Three units.

**1002. General Botany**

A survey of the plant kingdom, including the fundamentals of classification, structure, development, function, and reproduction. Prerequisite: Bot. 1001 or equivalent. 2 hrs. lect., 3 hrs. lab. Three units.

**3000. Survey of the Plant Kingdom**

General biology of the major plant groups, other than bacteria, stressing the fundamentals of classification, morphology, physiology and reproduction. Prerequisite: Biol. 1000 or equivalent. Not open to majors in biology. 2 hrs. lect., 3 hrs. lab. Three units.

**3101. Morphology of the Non-vascular Plants**

A comparative study of the structure, development and phylogeny of the algae, fungi, lichens and bryophytes. Prerequisite: General botany or equivalent. 3 hrs. lect., 3 hrs. lab. Four units.

**3102. Morphology of the Vascular Plants**

A comparative study of the structure, development, and phylogeny of the club mosses, horsetails, ferns and seed plants. Prerequisites: General botany or equivalent. 3 hrs. lect., 3 hrs. lab. Four units.

**4200. Plant Anatomy**

A microscopic study of the structure and development of plant tissues, with major emphasis upon the anatomy of the seed plants. Prerequisites: General botany and Bot. 3102 or equivalent. 3 hrs. lect., 3 hrs. lab. Four units.

**4300. Plant Taxonomy**

Study of the principles of plant taxonomy. Field and laboratory studies of native seed plants. Prerequisite: General botany or equivalent. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**4310. Mycology**

The identification, ecology, and study of representative groups of fungi. Prerequisites: General botany or equivalent and Bot. 3101. 2 hrs. lect., 3 hrs. lab., field trips. Three units.

**4400. Principles of Plant Physiology**

The life processes of the higher plants: soil and water relations, photosynthesis, metabolic activities, growth regulators, development and reproduction. Prerequisites: General botany and a year course in general chemistry. Organic chemistry is strongly recommended. 3 hrs. lect., 6 hrs. lab. Five units.

**4600. Economic Plants**

A study of the significance of plants in the development of human culture. 5 hrs. lect. Five units.

**4900. Individual Study**

Two-five units.

**5100. Plant Ecology**

The relationships of plants to climate, soil, and other organisms. Prerequisites: General botany and general ecology. Plant physiology is strongly recommended. 1 hr. lect., 6 hrs. lab., field trips. Three units.

**CHEMISTRY****1101, 1102, 1103. General Chemistry and Qualitative Analysis**

Fundamental principles of chemistry with emphasis on inorganic compounds. Qualitative analysis is begun during the second quarter. Prerequisites: High school chemistry and physics is recommended; 2 years high school math is minimal and 4 years is recommended; (Chem. 1101 is prerequisite to Chem. 1102; Chem. 1102 is prerequisite to Chem. 1103.) 3 hrs. lect., 6 hrs. lab., problem session. 5 units each.

**3301, 3302, 3303. Organic Chemistry**

An introduction to general theory of organic chemistry and the chemistry of aliphatic, aromatic and heterocyclic compounds. Emphasis on basic principles and laboratory experience in basic techniques and synthesis. Prerequisite: Chemistry 1103. (Chem. 3301 is prerequisite to Chem. 3302, and Chem. 3302 is prerequisite to Chem. 3303. Students with previous credit in an introductory survey course receive only 3 units of credit for Chem. 3301.) 3 hrs. lect., 6 hrs. lab. Five units each.

**4151, 4152. Advanced Inorganic Chemistry**

A study of atomic structure, valence and bonding with laboratory experience in the preparation and properties of selected inorganic compounds. Prerequisite: Physical chemistry 4501 or permission of instruction; (Chem. 4151 is prerequisite to Chem. 4152.) Chem. 4151, 4 hrs. lect., 3 hrs. lab.; 4152, 3 hrs. lect., 6 hrs. lab. Five units each.

**4240. Instrumental Methods of Analysis**

Theory and application of instrumental methods in chemical analysis. Laboratory experiments in physical and instrumental methods of analysis of inorganic and organic substances. Prerequisites: Quantitative analysis, organic chemistry. 1 hr. lect., 6 hrs. lab. Three units.

**4401, 4402, 4403. Biochemistry**

Consideration of the chemical and physical factors in life processes. Chemistry and metabolism in animals, plants and micro-organisms of the carbohydrates, proteins and enzymes, lipids, vitamins, hormones and minerals. Laboratory practice with the more important constituents of living matter. Prerequisite: Chem. 3303, Quantitative Analysis and a course in biology (may be taken concurrently); or consent of instructor. Chem. 4501 or 4500 is recommended. (Chem. 4401 is prerequisite to 4402, and Chem. 4402 is prerequisite to Chem. 4403.) 3 hrs. lect., 6 hrs. lab. Five units each.

**4500. Introductory Physical Chemistry**

An introductory study of the principles of physical chemistry. The fundamental physical laws, theoretical principles and mathematical relations in chemistry. Prerequisites: Quantitative analysis, Chem. 3301, general physics, college algebra or consent of instructor. 4 hrs. lect., 2 hrs. discussion. Five units.

**4501, 4502, 4503. Physical Chemistry**

A lecture and laboratory course dealing with the elements of physical chemistry, including the physical properties of substances, elementary thermodynamics, electrochemistry, chemical kinetics, atomic structures, with beginning laboratory experience in basic application of physical techniques to chemical investigation. Prerequisites: General chemistry, calculus, introductory physics. (Chem. 4501 is prerequisite to Chem. 4502; Chem. 4502 is prerequisite to Chem. 4503.) Course 4501, 5 hrs. lect.; Chem. 4502, 3 hrs. lect., 6 hrs. lab.; Chem. 4503 same as Chem. 4502. Five units each.

**4610. Industrial Chemistry**

Fundamental principles and applications of important chemical processes. Prerequisites: Chem. 3303, Quantitative Analysis. 3-4 hrs. lect. 4-6 hrs. field trips. Five units.

**4900. Individual Study**

Two-five units.

**4910. Special Problems in Chemistry**

Independent study of a problem acceptable to the instructor. Prerequisite: Consent of an instructor to act as sponsor; ability to assume responsibility for independent work and to prepare written and oral reports. Two to five units.

**CONSERVATION****4380. Conservation of Natural Resources**

Interrelationships of soils, water, minerals, forests, grasslands, and wildlife; applied ecology in the wise use of natural resources. Prerequisite: A basic course in biology and in physical science. 5 hrs. lect. Five units.

**ENTOMOLOGY**

(See also Biology, Botany, Zoology)

**4100. Insects and Man**

Beneficial and harmful insects and related arthropods as important factors in human welfare. Field trips to selected entomological activities and industries in the Bay Area. 2 hrs. lect., 3 hrs. lab. Three units.

**4210. General Entomology**

Introduction to the anatomy, biology, ecology and identification of western insects; emphasis on local forms. Techniques of collecting, rearing and preserving insects. Prerequisite: A course in the biological sciences. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**4230. Insect Identification**

Collection and preparation of specimens, classification of insects, principles of taxonomy, and entomological literature. Prerequisite: A course in the biological sciences. 2 hrs. lect., 6 hrs. lab. Four units.

**4310. Medical Entomology**

Insects and related arthropods as transmitters of disease, public health problems arising from insects not transmitting disease. Prerequisites: A course in entomology or permission of the instructor. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**4410. Agricultural Entomology**

The biology, ecology, identification, distribution and control of insects attacking agricultural crops and stored products. Prerequisites: A course in entomology or permission of the instructor. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**GEOLOGY****1101. Physical Geology**

An elementary study of the earth, including materials, structure, internal conditions and physical and chemical processes. Prerequisite: Geology 1102 must precede or be taken concurrently. 4 hrs. lect. Four units.

**1102. Physical Geology Laboratory**

An elementary study of rocks and minerals, topographic and geologic maps. Field trips. Prerequisite: None, or Geol. 1101 can be taken concurrently. 3 hrs. lab. One unit.

**3201. Historical Geology**

Evolution of continents, oceans, mountain systems and other features of the earth; development of animals and plants. Prerequisite: Geol. 1101 or equivalent plus Geology 3202 (may be taken concurrently). 4 hrs. lect. Four units.

**3202. Historical Geology Laboratory**

Collecting, identifying and categorizing fossils; use of fossils. Prerequisite: Geol. 1101 or equivalent. 3 hrs. lab. One unit.

**3510. Stratigraphic Paleontology**

History and classification of all fossil animals and plants with emphasis on the invertebrate animals. Methods of interpretation of the fossil record. Prerequisite: Permission of instructor. 3 hrs. lect., 6 hrs. lab. Five units.

**3610. Mineralogy and Crystallography**

Recognition of minerals by their physical properties and crystal form; morphology and classification of crystal structure; introduction to x-ray techniques. Prerequisite: Geol. 1101 or equivalent. 2 hrs. lect., 9 hrs. lab. Five units.

**3710. Petrology**

Origin, occurrence and classification of common rocks; emphasis on hand lens identification. Prerequisite: Permission of instructor. 2 hrs. lect., 9 hrs. lab. Five units.

**3810. Structural Geology**

Structural features of sedimentary, metamorphic rocks; deformation of the earth's crust; applied practice in laboratory methods. Prerequisite: Permission of instructor. 3 hrs. lect., 6 hrs. lab. Five units.

**4300. Land Forms in Western U.S.**

The geologic processes which formed the surface features of western U.S. with emphasis on the San Francisco Bay Area. 3 hrs. lect. Three units.

**4310. Geology of California**

An overview of the geologic history and development of the physical features of California. Prerequisite: Geol. 1101 or equivalent. 2 hrs. lect., 3 hrs. lab. Three units.

**4320. Rocks and Minerals of California**

An elementary study of the common rocks and minerals, their occurrence, origin and uses. 2 hrs. lect., 6 hrs. lab. Four units.

**4410. Economic Geology**

A study of the mineral resources of economic importance. Prerequisite: Geol. 1101 or equivalent. 3 hrs. lect., 6 hrs. lab. Five units.

**4810. Field Geology**

Introduction to geologic field methods and instruments. Preparation of geologic maps of local area, writing of geologic reports. Prerequisite: Permission of instructor. 1 hr. lect., 6 hrs. lab. Three units.

**4900. Individual Study**

One-five units.

**MATHEMATICS****1060. Mathematics of Finance**

Simple and compound interest; discount, depreciation and amortization; study of annuities and other mathematical aspects of financial transactions. Prerequisite: Intermediate algebra or equivalent. Four units.

**1110. Elements of Mathematical Logic**

The concept of set. Operations on sets. Relations and functions. The mathematics of declarative sentences. The nature of proof. Will meet general education requirement in mathematics. Four units.

**1301. Basic Analysis**

A modern freshman mathematics course combining elements of college algebra and analytic trigonometry with an axiomatic development of the complex number system. Designed to prepare students for standard analytic geometry and calculus sequence. Prerequisite: Intermediate algebra and trigonometry or acceptable score on department placement test. Five units.

**1302, 1303; 2301, 2302, 2303. Analytic Geometry and Calculus**

Analytic geometry, differential and integral calculus, with applications. Each course has its predecessor(s) as prerequisite(s). Four units each. Prerequisite for 1302: Math. 1301 or intermediate algebra, trigonometry and acceptable score on department placement test.

**2100. Finite Mathematics**

Consideration of finite mathematics with applications to the behavioral, life and management sciences. Combinatorial problems, elementary aspects of probability, vectors and matrices. Compound statements and sets. Prerequisite: Intermediate algebra. Five units.

**2300. Review of Calculus**

Comprehensive review of calculus for students who need a refresher course before proceeding to more advanced courses in mathematics. Prerequisite: Math. 2303 or equivalent. Three units. (Credit cannot be granted toward a mathematics major or a bachelor's degree.)

**2301, 2302, 2303. See Math. 1302****3000. Concepts of Mathematics**

For students planning not to specialize in mathematics or related sciences. Consideration of postulates for number systems, arithmetic and algebra, with applications. Designed to satisfy general education requirement in mathematics for non-majors. Five units.

**3101, 3111. Foundations of Mathematics**

The nature of mathematics; mathematical logic; axiomatic bases for numbers and number systems; bases of geometries. Prerequisite to each: Calculus. Four units each.

**3110. Theory of Polynomial Equations**

Nature, limits, location, and approximation of roots. Theorem of Sturm, elements and applications of determinants and matrices, symmetric functions, transformations of equations. Prerequisite: Calculus. Three units.

**3120. Linear Algebra and Matrices**

Linear transformations and matrices. Algebra of matrices and vectors. Determinants and systems of linear algebraic equations. Applications to geometry, physics, etc. Prerequisites: Two courses in calculus or consent of instructor. Five units.

**3130. Set Theory**

Sets, relations, functions. Quotient sets and product sets. The choice axiom and its equivalent forms. Ordinal and cardinal arithmetic. Prerequisite: Two years of college mathematics. 5 units.

**3201, 3202, 3203. Higher Geometry**

3201 emphasizes advanced aspects of plane and solid Euclidean geometry, including foundations, 3202 Non-Euclidean geometry, 3203 synthetic and analytic projective geometry. Prerequisite: Calculus, Math. 3201, 3201. Four units each.

**3320. Differential Equations**

A beginning course in ordinary differential equations. Prerequisite: Math. 2303 or equivalent. Five units.

**3331. Differential Equations I**

First order differential equations and a beginning study of linear differential equations with applications. Prerequisite: Math. 2303. (Not open for credit to students having credit for Math. 3320 or equivalent.) Three units.

**3332. Differential Equations II**

Solutions of nth order linear differential equations with variable coefficients, series solutions, classification and treatment of singular points, systems of linear differential equations in two or more dependent variables, special topics. Prerequisite: Math. 3331. (Not open for credit to students having credit for 3320 or equivalent.) Three units.

**3400. Selected Topics From Applied Mathematics for Engineers**

Some aspects of hyperbolic functions, elliptic integrals, infinite series, Fourier series, Gamma and Bessel functions with applications to engineering and physical problems. Attention given to formulation of such problems in mathematical language. Prerequisite: Math. 3320 or consent of instructor. Three units.

**3450. Linear Programming**

Elementary principles and mathematical structure of linear programming. Simplex and alternative methods for solving systems of linear inequalities. Applications to problems in business, industry, transportation, military logistics and other fields. Prerequisite: Calculus within the past three years or consent of instructor. Three units.

**3500. Probability and Statistics**

Basic laws of probability. Distributions, moments, sampling and central limit theorem. Prerequisite: Math. 2303 or equivalent. Five units.

**3600. Number Theory**

Euclid's algorithm, prime numbers, congruences, theorems of Fermat and Euler, quadratic residues. Prerequisite: Calculus. Four units.

**3700. Introduction to Digital Computer Programming**

Study of the process of coding of problems for an automatic digital computer with some emphasis on the logical aspects. Prerequisite: One year of college mathematics or consent of instructor. Four units.

**3750. Basic Numerical Analysis**

Computation with approximate numbers; accuracy, checking and error considerations; choice and use of tables; applications involving polynomial approximations; interpolation, finite differences, numerical differentiation and integration; numerical solution of algebraic, transcendental equations and systems of equations. Prerequisite: Math. 3320 or consent of instructor. Five units.

**4040. History of Mathematics**

The historical development of mathematical ideas and techniques. Prerequisite: Calculus or consent of instructor. Four units.

**4100. Mathematical Logic**

The propositional calculus and its completeness. Boolean algebras. Functional calculi of various orders. Theorems of Gödel and Henkin. Prerequisite: Senior standing in mathematics or consent of instructor. 5 units.

**4120. Introduction to Modern Higher Algebra**

An introduction to abstract algebraic structures, including number systems, groups, rings, fields, integral domains and the algebra of classes. Prerequisite: Math. 3120. Five units.

**4200. Elementary Metric Differential Geometry**

Topics in classical differential geometry of curves and surfaces. Prerequisite: Math. 2303 or equivalent. 5 units.

**4320. Vector Analysis**

Vector algebra, differentiation, and integration; gradient, divergence, curl; curvilinear coordinates. Prerequisite: Math. 3320. Five units.

**4331, 4332. Advanced Calculus**

Limits and convergence, improper integrals, functions of several variables, partial derivatives, Jacobians and the linear approximation theorem, multiple integrals and Fubini's theorem, line and surface integrals, Stokes' theorem, special functions. Prerequisite: Math. 2303, 4331. Five units each.

**4340. Introduction to Complex Variables**

Introduction to theory of functions of complex variables. Prerequisite: Math. 3320. Five units.

**4360. Introductory Topology**

Beginning course in topological methods in analysis, standard theorems in topology, bicontinuous transformations, topological spaces, metric spaces. Prerequisite: Math. 4332 or consent of instructor. Four units.

**4730. Numerical Methods in Ordinary Differential Equations**

Selected numerical methods of solution of one-point and two-point boundary value problems involving linear and nonlinear ordinary differential equations and systems. Prerequisite: Math. 3332, 3700, and 3750 or consent of instructor. Five units.

**4750. Numerical Methods of Approximation**

Study of polynomial and rational methods of approximation of functions of one or more variables in senses such as least squares and least maximum deviation. Prerequisite: Math. 3700 and 3750 or consent of instructor. Four units.

**4760. Numerical Matrix Inversion and Decomposition**

Numerical methods for inverting and decomposing matrices and solving systems of linear algebraic equations and inequalities. Methods for obtaining eigenvalues and eigenvectors of matrices. Prerequisite: Math. 3120 and 3700 or consent of instructor. Five units.

**5020. Content of Elementary School Mathematics**

Mathematical background to arithmetic; meanings, history, applications. Designed to help potential elementary school teachers understand mathematics. Three units.

**5101. Numbers and Number Systems**

Study of postulates for, properties of, and operations with the natural and whole numbers, integers, rational and real numbers, with an introduction to complex numbers; the nature of proof. 3 units.

**5103. Introduction to Sets and Symbolic Logic**

Basic elements of symbolic logic and sets, simple connectives, compound statements, syllogism, interrelationships between sets and logic; the nature of proof. 3 units.

**5105. Introduction to Algebraic Concepts**

Beginning development of algebraic principles and processes from properties of the real numbers, the "why's" of elementary algebra; the nature of proof. 3 units.

**5107. Introduction to Geometric Concepts**

A "modern" introduction to the informal geometry of points, lines, planes and space from non-metric, metric, and analytic standpoints; the necessity of undefined terms, postulates, axioms, and pre-accepted "reasons"; the avoidance of circular definitions and "proofs"; the development of selected theorems from clearly specified minimum sets of assumptions; the nature of proof. 3 units.

**5109. Elements of Matrix Algebra**

Introduction to matrices and linear algebra; elementary properties, inverses, the algebra of vectors. 3 units.

**6120. Algebraic Structures**

Internal and external laws of composition. Homomorphisms. Groups. Rings and ideals. Structure theorems. Modules. Fields and field extensions. Introductory homological algebra. Prerequisite: Consent of instructor. 5 units.

**6331. Theory of Ordinary Differential Equations**

Introductory course limited to real domain. General theory of linear differential equations, algebraic theory of linear differential systems, existence theorems, nature of solutions of ordinary differential equations, solutions by definite integrals and in infinite form. Prerequisite: Math. 3332 and Math. 4332. Five units.

**6340. Introduction to Advanced Complex Analysis**

Theory of analytic functions of one complex variable, Cauchy's integral formula, analytic continuation, calculus of residues, multiple-valued functions. Prerequisite: Math. 4340. Five units.

**6350. Introduction to Advanced Real Analysis**

The real number system; point sets; fundamentals of limits, continuous functions and derivatives; Riemann integration; elements of the theory of sets and transfinite numbers. Prerequisite: Math. 4332. Five units.

**6360. Topological Foundations of Analysis**

The choice axiom and its equivalent forms. Topological spaces. The separation axioms. Connectedness and compactness. Continuous functions and homeomorphisms. Metric spaces and the theorems of Baire and Urysohn. Product and quotient spaces. Introduction to linear topological spaces. Prerequisite: Consent of Instructor. 5 units.

**MATHEMATICS EDUCATION****4020. Teaching Mathematics in Elementary Schools**

A study of the curriculum, teaching methods and content in elementary school mathematics. Prerequisite: Math. 3000 or Math. 5020 or equivalent. Three units.

**5040. Teaching Mathematics in Secondary Schools**

Study of the curriculum, teaching methods, A-V techniques, and content in school mathematics from the junior high school through the junior college. Open to seniors and graduate students with mathematics major or minor or consent of instructor. Four units.

**METEOROLOGY****1400. Weather and Climate**

Introduction to the atmosphere, physics of the atmosphere, physical causes of climate; structure and circulation, weather and weather forecasting; emphasis on aspects of interest to the prospective or in-service teacher. Prerequisite: Phys. Sci. 1340 or equivalent. 4 hrs. lect. Four units.

**NATURE STUDY****3391. Nature Study**

Natural history in the field and laboratory with topics from trees, weeds, fall insects, water birds, reptiles, amphibians and conservation. Offered in Fall quarter. Prerequisite: Basic course in biology. 2 hrs. lect., 6 hrs. lab. and/or field trips. Four units.

**3392. Nature Study**

Natural history in the field and laboratory with topics from rocks and minerals, physiographic land forms, fossils, map reading, meteorology, astronomy, early Spring plants and animals. Offered in Winter quarter. Prerequisite: Basic course in physical science. 2 hrs. lect., 6 hrs. lab. and/or field trips. Four units.

**3393. Nature Study**

Natural history in the field and laboratory with topics from land birds, mammals, spring insects and flowers, shrubs and nature activities. Offered in Spring quarter. Prerequisite: Basic course in biology. 2 hrs. lect., 6 hrs. lab. and/or field trips. Four units.

**PHOTOGRAPHY****4500. Introductory Photography**

Elementary course in fundamentals of photography, basic theory and practice of photography through picture taking, development and print making; emphasis on use of photography as an adjunct to teaching and other professions. 2 hrs. lect., 3 hrs. lab. Three units.

**4900. Individual Study**

Two-four units.

**PHYSICAL SCIENCE****1340. Principles of Physical Science**

Fundamental principles of physics and chemistry with applications to astronomy, meteorology and geology. Not open to students having credit for lower-division courses in chemistry or physics. Prerequisite: High school algebra. 4 hrs. lect., 3 hrs. lab. and problem session. Five units.

**4900. Individual Study**

Two-four units.

**5000. Analysis of Physical Science Concepts**

The development of physical science using original writings of key figures from the Greeks to contemporary physicists. Prerequisite: upper-division standing, with major or minor in a physical science. 3 hrs. lect. Three units.

**PHYSICS****1011, 1012, 2011, 2012, 2013. General Physics**

1011. *Mechanics*. Uniform and accelerated motion, force, work, momentum and energy. Prerequisite: Math. 1302. (Concurrent enrollment)

1012. *Heat and Sound*. Temperature, introduction to kinetic theory of matter, wave motion. Prerequisites: Phys. 1011, Math. 1303. (Concurrent enrollment)

2011. *Electricity and Magnetism*. Electric charges and currents, magnetism, induced currents, electric oscillations; atomic origin of electromagnetic phenomena. Prerequisite: Phys. 1012, Math. 2301. (Concurrent enrollment)

2012. *Light*. Reflection and refraction of light, Huyghen's principle, lens and mirror systems, interference and diffraction. Prerequisites: Phys. 2011, Math. 2302. (Concurrent enrollment)

2013. *Modern Physics*. Experimental basis of quantum theory; atoms, nuclei, x-rays, atomic structure, radioactivity. Prerequisites: Phys. 2012, Math. 2303. (Concurrent enrollment)  
3 hrs. lect., 3 hrs. lab. each. Four units each.

**2500. Basic Electronics**

An introduction to the design, use and analysis of electronic instruments such as electron tubes, amplifiers and power supplies. 4 hrs. lect. Four units.

**3210. Physical Optics**

The phenomena of diffraction, interference and polarization of light and their applications. Prerequisite: Physics 2013. 3 hrs. lect., 3 hrs. lab. Four units.

**3311, 3312, 3313. Analytic Mechanics**

Fundamentals of statics, kinematics, dynamics of rigid bodies, introduction to Lagrange's and Hamilton's equations. Prerequisites: Physics 2013, Math 3320, or consent of instructor. Phys. 3311 is prerequisite to Phys. 3312; Phys. 3312 is prerequisite to Phys. 3313. 3 hrs. lect. Three units each.

**3320. Thermodynamics and Kinetic Theory**

The equations of state and thermodynamic functions, including the first and second laws. Basic laws governing the behavior of gas molecules, including the Maxwell-Boltzmann distribution. Prerequisite: Phys. 2013 or equivalent. 4 hrs. lect. Four units.

**3331, 3332, 3333. Electricity and Magnetism**

Theory of electrostatics, magnetostatics, magnetism, steady and varying currents, electron theory and electromagnetic waves. Prerequisite: Phys. 2013, Math 3320 or consent of instructor. 3331 is prerequisite to 3332; 3332 is prerequisite to 3333. 3 hrs. lect. Three units each.

**3511, 3512. Electronics**

Primary emphasis is on physics instrumentation. Some topics covered are: circuit analysis, properties of electron tubes, power supplies, amplifiers, feed-back, multi-vibrators. Prerequisite: Phys. 2013. 3 hrs. lect. Three units each.

**3530. Physical Electronics**

Theory and design of vacuum tubes, electron optics, electrostatic and magnetic fields, space charge effects, nuclear particle accelerators. Prerequisite: Phys. 3511 or consent of instructor. 4 hrs. lect. Four units.

**4150. Introduction to Atomic Structure**

An introduction to atomic physics, treating cathode rays, the electron, black body radiation, photoelectric effect, structure of the atom and spectra. Prerequisite: Phys. 2013. 4 hrs. lect. Four units.

**4160. Radioactivity and Nuclear Structure**

Discovery of radioactivity, nature of radioactivity, alpha, beta, and gamma rays, theory of transformation, artificial transmutations, nuclear structure, nuclear reactors. Prerequisites: Phys. 4150 or equivalent. 4 hrs. lect. Four units.

**4170. Nuclear Physics**

Natural and artificial radioactivity, nuclear transformations, nuclear structure, magnetic moments, nuclear radiations, mesons, high energy physics. Prerequisite: Phys. 4160, or consent of instructor. 3 hrs. lect. Three units.

**4181. Modern Physics Laboratory**

Selected experiments in atomic structure, radioactivity and nuclear structure. Photoelectric effect, x-rays, cathode rays, optical spectra, radioactivity decay laws, nuclear moments. Prerequisites: Phys. 2013, Phys. 4150 and 4160, or consent of instructor. 3 hrs. lab. One unit.

**4381. Advanced Electrical Laboratory**

The use and calibration of precision electrical instruments and electronic devices. Prerequisite: Upper-division course in electronics or electricity and magnetism, or consent of instructor. 3 hrs. lab. One unit.

**4410. Introduction to Solid State Physics**

Crystal structures, dielectric, thermal and mechanical properties, metals and semi-conductors, superconductivity, mechanical properties. Prerequisites: Phys. 4170, or equivalent. 4 hrs. lect. Four units.

**4420. Introduction to Quantum Mechanics**

Physical ideas and mathematical formulation of quantum mechanics, with applications to atomic and molecular systems. Prerequisites: Phys. 4170, or equivalent. 4 hrs. lect. Four units.

**SCIENCE EDUCATION****4020. Science in the Elementary School**

Discussions, techniques, projects appropriate to the teaching of science in the elementary schools. Prerequisite: Completion of general education requirement in science. 2 hrs. lect., 3 hrs. lab. Three units.

**5050. Advanced Science Education**

Practice in preparing and presenting science lessons. Prerequisite: previous instruction in science education or consent of the instructor. Three units.

**5100. Science in the Secondary School**

Curriculum, materials, A-V techniques, content, and methods for secondary school science. Prerequisite: Consent of instructor. 2 hrs. lect., 3 hrs. lab. Three units.

**STATISTICS****1500. Elements of Probability and Statistics**

Descriptive statistics; measures of central tendency, variation, correlation. Elementary discrete probability, sampling and sampling distributions. Tests of statistical hypotheses. Role of statistics in scientific research. Prerequisite: One year of high school algebra. 5 units.

**4001. Statistical Analysis I**

Descriptive statistics and probability. Prerequisite: College algebra or equivalent. Four units.

**4002. Statistical Analysis II**

Sampling, distributions, test of significance and correlational methods. Prerequisite: Stat. 4001 or equivalent. Four units.

**4003. Statistical Analysis III**

Introduction to analysis of variance. Prerequisite: Stat. 4002 or equivalent. Four units.

**4900. Individual Study**

Two-four units.

**ZOOLOGY**

(See also Biology, Botany, Entomology)

**1001. General Zoology**

The comparative anatomy, physiology and behavior of representative invertebrate types as adaptions for life in the major environments. Prerequisite: Principles of biology or equivalent. 2 hrs. lect., 3 hrs. lab. Three units.

**1002. General Zoology**

An introduction to vertebrate zoology emphasizing structural and functional adaptations to diverse environments. Prerequisite: Principles of biology or equivalent. 2 hrs. lect., 3 hrs. lab. Three units.

**3000. Survey of the Animal Kingdom**

Introduction to the anatomy, physiology, classification, and evolution of the major animal phyla. Prerequisite: Principles of biology or equivalent. Not open to majors in biology. 2 hrs. lect., 3 hrs. lab. Three units.

**3101. Vertebrate Zoology: Coldbloods**

The natural history of fishes, amphibians and reptiles including biology, morphology, classification, identification and techniques of collecting and preserving specimens with emphasis on western forms. Prerequisite: General zoology or equivalent. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**3102. Vertebrate Zoology: Warmbloods**

The natural history of birds and mammals including biology, morphology, classification, identification and techniques of field study with emphasis on western forms. Prerequisite: General zoology or equivalent. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**3300. Invertebrate Zoology**

The advanced study of the anatomy, physiology, systematic relationships and probable evolution of invertebrate taxa, excluding insects. Prerequisites: General biology or general zoology. 2 hrs. lect., 6 hrs. lab. Four units.

**3600. General Embryology**

Anatomy and physiology of development, principally as exemplified by the vertebrates, including fertilization, morphogenetic movements, differentiation and organogenesis. Prerequisite: General biology or general zoology or consent of instructor. 3 hrs. lect., 6 hrs. lab. Five units.

**3610. Vertebrate Anatomy**

Gross and microscopic structure of representative vertebrates, emphasizing the evolutionary history of the major organ systems. Prerequisite: General embryology or consent of instructor. 3 hrs. lect., 6 hrs. lab. Five units.

**4141. Reptiles and Amphibians**

The biology, ecology, distribution and identification of reptiles and amphibians with emphasis on western forms. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**4142. Mammals**

The anatomy, classification, ecology and distribution of mammals, with emphasis on western species. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**4143. Birds**

The biology, ecology, distribution and identification of birds with emphasis on western forms. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**4144. Fishes**

The biology, ecology, distribution and identification of fishes, with emphasis on western forms. 2 hrs. lect., 6 hrs. lab., field trips. Four units.

**4320. General Parasitology**

An introduction to parasitism; emphasis on the structure, physiology, life histories and pathology of parasitic animals other than arthropods. Prerequisites: General biology or zoology. 2 hrs. lect., 3 hrs. lab. Three units.

## DIVISION OF SOCIAL AND BEHAVIORAL SCIENCE

### **Anthropology, Geography, Journalism, Political Science, Psychology, Sociology**

Professors Merrifield (head), Edmison, Freitag (Chairman, Department of Political Science), Fry, Sawrey (Acting Chairman, Department of Psychology); Associate Professor Blawie; Assistant Professors Carter, Forbes, Foster, Gothenberg, Kallgren, Mechanic, Taylor, Warnken, Winslow, Wright; Instructors Clarke, Wallace.

### **CURRICULA OFFERED**

#### **Baccalaureate Degree**

- Social Science (B.A.) (An interdivisional major; see also Humanities and Business and Economics Divisions.)
- Language Arts (B.A.) (An interdivisional major; see Humanities for details.)
- Political Science (B.A.)
- Psychology (B.A.)

#### **Minors (See advisers for requirements)**

- Anthropology
- Economics (See Business and Economics Division for details.)
- English-Journalism (See Humanities for details.)
- Geography
- History (See Humanities for details.)
- Journalism
- Language Arts (See Humanities for details.)
- Political Science
- Psychology
- Social Science (pre-secondary)
- Sociology

### **PURPOSES**

The division offers instruction in anthropology, geography, journalism, political science, psychology and sociology, leading to the baccalaureate degree in political science, psychology, and social science; and for purposes of general education.

In addition to upper and lower division courses for general education purposes in the above fields, the division cooperates with other divisions in the History of Western Culture, 1001, 1002, 1003; and in the Junior and Senior Symposia, 3801-4801. Majors in this division are referred to these courses listed under Inter-divisional programs.

### **SOCIAL SCIENCE AREA MAJOR**

The social science area major provides a flexible pattern of study of a liberal arts character for such professionally-oriented fields as: teaching, pre-law, government service, pre-business, journalism, foreign service, social work, as well as graduate work in selected fields.

#### **Requirements:**

- I. Complete the 76-unit requirement in general education which is required for all degrees.
- II. Complete the following:
  - A concentration of 28-quarter hours of upper-division work in *one* of the following eight fields: anthropology, economics,\* geography, history,\*\* journalism, political science, psychology and sociology.

\* See adviser for applicable courses in Division of Business and Economics.

\*\* See adviser for applicable courses in Division of Humanities.

Three other supporting fields of 7-9 quarter hours each in the social sciences, history, or economics.

The remaining courses (normally 4-8 quarter hours) to be distributed among one or two of the above named fields, or social science.

It is recommended that a course in statistics be included in the program.

It is recommended that a senior seminar (Social Science 4000) be included in the program.

It is recommended that appropriate course work leading to a functional reading knowledge of a modern foreign language be a part of this requirement.

### **ILLUSTRATIVE PROGRAM FOR THE SOCIAL SCIENCE AREA MAJOR**

		<i>Units</i>		
		<i>F</i>	<i>W</i>	<i>S</i>
Hist. of W. C., 1001		5		
P.E. 1100		3		
Pol. Sci. 1201 (G.E. req.)		4		
Prin. of Biol. 1000		5		
Hist. of W. C. 1002		5		
P.E. 1000		½		
Pol. Sci. 1202 (G.E.)		4		
G.E. Elective				5
Hist. of W. C. 1003				5
P.E. 1011				½
Psy. 2000 (G.E.)				4
Phy. Sci. (G.E.)				5
<b>Second Year</b>				
Eng. 1002 or Sp. 1002		3		
Soc. 2000 (G.E.)		4		
Creative Arts, G.E.		3		
Physical Science, G.E.		5		
Soc. 2010		4		
Humanities, G.E.		4		
Electives		8		
P.E. 1012				½
Geo. 2100 (G.E.)				4
Humanities, G.E.		4		
Anthro. 2000		4		
P.E. 1012				½
Elective				4
<b>Third Year</b>				
Junior Symposium 3901		3		
Soc. 3110		4		
Soc. Sci. 3001		4		
Hist. 4440		4		
Soc. 3430		4		
Soc. Sci. 3002		4		
Hist. 4450		4		
Physical Science-Math G.E.				3
Soc. 3410				4
Anthro. 3010				4
Electives				8

Fourth Year		F	W	S	Units
Senior Symposium 4901			3		
Soc. 4100			4		
Pol. Sci. 4711			5		
Electives			4		
Soc. 4110			4		
Pol. Sci. 4712			5		
Electives			6		
Soc. 4120				4	
Electives					11

III. The total program of not less than 60-quarter hours, of which not less than 48 units must be at the upper-division levels, should display careful planning, scholarly balance among related fields, and internal coherence leading toward the student's educational purposes. The pattern of studies may be formalized only with the consent of the designated academic adviser. Course work used to retire general education requirements may not be used to satisfy major requirements.

IV. For the baccalaureate *major* in preparation for the general secondary teaching credential (taken during the fifth year), candidates select either history or political science as the area of concentration. In addition, before graduation, the student should complete 24 of the 36 quarter units in an approved minor teaching field. General secondary candidates should also complete: a) the upper-division professional education courses, b) the requirements for admission to teacher education, c) a course in the teaching of social science in the secondary school. (Pre-secondary credential candidates are referred to the Division of Education for details of the secondary credential program.)

#### ANTHROPOLOGY

##### 2000. Principles of Anthropology

A survey and analysis of man and culture: including archaeology, the physical distinctiveness and evolution of man, races, the influence of language upon culture, and the nature of culture. Four units.

##### 3010. Social Anthropology

Theories and schools in social anthropology; community studies, integration, functionalism, psychological aspects. Prerequisite: Anthro. 2000 or consent of instructor. Four units.

##### 3500. Archaeology of North America

Prehistory of the Indians of North America together with some basic principles and methods of archaeology. Prerequisite: Anthro. 2000 or consent of instructor. Four units.

##### 3510. Ethnology of North America

The material and social characteristics of Indian tribes; impact of the European upon these tribes. Prerequisite: Anthro. 2000 or consent of instructor. Four units.

##### 4100. Peoples of Africa

A cultural survey of the peoples of Africa south of the Sahara. Tribal divisions and relationship, customs, arts, industry, beliefs, and contemporary problems. Prerequisite: Anthro. 2000 or consent of instructor. Four units.

##### 4110. Peoples of Latin America

An analysis of past and present Indian and peasant cultures of Latin America. Prerequisite: Anthro. 2000 or consent of instructor. Four units.

##### 4700. Problems of Culture Change

Problems arising from the contact of industrial societies with nonindustrial societies. Prerequisite: Anthro. 2000 or consent of instructor. Four units.

#### CULTURAL ECOLOGY

##### 4600. Case Studies of Underdeveloped Areas

Character and influence of international technical assistance in promoting land and social reform. Prerequisite: Courses in geography and anthropology or consent of instructor. Four units.

##### 4700. Technological Inventions

Origin, development, spread, and influence of basic technological inventions. Prerequisite: Courses in anthropology and geography or consent of instructor. Four units.

##### 4900. Directed Reading

Two-four units. Prerequisite: consent of instructor.

#### GEOGRAPHY

##### 2100. Principles of Physical Geography

An analysis of the major components of the physical environment—including landforms, climate, vegetation, water resources, and soils. Four units.

##### 2300. Principles of Cultural Geography

A study of the basic elements of cultural geography—including the types of settlement and land-use patterns, population patterns, transportation and economic systems, and cultural and political overlays upon the land. Four units.

##### 3000. World Land Problems

Effect of man's intentional and unintentional modification of his physical environment; the importance of his changing attitudes toward natural resources and landscape; relation of these attitudes to soil, water and air modification and deterioration. Four units.

##### 3020. World Environments

A regional approach to the interaction between economic, religious, political and social institutions and the distribution of the physical conditions of the earth's surface. Prerequisite: consent of instructor. Four units.

##### 3030. Principles of Landform Analysis

Classification of types of landform; the nature of their formation; processes of weathering, mass-wasting, and erosion by running water, waves, glaciers and wind. Prerequisite: Geog. 2100. Four units.

##### 3500. Geography of North America

Analysis of the physical environment and relevant historical factors which helped to shape the present cultural environment of North America. Special emphasis will be placed on western North America. Prerequisite: Geog. 2100 or 2300. Four units.

##### 3510. Geography of Latin America

A study of the landforms, climate, vegetation and cultural geography of Latin America. Prerequisite: Geog. 2100 or 2300. Four units.

##### 3520. Greater California

Factors that have helped to change the landscape of greater California. Exploration, settlement, and the contribution of various national and ethnic groups to the culture history of California and Northwestern Mexico. Prerequisite: Geog. 2100 or 2300. Four units.

##### 3530. Geography of Africa

A study of the landforms, climate, vegetation, and cultural geography of Africa. Prerequisite: Geog. 2100 or 2300. Four units.

##### 3570. Geography of South Asia

A study of the environmental and cultural diversity and homogeneity of South Asia with emphasis on regional interrelations, developmental potentialities, and the economic-geographic problems of the individual countries. Prerequisite: Geog. 2100 or 2300. Four units.

**3800. Field Geography of the San Francisco Bay Region**

The historical, economic, industrial, and physical geography of the San Francisco Bay region. Prerequisite: Geog. 2100 or 2300 and consent of instructor. Four units.

**3810. Field Geography of California**

The physical and cultural geography of selected regions of California. Prerequisite: Geog. 2100 or 2300 and consent of instructor. Four units.

**4900. Directed Reading**

Two-four units. Prerequisite: Consent of instructor.

**JOURNALISM****2400. News Reporting and Writing**

Introduction to the basic essentials of gathering and analyzing information for accurate, and precise presentation; preparing features, news articles and editorials; interviewing; coverage of speeches and public meetings. Four units.

**3210. Mass Media of Communication**

(See Creative Arts Division for description.)

**3211. College Newspaper Laboratory**

A laboratory experience with instruction. Class members constitute the staff of the college newspaper. Prerequisite: A college journalistic writing course or consent of instructor. 2 to 6 hrs. lab. One to three units. May be repeated for total of nine units.

**3400. Advanced Journalistic Writing**

Coverage of various news beats, feature, news and editorial writing; staff work on the college newspaper. Prerequisite: A lower-division course in news writing. Four units.

**4220. Newspaper and Advertising Layout**

Instruction and practice in preparing pictures, copy, and layouts for newspapers and newspaper advertising; use of mat service. Prerequisite: Consent of instructor. Five units.

**4500. Editing**

Editing theory and practice; standards employed for editing copy for newspapers, trade journals, industrial publications and magazines. 3 hrs. lect., 2 hrs. lab. Prerequisite: A lower division course in news writing. Four units.

**4600. Press Management**

Analysis of newspaper organization, economics, and business operation. Circulation, advertising, promotion, and production problems. Field trips to observe community newspaper operations. Prerequisite: Journalism 4220. Three units.

**4650. Publications Internship**

On-the-job experiences with newspapers, industrial publications and other commercial organs in the area. 20 hrs. weekly. Prerequisite: Department approval. Five units.

**4700. Public Opinion and the Mass Media**

Critical study of the influence of the mass media upon public opinion; propaganda techniques and their uses; mechanics of polling; examination of editorial policies of representative publications. Four units.

**4900. Individual Study**

Two-four units.

**5200. Advising School Publications**

Methods and curricula for prospective elementary and secondary school teachers in supervising school newspaper and yearbook staffs. Study of problems of organization, finance, personnel, instruction, and promotion of school publications. Prerequisite: Consent of instructor. 3 hrs. lect., 2 hrs. lab. Four units.

**DEPARTMENT OF POLITICAL SCIENCE****PURPOSES**

The major in Political Science leads to the Bachelor of Arts Degree. The objective of this program is to educate at the baccalaureate degree level those students seeking a liberal education with a concentration in political science. The political science curriculum affords the student the opportunity to acquire an organized body of knowledge about political and social affairs, to obtain an understanding of the relationship of political science to other major areas of study, to develop the ability of critical and coherent thinking, and to be qualified to enter various fields of employment, such as government service, teaching and private agencies.

**Requirements**

- I. Complete the 76-unit requirement in general education which is required for the B. A. Degree.
- II. Complete the following requirements in the major:
  - A. The completion of 40 quarter units in political science, including: Political Science 2010, *Introduction to Government*; Political Science 3110, *National Government in the United States*; and, Political Science 5910, *Political Science Seminar*.
  - B. Courses in at least four of the following fields: American government and administration; comparative government; international relations; political theory; or public law, as approved by adviser.
  - C. A minimum of 28 upper division units in political science.
  - D. The completion of 20 quarter units of appropriate upper division courses in anthropology, economics, geography, history, journalism, philosophy, psychology, social science, sociology and statistics selected with the approval of the student's adviser. A proficiency in a modern language will be required, if appropriate for the student's professional objective; if the student's professional objective is in the field of international relations, a modern language will be required.

**Graduation Requirement for American Institutions**

The graduation requirement in American institutions, to include competency in U. S. History, U. S. Constitution, and California Government, may be met by satisfactory completion of appropriate tests or courses listed in one of the following groups:

1. Political Science 1201-1202. May not apply toward the major.
2. History 1101-1102. May not apply toward the major.
3. Political Science 3100 or Political Science 3110 and Political Science 4120 plus approved tests or courses on U. S. History, institutions and ideals. Political Science 3100 may not apply toward the major.

**A. American Government and Administration****1201, 1202. American Political Institutions**

Development of political institutions and ideals in the U. S. from the Puritan community to date. The development of such ideals as freedom, equality and democracy; development of branches of government, political parties and the changing role of government. Meets code requirement of American ideals, U. S. Constitution and California government. Four units each, total 8 units.

**3100. American National, State and Local Government**

Studies of relationships of various governments in the United States; the organization, processes and problems of national, state and local government. Meets requirement in the U. S. Constitution, and in California state and local government. Four units.

**3110. National Government in the United States**

An analysis of the operation and function of the branches and agencies of American national government; rights and duties of the individual; political parties and the electoral system; fiscal policy; functions; and foreign policy. Meets requirement in the U. S. Constitution. Four units.

**3111. The American Executive**

An analysis of the position of the executive in national, state and local governments: The powers and duties of the executive; leadership role of the executive in government, political parties and public opinion. Four units.

**4120. State and Local Government and Politics**

State constitutions; legislative, judicial, administrative and electoral systems; contemporary problems and issues, with special reference to California and San Francisco Bay Area government organization and problems. This course satisfies the California State and Local Government requirement. Four units.

**4130. Urban Governments**

Organizations and functions of metropolitan areas; the web of governments and growth of authorities and boards; problems of finance, crime, planning, welfare and others; emphasis on Bay Area planning and problems. Four units.

**4800. Public Administration**

Role of public administration in modern society; development of public service in national, state and local government; principles of administrative organization; functions and services; politics and personnel of administration. Four units.

**B. Comparative Government****3210. Comparative Government**

Analysis of comparative political systems: Dictatorships and democracies; presidential and parliamentary systems; federal and unitary: multi-party, two-party and single-party systems; individual rights and duties in varying systems. Four units.

**4220. Government and Politics of Western Europe**

An analysis of the political ideas and institutions of the major Western European nations: England, France, Germany, Italy. Four units.

**4222. Government and Politics of the USSR**

An analysis of the political ideas and institutions of the USSR: Philosophical foundations; role of Communist Party; organization and functions of government; place of the individual in Soviet Society. Four units.

**4240. Government and Politics of Asia**

Analysis of the political ideas and institutions of the major nations of Asia: India, Japan, China. Attention is given to cultural contexts from which political systems developed; emphasis upon contemporary governmental patterns. Four units.

**C. Public Law****3410. Law and Society**

Organization, jurisdiction and functions of national, state and inferior courts with particular attention to California: Judicial decision making and group dynamics; place of law in the American society; analysis of selected reform proposals. Four units.

**4441. American Constitutional Law**

United States Constitution as interpreted by the courts in the areas of the federal system; taxation, commerce and implied powers; inter-governmental relations; separation of powers; emphasis upon the social, economic and political factors. Four units.

**4442. American Constitutional Law**

United States Constitution as interpreted by the courts in the areas of freedom of speech, press, religion, assembly; self incrimination; desegregation; due process; criminal procedures and safeguards. Emphasis upon social, economic and political factors affecting court decisions. Four units.

**D. International Relations****4000. Contemporary World Problems**

(See History for description.) Four units

**4505. American Foreign Policy**

An analysis of current American foreign policies toward other nations as related to the Good Neighbor Policy, security, containment, and liberation; the problem of foreign policy in American democracy. Four units.

**4520. International Relations**

Analytical introduction to international relations; nationalism; imperialism; racial, population, and economic factors; war; settlement of international disputes by methods other than war; foreign policies of the major powers. Four units.

**4530. Diplomatic History of the United States**

(See History for description.) Four units.

**4550. International Organization**

Historical survey and evaluation of international organizations; emphasis on the League of Nations and the United Nations with its specialized agencies; role of the U. S. in those organizations. Appraisal of factors tending to strengthen and weaken the UN; major problems confronting international organizations. Four units.

**E. Political Theory****4711. Western Political and Social Thought**

Development of political and social ideas in western thought from the Greek city-state to the 20th century; emphasis on the development of democratic concepts. Five units.

**4712. Modern Democratic Thought**

Analysis of political and social ideas in western thought since 1800; emphasis on development of democratic political philosophy. Five units.

**4720. Communist Ideologies**

Analysis of communist doctrine as developed from Marx through the Lenin, Stalin and Khrushchev eras, and the revisionist movement in China, Europe. Four units.

**4730. American Political Thought**

Analysis of the dominant political theories in the development of American political thought, within the framework of American history and social institutions. Impact of these ideas upon contemporary America. Four units.

**F. General****2010. Introduction to Government**

Analysis of political society—legitimacy and social control; relationship of individual to individual and individual to government; concept of state and the nature of government; basic ideas of competing political systems; forms of government; regional and international organizations and relations among states. Four units.

**5900. Independent Study**

Two-four units.

**5910. Political Science Seminar**

Contributions of natural and social science theories, methods, results for political science; scope and method of political science; individual research on selected topics. Two-four units.

**DEPARTMENT OF PSYCHOLOGY****PURPOSES**

The major in psychology leads to the Bachelor of Arts degree. The purposes of the program are: (1) undergraduate preparation for continuing study at the graduate level; and (2) to offer a program of study to those whose purpose is to gain a scientific understanding of behavior as part of a general liberal arts education.

**Requirements****PSYCHOLOGY MAJOR**

I. Complete the 76-unit requirement in general education required for all degrees.

II. **The Major:**  
The major consists of not less than 38 nor more than 56 units of *upper-division* psychology courses. All major students will choose a special area from among the following: experimental psychology; personality and social; tests and measurement. The following departmental requirements are in addition to the college's basic requirements for the B.A. degree.

Required courses:

1. a. Psy. 2000 \*, 2010, 3100, 3110 and 4390.
- b. two courses from the following: Psy. 4200, 4300, 5210.
- c. one course from the following: Psy. 4220, 4310, 4320, 4350, or the choice not taken under option b.
- d. one course from the following: Psy. 3500, 4350, 5410, 5610.
- e. one course from the following: Psy. 3710, 4730, 5700, 5790, Statistics 4003.
2. Stat. 4001 \*, 4002; Biol. 3350 \* or equivalent.
3. An additional course from one of the following options depending upon the student's special area:
  - (i) A course from either 1-b or 1-c (experimental psychology).
  - or (ii) A course from 1-d (personality and social).
  - or (iii) A course from 1-e (tests and measurement).
4. One approved course in physiology \*; or two approved courses in anthropology \* and/or sociology \*; or one approved course in mathematics. The choice under this requirement will be determined by the student's special area.
5. Three approved courses from other departments, depending upon the student's special area.

The completion of the major program for graduation requires at least a C average in the courses included in the major.

**PSYCHOLOGY****2000. General Psychology I**

An introduction to the scientific study of basic processes underlying human and animal behavior: sensation and perception, learning and thinking, motivation and emotion. Four units.

**2010. General Psychology II**

A survey of method, content, and theory in the scientific study of behavior. Selected problems of psychology will be viewed in terms of the experiments by which they have been investigated. Prerequisite: Psy. 2000. Four units.

**3100. Experimental Psychology I**

A laboratory course on the development, design, and execution of psychological experiments and the analysis of data. Problems of psychophysics, sensory and perceptual function, learning, transfer, and forgetting will be dealt with in terms of experimental methodology. Prerequisites: Psy. 2010, Stat. 4001. Five units.

**3110. Experimental Psychology II**

A continuation of Psy. 3100. Prerequisite: Psy. 3100. Five units.

**3500. Social Psychology**

A study of current theory and research on the individual in society, small groups, and interpersonal interaction. Such topics as socialization, social structure, attitude formation, and group structure will be considered. Prerequisite: Psy. 2010. Four units.

\* May be used to discharge general education requirement.

**3510. Attitude and Opinion Surveys**

Methods in the study of social attitudes and opinions; design of research and critical analysis of data. Results of attitude studies, opinion surveys, and content analyses as related to differences between individuals, groups, roles and statuses. Prerequisite: Psy. 3500. Four units.

**3520. The Psychology of Small Groups**

Group development; leadership roles; interpersonal interaction in a group setting; types of group atmosphere; research designs and critiques of small group behavior; sociodrama. Prerequisite: Psy. 3500. Four units.

**3710. Personnel Selection**

Techniques, tests, administration and evaluation of programs for the selection and placement of personnel. Prerequisite: College algebra and elementary statistics or consent of instructor. Four units.

**4200. Conditioning and Learning**

Basic principles and results of conditioning and learning experimentation. Prerequisite: Psy. 3100. Four units.

**4220. Thinking and Problem Solving**

Psychological processes involved in problem solution. Survey of experimental research and theories dealing with concept formation and thought processes. Prerequisite: Psy. 3100. Four units.

**4300. Motivation**

Nature of primary and secondary drives. Critical analysis of the concept of motivation in relation to behavior, learning and performance. Prerequisite: Psy. 3100 or consent of instructor. Four units.

**4310. Comparative Psychology**

Basic psychological processes in relation to animal behavior. Prerequisite: Psy. 3100. Four units.

**4320. Physiological Psychology I**

The biological foundations of human and animal behavior, including physiological processes related to sensory and motor activity, perception, learning, thinking, motivation and emotion. Effects of drugs, internal secretions, and brain lesions and stimulation on behavior. Prerequisite: Psy. 2010 and Physiology 3300. Four units.

**4330. Physiological Psychology II**

Continuation of Psychology 4320. Prerequisite: Psy. 4320. Four units.

**4350. Heredity and Behavior**

A consideration of genetic and environmental determinants of behavior and psychological characteristics of animals and humans. Prerequisites: Psy. 2010, 3100 and an elementary statistics course. Four units.

**4390. History and Systems of Psychology**

Survey of historical developments in the emergence of modern scientific psychology. Contemporary theoretical systems will be discussed with emphasis on how they approach the recurring problems of psychology. Prerequisites: 12 units of upper-division psychology and senior standing. Four units.

**4550. Experimental Social Psychology**

A laboratory course in the research methods of Social Psychology. Research will be conducted in areas ranging from two person interaction to field studies and surveys. Prerequisite: Psy. 3100 and 3500. Four units.

**4730. Tests and Measurement**

Emphasis on the theories underlying the development, analysis, and evaluation of standardized and non-standardized tests. Consideration of principles of measurement. Prerequisite: College algebra and elementary statistics or consent of instructor. Four units.

**4900. Individual Study in Psychology (Honors)**

Work by arrangement for honors students in psychology. Four units.

**\* 5210. Theories of Learning**

A survey of theories of learning with emphasis upon the experimental work arising from alternative conceptual systems. These systems will be discussed in terms of their underlying assumptions and their methodological approaches to research problems. Prerequisite: Psy. 4200. Psy. 4300 is recommended. Four units.

**\* 5410. Behavior Pathology**

The concepts of normality, abnormality, and psychopathology. Symptom syndromes of neurosis, psychosis and other behavioral abnormalities. Methodological problems in the investigation of mental illness and psychotherapy. Prerequisite: Psy. 2010. Four units.

**\* 5610. Psychology of Personality**

Critical review of method, theory and content in the study of personality. Historical development of the field with attention to recent applications of scientific method to problems of personality. Prerequisite: Psy. 5410 or equivalent. Four units.

**\* 5700. Psychological Testing**

Techniques of administration of individual and group tests: manipulation, perception, coordination, comprehension, aptitude tests. Emphasis on the use and interpretation of test results. Prerequisite: 16 hours of Psychology or permission of instructor. Four units.

**\* 5720. Individual Mental Tests**

Analyzes the concept of intelligence and its use in mental testing. Presents major types of tests, their uses and interpretation. Prerequisite: Psy. 5700 or equivalent. Four units.

**\* 5790. Psychology of Individual Differences**

Critical consideration of representative ideas about ability and other traits. Historical development of measurement of individual differences; relation of measurement of individual differences to psychological theory. Prerequisite: Psy. 2010 or equivalent. Four units.

**SOCIOLOGY****2000. Introduction to Sociology**

The development of culture and personality with emphasis on the impact of groups and institutions on man's social behavior. Four units.

**2010. Social Problems**

Study of social problems in such areas as family life, intergroup and intercultural relations, mental and physical health, crime, economy, government, conservation of natural resources and education. Prerequisite: Soc. 2000 or equivalent. Four units.

**3110. History of Sociological Theory**

Study and critical analysis of the ideas of major sociological thinkers such as Comte, Durkheim, Cooley, Weber, Mead and others. Prerequisite: Soc. 2000; 2010 or equivalent. Four units.

**3410. Marriage and the Family**

Study of the family as a social institution with emphasis on marriage and family problems peculiar to modern American urban society. Prerequisite: Soc. 2000; 2010 or equivalent. Four units.

**3420. Religion and Social Conduct**

The organizational structure of religion with special emphasis on the study of religious authority and leadership. Relationships between religion and other social institutions. Prerequisite: Soc. 2000; 2010 or equivalent. Four units.

**3430. Urban Problems**

Nature, causes, and results of urbanization in American culture. Emphasis on social problems arising from the growth and structure of metropolitan areas. Prerequisite: Soc. 2000; 2010 or equivalent. Four units.

\*Courses numbered in the 5000 series are applicable to certain credential programs.

**3700. Introduction to Social Services**

A survey of social welfare and the functions of social work. The development of modern social work and the techniques of social work. Prerequisite: Soc. 2000; 2010 or equivalent. Four units.

**3710. Social Legislation and Public Policy**

The study of the social philosophy of democratic processes as related to legislation affecting social services. The impact of changing cultural values on public policy. Prerequisite: Soc. 2000; 2010 or equivalent. Four units.

**3800. Basic Criminology**

A survey of causes of juvenile and adult crime, methods of prevention; current practices in correctional treatment of offenders on parole or probation and in institutions. Prerequisite: Soc. 2000; 2010 or equivalent.

**4100. Minority Groups**

Racial and cultural minority groups in the United States; problems of education, social adjustment, family life, relations in industry, race consciousness, race and cultural prejudice, tension areas, assimilation; race problems in international relations. Prerequisite: Soc. 2000; 2010 or equivalent. Four units.

**4110. Social Stratification**

Theory of social class, survey of American social classes. Changing indices of social differentiation, prestige, status and role. Prerequisite: Soc. 2000; 2010 or equivalent. Four units.

**4120. Population Movements and Issues**

Social causes of population trends, changing population structures, and geographical distribution of population. National population policies affecting relationships of population to resources and levels of living. Prerequisite: Soc. 2000; 2010 or equivalent. Four units.

**4900. Individual Study**

Two-four units.

**4901. Directed Group Studies****SOCIAL SCIENCE****3001. Social Science I**

Introduction to the broad field of social and behavioral science: The subject fields; their common concerns and relationships; problems of method involved; culture, and change; basic sources in social analysis. Four units.

**3002. Social Science II**

Selected case studies in social analysis; the character of social problems, relevance, nature of proof, the meaning of causality; ways in which social theory and practice develop and extend each other. Prerequisite: Soc. Sci. 3001. Four units.

**4000. Social Science Seminar**

Review of major concepts in social science as tools in developing alternative social policies; directed research in current issues employing relevant data and methods of the several social science fields. Prerequisite: Approval of instructor. Four units.

**5000. Teaching Social Science in the Secondary School**

Curriculum, methods, audio-visual techniques, and content in social sciences, grades 7 through junior college. Prerequisite: consent of instructor. Four units.

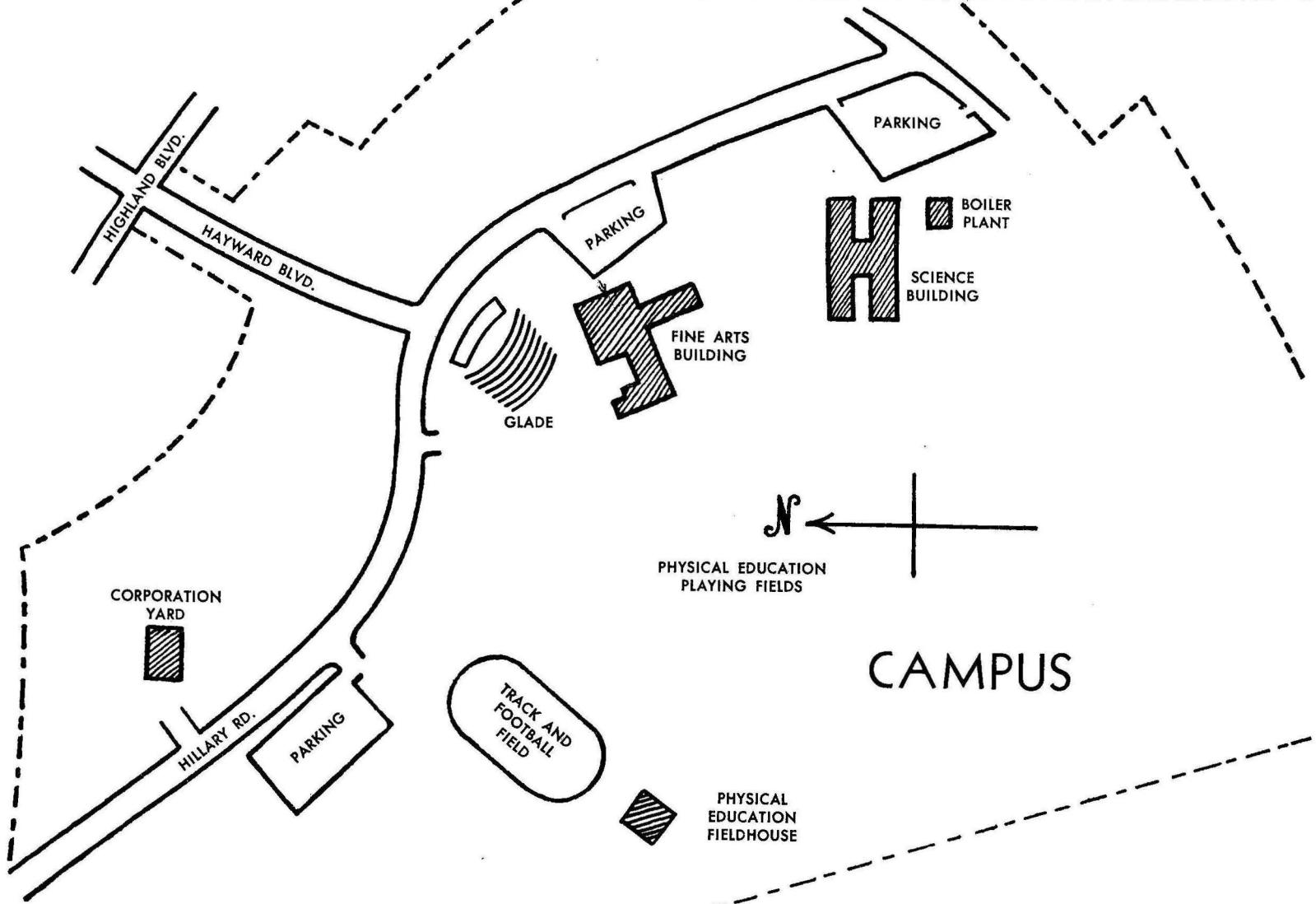
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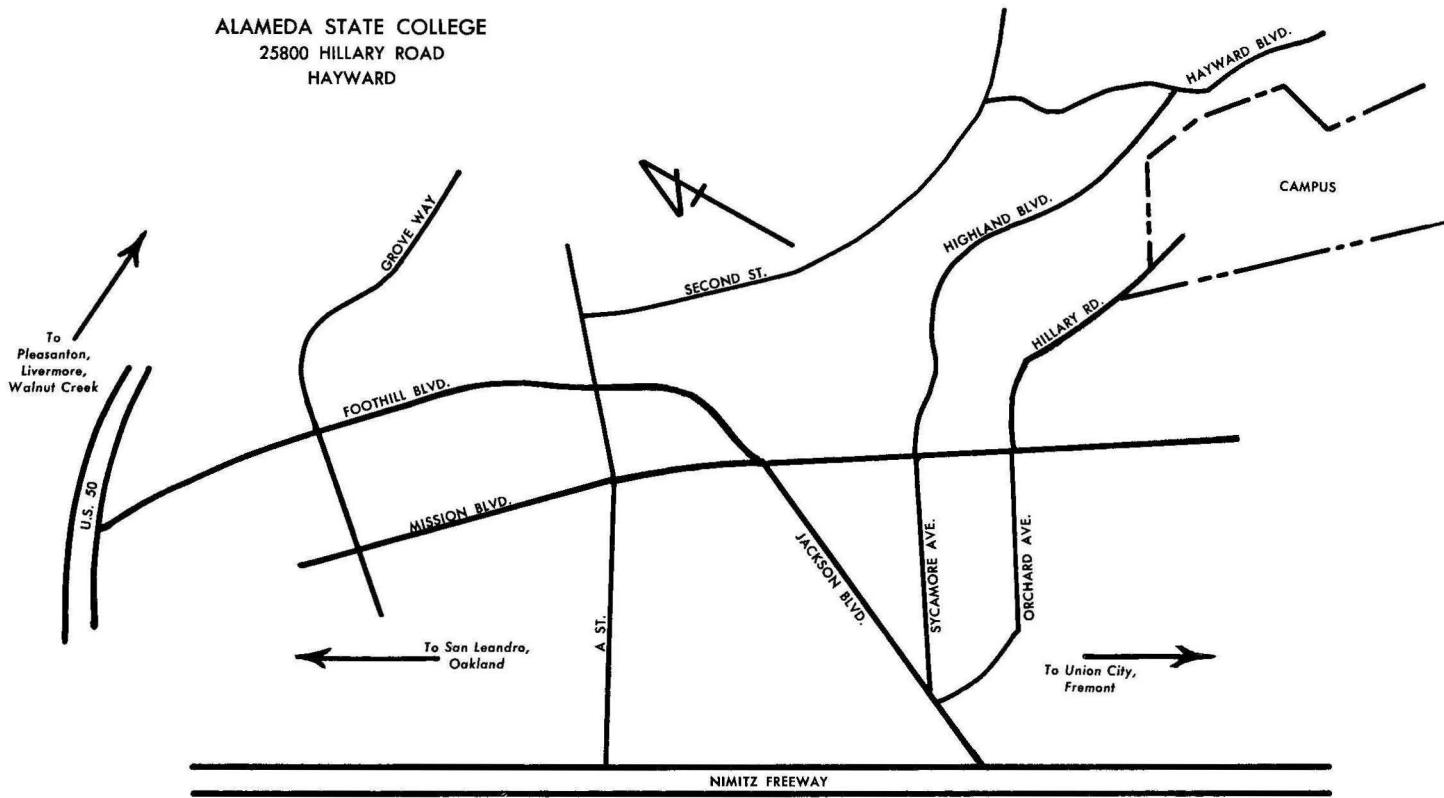
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ALAMEDA STATE COLLEGE  
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