

HAYWARD HIGH SCHOOL

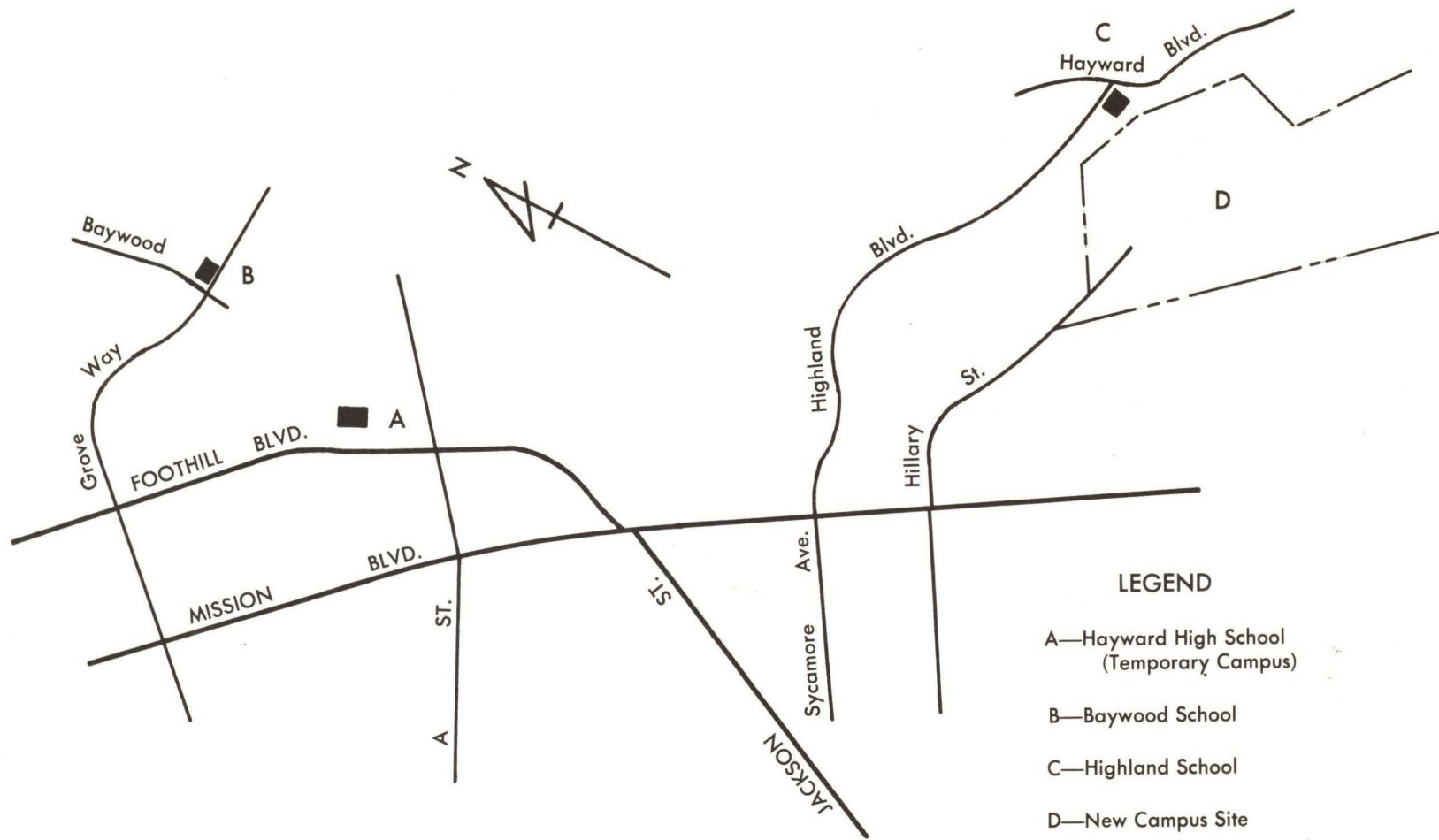
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SUNSET HIGH SCHOOL

**ALAMEDA
COUNTY
STATE
COLLEGE**

bulletin

1962-63



LEGEND

A—Hayward High School
(Temporary Campus)

B—Baywood School

C—Highland School

D—New Campus Site

ALAMEDA COUNTY STATE COLLEGE FACILITIES

ALAMEDA COUNTY STATE COLLEGE

BULLETIN

1962-63 General Catalog

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THE COLLEGE IN 1975



Chemistry Laboratory

TRUSTEES OF THE CALIFORNIA STATE COLLEGES

OFFICE OF THE CHANCELLOR

Don B. Leiffer	Chancellor
Glenn S. Dumke	Vice-Chancellor
	Vice-Chancellor
	Academic Affairs
John G. Richardson	Vice-Chancellor
	Business Affairs

TRUSTEES

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Albert J. Ruffo	San Jose
Paul Spencer	San Dimas
Allen J. Sutherland	San Diego

LEGISLATIVE INTERIM COMMITTEE

Jesse Unruh	Sacramento
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GENERAL COLLEGE ADMINISTRATION

Fred F. Harclerod	President
Dale P. Wren	Executive Dean
Albert R. Lepore	Dean of Instruction
Lyle D. Edmison	Dean of Students
William W. Force	Dean, Financial Affairs

1962																											
JULY							AUGUST							SEPTEMBER							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
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29	30	31					29	30	31					29	30	31					29	30	31				
NOVEMBER							DECEMBER																				
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1963

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
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MAY							JUNE																				
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
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29	30	31					29	30	31					29	30	31					29	30	31				

Catalog cover by Mrs. Mina Vidler, Alameda County State College art student.

CALENDAR FOR 1962-63

FALL QUARTER 1962

Sept.	10-15	Testing, orientation and academic advisement
Sept.	17	Registration and payment of fees
Sept.	18	Registration and payment of fees
Sept.	19	Classes begin
Oct.	1	Last day for enrolled students to add classes
Oct.	5	Last day to drop classes without grade mark
Oct.	17	Last day to make application for admission to teaching credential programs
Nov.	11-12	Veterans Day (academic holiday)
Nov.	22-23	Thanksgiving recess
Nov.	28-30	Early registration for continuing students
Nov.	30	Last day to file application for graduation
Dec.	6-12	Final examinations to be given during scheduled class periods
Dec.	12	Last day of classes
Dec.	14	End of quarter. Grades due in Registrar's Office

WINTER QUARTER 1963

Jan.	2	Registration and payment of fees
Jan.	3	Registration and payment of fees
Jan.	3	Classes begin
Jan.	8	Last day to add classes
Jan.	11	Last day to drop classes without grade mark
Jan.	30	Last day to make application for admission to teaching credential programs
Feb.	15	Last day to file application for graduation
Feb. 27-March 1		Early registration for continuing students
March 8-14		Final examinations to be given during scheduled class periods
March 14		Last day of classes
March 15		End of quarter. Grades due in Registrar's Office

SPRING QUARTER 1963

March	25	Registration and payment of fees
March	26	Registration and payment of fees
March	26	Classes begin
April	1	Last day to add classes
April	5	Last day to drop classes without grade mark
April	11-12	Easter recess
April	17	Last day to make application for admission to teaching credential programs
May	15	Last day to file application for graduation
May	22-24	Early registration for students continuing in the Fall
May	30	Memorial Day (academic holiday)
May 30-June 5		Final examinations to be given during scheduled class periods
June	5	Last day of classes
June	7	Grades due in Registrar's Office
June	8	Commencement
June	8	End of quarter

SIX-WEEK SUMMER SESSION 1963

June	17	Registration
June	18	Classes begin
July	4	Independence Day (academic holiday)
July	19	Last day to file application for graduation (Summer)
July	26	End of Session. Grades due in Registrar's Office

FOUR-WEEK SUMMER SESSION 1963

July	26	Registration
July	29	Classes begin
Aug.	23	End of session. Grades due in Registrar's Office

ACADEMIC AFFAIRS

ALBERT R. LEPORE, Dean of Instruction

Associate Dean of Instruction	Forrest L. Mayer
Assistant Dean of Instruction	H. Duane Heath
Head, Division of Business and Economics	Virgil Salera
Head, Division of Creative Arts	Karl D. Ernst
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	Robert O. Hall
Director of Libraries	Floyd R. Erickson

ADMINISTRATIVE AFFAIRS

DALE P. WREN, Executive Dean

Coordinator of Building Program	David W. Mahaney
Coordinator of Publications	John A. Gothberg

FINANCIAL AFFAIRS

WILLIAM W. FORCE, Dean, Financial Affairs

Accounting Officer	Fred Okamoto
Purchasing Coordinator	William Wallace
Personnel Coordinator, Financial Office	Richard Quey

STUDENT AFFAIRS

LYLE D. EDMISON, Dean of Students

Associate Dean of Students (Admissions)	
Associate Dean of Students (Counseling)	
Associate Dean of Students (Financial Placement, Aids)	Paul F. Lawrence
Associate Dean of Students (Activities)	Howard Slatoff
Associate Dean of Students (Health)	C. J. Lutt
Registrar	James R. Loonie

HISTORY OF THE COLLEGE

Alameda County State College is one of the 15 California state colleges supported by public funds. These colleges are administered by the Trustees of the State College System of California, a board created by Chapter 49, Statutes of 1960. This new governing board was created as the result of studies conducted over several years concerning the future of higher education in California.

A separate governing board for the colleges was recommended in the Master Plan for Higher Education in California which was presented to the Legislature in February, 1960. The year 1961-62 is a year of transition as it is the first year of operations under this new governing board.

Alameda County State College was established under Chapter 1681, Statutes of 1957. Legislation passed in 1958 provided funds for personnel to plan for the opening of the college in the fall of 1959.

During its first year of operation the college instructional program was housed at Sunset High School in Hayward and the administrative offices at Foothill High School. On July 1, 1960, the total college operation was moved to Foothill High School. The facilities were obtained on a lease basis through the Board of Trustees, Hayward Union High School District.

On February 22, 1961 Groundbreaking ceremonies were held on the 365-acre permanent college site atop the foothills of southeast Hayward. Site development began early in April 1961, and construction of the Science and Fine Arts Buildings started in September 1961. The initial campus development will include construction of a boiler plant, corporation yard, field house, and outdoor physical education facilities.

The college will occupy its permanent campus in the fall of 1963. Until that time the instructional program will be limited to upper division and graduate work.

LOCATION OF THE COLLEGE

Alameda County State College is located in Hayward, California, a city of 72,000 situated across the bay from San Francisco in the southern part of Alameda County. The college currently is housed on the campus of Foothill High School, 22300 Foothill Blvd., Hayward.

ACCREDITATION

The college is fully accredited by the Western College Association, the group authorized to accredit all universities and colleges in this area.

FACULTY OF THE COLLEGE

- HARCLEROD, 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., 1958, University of Southern California
- BARDELLINI, JUSTIN M. (1961) _____ Assistant Professor of Mathematics
B.A., 1950, M.A., 1954, University of California. (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
- BLAWIE, MARILYN-JUNE (Mrs.) (1959) Associate Professor of Political Science
B.A., 1952, University of Connecticut; J.D., 1955, University of Chicago Law School
- BROWN, CHARLOTTE (1961) _____ Librarian
B.A., 1952, San Jose State; B.L.S., 1954, University of California School of Librarianship
- BUTTNER, HARRY R. (1960) _____ Associate Professor of Business Administration
B.S., 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
- CARROLL, JOHN S. (1959) _____ Professor of Education
B.A., 1930, San Diego State College; M.A., 1932, University of Southern California; Ph.D., 1940, Yale University
- 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)
- 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 Physical Science
B.A., 1951, Pomona; M.A., 1953, Claremont College; Ph.D., 1960, Stanford University
- DAVIES, GORDON F. (1960) _____ Assistant Professor of Education
B.E., 1948, University of Alberta; M.E., 1949, University of Oregon
- DAVIS, JOHN K. (1961) _____ Assistant Professor of Art
B.A., 1948, M.A., 1950, Central Washington College of Education. (Part time)
- DE JONG, JAN TOON (1962) _____ Assistant Professor of Music
B.A., 1952, Colgate University. (Part time)
- DENKE, FRANK R. (1961) _____ Assistant Professor of Music
Chicago Musical College (Roosevelt University), 1950, Teachers Certificate. (Part time)
- EDMISON, LYLE D. (1959) _____ Dean of Students; Professor of Psychology
B.A., 1950 M.A. 1951, Ph.D., 1955, University of Nebraska

- EHRET, PAUL (1961).....Professor of Education
A.B., 1938, M.A., 1959, University of California. (Part time)
- EKOOS, CARL (1961).....Associate Professor of Education
B.S., 1926, M.A., 1939, University of California. (Part time)
- 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
- FORCE, WILLIAM W. (1960)
Dean, Financial Affairs, Professor of Business Administration
A.B., 1938, Colorado State College; M.B.A., 1942, Ed.D., 1950, Stanford 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)
- GILBERT, LUTHER C. (1960).....Professor of Education
B.S., 1919, Mississippi College; M.S., 1924, University of Virginia; Ph.D., 1929, University of Chicago. (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
- GILLIN, LEONE DORIS ANDERSON (1962).....Assistant Professor of Education
A.B., 1952, M.A., 1953, Ph.D., 1960, University of California. (Part time)
- 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)
- GOTHBERG, JOHN A. (1960)
Coordinator of Publications; Assistant Professor of Journalism
B.A., 1949, San Jose State College; M.A., 1950, Stanford University
- GRACE, HARRY A. (1959).....Associate Dean of Students
A.B., 1946, Ohio State University; M.A., 1948, Ph.D., 1950, Columbia 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

- GUERRA, MANUEL H. (1960).....Assistant Professor Foreign Languages
B.A., 1947, University of Wisconsin; M.A., 1950, Ph.D., 1954, University of Michigan. (Part time)
- 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
B.S., 1934, University of Oklahoma; M.S., 1938, Washington University; M.L.S., 1960, University of California
- HALL, JEANNE L. (Mrs.) (1960).....Assistant Professor of Speech and Drama
B.S., 1936, Northwestern University; M.A., 1938, University of Southern California (Part time)
- 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
- HEATH, HARRISON DUANE (1960)
Assistant Dean of Instruction; Professor of Biological Science
A.B., 1944, A.M., 1946, Ph.D., 1951, Stanford University
- HEITMAN, ALVIRA AGNES (1962).....Instructor of Languages
A.B., 1936, M.A., 1939, University of California. (Part time)
- HENDRICKSON, DALE (1960).....Assistant Professor of Education
B.S., 1950, M.S., 1954, University of Southern California; Ed.D., 1960, University of California
- HOLLOWAY, ROBERT W. (1961).....Instructor of English
B.A., 1955, University of Michigan; M.A., 1958, University of California. (Part time)
- HOOD, JAMES H. (1962).....Instructor of Mathematics
A.B., 1940, San Jose State College; B.D., 1945, San Francisco Theological Seminary
- 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
- KJELSON, LEE R. (1960).....Associate Professor of Music
B.M.E., 1948, M.M., 1951, Ph.D., 1957, State University of Iowa
- KALLGREN, JOYCE K. (1962).....Assistant Professor of Sociology
B.A., 1953, M.A., 1955, University of California. (Part time)
- KRENZ, EDWARD B. (1961).....Assistant Professor of Music
B.A., 1941, M.A., 1951, University of Washington. (Part time)
- LANDOR, RONALD A. (1961).....Librarian
B.A., 1946, B.L.S., 1954, M.A., 1959, University of California
- LANE, MARY BEAUCHAMP (Mrs.) (1959).....Professor of Education
B.S., 1930, Northeastern Missouri State College; M.A., 1945, Northwestern University; Ed.D., 1951, New York University.
- LAWRENCE, PAUL F. (1960)
Associate Dean of Students (Counseling); Professor of Education
B.S., 1935, State Teachers College of New Jersey; M.A., 1946, Ed.D., 1948, Stanford University

- 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
- LEWIS, HILDA F. P. (Mrs.) (1962)..... Assistant Professor of Art
B.A., 1948, M.A., 1950, Ph.D., 1959, University of California. (Part time)
- LOONIE, JAMES R. (1960)..... Registrar; Assistant Professor of Education
B.A., 1952, M.S., 1953, University of Oregon
- LOW, GEORGE L., JR. (1961)..... Assistant, Audio-Visual Services
A.B., 1955, University of California. (Part time)
- LUTT, CARL J. (1960)..... College Physician; 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; Professor of Engineering
B.S., 1937, Virginia Polytechnic Institute
- MARTIN, RUTH L. (Mrs.) (1960)..... Assistant Professor of Education
A.B., 1926, M.A., 1955, University of California. (Part time)
- MAYER, FORREST L. (1960)
Associate Dean of Instruction; Professor of Business
A.B., 1937, Colorado State College; M.S., 1938, University of Denver; Ph.D., 1949, University of Pittsburgh
- McHUGH, WALTER J. (1960)..... Associate Professor of Education
B.S., 1953, Lowell Teachers 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
- MENNET, EARL (1961)..... Audio-Visual Services; Assistant Professor of Education
B.S., 1930, M.S.Ed., 1937, University of Idaho. (Part time)
- 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
- 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
- NIEPOTH, EDWARD W. (1960)..... Assistant Professor of Recreation
A.B., 1949, M.A., 1950, Chico State College
- OLAVARRI, MARTIN C. (1961)..... Assistant Professor of Education
A.B., 1939, San Jose State College; M.A., 1949, Stanford University. (Part time)
- 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
- PEARSON, JOAN J. (Mrs.) (1959)..... Assistant Professor of Art and Education
B.F.A., 1945, Syracuse University; M.F.A., 1949, New York State College of Ceramics. (Part time)

- PECKENHAM, JESSE K. (1962)..... Assistant Professor of Mathematics
B.E., 1941, Northwestern University; M.A., 1950, Arizona State University. (Part time)
- PEDERSON, CLAIRE N. (1960)..... Associate Professor of Education
A.B., 1945, University of California; M.A., 1946, Columbia University; Ed.D., 1952, Stanford University. (Part time)
- PETERS, JON S. (1961)..... Curriculum Evaluator; Professor of Education
B.A., 1937, University of Wyoming; M.A., 1942, Colorado State College; Ed.D., 1954, Stanford University
- 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
- 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
- RAMM, LAWRENCE (1961)..... Professor of Education
B.S., 1930, Whitman College; M.A., 1948, Ed.D., 1950, Stanford University. (Part time)
- RANDALL, ARNE WILLIAM (1960)
Chairman, Department of Art; Professor of Art
B.A., 1938, University of Washington; M.A., 1940, Teachers College, Columbia University
- RICE, RICHARD B. (1960)
Administrative Assistant to the President; Assistant Professor of History
B.A., 1945, M.A., 1947, Ph.D., 1957, University of California
- ROECKER, WILLIAM A. (1962)..... Assistant Professor of Foreign Languages
A.B., 1934, M.A., 1936, Ph.D., 1948, University of California. (Part time)
- ROMBERG, THOMAS A. (1961)..... Instructor of Mathematics
B.S., 1955, M.S., 1959, Omaha University. (Part time)
- 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
- RUSTEIKA, GEORGE P. (1962)..... Professor of Education
A.M., 1948, University of Chicago; E.D., 1958, Stanford University. (Part time)
- 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
- 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)
- SCHWARZBART, ROSALLY P. (Mrs.) (1961) Librarian
B.A., 1956, M.L.S., 1959, University of California
- SEDERHOLM, ALICE SHARP (Mrs.) (1961) Instructor of English
A.B., 1949, University of North Carolina; M.A., 1952, University of Florida (Part time)
- 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 (Activities);
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
- 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.E.D., 1947, Boston University; Ph.D., 1957, University of Washington
- THOMPSON, JOHN B. (1961) Assistant Professor of Philosophy
B.A., 1926, Beloit College; B.D., 1932, Union Theological Seminary (Part time)
- TURNAGE, THOMAS W. (1962) Assistant Professor of Psychology
A.B., 1958, Ph.D., 1961, University of California. (Part time)
- 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
- WARNKEN, HENRY F. (1960) Assistant Professor of Education
A.B., 1948, Haverford College; M.A., 1952, Ed.D., 1959, University of California (Part time)
- WEATHERBE, HAROLD R. (1959) Assistant Professor of Physical Education
A.B., 1940, M.A., 1941, Stanford University; Ed.D., 1950, University of California (Part time)
- WEISS, DANIEL A. (1962) Assistant Professor of English
B.A., 1939, Northwestern University; M.A., 1949, Columbia University; Ph.D., 1954, Northwestern University
- WINSLOW, JOHN H. (1960) Assistant Professor of Social Science
A.B., 1954, University of Michigan

- WOLFF, NAOMI M. (Mrs.) (1962) Instructor of Foreign Languages
B.A., 1956, University of California at Los Angeles. (Part time)
- 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
- 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

PUBLIC SCHOOL TEACHERS WHO SUPERVISED STUDENT TEACHERS

1960-61 ACADEMIC YEAR

Castro Valley Elementary Schools

Mary Ann Balducci	Marie King	Ruth Rhien
Barbara Cordle	Keith LeBaron	Margaret Seanez
Robert Daves	Nancy Lewis	Leonard Strodtbeck
Verlie Doyle	Bertha Moulden	Bessie Taylor
Bettye English		

Hayward Elementary Schools

Charles Adcock	Norma Horn	Jean Waldt
Angie Bersano	Solveig Maxwell	Joanne Weiss
Elizabeth Biggs	Gleva Moe	Birdie West
Christine Carrigan	Vera Mork	Dorothy Wollen
Frances Cooper	Colleen Tilton	Barbara Wolters
Janet Garin	Beverley Tootle	

Hayward Union High School District

Harry J. Adams	William Griffin	Gerald Olson
Kalma Baren	Edward Hart, Jr.	Joseph Ovalle
Ronald Bernard	Garth Jaehnig	Alice Parker
Patrick Butler	Jerry Kalik	Thadea Rahn
Richard Elliott	Stephen Maltz	Eleanor Sekerak
James G. Ensign	Glen Marble	James Shettler
Bill W. Field	Frank Marymee	William Thornton
Robert Frye	Arthur Nafterly	Charles Whitehead

Mt. Eden Elementary Schools

Roger Aylard	Terrell Graham	Phillip Morris
Hollis Baker	Herbert Hemmington	Joan O'Donnell
Jean Barrett	Joan Klenk	Hubert Templeman
Dee Barton	Elaine Koski	Sandra Winger
Roxanna Flannagan	Kenneth Lee	Charles Moxon

San Leandro Unified School District

R. Barker	T. D. Kowalski	Jerrine Lucas
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San Lorenzo Elementary Schools

Zola Berriman	Estelle Hengel	Patricia Reiley
Phyllis Brunton	Mary Lassalle	Earl Remmington
Diane Carpluk	Betty Ledbetter	Bernice Shrum
Donna Donovan	Lawrence Leonard	Charles Starr
Dorothy Engelund	Carolyn Lindsay	Rose Tassielli
Jacqueline Gray	Jane Miller	Onvia Ticer
Roy Hanson	Robert Mumma	Gwen Vallio

CURRICULA AND DEGREES

Baccalaureate Degrees with Major in:

Art (BA)	Language Arts (BA)
Biological Science (BS)	Mathematics (BS)
Business Administration (BS)	Music (BA)
Business Education (BS)	Physical Education (BS)
Economics (BA)	Physical Science (BS)
Elementary Education (BS)	Recreation (BS)
English (BA)	Social Science (BA)
History (BA)	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:

General Junior High School Credential

General Secondary Credential

Elementary Administration Credential

Supervision Credential

General Pupil Personnel Services Credential

LIBRARY AND AUDIO-VISUAL SERVICES

The library now has over 40,000 volumes and 550 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.

Audio-visual facilities include an equipment room, materials-preparation area, film-storage center and dark room. The A-V equipment has tripled during the past two years, and the film library has increased from 80 to 200 films during the same period.

Professionally trained librarians and audio-visual 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.

ADMISSION AND CLASSIFICATION OF STUDENTS

All students seeking admission to this college are required to have satisfied lower-division general education requirements. Students must be in good standing at the last college or university attended.

In addition, students will be admitted in accordance with either (a) or (b) below:

- (a) 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.
- (b) 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.

Eligibility to attend a California state college upon graduation from high school is established by one of the following:

- (a) Completion of the equivalent of 70-semester periods (7 Carnegie units) of course work in subjects other than physical education and military science, with grades of A or B on a five-point scale, during the last three years in high school.
- (b) Completion of the equivalent of 50-semester periods (5 Carnegie units) of course work in subjects other than physical education and military science, with grades of A or B on a five-point scale, during the last three years in high school and attainment of the twentieth percentile or better on the national norm of a standard college aptitude test.

Matriculation

All students seeking to enroll for any course work at the college must:

- (a) Submit an application for admission,
- (b) File transcripts of all previous college credit,
- (c) Complete a Residence Statement,
- (d) Complete a Health History and Health Statement,
- (e) Students with fewer than 60 units of college credit must submit a transcript of all credit earned during the last three years of high school.

All undergraduate-level students must, in addition to the steps described above, submit a declaration of objective and complete personnel

tests before or during the first quarter of residence. All graduate-level students who do not meet requirements as a Class II matriculant must, in addition to the steps described above, submit a declaration of objective and complete personnel tests before or during the first quarter of residence.

The application for admission and all transcripts should be submitted to the Associate Dean of Students, Admissions and Records, 22300 Foothill Boulevard, Hayward, California. A notice of acceptance, health history and health statement blanks will then be mailed to the student.

Classification of Students

Students at the college are classified in accordance with the following plan:

Upper Division:

Juniors	81 to 134-quarter units
Seniors	135 or more units
Graduate	Possession of baccalaureate degree
Regular	Registered for more than six units
Limited	Six or fewer units

Application for Admission

Students seeking admission to Alameda County State College should write to the Office of Admissions and request an outline of admission procedures and admission forms. The final date for filing applications for admission for each quarter is as follows:

September 1	Fall Quarter
December 1	Winter Quarter
March 1	Spring Quarter

Students whose applications for admission are completed and filed before the final date will be considered for admission. Those who file after the final date may be considered for provisional admission subject to disenrollment because of failure to meet admission standards.

Evaluation of Transcripts

Upon acceptance by Alameda County State College, evaluations of previous college credit are made for all undergraduate students. When completed, copies of evaluations are sent to students. All transcripts submitted to the college become the property of the college and cannot be returned to the students.

Readmission

A former student of the college who was not enrolled for the entire academic quarter immediately preceding the quarter in which the student seeks to re-enroll must make application for readmission to the college. If the applicant has attended any institution since he left the college, official transcripts from each institution must be filed in the Office of Admissions.

Cancellation of Admission

Students who are admitted to the college for a given quarter but do not register will have this admission cancelled. 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 for admission.

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.

EVALUATION FOR ADVANCED STANDING

From Junior Colleges

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

1. Not more than 70-semester hours 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 2-semester units may be transferred from the junior college. No other credit is allowed for professional courses in education.

From Other Colleges

Credits earned in accredited colleges and universities will be evaluated by the Office of Admissions and advanced standing allowed on the basis of the evidence submitted. Credit 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.

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 with at least a C average.

Extension and Correspondence Credit

A maximum of 36-quarter units (24-semester units) of extension and correspondence work may be counted toward graduation. Not more than 18 of the 36 units may be transferred from other institutions.

Credit for Experience

A maximum of 12-quarter units (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 degrees or the master's degree 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 for Military Training

Credit is granted for military training in accordance with the American Council on Education Guide to the Evaluation of Educational experiences in the Armed Services.

Credit by Examination

Any regular student who offers convincing evidence of having achieved the objectives for a course listed in this catalog through having taken a similar course in a nonaccredited college, or through individual study or experiences, may apply for a special examination in that course. A student can receive no more than 45-quarter units of college credit through credit by special examination. Credit by examination is not available at the graduate level.

REGISTRATION

Regulations *

Registration by proxy is not permitted. A student may not receive credit in any course for which he is not officially registered.

Students will be held responsible for completing all courses for which they initially register excepting those courses which are officially dropped by filing a Request-to-Drop Card in the Registrar's Office.

Registration is complete only when all fees, deposits and charges are paid. A late registration period is available to students who were unable to be present during regular registration. Persons completing the registration process during this late registration period will be assessed a late registration fee. Requests for registration after the last day of the late registration period will not be considered.

Student Classification

A regular student is one who is enrolled in the Fall, Winter or Spring quarters for more than six units. A limited student is one who is enrolled in a regular session (not including summer sessions) for six or fewer units. A full-time student is one who is enrolled for 12 or more units.

* 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.

A class II matriculant is a student who meets *ALL* of the following classifications:

- A. Must be teaching full-time on a regular credential.
- B. Must hold a baccalaureate degree.
- C. Must be carrying six or fewer units.
- D. Must not be pursuing a degree or credential objective through Alameda County State College.

Changes in Registration

During the first five days of instruction a student may add courses to a program. A Permit-to-Add Card must be filed in the Registrar's Office for each course added. Courses may not be dropped without a grade mark after the second week of instruction. Request-to-Drop Forms may be obtained in the Registrar's Office. A grade of "F" will be recorded when a student withdraws from a course without filing a Request-to-Drop Card. Permit-to-Add and Request-to-Drop Cards may be obtained in the Registrar's Office.

Residence Status

During the registration period all students must complete a legal document required by the State of California attesting to their domicile. Any student classified as a non-resident is subject to non-resident tuition, in addition to the regular material and services fee. Questions concerning resident status should be referred to the Admissions Office.

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 having his enrollment for that quarter cancelled. Application for readmission in a subsequent quarter may be considered provided the deficiency which resulted in the cancellation has been removed.

Filing for Graduation

Any student intending to graduate must file an Application for Graduation in the Registrar's Office no later than one month before the end of the quarter in which graduation is contemplated. This Application for Graduation must be obtained from the Registrar's Office no later than the one quarter prior to the beginning of the quarter in which graduation is anticipated.

Refund Regulations

Any student who finds it necessary to withdraw officially from the college is eligible for a refund of a portion of the material and services fee provided the application is filed in the Registrar's Office not later than two weeks after the instructional session begins. Any student who during the normal period for adding and dropping classes reduces his academic load from a regular to a limited category is eligible for a

refund of material and services fee, and should apply to the Registrar's Office during the acceptable time limit as set forth in the academic calendar. Refunds may be granted to students receiving administrative suspension providing a request is filed with the Registrar's Office.

Academic Load

The normal academic load for full-time undergraduate students is assumed to be 15 units. Generally two hours of preparation for each hour of regular class work may be expected. Any student desiring to enroll for more than 18 units of credit per quarter must have the written approval of his academic adviser and the dean of the faculty.

The normal academic load for a graduate student is assumed to be 12 quarter units. Higher standards of performance and more intensive preparation for class work is expected of a graduate level student.

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 in conjunction with the student's adviser. Failure to give official notification to the Registrar's Office of dual matriculation will result in loss of credit for units simultaneously earned at other institutions.

Individual Study

Students with special needs which may not be satisfied under regular courses listed in the class schedule 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.

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 Alameda County State College are mailed to each student. If there are unpaid charges or other penalties recorded against any student, the grade report and transcripts 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 quarter.

Questions concerning grade reports or academic credit may be referred to the Registrar's Office.

Scholarship for Graduation

No student will be considered for graduation from this college who does not have a cumulative grade point average of 2.0 or better in his entire collegiate record and a grade point average of 2.0 or better in all courses completed at Alameda County State College.

Honors List

Students pursuing a full-time program of 12 or more units who achieve academic distinction as evidenced by grade point average of 3.50 or better are eligible for inclusion on the Honors List. A student enrolled as a regular full-time student who achieves a grade point average of 3.75 or better for any academic quarter will be included on the Dean's List.

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 Summa 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 Magna Cum Laude.

Military Service Withdrawal

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

Selective Service Regulation

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. 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 Registrar's Office upon request.

Veterans Information

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

STUDENT FEES AND OTHER COSTS**I. Schedule of Fees****A. Regular Session**

Material and service fee, per quarter:

Limited students—6 or fewer units	\$13.00
Regular students—more than 6 units	25.50

Student body fee, per quarter:

Limited students—6 or fewer units	2.00						
Regular students—more than 6 units	<table border="0"> <tr> <td>{ Fall Quarter</td><td>7.00</td></tr> <tr> <td>{ Winter Quarter</td><td>7.00</td></tr> <tr> <td>{ Spring Quarter</td><td>6.00</td></tr> </table>	{ Fall Quarter	7.00	{ Winter Quarter	7.00	{ Spring Quarter	6.00
{ Fall Quarter	7.00						
{ Winter Quarter	7.00						
{ Spring Quarter	6.00						

Non-resident tuition, per quarter:

1 to 14 units	8.00 per unit
15 or more units	120.00

B. Extension Division 6.50 per unit**C. Summer Session**

First 6-week session	7.67 per unit
Post session	7.67 per unit

Student Body Fee *	<table border="0"> <tr> <td>{ Six Weeks</td><td>3.00</td></tr> <tr> <td>{ Post Session</td><td>1.00</td></tr> </table>	{ Six Weeks	3.00	{ Post Session	1.00
{ Six Weeks	3.00				
{ Post Session	1.00				

There is no non-resident tuition for Summer Session.

II. Other Costs

A. State fee for each credential	4.00
B. Late registration	5.00
C. Failure to meet administratively-required appointment within time limit	2.00
D. Change of program after final filing date	1.00
E. Check returned for any cause	2.00
F. Items lost or broken	Cost
G. Complete transcript of record (no charge for first copy)	1.00

III. Refunds

A. Upon withdrawal from college, a portion of the material and service fee will be refunded, provided an application is filed in the cashier's office not later than two weeks after the instructional session begins.

B. Upon withdrawal from college, non-resident tuition will be refunded 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%

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

ACADEMIC INFORMATION AND REGULATIONS *

Course Numbers

The course numbering system at the college is as follows:

- 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, may be taken for graduate credit.

Units

A unit of credit represents three or more hours of classwork and outside study per week for one quarter.

Marking

The marking system employed at the college is as follows:

Regular marks

Symbol	Quality	Grade Points
A	Excellent	4
B	Above average	3
C	Average	2
D	Below average	1
F	Failure	0

Incompletes

A student may receive a grade of "Incomplete" only for reasons beyond his control. Normally, such reasons are:

- (1) Extended absence for health problems, or
- (2) Failure to complete term assignments or final examinations 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 three quarters of attendance.

Withdrawals

The withdrawal mark (W) is intended for students who 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 slip in the registrar's office.

* The academic information and regulations in this catalog have been developed by the college under the legal authority set forth in the Education Code, Division 10, Chapter 1.5, and in the California Administrative Code, Title 5, Education.

The withdrawal slip must be secured from the registrar's office, approved by the student's adviser, his instructor, and the Dean of Students.

Students below a minimum acceptable standard of work for a course will receive the mark "WF" when withdrawing from the course. Students who withdraw from courses without filing withdrawal forms in the registrar's office will be assigned a grade of F in the course(s).

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.

Auditing Courses

A student who wishes to "audit" a class instead of enrolling for credit must meet all admission requirements and secure the permission of the instructor and the head of the division 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 the course after the last day to register for courses.

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

Attendance

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

Disqualification

Students will be disqualified:

1. If after two quarters immediately succeeding the quarter for which the student was admitted on probation the grade point deficiency has not been removed.
2. If scholarship for any quarter produces deficiency in grade points of more than 10.
3. If scholarship for any quarter is less than C while on probation.
4. If probationary status incurred for failure to meet matriculation requirements has not been removed before the end of the quarter for which the student was admitted.

Probation

Students will be placed on immediate probation if after the first four weeks of instruction any condition of matriculation is not met. Students will be placed on academic probation if scholarship for any quarter produces a deficiency no greater than 10 grade points.

Readmission

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.

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 the Faculty 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.

Scholarship for Graduation

For graduation, a student must have an average of C or better on: a) All units attempted, including those accepted by transfer from another institution; b) All units in the major; and c) All units attempted at the college granting the degree.

REQUIREMENTS FOR GRADUATION

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

- a. Complete a major as described in this catalog.
- b. Complete a minimum of 186-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.
- c. 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.
- d. 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.

Each student, for graduation with a baccalaureate degree, must complete a minimum of 68-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 15 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 54 units and (2) all specific course requirements are met.

The minimum of 15 units of upper-division courses in general education include approved ¹ courses in two of the three fields of humanities, social and behavioral science, and science (students majoring in one of these fields take courses in the other two). As a part of the 15 units each student must complete the course, Directed Senior Reading, which includes selected readings from the three fields listed above.

¹ A current list of these courses is obtained from academic advisers.

*Minimum number of units
for satisfying general educa-
tion requirements of 68 units*

Creative Arts

Performance and/or appreciation courses in art, music, drama,
homemaking, industrial arts..... 3

Communications

English composition—must include at least 5 quarter (3 semes-
ter) units of lower-division work and 3 quarter units of
upper-division work in conjunction with a major course
(Engl. 3000) 8

Humanities

Includes courses in history, philosophy, literature and history
of the arts.
A course in History of America must be included (or satis-
fied by examination). Must include 5 quarter (3 semester)
units in literature, philosophy, or humanities courses. May
include courses in history of arts. May include courses in
foreign languages. May include a course in satisfaction of
upper-division general education requirement.* Up to 9 units
of language can be applied to meeting general education
requirements in the humanities..... 16

Social and Behavioral Science

Includes courses in psychology, political science, anthropology,
sociology, geography, economics.
Must include a course in national, state and local government
(or be satisfied by examination). Must include a course in
psychology. Must include courses in at least two of the four
fields—anthropology, sociology, geography, economics. May
include a course in satisfaction of upper division general edu-
cation requirement.* 16

Natural Science and Mathematics

Must include 15 quarter units in life and physical science with
one basic ** course in each. In addition to these 15 units, must
include a college course in mathematics.† May include a
course in satisfaction of upper-division general education re-
quirement* 18

Health and Physical Education

Health and P. E. (3 units required) 3

Directed Senior Reading

Required course with readings in humanities, social, behavioral,
and natural sciences 4
Required total 68

Residence Requirements

A total of 186 units of credit must be earned for graduation with a
bachelor of arts or bachelor of science degree. Of this amount, 36 units
must be earned at the Alameda County State College in residence (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 186 quarter
units.

* See paragraph 3, preceding page.

** A basic course in biological science: botany, biology or zoology; physical science: chemistry,
physics, or physical science.

† Course emphasizing postulational approach or college algebra or a more advanced college course
is acceptable.

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 com-
piled and distributed to academic advisers for their guidance in plan-
ning 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
through a testing program using interest inventories and other instru-
ments to determine special aptitudes. The results of these and other
college-wide tests are interpreted upon request and provide valuable
data concerning areas of vocational and professional competence.

This office also maintains a placement service for students desiring
part-time employment.

Scholarships and Loans

Alameda County State College offers scholarships and loans to stu-
dents enrolled at the college.

The major source of student aid at this time is the National Defense
Student Loan Fund. National Defense Student Loan aid for eligible
students may range up to \$1,000 a year and is repayable over a 10-year
period. Recipients of National Defense Student Loans who enter the
teaching profession will have up to one half the loan cancelled according
to a national schedule.

Through the generosity of interested groups certain other loan funds
also are available to students. These funds include the Sertoma Club
of Hayward, Alpha Gamma Chapter, Dorothy Donahoe and Laura E.
Settle Loan Funds.

A student may secure an application for a loan or scholarship from
the Student Personnel Office and complete it in cooperation with his
academic adviser. For additional information regarding loans and schol-
arships students may contact the office of the Associate Dean of
Students (counseling).

Placement

The college maintains a full-time placement service which is closely integrated with the total educational process of the college and is a part of the student personnel program. Notices of employment opportunities are posted in the student lounge, academic departments and the student personnel office. Students apply for pre-placement interviews during their senior year. At the time of the interview, job possibilities are discussed with the student and a placement packet is given to the student to fill out with necessary instructions. Upon completion and approval of the placement file, the folder is activated and circulated among prospective employers.

The placement service matches qualifications of candidates to specifications of available positions. The office also provides counseling service for candidates.

Health

The college student health service is maintained by the college and is an integral part thereof. Services of a nurse and physician are available in the event of minor illnesses or injuries, to evaluate confidential health histories, and for physical examinations for student teachers and credential candidates. Consultation or referral is available for any health problem.

Student Organizations

The Associated Students of Alameda County State College, as well as divisional councils with representation on the Student Council, are an integral part of college life. Interest groups such as the Interfaith Council, the Honor Society, California Student Teachers Association, Alumni Association, Veterans Club, Student Judicial Council and others actively contribute to a well-balanced student life and supplement the academic program of the college. Membership in student organizations depends solely upon the individual qualifications without regard for race, color, religion or national ancestry.

The Associated Students publish a student newspaper, handbook and yearbook, and are planning a full schedule of social events for the coming year.

The Student Personnel Office maintains a housing office to assist students in finding suitable housing.

DIVISION OF BUSINESS AND ECONOMICS

Professors Salera (head), Force, Mayer, Wren; Associate Professor Buttimer; Assistant Professors Morehouse, Ozaki.

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).
Recommended: a year of college-level mathematics.

Core Requirements

To be completed in the junior year:	
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
Total	24
To be completed in the senior year:	
Bus. 3310. Money, Banking and Business Finance.....	4
Bus. 3660. Industrial Relations	4
Bus. 4320. Business Fluctuations	4
Bus. 4500. Business and Public Policy	4
Total	16

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. 3610, 3620, 4630, 5650.

Marketing

Core requirements (see above) 40 units

The concentration:

Bus. 3410, 3420, 4430, 5440.

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:

Bus. 3111, 3310, 3400, 3600, 3660, 4700, 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, 4520, 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, and 4320.

DESCRIPTION OF COURSES**BUSINESS****Accounting****3151, 3152. Principles of Accounting**

An introduction to accounting analysis and practice. Four 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. Ventures, insurance, statements of affairs, receivership, branch accounts, banks and stock brokerage accounting, foreign exchange, estate accounting, budgets and public accounts, 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: Approval 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: Approval 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: Approval 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.

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.

4300. Business Finance

Financial principles and practices relating to alternative forms of business organization. Sources and uses of financial data. 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**3301, 3302. Principles of Economics**

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

3303. Controversial Economic Issues

Study of major contemporary economic issues, such as Soviet and American systems for organizing economic resources, monopoly and competition, economic growth rate and inflation, public versus private sector problems, farm policy. 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 economic 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), Randall (chairman, Department of Art); Associate Professors Kjelson, Slatoff; Assistant Professors Davis, Denke, Glasow, J. Hall, Krenz, Muir, Pearson.

CURRICULA OFFERED**Baccalaureate Degree Majors**

Art (B.A.)

Music (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 and music, (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 68-unit requirement in general education. Study of one or more modern foreign languages is highly recommended.
- II. Complete the following requirements in the major:

<i>Lower Division</i>	<i>Units</i>
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
<i>Upper Division</i>	
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; 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
Elect 3 units in each of Speech-Drama and Music	6
<i>Total</i>	68

- 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.

ART MINOR

Requirements:

See adviser for requirements and approval.

Requirements are as follows: MUSIC MAJOR

- I. Complete the 68-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	Units
A minimum of 36-quarter units including the following:	
Music theory (including fundamentals and sight singing; diatonic and chromatic harmony through dictation, keyboard, and written experiences)	18
Applied music	18
Basic string, brass, woodwind, or percussion (required only of credential candidates; others may substitute electives)	6
Basic piano (for non-piano majors)	6
Basic voice (for non-vocal majors)	6
In addition, students are expected to study continuously upon their major instrument and to participate regularly in at least one major ensemble. Proficiency examinations will be given in applied music before students are approved for upper-division standing.	

Upper Division

A minimum of 53-quarter units including the following courses:

Mus. 3141, 3142, 3143, Music History and Literature	9
Mus. 4001, 4002, Instrumental and/or Vocal Arranging	4
Mus. 3001, 3002, 3003, Analysis and Composition	9
Mus. 3391, 3392, Conducting	6
Mus. 3230, 3240, 3250, 3260, Basic Orchestral Instruments: (1) string, (2) woodwind, (3) brass, and (4) percussion (required only of credential candidates; others may substitute electives)	6
Applied Music (major instrument)	6
Music Activities	6

Total (including lower division)

82

Proficiency examination will be given in the basic applied music courses (piano, voice, string, brass, woodwind, percussion). Those students who have had broad secondary school performance background will be able to meet basic requirements without taking all of the basic courses. Majors in a given performance field will not need to take the basic course in their major field (e.g., piano major will not need basic piano course).

In addition to the subject and scholarship requirements listed above, the State Department of Education has prescribed standards of performance in piano, voice, and conducting which must be met by candidates for the general and the special secondary credentials.

- III. Teaching candidates must 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 including (see Division of Education section).

Music 4330 Music in the Secondary School

4 units

(c) the requirements for a teaching minor.

In addition to the general secondary credential program which is described above, the State Department of Education also issues a Special Secondary

Credential in Music which permits the holder to teach *music only* from grades K through 12. The requirements under I and II above apply also to the Special Credential, but no teaching minor is required, and instead of the pattern of upper division professional courses in teacher education as outlined on p. (41), the following courses are required:

Ed. 3000 series	7 units
Ed. 3100 series	5 units
Mus. 3330 Music in the Elementary School	3 units
Mus. 4330 Music in the Secondary School	4 units
Ed. 4600 and 4650 Student Teaching in the Elementary and Secondary Schools	9 units

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:

Music Literature or History	3-4 units
Selected from Mus. 3110, 3141, 3142, 3143, or C.A. 4800	
Music Theory	6 units
Any combination of music theory courses for which the student is eligible	
Conducting (Mus. 3391 or 3392)	3 units
Piano, voice, and basic orchestral instruments ¹	9 units
Music activities ²	
Music electives ³	9 units
Major Instrument (or voice) ⁴	

30-31 units

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 contain a minimum of 30-quarter units of approved courses. A suggested minor could consist of the following:

Required courses in:

- Voice and speech improvement
- Public speaking
- Fundamentals of play production
- High school speech and drama or
- Speech and dramatic activity in the schools or
- Creative dramatics

Approved Electives in the following fields:

- Speech
- Drama
- Dramatic Literature
- Art
- Music

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

² All music minors are expected to enroll in one music activity each quarter.

³ With approval of adviser.

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

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

3010. Art Appreciation

Interpretation of the visual arts for the general student. Illustrated lectures, experiments and demonstrations on painting, sculpture, architecture and design. Fulfills Creative Arts requirement in general education. Two units. (Students must register concurrently with Art 3011, 1 unit.)

3011. Art Appreciation Activity

The activity portion of Art 3010, Art Appreciation. 2 hrs. act. One unit.

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.

3110. Survey of Design

Survey of forms and techniques of the arts aimed at a broad understanding of the visual arts and professional opportunities in the field. Approval of staff required. 2 hrs. lect., 2 hrs. act. Three units.

3120. Drawing

Graphic representation through a variety of techniques and media. Emphasis on form, structure, perspective, values, line, proportions. Approval of staff required. 1 hr. lect., 2 hrs. act. Two units.

3130. Intermediate Design

Advanced problems with emphasis upon application of design elements to practical problems in applied design. Prerequisite: Art 3120 or approval of staff. 1 hr. lect., 4 hrs. act. Three units.

3140. Three-Dimensional Design

Emphasis on manipulation of three-dimensional media in order to discover their creative potential. Prerequisite: Art 3130 or approval of staff. 1 hr. lect., 4 hrs. act. Three units.

3160. Life Drawing

A development of graphic representation through the study of the human form. Problems dealing with anatomy, form, and structure. Prerequisite: Art 3120 or approval of staff. 1 hr. lect., 2 hrs. act. Two units.

3170. Intermediate Drawing

Study of the human figure with a creative interpretation of structure and form in relation to line and value. Prerequisite: Art 3160 or approval of staff. 1 hr. lect., 2 hrs. act. Two units.

3210. Painting

Emphasis on pictorial composition. Experimentation with varied media such as tempera, casein, inks, collage, chalk. Prerequisite: Art 3120. 1 hr. lect., 4 hrs. act. Three units.

3220. Intermediate Painting

Emphasis on individuality of expression and experimentation through new problems and methods of pictorial organization. Prerequisite: Art. 3210 or approval of staff. 1 hr. lect., 2 hrs. act. Two units.

3310. Elementary School Art

Developing an understanding of elementary school art as applied to various age levels and classroom situations and providing the teacher with the personal skills necessary in utilizing arts and crafts materials. 3 hrs. lect., 4 hrs. act. Five 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: Basic skills in use of arts and crafts materials. 1 hr. lect., 4 hrs. act. Three units.

3510. Ceramics

Emphasis on designing, decorating, glazing and firing procedures of ceramics. May be repeated once for credit. Approval of staff. 2 hrs. lect., 6 hrs. act. Five units.

3520. General Crafts

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

4190. Advanced Drawing

Advanced problems in draftsmanship, with special emphasis on freedom of expression and experimentation. Prerequisite: Art 3170 or approval of staff. 1 hr. lect., 4 hrs. act. 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 3210. 1 hr. lect., 4 hrs. act. Three units.

4240. Advanced Painting

Emphasizes individual growth, planning, and fine craftsmanship. Prerequisite: Approval of staff. 1 hr. lect., 4 hrs. act. Three units.

4310. Workshop in Elementary School Art

The various stages of development in art for children will be studied along with appropriate activities. 3 units.

4320. Crafts in the Secondary School

Development of basic skills and understandings of craft experiences in keeping with the growth and development characteristics of the junior-senior high school student. Approval of staff. 3 hrs. lect., 2 hrs. act. Four units.

4350. Secondary 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 option students. Prerequisite: Approval of staff. 3 hrs. lect., 2 hrs. act. Four units.

4390. Art Internship

Practical experience in industry, business, agency or studio of professional artist. Approval of staff and cooperating organization. Five units.

4520. Jewelry

A basic course in the design and execution of simple jewelry, flatware, and hollow-ware, involving the use of silver, gold, copper, and brass. May be repeated for credit. Approval of staff. 2 hrs. lect., 6 hrs. act. Five units.

4530. Sculpture

Basic techniques and processes involving clay, wood, stone, plaster, and metal. Prerequisite: Art 3140. May be repeated for credit. Approval of staff. 1 hr. lect., 4 hrs. act. Three units.

4540. Weaving

Design and execution of the woven fabric. Basic skills in loom and frame weaving with emphasis on beginning methods and processes. Approval of staff. 1 hr. lect., 6 hrs. act. Four units.

4610. Printmaking

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

4620. Textile Design and Printing Process

Textile design processes involving silk screen, stencil, linoleum, and woodblock techniques. The production and exploration of hand-printed fabrics. May be repeated once for credit. Prerequisite: Approval of staff. 6 hrs. act. Three units.

4630. Lettering

A study of basic lettering forms with emphasis on styles of the 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.

4640. Display and Exhibition Techniques

Practical problems of developing displays, student shows, exhibitions, and related brochures. Prerequisite: Art 3140. 1 hr. lect., 4 hrs. act. Three units.

4650. Advertising Art

The elements of visual expression and design related to the technical, psychological and social aspects of advertising. Prerequisite: Art 4630. 1 hr. lect., 4 hrs. act. Three units.

4670. Fashion Design and Illustration

Apparel design for contemporary dress and the development of apparel from earliest times to present day in relation to the function, technology and social aspects of each period. Prerequisite: Art 4630. 1 hr. lect., 4 hrs. act. Three units.

4680. Senior Studio Workshop

Preparation and organization of the student's art work for presentation to prospective employer. Approval of staff. Two to five units.

4710. Interior Design

The elements of visual expression and design related to contemporary concepts of interior work and living space needs. Prerequisite: Art 4640. 1 hr. lect., 4 hrs. act. Three units.

4800. The Arts in Contemporary Society

Four units.

(See description under Creative Arts section.)

5370. Art Experiences for Exceptional Children

Art experiences in various media for the exceptional child. Special emphasis on those experiences which meet the needs of the atypical child. Laboratory, lectures and practicum. 3 hrs. lect., 4 hrs. act. Five units.

5900. Individual Study

Two-four units.

MUSIC**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. Three units each. 3 quarters.

3110. Music Listening

A basic course in music understanding designed to develop techniques for listening. Examples will illustrate music periods, styles, forms. May partially fulfill creative arts requirement in general education. Not open to music majors. Three units.

3141, 3142, 3143. Music History and Literature

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

3211, 3212, 3213. 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.

3230. Basic Orchestral Instruments (string)**3240. Basic Orchestral Instruments (woodwind)****3250. Basic Orchestral Instruments (brass)****3260. 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.

3310. Elementary School Music

Designed to develop skills of the classroom teacher in singing and playing music used in the basic elementary textbooks, and to develop understanding of the aims, methods and organization of materials and activities in elementary school music. No prerequisite. 3 hrs. lect., 4 hrs. act. Five units.

3330. Music in the Elementary School

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

3391. Choral Conducting

Development of basic choral conducting skills with class used as a laboratory group. 1 hr. lect., 4 hrs. act. Three units.

3392. Instrumental Conducting

Development of basic instrumental conducting skills with class used as a laboratory group. 1 hr. lect., 4 hrs. act. Three units.

3510. College 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. Ensembles

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

4001, 4002. Instrumental and/or Vocal Arranging

Characteristics of orchestra and band instruments and the singing voice along with practical experience in arranging music for varied instrumental and vocal ensembles. Two 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.

4210. Applied Music (piano)**4220. Applied Music (voice)****4230. Applied Music (string)****4240. Applied Music (woodwind)****4250. Applied Music (brass)****4260. Applied Music (percussion)**

Class instruction for advanced students in piano, voice, and on each specific orchestral instrument. May be repeated for credit. One unit.

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 and materials. 3 hrs. lect., 2 hrs. act. 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.

4800. The Arts in Contemporary Society

Four units.

(See description under Creative Arts section.)

5210. Applied Music (piano)**5220. Applied Music (voice)****5230. Applied Music (string)****5240. Applied Music (woodwind)****5250. Applied Music (brass)****5260. Applied Music (percussion)**

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

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.

5900. Individual Study

Two-four units.

SPEECH-DRAMA**3012. Advanced Acting**

Techniques of performance in relation to historical modes of production. Play analysis in relation to character, vocal method, body movement, dance. 2 hrs. lect., 2 hrs. act. Three 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. Three units.

3310. Oral Interpretation

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

3410. Voice and Speech Improvement

Improvement in voice and articulation through lecture, discussion, and drill. Designed for students who have minor speech and voice problems. May fulfill teaching credential speech requirement. Zero-three 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.

3650. Creative Dramatics for Children

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. May fulfill creative arts requirement in general education. 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. Zero-three units.

4350. Advanced Platform Speaking

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

4610. Speech and Dramatic Activity in Schools

To develop skills in the use of choral reading, story telling, creative and formal dramatics, puppetry, and informal speech activities as tools for the teacher. Three units.

4650. Children's Theatre

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.

4660. Teaching Speech and Drama in the Secondary School

Study of the content, bibliography, materials, and methods in speech and drama education. Prerequisite: Admission to teacher education. Four units.

5900. Individual Study

Two-four units.

5901. Directed Group Study

One-four units.

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

Professors R. Hall (Head), Carroll, Edmison, Ehret, Fry, Gilbert, Lane, Lawrence, Lepore, Peters, Ramm, Rusteika, Shriner, Schunoff, Vandenburg (Chairman, Department of Health and Physical Education); Associate Professors Carlson, McHugh, Pederson, Tappin; Assistant Professors Davies, Forbes, Hendrickson, Jackson, Loonie, Martin, Menner, Niepoth (Coordinator, Recreation Program), Olavarri, Roossinck, Sabath, Warnken, Worland, Yeager, Zeitlin; Assistant Low.

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 fields of concentration in:

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

The 1961 session of the State Legislature adopted legislation that will result in extensive revision of the credential structure effective July 1, 1963. Current credential requirements remain in force and students who begin the program and make formal credential application during the current academic year will be allowed to complete their program.

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.

Students who plan to enroll in teacher-education programs are encouraged to take introduction to education and 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

In addition to the general education requirement (see requirements for graduation section) the general elementary education candidate should complete the following lower-division courses:

	Units
Fundamentals of Music.....	3-6
Art (color, design, appreciation) ¹	3-6
Physical Education Fundamentals.....	1-3
Geography (world) ¹	3-6
Speech.....	3
Nature Study ¹	3-5
Introduction to Education (recommended).....	3
Total	19-32

Upper Division Requirements

	Units
Ed. 3000. Child, Youth, and School ⁴	7
Math. 3000. Concepts of Mathematics ^{1, 2} or Math. 5020. Math Concepts for Elementary Schools ³	3-5
Ed. 3100. Psychology in Education ⁵ (must be taken with Eng. 3000).....	
Upper-division general education science course ¹	4
Sci. Ed. 4020. Science in the Elementary School.....	3
Math. Ed. 4020. Teaching Math. in Elem. Schools.....	3
H. & P.E. 3200. Health and Physical Education.....	4
Mus. 3330. Elementary School Music Methods.....	3
Ed. 3200. Elementary Curriculum and Methods ⁵	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 ⁵	5
Ed. 4600. Student Teaching in Elem. Schools.....	15
Total	69-71

¹ May be used to satisfy general education requirement.

² For students who have not taken a college mathematics course in satisfaction of general education requirement.

³ For students who satisfy the mathematics general education requirement with a lower division college mathematics course, e.g., college algebra.

⁴ Courses accompanied by school and youth-group experiences.

⁵ 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. Since by proper planning a graduate student with no work in professional education may complete all requirements in four quarters, he should plan carefully his program with his adviser. It is recommended that the program be started in summer session and completed the following spring quarter. Work may be started in the fall quarter and completed the following summer. In either case, the candidate is eligible to begin teaching on a regular credential in the fall of the year in which he completes credential requirements.

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. Contact the division of education for application forms, appointments, and closing dates for submitting applications.

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. 3310. Elementary School Music.....	3
H. & 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
Total	68

SUGGESTED GENERAL ELEMENTARY CREDENTIAL PROGRAM

JUNIOR YEAR	
Fall	Units
Ed. 3000 Series—Child, Youth, School (Includes Ed. 3010, 3020, 3060, 3061).....	7
Math. 3000. Concepts of Mathematics (5). If met, take Math. Ed. 4020 (3).....	3-5
Electives.....	4-6
	16
Winter	
Ed. 3100. Ed. Psych.	3
Ed. 3161. Public School Lab. II.....	2
Eng. 3000. Adv. Comp.	3
Upper Div. Sci.	4
Electives.....	4
	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	4
Music Ed. 3330. Music in Elem. School (3) or		
Music Ed. 3310. Elem. School Music (5)	3-5	
S.R. 4901. Directed Senior Reading	4	
Electives	3-5	
		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) or		
Art Ed. 3310. Elem. School Art (5)	3-5	
Sci. Ed. 4020. Sci. in Elem. School	3	
		15-17
Spring		
Ed. 4600. Student Teaching	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.

Professional Education Requirements	Units
Ed. 3000 Series. Child, Youth, and School ¹	7
Ed. 3100, 3161. Psychology in Education ¹	5
Ed. 4100. Evaluation in Education	4
Ed. 4500. Secondary Education: Curriculum, Counseling & Guidance ¹	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

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).

¹ Courses accompanied by public-school and youth-group experiences.

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.

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)

Ed. 6520—Public School Supervision (4)

The skills of communication.

Ed. 6100—Advanced Curriculum Development (4)

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)

* Ed. 6610—School Housing (3)

School finance and school law.

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

Ed. 6100—Advanced Curriculum Development (4)

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

Responsibilities and relationships of public school personnel and governing boards.

Ed. 5200—Curriculum Development and Evaluation (4)

Ed. 6100—Advanced Curriculum Development (4)

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

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)

Measurement.

Ed. 4100—Evaluation in Education (4)

Pupil personnel, counseling and guidance.

Ed. 4700—Counseling and Guidance in Public Schools (4)

or

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

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

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

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.

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. 5600—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)

FIELD WORK

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 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. Eden Elementary School District
Mt. Diablo Unified School District
San Leandro Unified School District
San Lorenzo Elementary School District

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.

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

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. Fifteen 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. Fifteen 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; 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.

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 Youth

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 youth. 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 regular credential, 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.

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. Public relations aspects. (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 and teaching-learning process. (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

Planning, administering, and supervising school houses. Population projection, district and site master plans, financing. Relationships between instructional programs and development of school buildings. Legal responsibilities in school construction projects. 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. 6660 and 6661; for supervision credential take 6660 and 6662. Prerequisite: Approval of department. Lab., 9 hrs. Three units.

6700. Advanced Education Psychology

(See psychology for description.) Four units.

6900. Individual Study

Two-four units.

6901. Group Study

Two-four 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, Individual Mental Tests, and approval of department. Lect., 3 hrs. 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, Individual Mental Tests, 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. Concurrent registration in Ed. 6710 with Ed. 6760 and in Ed. 6761 with 6720. Prerequisite: Approval of department. Lab., 9 hrs. Three-three 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 education.

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.

PHYSICAL EDUCATION MAJOR (B.S. DEGREE)¹

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. 4600—Organization and Administration	4	
P.E. 4100—Seminar in Principles and Program	4	
	24	24
Selected Sports Skills and Techniques ²	6	6
Professional Physical Education Electives	6	6

¹ Baccalaureate program in physical education is the same for men and women.

² 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.

PHYSICAL EDUCATION MAJOR (B.S. DEGREE)—Continued

Electives from Associate Fields ¹		
Biol. 4440—Genetics	5	
Stat. 3001—Statistical Analysis I	4	
Anthro. 3010—Social Anthropology	4	
Psy. 3000—Advanced General Psychology	4	
Psy. 5300—Motivation	4	
Psy. 5410—Abnormal Psychology	4	
Soc. 3000—Social Problems	4	
Soc. 4130—Contemporary Youth Problems	4	
Rec. 3000—Nature and Scope of Recreation	4	
Rec. 3500—Recreation Program	6	
H.Ed. 3600—School Health Programs	3	
	15-20	
	51-56	

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. 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
Electives in Professional Physical Education	6	11
Electives in Recreation	3	3
	55	55

A credential candidate must also take Health Education 3600, School Health Programs (3 units), and Physical Education 4200, Methods and Materials in Health and Physical Education (4 units).

In addition to the course work specified, all 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.

¹ 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.

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
P.E. 3210—Theory of Interscholastic Football and Basketball	3	—
P.E. 3220—Theory of Interscholastic Baseball and Track	—	—
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. 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
Electives in Professional Physical Education	4	3
	32	32

In addition to the course work specified, all secondary teaching candidates minor-ing 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 of a major.

HEALTH EDUCATION ***3600. School Health Programs**

The health program in elementary and secondary schools including health serv-ices, environment, and instruction. 3 hrs. lect. Three units.

4200. Methods and Materials in Health and Physical Education

Four units. (For description see Phys. Ed. 4200.)

4900. Individual Study

Two-four units.

PHYSICAL EDUCATION**3000. Activity**

Instruction in designated physical education activities on the beginning, inter-mediate, and advanced levels. May be repeated for credit. One unit.

Badminton	Folk and Square Dance
Basketball	Golf
Bowling	Tennis
Cross Country	Track

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 interpreta-tion of California state program. Prerequisite: General education requirements in health and physical education. 2 hrs. lect., 4 hrs. act. Four units.

3210. Theory of Interscholastic Football and Basketball

Theory and technique of coaching interscholastic football and basketball, includ-ing 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.

* For details of health education minor, consult department advisor.

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. 2 hrs. 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. 2 hrs. 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. 2 hrs. 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., 4 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., 4 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: Education 4020 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 MAJOR

The Bachelor of Science degree in recreation is intended for those individuals who are preparing for full-time positions in public, private, and voluntary agencies which offer recreation services and in specialized programs such as hospital recreation, employee recreation, and armed-forces recreation.

Students majoring in recreation are required to 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 68-unit requirement in general education.

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

		Units
A. <i>Lower Division</i>		
Rec. 3000	_____	4
Electives to be chosen from the following areas (at least three areas to be represented): Art, camping, drama, music, nature study, physical education, social recreation		12
B. <i>Upper Division</i> (foundation courses):		
10-12 units to be selected in consultation with the major adviser from the following: Ed. 3020, 3100, 5040, Psy. 3000, 5200, 5210, 5300, 5500, 5510, 5520, 5530, 5610, 5790, Anat. and Phys. 3300		10-12
Eight units to be selected in consultation with the major adviser from the following: Anthro. 3010, Soc. 3000, 3410, 3430, 4100, 4120, 4130		8
C. <i>Upper Division</i> (professional courses):		
Rec. 3500, 3750, 4000, 4500, 5000, 5001, 5002	_____	36

D. Upper Division (program areas courses):

At least one course in each of the following areas to be selected in consultation with the major adviser:

1. Art, crafts (recommended options: Art 3310, 3320, 3520).
2. Camping, nature study (recommended options: Cons. 4380, Nature Study 3391, 3392, 3393, Rec. 3050).
3. Drama, music (recommended options: Sp-Dr. 3510, 3650, 4110, 4650, Mus. 3310, 3330, 4110).
4. Physical education, social recreation (recommended options: P.E. 3200, 3210, 3220, 3230, 3240, 3250, 3260, 3270, Rec. 3200).

E. 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.

RECREATION**3000. Nature and Scope of Recreation**

The nature, scope and significance of recreation, including historical developments, values and organizational patterns; the role of recreation in contemporary society; introduction to community recreation. Four units.

3050. Camp Counseling

A study of organized camping, with emphasis on the role of camp counselor and content of camp program. Development of campcraft skills. (One planned weekend camping trip.) Lect. 2 hrs., act. 2 hrs. Three units.

3200. Social Recreation

The planning, organization, and leadership of recreation in the group setting. Emphasis on the techniques of leading selected social recreation activities. Lect. 2 hrs., act. 2 hrs. Three units.

3500. The Recreation Program

Principles of program planning, development and evaluation; principles of learning and group dynamics as applied to the recreation process; relationship of the recreation program to community structure. Prerequisite: Rec. 3000 (or equivalent) or consent of instructor. 4 hrs. lect., 6 hrs. supervised field experience. Six units.

3750. The Recreation Setting

Analysis of recreation areas and facilities and their influence upon program; management and operation of playgrounds, centers, special activity areas, etc.; principles of scheduling, reporting, training and supervising part-time and volunteer workers. Prerequisite: Rec. 3000 (or equivalent) or consent of the instructor. 4 hrs. lect., 6 hrs., supervised field experience. Six units.

4000. The Structure of Recreation

General principles related to the structure of recreation, including organization, administration, personnel, budget and finance, public relations, legal aspects and liability. Prerequisite: Rec. 3500 and Rec. 3750 or consent of instructor. 4 hrs. lect., 2 hrs. act. Five units.

4500. Trends and Problems in Recreation

A study of selected trends and problems in recreation, including an analysis of philosophies of recreation and an orientation to professional responsibilities. 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, with particular emphasis on leadership and organizational techniques. 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, Rice, Weiss.

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.)

Minors

English
History

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 projects 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

- I. General education
Complete 68 units in general education. English 3000, Advanced Composition, is not open to English majors or minors. An appropriate upper-division course in writing must be substituted for it.
Demonstrate a reading knowledge of a modern foreign language.
- II. Complete the following requirements in the major:
Lower division: A course designed to introduce the student to literature.
Upper division: 48 quarter units including the following courses: Eng. 3020, 3250. Either of the following courses: Eng. 4040, 4060. Either of the following courses: Eng. 3251, 3252. Any three of the following courses: Eng. 3100, 3200, 3300, 3400. Any two of the following courses: Eng. 3500, 3600, 3601, 3650.
- III. General 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) a course in the teaching of English in the secondary school; (d) an upper-division course in speech; (e) an upper-division course in play production.

ENGLISH MINOR

SECONDARY CREDENTIAL

General English Minor

- I. Complete the following requirements in the Upper Division: 30-quarter units including Eng. 3250; either Eng. 4040 or 4060; 2 survey courses in English literature; 1 survey course in American literature; one "Studies" course.
- II. Complete Eng. 5920. See the Division of Education section for requirements in that division.

English Minor With Journalism Emphasis

- I. Complete the following requirements in English: 3250; either Eng. 4040 or 4060; 2 survey courses in English literature; 1 survey course in American literature; one "Studies" course.
- II. Complete Journalism 4200; and either Jour. 4400 or 4500.
- III. Complete Eng. 5920. See the Division of Education Section for requirements in that division.

LIBERAL ARTS

Complete the following requirements in the Upper Division: 20-quarter units including Eng. 3250; 2 survey courses; one "Studies" course.

HISTORY MAJOR

- I. General education
Complete the 68-unit requirement in general education.
Demonstrate a reading knowledge of one foreign language.
Proficiency may be demonstrated either by course work or by examination.
Complete a minimum of 4 quarter units in economics and 4 quarter units in political science. Pol. Sci. 3100 may not be counted toward the completion of this requirement.
- II. Complete the following requirements in the major:
Lower division: A minimum of 9-quarter units in either world history, western civilization, or history of the Americas.
Upper division: A minimum of 40 quarter units in history to include Hist. 4030 and 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. Hist. 3400 may not be counted toward completion of this requirement.

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 be selected as a minor by elementary school and junior high school credential candidates. History may not be offered as a teaching minor for the general secondary credential; for this, see social science minor, which includes history.

LANGUAGE ARTS MAJOR

- I. Complete the 68-unit requirement in general education. As a part of this requirement demonstrate a reading knowledge of a modern foreign language.
- II. Complete the following requirements in the major:
Courses totaling 29 units in English beyond the general education requirements to include: Eng. 3020 or Eng. 4070; Eng. 4040 and 4060.
At least 12 units of upper-division literature courses.
A minimum of 6 units in journalism courses (to include Jour. 4200 for prospective secondary-school teachers).
Speech and drama courses totaling 22 units to include Sp. & Dra. 3210, 3310, 3510, 4110.

- III. Secondary teaching candidates 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) the courses Jour. 4200 and Eng. 5950.

DESCRIPTION OF COURSES

ENGLISH

- 3000. Advanced Composition**
Improvement in expository writing. Enrollment and writings in conjunction with a course in each major field. Required in the general-education program. Not open to English majors or minors. Three 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 siècle* 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.
- 3700. World Literature I**
Selected writings from the great cultures of the world from ancient times through the Middle Ages. Four units.
- 3701. World Literature II**
Selected writings from the great cultures of the world from the Renaissance through the Enlightenment. Four units.
- 3702. World Literature III**
Selected writings from the great cultures of the modern world. 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; introduction to structural linguistics. Four 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.
- 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. Four units.

FOREIGN LANGUAGES

French

- 3001. Review of French Fundamentals**
Comprehensive review of principles of grammar; composition; reading; and conversation. No prerequisite. Four units.
- 3002. Review of French Fundamentals**
Continuation of 3001. Prerequisite: French 3001 or consent of instructor. Four units.

3003. Review of French Fundamentals

Continuation of 3002. Prerequisite: French 3002 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**3001. Review of German Fundamentals**

Comprehensive review of principles of grammar; composition; reading; and conversation. No prerequisite. Four units.

3002. Review of German Fundamentals

Continuation of 3001. Prerequisite: German 3001 or consent of instructor. Four units.

3003. Review of German Fundamentals

Continuation of 3002. Prerequisite: German 3002 or consent of instructor. Four units.

4900. Individual Study

One-four units.

4901. Directed Group Study

One-four units.

Spanish**3001. Review of Spanish Fundamentals**

Comprehensive review of principles of grammar; composition; reading; and conversation. No prerequisite. Four units.

3002. Review of Spanish Fundamentals

Continuation of 3001. Prerequisite: Spanish 3001 or consent of instructor. Four units.

3003. Review of Spanish Fundamentals

Continuation of 3002. Prerequisite: Spanish 3002 or consent of instructor. Four units.

3101. Survey of Spanish Literature

Literature of the Middle Ages and Early Renaissance in Spain. Prerequisite: Facility in reading and understanding oral Spanish. Three units.

3102. Survey of Spanish Literature

Literature of the Golden Age and the 18th century in Spain. Prerequisite: Facility in reading and understanding oral Spanish. Three units.

3103. Survey of Spanish Literature

Literature of the 19th and 20th centuries in Spain. Prerequisite: Facility in reading and understanding oral Spanish. Three units.

3201. Survey of Spanish American Literature

Literature from the Colonial Period through Romanticism. Prerequisite: Facility in reading and understanding oral Spanish. Three units.

3202. Survey of Spanish American Literature

Literature from the end of Romanticism through Modernism. Prerequisite: Facility in reading and understanding oral Spanish. Three units.

3203. Survey of Spanish American Literature

Literature from the end of Modernism to the present. Prerequisite: Facility in reading and understanding oral Spanish. Three units.

3301. Advanced Composition and Conversation

Advanced grammar and composition. Extensive work in writing and intensive drill in conversation, supplemented with practice in language laboratory. Prerequisite: Twenty-four quarter units of lower division Spanish or consent of instructor. Three units.

3302. Advanced Composition and Conversation

Continuation of 3301. Prerequisite: Spanish 3301 or consent of instructor. Three units.

3401. Spanish Culture

A study of Spanish culture—history, art, architecture, and philosophy from the prehistoric period through the reign of the Catholic Kings. Three units.

3402. Spanish Culture

A study of Spanish culture—history, art, architecture, and philosophy from the end of the reign of the Catholic Kings to the present. Three units.

3501. Nineteenth Century Spanish Literature—The Novel

Selected readings from the major novelists of the 19th century, including Alarcón, Galdós, Pereda, and Pardo Bazán. Prerequisite: Facility in reading and understanding oral Spanish. Three units.

3502. Nineteenth Century Spanish Literature—The Drama

Selected readings from major dramatists of the 19th century. Prerequisite: Facility in reading and understanding oral Spanish. Three units.

3503. Nineteenth Century Spanish Literature—Poetry

Selected readings from the major poets of the 19th century. Prerequisite: Facility in reading and understanding oral Spanish. Three units.

4100. Spanish for Elementary Schools

Improvement of conversational Spanish and methods for its teaching. Prerequisite: Study of Spanish, elementary school experience in teaching Spanish or consent of instructor. Four units.

4101. Spanish for Elementary Schools

Continuation of 4100. Prerequisite: Spanish 4100 or consent of instructor. Four units.

4102. Spanish for Elementary Schools

Continuation of 4100 and 4101. Prerequisite: Spanish 4101 or consent of instructor. Four units.

4900. Individual Study

One-four units.

4901. Directed Group Study

One-four units.

Foreign Languages**5950. Methods of Teaching Foreign Languages**

Theory and practice of teaching modern foreign languages on the elementary and secondary levels. Oral and audio-visual techniques. Emphasis upon vocabulary building and development of conversational responses. Prerequisites: Competence in at least one foreign language. Four units.

HISTORY**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.

3110. Europe in the Middle Ages

Political, social, and economic evolution of Europe from the decline of the Roman Empire to about 1350. Four units.

B. Modern Europe**4120. Renaissance and Reformation**

Europe from 1350 to 1610, emphasizing the classical revival and Protestant revolt. 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.

4160. Europe in the 19th Century

Europe from the Napoleonic era to 1914. Emphasis on international relations and the rise of nationalism and liberalism. Four units.

4180. Europe Since 1914

Political, economic, and military developments since the outbreak of World War I. Emphasis on the relations of nations in an age of conflict. 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. History of Asia to 1850**

A survey of Asiatic history from the earliest times to the mid-nineteenth century. Four units.

3301. History of Asia Since 1850

A survey of Asiatic history in the 19th and 20th centuries; with special attention given to colonialism, nationalism, and communism. 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 general education requirements. 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.

3420. The United States: The New Nation

History of the United States from 1783 to 1845. The Confederation and the Constitution. Domestic and foreign problems of the new nation to 1845. Four units.

3430. Civil War and Reconstruction

The United States from 1845 to 1877. The sectional conflict; westward expansion, economics of sectionalism, crisis and compromise. The Civil War and social and political reconstruction. 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.

4440. Emergence of the United States as a World Power

The United States from 1877 to 1920. Political and social development in the age of "rugged individualism." The Spanish-American War, the Progressive Movement, World War I, and retreat to isolation. Four units.

4450. The United States Since 1920

Study of the complexity of national life in the 20th century. The 1920's, the Depression, New Deal, World War II, and post-war affairs. 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.

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 Western Political 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**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.

4900. Individual Study

One-four units.

4901. Directed Group Study

One-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.

CURRICULA OFFERED**Baccalaureate Degree**

Biological Science (B.S.)

Mathematics (B.S.)

Physical Science (B.S.)

Minors

(See adviser for requirements)

Biological Science

Mathematics

Physical Science

PURPOSES

To offer liberal arts programs, to prepare teachers for secondary schools, and to offer general education and elementary education service courses.

BIOLOGICAL SCIENCE MAJOR

I. Complete the 68-unit requirement in general education which is required for all majors. Students completing this major will have satisfied the 18-unit 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:

Lower Division

Preparation for the major: college mathematics.....	Units 5-10
Basic courses in botany and zoology or biology.....	15-30
Basic courses in chemistry and physics.....	17-22

Upper Division

Courses to be selected with approval of biological science adviser:	
Botany, biology, zoology	25-47
Physical sciences	9-18

Total 87

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.

MATHEMATICS MAJOR

I. Complete the 68-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>Lower Division:</i>	<i>Units</i>
Recommended preparation for the major: college chemistry and physics	15-25
Basic courses in mathematics including integral calculus	16
<i>Upper Division Core:</i>	
Math. 3101, 3102 (4-4)	8
Math. 3310	5
Math. 3201	4
	33
<i>Liberal Arts Option:</i>	
Math. 3320	5
Math. 4331, 4332	10
Electives selected with aid of adviser	16
	31
<i>Secondary Teaching Option:</i>	
Math. 3060	4
Math. 4040	4
A second course in geometry	4
Math. 3600	4
Electives selected with aid of adviser	15
	31
Total mathematics	64

- 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 68-unit requirement in general education which is required for all majors. Students completing this major will have satisfied the 18-unit 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>Lower Division</i>	<i>Units</i>
Preparation for major: college mathematics	10-15
Major courses: basic courses in physics and chemistry	27-42
<i>Upper Division</i>	
Courses to be selected with approval of the physical science adviser:	
Astronomy, chemistry, conservation, geology and physics	25-47
Biological sciences	9-18
Total	83

- 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.

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.

5100. General 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**4400. Descriptive Astronomy**

A nonmathematical course, with emphasis on aspects of interest to the prospective or in-service teacher. 4 hrs. lect., 2 hrs. act. Five units.

BIOLOGY**3350. Principles of Biology**

Fundamentals of plant and animal processes emphasizing the basic and unifying principles. Not open to students having credit for lower-division courses in botany, biology, or zoology. 5 hrs. lect. Five units.

4221. Marine Biology

The sea as life environment. Study of local marine animals, emphasis on identification, anatomy, and habitats of invertebrate forms. Prerequisites: Biol. 3350 or consent of instructor. 2 hrs. lect., 3 hrs. lab., field trips. Three units.

4410. Microbiology

The biology of representative types of microscopic plants and animals including their culture, morphology, general physiology, and ecology. Prerequisite: General chemistry and biology or equivalent. 4 hrs. lect., 6 hrs. lab. Six units.

4440. Genetics

An introductory study in the principles of heredity. Prerequisite: General botany and zoology or equivalent. 5 hrs. lect. Five units.

4450. Evolution

Organic evolution stressing possible mechanisms. Prerequisite: General biology or botany and zoology. 4 hrs. lect. Four 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. 3 hrs. lect.; 4462, 1 hr. lect., 6 hrs. lab. and/or field trips. Three units each.

4470. 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: A basic course in biology and in chemistry. 2 hrs. lect., 6 hrs. lab. Four units.

4500. Microtechnique

The standard methods in the preparation of permanent microscopic slides of plant and animal tissues. Prerequisites: General botany, general zoology and at least one upper division course in the biological sciences. 9 hrs. lab. Three units.

4900. Individual Study

Two-four units.

5000. Analysis of Biological Concepts

The development of biological science using original writings of key figures from the Greeks to contemporary biologists. Prerequisite: General biology, or botany and zoology. 3 hrs. lect. Three units.

BOTANY**4101. Plant Biology**

A comparative study of the structure, development, and phylogeny of the mosses, liverworts, and seedless vascular plants. Prerequisite: General botany or equivalent. 2 hrs. lect., 3 hrs. lab. Three units.

4102. Plant Biology

A comparative study of the structure, development and phylogeny of the conifers and flowering plants. Prerequisite: General botany or equivalent. 2 hrs. lect., 3 hrs. lab. Three units.

4103. Plant Biology

A comparative study of the structure, development and phylogeny of the algae, fungi and lichens. Prerequisite: General botany or equivalent. 2 hrs. lect., 3 hrs. lab. Three 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 4102 Plant Biology. 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.

4350. Survey of the Plant Kingdom

General biology of the major plant groups other than the bacteria, including the fundamentals of classification, morphology, physiology and reproduction. Prerequisite: General biology or consent of instructor. 2 hrs. lect., 3 hrs. lab. 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**3301. Organic Chemistry**

An introduction to carbon compounds. Prerequisite: General chemistry. 4 hrs. lect., 2 hrs. act. Five units.

3302, 3303. Organic Chemistry

A continuation of Chemistry 3301 with emphasis on basic principles and beginning laboratory experience in basic techniques and syntheses. Prerequisite: Chem. 3301. (Chem. 3302 is prerequisite to Chem. 3303.) 3 hrs. lect., 6 hrs. lab. Five units.

4151. Advanced Inorganic Chemistry

A study of atomic structure, valence, bonding, periodic system, and electron configurations. Prerequisite: General inorganic chemistry. 4 hrs. lect., 2 hrs. act. Five units.

4152. Advanced Inorganic Chemistry II

A continuation of Chem. 4151 with laboratory experience in the preparation and properties of selected inorganic compounds. Prerequisite: Chem. 4151. 3 hrs. lect., 6 hrs. lab. Five units.

4240. Instrumental Methods of Analysis

Theory and application of instrumental methods in chemical problems. Laboratory experiments in physical and instrumental methods of analysis of inorganic and organic substances. Prerequisites: Quantitative analysis, organic chemistry. 3 hrs. lect., 6 hrs. lab. Five units.

4401. Biochemistry

Basic consideration of the chemical and physical factors in life processes. Chemistry and metabolism of carbohydrates, proteins and enzymes, lipids, vitamins, hormones. Prerequisite: Chem. 3301. 5 hrs. lect. Five units.

4402, 4403. Biochemistry

Continuation of Chemistry 4401. Beginning laboratory experience in basic techniques of importance to both chemists and biologists. Prerequisite: Chem. 4401. (Chem. 4402 is prerequisite of Chem. 4403.) 3 hrs. lect., 6 hrs. lab. Five units.

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. act. Five units.

4501. Physical Chemistry I

A lecture and problem course dealing with the elements of physical chemistry; physicochemical behavior of substances, elementary thermodynamics, electrochemistry, chemical kinetics, atomic structures. Prerequisites: General chemistry, calculus, introductory physics. 5 hrs. lect. Five units.

4502, 4503. Physical Chemistry II and III

A continuation of Chem. 4501, with emphasis on basic principles of physical chemistry and beginning laboratory experience in basic application of physical techniques to chemical investigation. Prerequisite: Chem. 4501. (Chem. 4502 is prerequisite to Chem. 4503.) 3 hrs. lect., 6 hrs. lab. Five units each.

4610. Industrial Chemistry

Fundamental principles and applications of important chemical processes. Prerequisite: Chem. 3301. 4 hrs. lect., 2 hrs. act. Five units.

4900. Individual Study

Two-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**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**4101. Physical Geology**

An elementary study of the earth, including materials, structure, internal conditions and physical and chemical processes. 3 hrs. lect. Three units.

4102. Physical Geology Laboratory

The study of rocks and minerals, topographic and geologic maps. Field trips. Prerequisite: Geol. 4101 (can be taken concurrently). 3 hrs. lab. One unit.

4201. Historical Geology

Evolution of continents, oceans, mountain systems, and other features of the earth; development of animals and plants. 3 hrs. lect. Three units.

4202. Historical Geology Laboratory

Collecting, identifying and categorizing fossils; use of fossils. Prerequisite: Geol. 4201 (can be taken concurrently). 3 hrs. lab. One unit.

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. 4101 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. 4101 or equivalent. 3 hrs. lect., 6 hrs. lab. Five units.

4510. Invertebrate Paleontology

History and classification of invertebrates. Methods of interpretation of the fossil record. Prerequisite: Permission of instructor. 2 hrs. lect., 6 hrs. lab. Four units.

4610. Mineralogy and Crystallography

Recognition of minerals by their physical properties and crystal form; morphology and classification of crystal structure. Prerequisite: Permission of instructor. 2 hrs. lect., 6 hrs. lab. Four units.

4710. Petrology

Origin, occurrence and classification of common rocks; emphasis on hand lens identification. Prerequisite: Permission of instructor. 2 hrs. lect., 6 hrs. lab. Four units.

4810. Structural Geology

Structural features of sedimentary, metamorphic rocks; deformation of the earth's crust; applied practice in laboratory methods. Prerequisite: Permission of instructor. 2 hrs. lect., 3 hrs. lab. Three 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**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.

3060. 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.

3101, 3102. Foundations of Mathematics I, II

The nature of mathematics; mathematical logic; axiomatic bases for numbers and number systems; bases of geometries. Prerequisite: 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. Higher Geometry I

College geometry with emphasis on foundations of plane and solid Euclidean geometry. Prerequisite: Calculus. Four units.

3202, 3203. Higher Geometry II, III

Non-Euclidean geometries, synthetic and analytic projective geometry. Prerequisite: Math. 3201. Four units each.

3300. Review of Calculus

Comprehensive review of calculus for students who need a refresher course before proceeding to more advanced courses in mathematics. Prerequisite: Intermediate calculus, or equivalent. Three units. (Credit cannot be granted toward a mathematics major or a bachelor's degree.)

3310. Intermediate Calculus

Solid analytic geometry, functions of several variables, partial derivatives, multiple integration, infinite series. Prerequisite: Calculus. Five units.

3320. Differential Equations

A beginning course in ordinary differential equations. Prerequisite: Math. 3310 or equivalent. Five units.

3331. Differential Equations I

First order differential equations and a beginning study of linear differential equations with applications. Prerequisite: Math. 3310. (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. 3310 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.

3900. Individual Study

One-five units.

3910. Directed Group Studies

One-six 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 Godel 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. 3310 or equivalent. 5 units.

4320. Vector Analysis

Vector algebra, differentiation, and integration; gradient, divergence, curl; curvilinear coordinates. Prerequisite: Math. 3320. Five units.

4331. Advanced Calculus I

Advanced study of functions of several variables, partial differentiation, multiple integrals, line and surface integrals. Prerequisite: Math. 3310 or equivalent. Five units.

4332. Advanced Calculus II

Several types of infinite series, uniform convergence, improper integrals, special functions. Prerequisite: Math. 4331. Five units.

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.

4900. Individual Study

One-five units.

4910. Directed Group Studies

One-six 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.

5900. Individual Study

One-five units.

5910. Directed Group Studies for Advanced Students

One-six 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 homomorphisms. Metric spaces and the theorems of Baire and Urysohn. Product and quotient spaces. Introduction to linear topological spaces. Prerequisite: Consent of Instructor. 5 units.

6900. Individual Study

One-five units.

6910. Directed Group Studies for Graduate Students

One-six 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 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. 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 or physical science. 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, map reading, meteorology, astronomy, early Spring plants and animals. Offered in Winter quarter. Prerequisite: Basic course in biology or 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 or physical science. 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**3340. 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: Math. 3000 or equivalent. 4 hrs. lect., 2 hrs. act. Five units.

4400. 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. 3340 or equivalent, high school physics. 4 hrs. lect. Four 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**4150. Radioactivity and Nuclear Structure**

Discovery of radioactivity, nature of radioactivity, alpha, beta, and gamma rays, theory of transformations, artificial transmutations, nuclear structure, nuclear reactors. Prerequisites: General college physics and mathematics. 4 hrs. lect. Four units.

4160. Basic Electronics

An introduction to the design, use, and analysis of electronic instruments such as circuit analysis, electron tubes, amplifiers, power supplies. 4 hrs. lect. Four units.

4171. Modern Physics

A descriptive course in atomic and nuclear physics. Prerequisite: General physics, calculus. 4 hrs. lect. Four units.

4172. Modern Physics Laboratory

The experimental foundation for the theory of atomic structure. Photoelectric effect, X-rays, cathode rays, optical spectra. Prerequisite: General physics, calculus. 3 hrs. lab. One unit.

4311, 4312, 4313. Analytic Mechanics

Fundamentals of statics, kinematics, dynamics of rigid bodies, introduction to Lagrange's and Hamilton's equations. Prerequisites: General physics; Math. 3320 (can be taken concurrently). Phys. 4311 is prerequisite to Phys. 4312; Phys. 4312 is prerequisite to Phys. 4313. 3 hrs. lect. Three units each.

4320. 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. Prerequisites: General physics, calculus. 3 hrs. lect. Three units.

4331, 4332. Electricity and Magnetism

Theory of electrostatics, magnetostatics, magnetism, steady and varying currents, electron theory and electromagnetic waves. Prerequisites: General physics, Math. 3320 (can be taken concurrently). Phys. 4331 is prerequisite to Phys. 4332. 3 hrs. lect. Three units each.

4333. Advanced Electrical Laboratory

The use and calibration of precision electrical instruments and electronic devices. To be taken concurrently with Phys. 4332. Prerequisites: General physics, Math. 3320 (can be taken concurrently). 3 hrs. lab. One unit.

4341. Introduction to Quantum Mechanics

Physical ideas and mathematical formulation of quantum mechanics, with applications to atomic and molecular systems. Prerequisite: General college physics. 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**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**4141. Reptiles and Amphibians**

Biology, ecology, distribution and identification of reptiles and amphibians; emphasis on western forms. 2 hrs. lect., 3 hrs. lab., field trips. Three units.

4142. Mammals

The anatomy, natural history and classification of mammals. Laboratory work with mammal collection of western forms with emphasis on identification. Prerequisite: Biol. 3350 or consent of instructor. 2 hrs. lect., 3 hrs. lab., field trips. Three units.

4143. Birds

Biology, ecology, distribution and identification of birds; emphasis on local forms. 2 hrs. lect., 3 hrs. lab., field trips. Three units.

4144. Fishes

Biology, ecology, distribution and identification of fishes; emphasis on western forms. Prerequisite: A course in biological sciences. 2 hrs. lect., 3 hrs. lab., field trips. Three units.

4240. 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.

4250. Vertebrate Anatomy

Gross and microscopic structure of representative vertebrates, emphasizing the evolutionary history of the major organ systems. Prerequisite: Zool. 4240 or equivalent. 3 hrs. lect., 6 hrs. lab. Five units.

4350. Survey of the Animal Kingdom

Introduction to relationships within and between major groups of animal life. 2 hrs. lect., 3 hrs. lab. Three units.

5050. General Parasitology

An introduction to parasitism; emphasis on the structure, physiology, life histories, and pathology of parasitic animals other than arthropods. Prerequisites: General zoology or general biology. 2 hrs. lect., 3 hrs. lab. Three units.

SENIOR READING

Professor Fry (coordinator) and staff

4901. Directed Senior Reading

An interdisciplinary course in which the student examines a cluster of ideas in several disciplines. The course intends to show the relationships of the disciplines to each other, and to introduce great ideas in Western civilization which are assumed in the various fields of knowledge. Includes lectures by members of the academic departments, with readings, papers, and examinations assigned by the individual instructors. Four 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 Forbes, Gothberg, Mechanic, Winslow.

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.)

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 social science and for purposes of general education. The social science 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 for graduate work in selected fields.

SOCIAL SCIENCE AREA MAJOR**Requirements:**

I. Complete the 68-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.

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.

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.

* See adviser for applicable courses in Division of Business and Economics.

** See adviser for applicable courses in Division of Humanities.

- 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 advice and 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 30-quarter units in an approved minor teaching field. Pre-secondary credential candidates are referred to the requirements for admission to teacher education (see Division of Education, secondary credential program for details).

SOCIAL SCIENCE MINOR

Students with teaching majors in fields other than social science should consult a designated adviser for a program of studies leading to a teaching minor in social science.

ANTHROPOLOGY *

3010. Social Anthropology

The place of anthropology in the social sciences; theories and schools in social anthropology; community studies, integration, functionalism, psychological aspects. Four units.

3500. Archaeology of North America

Prehistory of the Indians of North America together with some basic principles and methods of archaeology. Prerequisite: Course in anthropology or consent of instructor. Four units.

3510. Ethnohistory of Western North America

The material and social characteristics of Indian tribes west of the Rocky Mountains. The impact of the European upon these tribes. Prerequisite: Course in anthropology or consent of instructor. Four units.

3520. Ethnohistory of Eastern North America

The material and social characteristics of Indian tribes east of the Rocky Mountains. The impact of the European upon these tribes. Prerequisite: Course in anthropology 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. Four units.

4700. Problems of Culture Change

Problems arising from the contact of industrial societies with nonindustrial societies. Prerequisite: Course in anthropology 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.

* See also Cultural Ecology.

GEOGRAPHY*

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

Outline of the major physical conditions of the earth's surface, such as topography and climate; their relation to contemporary economic and cultural patterns. (Not open to students who have taken introductory work in geography.) Four units.

3030. Principles of Landform Analysis

Classification of the major landform types; the nature of their formation; river, ocean, glacial and wind produced landscape features. 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. 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: Course in geography or consent of instructor. Four units.

3800. Field Geography

The historical, economic, industrial, and physical geography of the San Francisco Bay region. Prerequisite: Course in geography or consent of instructor. Four units.

4900. Directed Reading

Two-four units.

JOURNALISM

3210. Mass Media of Communication

(See Creative Arts Division for description.)

4211. College Newspaper Lab

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.

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.

4400. 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.

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. 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. 3 hrs. lect., 2 hrs. lab. Four units.

* See also Cultural Ecology.

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. 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.

POLITICAL SCIENCE**A. American Government and Politics****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.

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.

3112. American Legislatures and Legislation

Organization and functioning of Congress, state legislatures, local councils and boards with particular attention to California; pressure groups; committee systems; executive-legislative-judicial relations; selected reform proposals. 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. Metropolitan Government

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.

4310. Political Parties and Pressure Groups

An analysis of political parties and pressure groups: History; organization and operation; influence in nominations and elections and upon executive legislative branches of national, California state and local governments. 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: Indian, Japan, China. Attention is given to cultural contexts from which political systems developed; emphasis upon contemporary governmental patterns. Four units.

C. Public Law and Administration**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.

4440. American Constitutional Law

The United States Constitution as interpreted by the courts; civil rights, taxation, commerce, citizenship, intergovernmental relations, executive and legislative powers and other social, economic and political factors. 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.

5450. Administrative Law

An analysis of administrative function in the American national and state systems: Foundation of administrative power; judicial supervision of administration; status of regulatory and quasi-judicial agencies; delegation of legislative and executive powers. 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.

4540. Principles of International Law

Analysis of sources, function, evolution and principles of international law; the law-making and adjudicatory agencies; the delegation of legislative and executive powers. 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 these 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 19th century; emphasis on the development of democratic concepts. Five units.

4712. Modern Western Political 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 movements in China, Western Europe and America. 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**5900. Independent Study**

Two-four units.

5910. Political Science Seminar

Contributions of natural and social science theories, methods and results to political science; scope and method of political science; individual research on selected topics. Two-four units.

PSYCHOLOGY**3000. Principles of Psychology**

Survey of content and theory in the scientific study of behavior. Problems of psychology as viewed in experimental method; theory construction in scientific investigation. Prerequisite: General Psychology or consent of instructor. Four units.

3100. Experimental Psychology I

Principles of scientific method in psychology; emphasis on design of experiments; experimental method as applied to research problems. Prerequisites: Psy. 3000, Stat. 4001. Five units.

3110. Experimental Psychology II

General principles of experimental control. Planning, conducting and analyzing results of student experiments. Prerequisite: Psy. 3100. Five units.

4220. Problem Solving and Thinking

Psychological processes involved in problem solution. Survey of experimental work and theories on concept formation and thought processes. Prerequisite: Psy. 3000. Four units.

4310. Comparative Psychology

Basic psychological processes in relation to animal behavior. Prerequisite: Psy. 3000. Four units.

4330. History and Systems of Psychology

Survey of historical developments in emergence of modern scientific psychology. Contemporary theoretical systems with emphasis on differing approaches to recurring problems. Prerequisite: 16 units of psychology and senior standing. Four units.

4800. Industrial Psychology

Psychology applied to personnel in the industrial setting; methods of selection, training and evaluation of personnel; motivation, leadership training and the dynamics of labor management groups. Prerequisite: General Psychology. Four units.

4900. Individual Study in Psychology (Honors)

Work by arrangement for honors students in psychology. Four units.

5200. Conditioning and Learning

Basic principles and results of conditioning and learning experimentation. Prerequisite: Psy. 3100. Four units.

5210. Theories of Learning

Survey of theories of learning; emphasis upon experimental work arising from alternative conceptual systems, and their underlying assumptions and methodological approaches to research problems. Prerequisite: Psy. 3000 or equivalent. Four units.

5300. 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.

5410. The Abnormal Personality

A first course in the field of abnormal psychology with emphasis upon forms of abnormal behavior and etiology, considering biological, psychological, and sociological stress. Four units.

5500. Social Psychology

Study of the process of individual socialization, involving experimental investigation of social behavior, group dynamics and intergroup relations; social change; social attitudes. Attention is given to appropriate methods of social research in psychology. Prerequisite: Course in general psychology or consent of instructor. Four units.

5510. Attitude and Opinion Surveys

Results of attitude studies, opinion surveys, and content analyses as related to differences between individuals, groups, roles, and statuses; methods in the study of social attitudes and opinions; design of research and critical analysis of data. Prerequisite: Psy. 5500. Four units.

5520. Group Dynamics

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. 5500. Four units.

5530. The Psychology of Social Conflict

Types of social interaction; social conflict within and between groups; processes of violent and non-violent social change; conflict resolution and aftermath; effects of social tension upon individual behavior. Prerequisite: Psy. 5500. Four units.

5560. 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. 3000 or equivalent. Four units.

5700. Test Development

Emphasis on the theory underlying the development, analysis and evaluation of standardized and non-standardized tests. Prerequisite: College algebra or consent of instructor. Four units.

5710. Personnel Selection

Techniques, tests, administration and evaluation of programs for the selection and placement of personnel. Prerequisite: Psy. 5700 or equivalent. Four units.

5720. Individual Mental Tests

Analyzes the concept of intelligence for 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 and psychological theory. Prerequisite: Psy. 3000 or equivalent. Four units.

5850. Psychology of the Gifted Child

Identification, motivation, personality characteristics, and evaluation of the gifted child. Prerequisite: Psy. 3000 or Ed. 3100, or equivalent. Four units.

6700. Educational Psychology, Advanced Course

Current research and theory in psychology of education; principles of motivation, learning, and personality in the educational setting; experimental design in educational psychology. Prerequisite: Ed. 3100; graduate standing. Four units.

SOCIOLOGY**3000. 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. 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. 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. 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. 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. Four units.

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. 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. Four units.

4130. Contemporary Youth Problems

An analysis of current social factors, including economic and psychological factors, contributing to the difficulties of adolescence. Effects of youth problems on other areas of society. Four units.

4200. Sociology of Occupations

Social factors entering into occupational choice. Certain occupational groups will be studied as illustration. Patterns of group behavior affecting occupational performance. 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

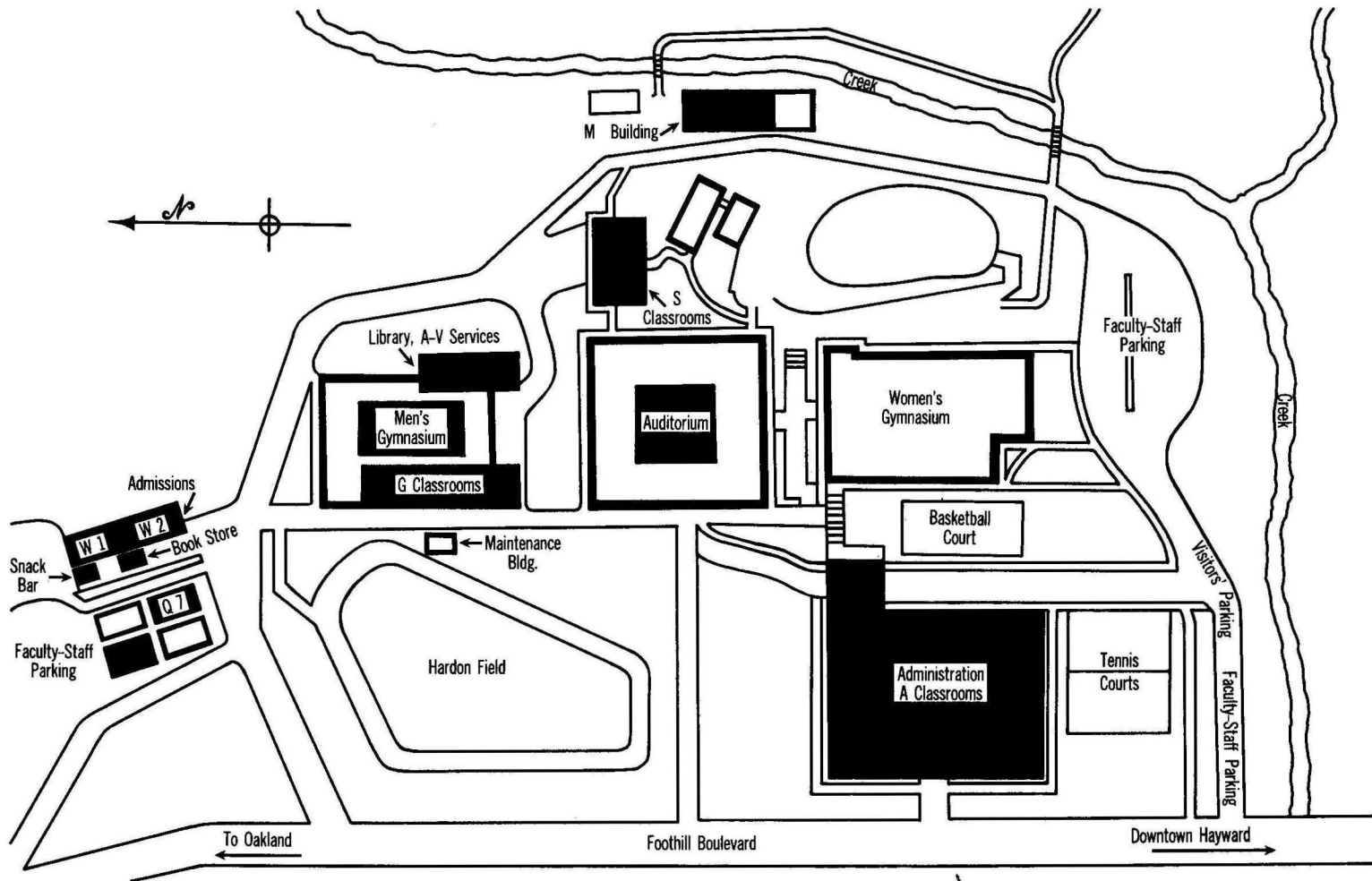
Review of major concepts in social science as tools in developing alternative social policies; directed research in current issues employing relevant data and methods of the several social science fields. Prerequisite: Approval of instructor. Four units.

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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ALAMEDA COUNTY STATE COLLEGE
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HAYWARD, CALIFORNIA

