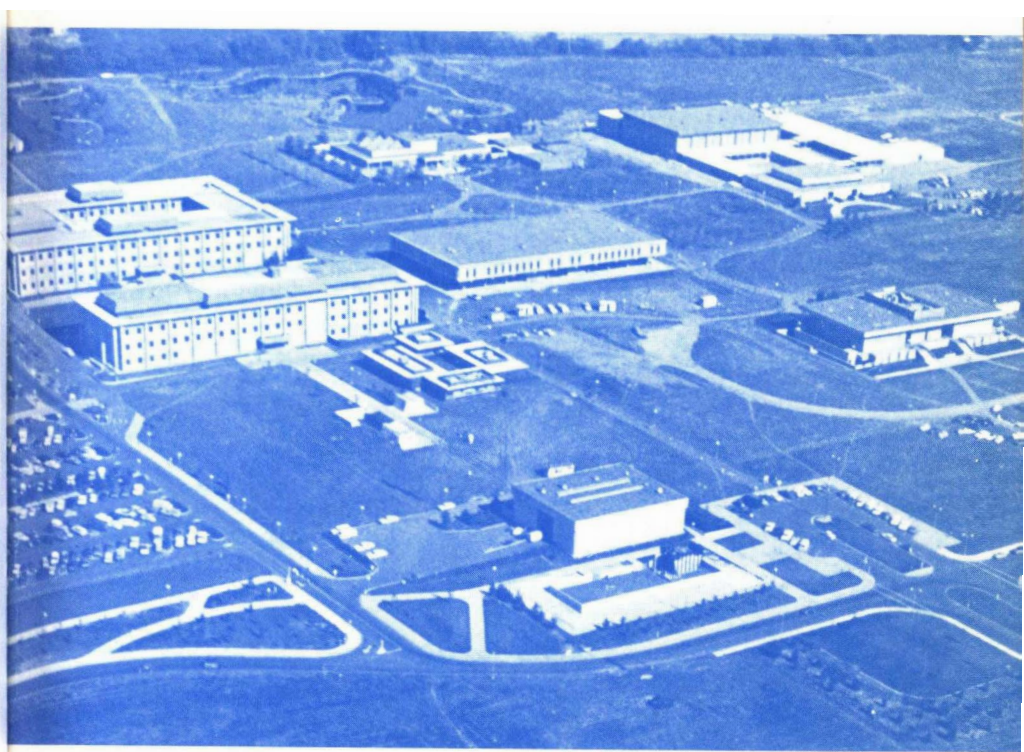


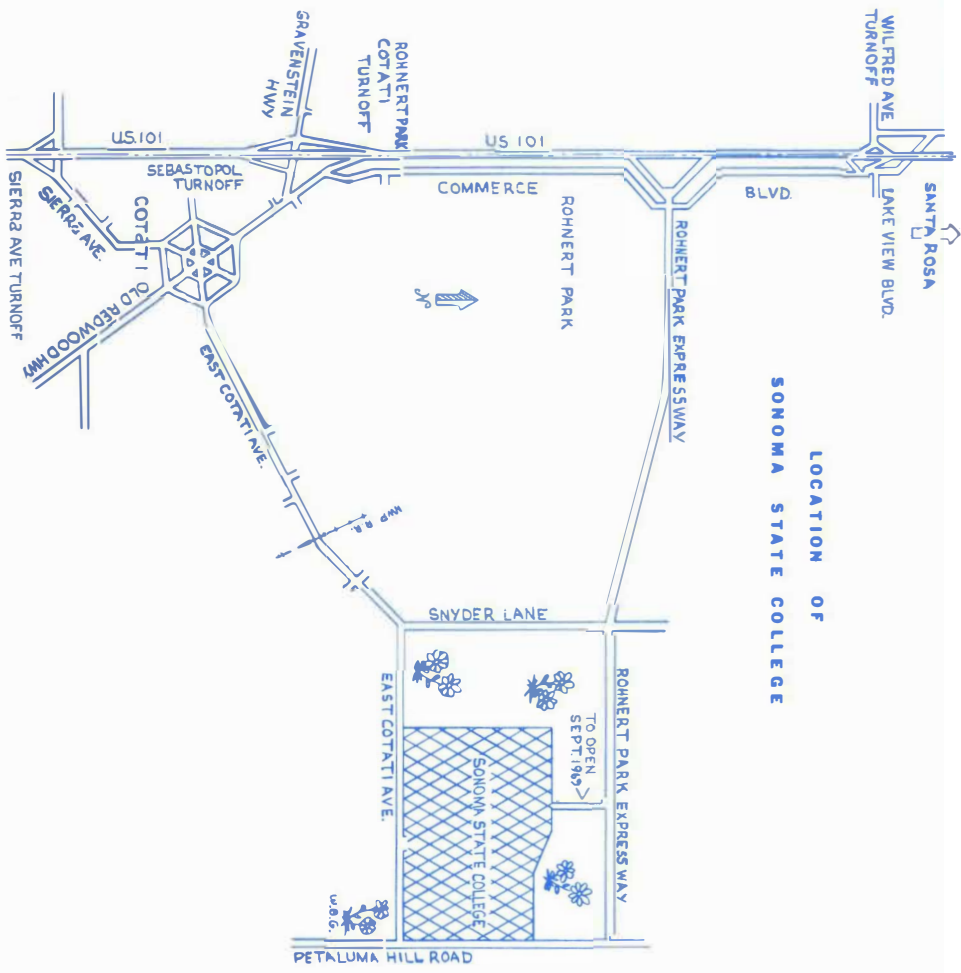
SONOMA STATE COLLEGE



**California State Colleges
CATALOG
1970-71**

LOCATION OF

SONOMA STATE COLLEGE



Sonoma State College

1970–1971

Catalog

1801 East Cotati Avenue

Rohnert Park, California 94928

\$1.00 plus tax

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1970-71 ACADEMIC CALENDAR

FALL SEMESTER

January 1.....	First day that applications for admission for the fall semester 1970 will be accepted.
January 5-30.....	Period to apply for the fall 1970 semester credential program.
January 1-March 31.....	Period to apply for financial aid (scholarships, NDEA, EOG, State Guaranteed Loan, and Work-Study employment) to insure consideration in the initial round of awards.
May 4-8.....	Advisement and Registration. Details published in schedule of classes.
July 15.....	Last day to pay fees and validate registration.
August 3-28.....	Period to apply for the spring 1971 semester credential program.
September 11-13.....	Freshman Camp.
September 14.....	Faculty Meeting.
September 15.....	Instruction begins.
September 15.....	Late registration. By petition only. \$5.00 late fee.
September 16.....	First day to file a schedule change.
September 25.....	Last day to add a class.
September 28.....	Last day to apply for partial refund of material and service charges if withdrawing.
September 28.....	First day that \$1.00 fee charged for schedule change.
October 16.....	Last day to file application to graduate for January 1970 candidates.
October 23.....	Last day to drop a class without risk of "F" grade. Subsequent to this date "W" or "WF" grades will be assigned for dropped classes.
October 23.....	Last day to convert registration from letter grade to P/NC or vice versa.
October 23.....	Last day to apply for partial refund of non-resident or foreign student tuition.
December 18.....	Last day to drop any class.
December 18.....	Last day to withdraw.
December 21-January 4.....	Christmas Vacation. No classes in session.
January 4.....	Classes resume after Christmas Holiday.
January 4-29.....	Period to apply for fall 1971 credential program.
January 11-15.....	Final examinations.
January 15.....	Fall semester ends.
January 18-February 5.....	Mid-semester recess. No. classes in session.

HOLIDAYS

September 7.....	Labor Day. College closed.
September 9.....	Admission Day. College open.
October 12.....	Columbus Day. College closed.
November 11.....	Veteran's Day. College open.
November 26-27.....	Thanksgiving Holiday. College closed.
December 25-27.....	Christmas Holidays. College closed.
January 1-3.....	New Year's Holidays. College closed.

1970-71 ACADEMIC CALENDAR

SPRING SEMESTER

August 3-28.....	Period to apply for Spring 1971 semester credential program.
October 1.....	First day that applications for admission to the spring semester 1971 will be accepted.
October 1-31.....	Period to apply for financial aid (Scholarships, NDEA, EOG, State Guaranteed Loan, and Work-Study employment) to insure consideration in the initial round of awards.
December 7-11.....	Advisement and Registration. Details published in schedule of classes.
January 4-29.....	Period to apply for fall 1971 semester credential program.
January 8.....	Last day to pay fees and validate registration.
February 8.....	Faculty Meeting.
February 9.....	Instruction begins.
February 9.....	Late registration. By petition only. \$5.00 late fee.
February 10.....	First day to file schedule changes.
February 19.....	Last day to add a class.
February 22.....	First day that \$1.00 fee charged for schedule change.
February 23.....	Last day to apply for partial refund of material and service charges if withdrawing.
March 12.....	Last day to file application to graduate for June 1971 candidates.
March 19.....	Last day to drop a class without risk of an "F" grade. Subsequent to this date "W" or "WF" grades will be assigned for dropped classes.
March 19.....	Last day to convert registration from letter grade to P/NC or vice versa.
March 19.....	Last day to apply for partial refund of non-resident or foreign student tuition.
May 21.....	Last day to drop a class.
May 21.....	Last day to withdraw.
May 27, 28, June 1-3.....	Final examinations.
June 4.....	Commencement.

HOLIDAYS

February 12.....	Lincoln's Birthday. College open.
February 15.....	Washington's Birthday. College closed.
April 5-9.....	Easter recess. Classes not in session.
May 31.....	Memorial Day. College closed.
July 5.....	Independence Day. College closed.



**THE
CALIFORNIA
STATE
COLLEGES**

TRUSTEES OF THE CALIFORNIA STATE COLLEGES

EX OFFICIO TRUSTEES

Ronald Reagan, B.A.....	State Capitol, Sacramento	95814
Governor of California and President of the Trustees		
Ed Reinecke, B.S.....	State Capitol, Sacramento	95814
Lieutenant Governor of California		
Max Rafferty, B.A., M.A., EdD.....	721 Capitol Mall, Sacramento	95814
State Superintendent of Public Instruction		
Robert T. Monagan, B.A.....	State Capitol, Sacramento	95814
Speaker of the Assembly		
Glenn S. Dumke, B.A., M.A., Ph.D., LL.D., L.H.D.....	5670 Wilshire Blvd, Los Angeles	90036
Chancellor of the California State Colleges		

APPOINTED TRUSTEES

Appointments are for a term of eight years expiring March 1 on dates in parentheses. Names are listed in order of accession to the Board.

Charles Luckman, LL.D., A.F.D. (1974) 9220 Sunset Blvd., Los Angeles 90069	Alec L. Cory, B.A., LL.B. (1973) 530 B Street, Suite 1900, San Diego 92101
Theodore Meriam, B.A. (1971) P.O. Box 370, Chico 95927	William A. Norris, B.A., LL.B. (1972) 609 So. Grand Avenue, Los Angeles 90017
Albert J. Ruffo, LL.B., B.S. in E.E. (1971) 675 North First Street, Suite 1200, San Jose 95112	Edward O. Lee, B.A. (1974) 610 16th Street, Room 420, Oakland 94612
Mrs. Philip Conley, B.A. (1972) 3729 Huntington Blvd., Fresno 93702	Phillip V. Sanchez, B.A., M.A. (1978) 1015 East Alluvial Street Fresno, California 93726
E. Guy Warren, B.A. (1973) P.O. Box 59, Hayward 94541	Karl L. Wente, M.S. (1976) 5565 Tesla Road, Livermore 94550
Daniel H. Ridder, B.A. (1975) 604 Pine Avenue, Long Beach 90801	Dudley Swim, B.A., M.A. (1976) Route 2, Box 5000, Carmel Valley Road, Carmel 93924
George D. Hart, B.A. (1975) 111 Sutter St., San Francisco 94104	E. Litton Bivans (1977) 2431 Dallas Street, Los Angeles, California 90031
Robert A. Hornby, LL.D., M.E. (1978) c/o Pacific Lighting Corporation P.O. Box 60043 Terminal Annex Los Angeles, California 90060	W. O. Weissich, B.S., LL.B. (1977) 1299 Fourth Street, San Rafael, California 94901

OFFICERS OF THE TRUSTEES

Governor Ronald Reagan
President

Daniel H. Ridder
Chairman

Mrs. Philip Conley
Vice-Chairman

Dr. Glenn S. Dumke
Secretary-Treasurer

OFFICE OF THE CHANCELLOR OF THE CALIFORNIA STATE COLLEGES

5670 Wilshire Blvd.
Los Angeles, California 90036
213 938-2981

Glenn S. Dumke.....	Chancellor
Harry E. Brakebill.....	Executive Vice Chancellor
C. Mansel Keene.....	Assistant Chancellor, Faculty and Staff Affairs
Russell G. Whitesel.....	Vice Chancellor, Academic Affairs
D. Dale Hanner.....	Vice Chancellor, Business Affairs
Norman L. Epstein.....	Vice Chancellor and General Counsel
Harry W. Harmon.....	Vice Chancellor of Physical Planning and Development

THE CALIFORNIA STATE COLLEGES

California State College, Bakersfield
615 California Avenue
Bakersfield, California 93304
Paul F. Romberg, President
805 327-9101

California State College, Dominguez
Hills
1000 East Victoria Street
Dominguez Hills, California 90247
Leo F. Cain, President
213 532-4300

California State College, Fullerton
800 North State College Boulevard
Fullerton, California 92631
William B. Langsdorf, President
714 870-2011

California State College, Hayward
25800 Hillary Street
Hayward, California 94542
Ellis E. McCune, President
415 538-8000

California State College, Long Beach
6101 East Seventh Street
Long Beach, California 90801
Stephen Horn, President
213 433-0951

California State College, Los Angeles
5151 State College Drive
Los Angeles, California 90032
John A. Greenlee, President
213 224-2011

California State College, San Bernardino
5500 State College Parkway
San Bernardino, California 92407
John M. Pfau, President
714 887-6311

California State Polytechnic College,
Kellogg-Voorhis
3801 West Temple Avenue
Pomona, California 91766
Robert C. Kramer, President
213 964-6424

California State Polytechnic College,
San Luis Obispo
San Luis Obispo, California 93401
Robert E. Kennedy, President
805 546-0111

Chico State College
Chico, California 95926
Robert E. Hill, President
916 345-5011

Fresno State College
Shaw and Cedar Avenues
Fresno, California 93726
Karl Falk, Acting President
209 487-9011

Humboldt State College
Arcata, California 95521
Cornelius H. Siemens, President
707 826-3011

Sacramento State College
6000 Jay Street
Sacramento, California 95819
Bernard L. Hyink, President
916 454-6011

San Diego State College
5402 College Avenue
San Diego, California 92115
Malcolm A. Love, President
714 286-5000

San Fernando Valley State College
18111 Nordhoff Street
Northridge, California 91324
James W. Cleary, President
213 349-1200

San Francisco State College
1600 Holloway Avenue
San Francisco, California 94132
S. I. Hayakawa, President
415 469-9123

San Jose State College
125 South Seventh Street
San Jose, California 95114
Robert W. Burns, Acting President
408 294-6414

Sonoma State College
1801 East Cotati Avenue
Rohnert Park, California 94928
Ambrose R. Nichols, Jr., President
707 795-2011

Stanislaus State College
800 Monte Vista Avenue
Turlock, California 95380
Carl Gatlin, President
209 634-9101

THE CALIFORNIA STATE COLLEGES

The 19 campuses of the California State Colleges, spanning the state from Humboldt County in the north to San Diego in the south, represent the largest system of public higher education in the Western Hemisphere and one of the largest in the world. Current enrollment exceeds 227,000 full-time and part-time students. The faculty and administrative staff number approximately 13,000.

Although San Jose State College, the oldest, was founded over a century ago, the California State Colleges were not drawn together as a system under an independent Board of Trustees until after passage of the Donahoe Higher Education Act by the Legislature in 1960.

Responsibility for the California State Colleges is vested in the Board of Trustees, whose members are appointed by the Governor. The Chancellor is the administrative officer of the Trustees. Together, the Trustees and the Chancellor set broad policy, while delegating responsibility for implementation to the colleges. The Academic Senate of the California State Colleges, consisting of elected representatives of the faculty at each college, recommends academic policy to the Board of Trustees through the Chancellor.

Each college in the system has its own geographic and curricular character, but all emphasize the liberal arts and sciences. Programs leading to the bachelor's and master's degrees, as well as a limited number of joint doctorates, are master-planned to anticipate and accommodate student interest and the educational and professional needs of the State of California. The primary responsibility of the faculty is the instructional process, with increasing recognition of the importance of the role of research as a necessary concomitant to high quality teaching.

The California State Colleges are now in a dynamic period of development. Prior to World War II there were seven State Colleges with a peak total enrollment of 13,000. Since 1947, twelve new colleges have been established and sites have been selected for new campuses in Ventura, San Mateo and Contra Costa counties. California State College, Bakersfield, will open its doors to students for the first time this year. Enrollment in the system is expected to go beyond 400,000 by 1980.



**SONOMA
STATE
COLLEGE**

SONOMA STATE COLLEGE ADMINISTRATION

EXECUTIVE

President	Ambrose R. Nichols, Jr.
Executive Dean	Wesley R. Burford
Building and Planning Coordinator	Nore F. Thiesfeld
Public Information Officer	Robert S. Lipman
Secretary to the President	Laura Cooper
Secretary to the Executive Dean	Velma Rooker

INSTRUCTION

Vice President for Academic Affairs	James B. Enochs
Administrative Assistant to Vice President for Academic Affairs	Louis A. Dallara
Dean of the Faculty	John L. Clark
Dean of Educational Services and Summer Sessions	Carroll V. Mjelde
Director of Institutional Studies	George L. Proctor
Assistant to the Director of Institutional Studies	Edward S. Hochuli
Director of Instructional and Research Grants	Rita B. Garant
Chairman of Division of Ethnic Studies	LeVell Holmes
Chairman of Division of Humanities	Yvette M. Fallandy
Chairman of Division of Natural Sciences	Gene D. Schaumberg
Chairman of Division of Psychology, Education, Health Sciences and Physical Education	William E. McCreary
Chairman of Division of Social Sciences	Cheryl J. Petersen
Director of Robert Hutchins School of Liberal Studies	Warren E. Olson
College Librarian	A. S. Pickett
Director of Audio-Visual Services	Harold R. Skinner
Coordinator of the Hidden Talent Project	Weldon P. Populus
Secretary to Vice President for Academic Affairs	Louise Jensen
Secretary to Administrative Assistant to Vice President for Academic Affairs	Emeline Matthey
Secretary to Dean of the Faculty	Norma Futrell
Secretary to Dean of Educational Services and Summer Sessions	Barabara Dulaney
Secretary to the College Librarian	Verna Beatty

STUDENT PERSONNEL SERVICES

Dean of Students	John T. Palmer
Associate Dean of Students	Warren R. Tappin, Jr.
Associate Dean of Students—Admissions and Records	Harold J. Soeters
Associate Dean of Students—Counseling	Charles H. Merrill
Counselor for Educational Exchange	Marvin N. Dillon
Director of Student Activities	Janice H. Kalbaugh
Activities Adviser	John M. Fogle
Placement Officer	Ralph B. Rustigan
Placement Associate	Priscilla M. Ewing
Test Officer	Gerald J. Alves
Psychometrist	Edith A. Moon
Registrar	Frederick H. Jorgensen
Medical Officer	Thomas R. Plowright
College Nurse	Evelyn O'Rourke
Director of Financial Aids	William E. Frenaye
Financial Aids Counselor	Paul R. Molino
Secretary to the Dean of Students	Betty Slivkoff

Advisory Board

BUSINESS MANAGEMENT

Business Manager.....	R. M. D. Childs
Budget and Planning Officer.....	Joseph C. Vizi
Accounting Officer.....	Ben Y. Quong
Personnel Officer	Raymond N. Duggan
Business Services Officer	George F. Dilleuth
Chief of Plant.....	Joseph O. Killian
Secretary to the Business Manager.....	Alberta Woods

SONOMA STATE COLLEGE ADVISORY BOARD

Each of the California State Colleges, by action of the Legislature, is privileged to name an advisory board composed of citizens representative of the area served by the college. Appointees are approved by the California State College Board of Trustees, and through their participation, the local college is better enabled to develop its program in relationship to the needs of the college service area. The college is grateful to the following persons for their willingness to serve in this important capacity:

Peter H. Behr, Chairman
212 Del Casa Drive
Mill Valley, California 94941

Mrs. E. W. Hartzell, Vice-Chairman
2395 Sobre Vista Drive
Sonoma, California 95476

W. Baird Anton
501 North Main Street
Lakeport, California 95453

A. B. Broadbus
P.O. Box 698
Ukiah, California 95482

Edwin V. Grundstrom
1516 Grant Avenue
Novato, California 94947

Dr. Edward G. Lopez
1628 Broadway
Vallejo, California 94590

Dr. Bradford W. Lundborg
1140 Sonoma Avenue
Santa Rosa, California 95405

John H. Moskowitz
Superior Court, Dept. 2
Room 203J, Hall of Justice
Santa Rosa, California 95401

Richard L. Payne
500 Maryland Street
Vallejo, California 94590

The Reverend Norman M. Redeker
St. John's Lutheran Church, Missouri
Synod
3521 Linda Vista Avenue
Napa, California 94558

GENERAL INFORMATION

History

Sonoma State College was created by action of the Legislature in 1960. A site of 200 acres was purchased near the cities of Cotati and Rohnert Park, midway between Santa Rosa and Petaluma, at the intersection of Petaluma Hill Road and East Cotati Avenue.

Construction of the first permanent buildings, in harmony with a broad master plan for the entire campus, commenced in 1962. Meanwhile, beginning in the summer of 1961, the College operated in rented quarters in Rohnert Park. The move to the permanent campus took place in August, 1966.

For five years prior to the creation of the new Sonoma State College, San Francisco State College operated an Off-Campus Center in Santa Rosa as a means of providing for the training of elementary teachers in the North Bay area. Building upon this base, Sonoma State College opened its doors in the fall of 1961 with offerings at the junior and senior level leading to the bachelor's degree in elementary education and the General Elementary teaching credential.

In 1962-63, its second year of operation, the College expanded considerably these programs for upper-division students while admitting freshmen for the first time to a general program of liberal arts majors. In succeeding years, additional majors at the bachelor's and master's degree levels have been developed in accordance with a comprehensive master curricular plan. Details of these degree and credential programs are given in the appropriate sections of this catalog.

Functions

The California State Education Code (Section 22606) states that "The primary function of the state colleges is the provision of instruction for undergraduate students and graduate students, through the master's degree, in the liberal arts and sciences, in applied fields and in the professions, including the teaching profession." The development of programs at Sonoma State College consistent with this statement is influenced both by the resources and needs of the region and by the views of the faculty and administration which strongly support the basic liberal arts emphasis.

Such a liberal education gives attention to fundamental knowledges, concepts, and methods of study in the humanities; the natural sciences, including both physical and biological sciences, and mathematics; and the social sciences. Based upon foundation studies in these three areas of learning, the courses offered by the College also provide opportunity for the student to choose major and minor studies designed to achieve a level of specialization appropriate to the broad purposes of the state colleges. Students also have opportunity to select courses in terms of their major interests or in terms of their individual preferences.

General Information

Extra-curricular activities, including student government, publications, social affairs, athletics, and other events are being developed in the conviction that these are integral parts of the collegiate educational experience.

Campus Development

After the first five years of operation in temporary facilities, Sonoma State College moved, in August 1966, to its permanent campus at 1801 East Cotati Avenue, Rohnert Park, California.

The original campus master plan approved by the Trustees in 1962 included facilities for an ultimate day enrollment of 12,000 full-time students. With the recent occupancy of the permanent Library and Physical Education building, the first phase of the building program has been completed. Permanent teaching facilities are now available for approximately 3500.

Continuous planning for facilities to meet the requirements of the College program is under the direction of the Office of the Executive Dean, with the guidance of the Campus Planning Committee.

The latest revision to the campus master plan, approved by the Trustees in October 1969, includes facilities for six new cluster schools. These clusters will grow concurrently with the present college to provide complete facilities for the modified instructional program. As the college academic program expands, new classrooms, offices, student housing, parking, roads, walks and landscaping are planned to meet the new requirements. New plans are under way to provide facilities for an increase in student enrollment of approximately 1200 each year until the maximum of 12,000 is reached in 1978.

Fiscal year 1971-72 should see the completion of the buildings of the first cluster school, the Hutchins School of Liberal Studies, and residence halls and dining facilities for 600 students. If appropriations are made by the legislature, the Art-Classroom Building should be completed during 1972, and a new building housing the Physical Sciences and Mathematics Departments will be under construction.

The Associated Students and College Staff are compiling information for the new College Union, and the program for the Student Health Services Building is being prepared.

New classroom buildings, administration offices, other cluster colleges, a little theater, and more parking should follow these to provide for the ever-expanding instructional program.

Sonoma State College Foundation

The Sonoma State College Foundation, a California non-profit Corporation, was established in 1961 for the purpose of promoting and assisting the educational services of the College. The intent of the Foundation is to supplement the services provided by the State of California and to sponsor such activities as will help attain the goals of the College

General Information

but for which the State has not appropriated funds. Its activities include the sponsoring of conferences and workshops, the receiving and administration of gifts and donations, a financial aids program, certain depository functions, and such other activities as can be more conveniently handled by the Foundation than by the State.

BOARD OF DIRECTORS, 1969-70

Officers

Ambrose R. Nichols, Jr. (President of the College)	President
James B. Enochs (Vice-President for Academic Affairs)	Vice-President
John T. Palmer (Dean of Students)	Secretary
R. M. D. Childs (Business Manager)	Treasurer
Ronald F. Coles	Member-at-Large

Members

Ronald F. Coles (Assistant Professor of Management)
Weldon P. Populus (Coordinator of the Hidden Talent Program)
Wesley R. Burford (Executive Dean)
A. S. Pickett (College Librarian)
Carroll V. Mjelde (Dean of Educational Services and Summer Sessions)
Robert E. Holmes (Associate Professor of Chemistry)
James G. Gillette (President, Associated Students)
Gerald J. Alves (Test Officer—Counselor)
John W. Kelly (Alumni Representative)
_____ (Advisory Board Representative)
Daniel J. Christensen (Foundation Accountant)

ADMISSION TO THE COLLEGE

All students who wish to attend Sonoma State College in on-campus classes during a regular semester must qualify for admission in accordance with the requirements and procedures in this bulletin.

Admission Classification

Those who must make application for admission are:

New Students—Any student who has never attended Sonoma State College in a regular semester.

Readmitted Students—Any student who has not been in attendance at Sonoma State College during either of the two semesters immediately preceding the semester for which application is made or who has attended another college or university in any interval of his absence, except summer session.

Application Procedures

1. Complete all information requested on the application form and packet.
2. Pay the application fee. All applications must be accompanied by a twenty dollar (\$20.00) fee. This is a nonrefundable fee assessed for processing the application. Payment should be made by check or money order, payable to Sonoma State College.
3. Complete the Statement of Residence.
4. Forward all items to the Office of Admissions and Records.

Supporting Materials, Necessary Transcripts, Entrance Examinations, General Policies

It is the applicant's responsibility to see that required official and complete transcripts, including in-progress transcripts, are filed with the Office of Admissions and Records in time to be considered for admission. The college reserves the right to determine whether a transcript can be accepted as official. All transcripts and records submitted for admission to Sonoma State College become the property of the college and cannot be returned to the applicant.

Failure to declare enrollment in each college or university previously attended will constitute grounds for denial of admission or dismissal from the college for unethical conduct.

Admission of First-time Freshmen

An applicant who has had no previous college work will be considered for admission under the category of a first-time freshman and must present a high school transcript showing graduation from high school.

Transfer Freshmen and Sophomores

An applicant applying with less than 60 semester units of accredited college or university work must file official transcripts of high school and all college or university work.

Transfer Juniors and Seniors

An applicant applying with 60 semester units or more of accredited college or university work since high school must file official transcripts for each college or university attended since high school.

Graduate Students

1. Students, without a degree or credential objective at Sonoma State College, applying for admission as an unclassified graduate student need only file an official transcript showing the award of a baccalaureate or higher degree from an accredited college or university.
2. Students applying for admission for advanced degrees or credential programs at Sonoma State College must file official transcripts in duplicate for each accredited college or university attended since high school. A separate application for admission to these programs must be made through the departments involved.
3. Students applying for admission to teaching credential programs must file three official transcripts of all collegiate work completed since high school graduation. One copy to the Office of Admission and Records and two copies to the credential secretary's office.

Entrance Examinations

All students applying as first-time freshmen or transfer freshmen and sophomores with less than 60 semester units of work from accredited colleges or universities must submit the results of the American College Test (ACT) or Scholastic Aptitude Test (SAT) for admission. The ACT is preferred but not required. Further information regarding the Tests is available at your high school, Sonoma State College Test Office or directly from the Registration Department, American College Testing Program, P.O. Box 414, Iowa City, Iowa 52240, or Educational Testing Service, Box 1025, Berkeley, California 94701.

Students who have completed the examination on a previous date may have these test scores submitted in lieu of taking a second examination. Test scores must be submitted directly from the Registration Department of the testing service.

Statement of Residence

All new and readmitted students must complete and file an official Statement of Residence form. This form is attached to the application for admission and must be filed with the Office of Admissions and

Admissions

Records at the same time the application is submitted. Final decision relative to residence status is made by the college attorney and will be based on the resident laws of the State of California. Students are responsible for reporting any change in their resident classification.

Notification of Admission to the College

Applicants who have submitted all of the required admission materials will receive notification of their acceptance or denial from the Office of Admissions and Records for the fall semester beginning on or about March 15 and for the spring semester on or about November 1.

Cancellation of Admission

Students who have been admitted to the college for a given semester but do not register will have their admission automatically canceled. Should they later wish to undertake work at the college, they must file a new application, pay a new application fee and meet all of the current requirements for admission. Materials supporting an application for admission such as transcripts and entrance examination scores will be held for one year only and may be used during this time to meet the requirements for admission.

Health Examination

All new students who register for more than six (6) semester units of work are classified as regular students and are required to file with the Student Health Service the student health record form prior to registration in the college. This form is forwarded to each student with his notification of acceptance and must be completed by a student's private physician at the student's expense. The form when complete should be mailed directly to the Student Health Service.

Admission Requirements

Requirements for admission to Sonoma State College are in accordance with Title 5, Chapter 5, Subchapter 2 of the California Administrative Code as amended by the Board of Trustees of the California State Colleges on January 21, 1965. A prospective applicant who is unsure of his status under these requirements is encouraged to consult with a school or college counselor or contact the college admission office.

Admission of Freshmen

An applicant who has had no college work will be considered for admission under one of the following provisions. Except as noted submission of the results of the American College Test or Scholastic Aptitude Test is required.

California High School Graduates and Residents

An applicant who is a graduate of a California high school or a legal resident for tuition purposes must have a grade point average and total score on the SAT/ACT which provides an eligibility index * placing him among the upper one-third of California high school graduates. The grade point average is based upon all high school work taken, excluding work completed in the freshman year as well as any courses in physical education or military science. The table below does not cover every case, but gives several examples of the test score needed with a given grade point average to be eligible for admission.

<i>Grade Point Average</i>	<i>SAT Needed</i>	<i>ACT Needed</i>
3.21 and above	Eligible with any score	Eligible with any score
2.80	832	19
2.40	1,152	27
2.00	1,472	35
1.99 and below	Not eligible	Not eligible

Non-Residents Graduating from High Schools in Other States or Possessions

An applicant who is a nonresident for tuition purposes and who is a graduate of a high school in another state or a U.S. possession must have an eligibility index which would place him among the upper one-sixth of California High School graduates. The minimum required eligibility index is 3402 using the SAT, and 826 using the ACT, and is calculated as in the previous section.

Graduates of High Schools in a Foreign Country

An applicant who is a graduate of a foreign high school must have preparation equivalent to that required of eligible California high school graduates. The college will carefully review the previous record of all such applicants and only those with promise of academic success equivalent to that of eligible California high school graduates will be admitted.

The college entrance aptitude test is not required of applicants for whom English is a foreign language. However, for those applicants for whom English is a second language the college does require the Test of English as a Foreign Language (TOEFL). Students should write directly to Educational Testing Service, Princeton, New Jersey, U.S.A. 08540 for information.

Non-High School Graduates

An applicant who is over 21 years of age who has not graduated from high school, will be considered for admission only when his prep-

* For 1970-71, the minimum eligibility index for the SAT is 3072. It is computed by multiplying grade point average by 800 and adding it to the total SAT score. For the ACT, the minimum eligibility index is 741. It is computed by multiplying the grade point average by 200 and adding it to the ACT composite score, multiplied by 10.

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aration in all other ways is such that the college believes his promise of academic success is equivalent to that of eligible California high school graduates.

Concurrent Enrollment of High School Students

A senior student still enrolled in high school will be considered for enrollment in certain special programs if he is recommended by his principal and his preparation is equivalent to that required of eligible California high school graduates. Such admission is only for a given program and does not constitute the right to continued enrollment. Such applicants are required to take the entrance examination and to submit transcripts of high school work completed to date.

Admission of Other Applicants

An applicant not admissible under one of the above provisions should enroll in a junior college or other appropriate institution. Only under the most unusual circumstances will such applicants be permitted to enroll in the college. Permission is granted only by special action.

Recommended Preparation

Overall excellence of performance in high school subjects and evidence of academic potential provide the basis for admission at Sonoma State College. While no course pattern is required, the applicant to be properly prepared to undertake a full program of studies and particularly to pursue the required program in General Education, is strongly encouraged to include the following subjects as minimally adequate background for college work:

1. College preparatory English.
2. Foreign Language.
3. College preparatory mathematics.
4. College preparatory laboratory science.
5. College preparatory history and/or social science.
6. Study in speech, music, art, and other subjects contributing to general academic background.

Admission of Undergraduate Transfer Students

General Qualifications

Applicants for admission to the College as undergraduate transfer students must qualify under one of the provisions specified below:

Applicants with Fewer Than 60 Semester Units

An applicant who has completed fewer than 60 semester units or the equivalent may be admitted if he meets the above requirements and he meets requirements currently in effect for first-time freshmen; or, if he

has been in full-time continuous enrollment at a college since his graduation from high school and he meets the requirements in effect for first-time freshmen at the time of his high school graduation.

Applicants with 60 or More Semester Units

An applicant who is a California resident and has completed 60 or more semester units or the equivalent will be admitted if he has achieved a grade point average of 2.0 (C) on all acceptable college work attempted and he was in good standing at the last college attended.

An applicant who is not a California resident must have a grade point average which places him among the upper half of eligible California residents.

Other Applicants

Only under the most unusual circumstances will an applicant not meeting either of the above provisions be considered for admission. Permission is granted by special college action.

Allowance of Credit for Degree Requirements

Junior College Credit: No more than 70 units of credit for work taken at a junior college may be transferred to Sonoma State College. No credit may be allowed for professional education courses taken in a junior college, other than an introductory course in education, nor may any upper division credit be allowed.

Credit for Extension and Correspondence Courses: A maximum of 24 units of credit earned in correspondence and extension courses may be allowed toward the bachelor's degree, not more than 12 of which may be transferred from another college or university. Extension course credit does not apply toward the residence requirements at Sonoma State College.

Credit by Examination: A maximum of 24 semester units of credit earned by examinations may be applied toward a bachelor's degree. (See page 73).

Credit Earned in Accredited Colleges: Credits earned in accredited colleges will be evaluated and advanced standing allowed on the basis of the evaluation. Credit toward fulfillment of graduation requirements will be allowed only insofar as courses satisfactorily completed meet the standards and requirements of the college.

Credit for Military Service: Students who have completed more than six months of active military service will be granted 6 units of lower division elective credit. To be eligible for such credit, the student must submit a copy of his DD Form 214. Credit for service schools will be

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allowed only insofar as such training is recommended by the American Council on Education Guide.

Admission to Unclassified Graduate Status

An applicant who holds an acceptable baccalaureate degree from an accredited college or university may be admitted to Sonoma State College as an unclassified graduate student.

Admission to unclassified graduate status does not constitute admission to a graduate degree curriculum.

Admission to Classified Graduate Status

An unclassified graduate student may be admitted to classified graduate status when he is accepted by a department for work toward a graduate degree.

Admission to Teacher Education Program

An applicant who is admitted as an unclassified graduate student must make a separate "Application for Admission to Teacher Education Candidacy" with the Division of Psychology and Education. Duplicate transcripts of all previous collegiate work since high school graduation are required with this application.

Readmission

A student previously enrolled at Sonoma State College who has not registered for two or more semesters must file an application for readmission with the Office of Admissions and Records. Previously enrolled students are subject to the same application limitation and dates as new applicants. If any college or university work has been undertaken since the last enrollment at Sonoma State College, the applicant must request that each college attended send a complete official transcript to the Office of Admissions and Records. A new health record form must be filed with the student health service.

Readmission After Disqualification

Disqualified students may, after one regular semester has elapsed, petition the College Standards Committee through the Office of Admissions and Records. Petitions will receive consideration if they are accompanied by evidence that would justify readmission, such as satisfactory academic work elsewhere. A disqualified student who is readmitted will be on a probationary basis until he has removed all grade point deficiencies or is again disqualified.

No application for readmission for a particular semester will be accepted for consideration from a disqualified student if it is presented later than three weeks before the first day of registration.

Redirection

It is not always possible for the college to accommodate all qualified applicants. If an application is accepted and it later becomes evident that admission will not be possible, it and any supporting documents will, at the applicant's request, be forwarded to any State College where space is still available. No additional application fee is required.

COMMON ADMISSION AND INTRA-SYSTEM TRANSFER***New Students***

An applicant who is admitted to a California State College under regular admission criteria (Title 5, Sections 40753, 40754, 40803, 40804, 41000) is eligible for admission to another state college in the same term. An applicant to a California State College may request the transfer of his admission file to another state college without payment of an additional application fee. However, admission to any state college is dependent on the fulfillment of application procedures, application deadlines, and space and program availability.

Intra-system Transfer

A student at a California State College who is eligible to continue at that college is eligible to enroll at any other state college, *provided* he is in good standing and has a "C" average at the first institution, and applies for intra-system transfer at least 10 days prior to the close of admission at the second state college. However, transfer to another state college is subject to space and program availability. Application for intra-system transfer may be made to the Office of Admissions and Records at either state college.

A student on probation at the first state college may apply for intra-system transfer as above. However, admission to the second state college will be subject to the policies and procedures governing probationary admission at the second state college.

FEES AND EXPENSES

Fees

The regular fees of the college are given below. *Fees are subject to change by the Trustees of the California State Colleges.* Checks should be made payable to Sonoma State College in the exact amount of the fees to be paid.

Application for Admission Fee.....\$20.00

Registration Fees Per Semester (Payable at time of registration)

Over 6 units	Total
Materials and services	\$54.00
Student Union	7.00
Health Facilities	3.00
	<hr/>
	\$64.00
6 units or less	
Materials and services	\$54.00
Student Union	3.50
Health Facilities	3.00
	<hr/>
	\$60.50
Nonresident tuition* (in addition to above fees)	
15 units or more.....	\$445.00
Less than 15 units, per unit.....	30.00
Per academic year	890.00

Foreign students are charged a special fee of \$12.00 per unit, which is in addition to the above materials and services fees and student body activity fee. However, the maximum fee charged to international students will be \$180.00 plus the regular registration fees.

Other Fees or Charges

(Payable when service is rendered)

Summer sessions, per unit.....	\$24.00
Summer sessions student union fee:	
Intersession .....	.50
Regular six week session	3.50
Post session	1.50
Special sessions, amount based on number of units	
Summer sessions student activity fee:	
Intersession .....	.50
Regular six week session.....	2.00
Post session	1.00
Special sessions, amount based on number of units	
Extension, per unit.....	19.00
Late registration	5.00
Change of program	1.00

* Eligibility for residency status is frequently difficult to establish. An attorney will be available during registration for consultation.

Fees and Expenses

Individual music lessons, per semester	75.00
Transcript of records (after first copy)	1.00
Diploma fee (not a state fee)	3.50
Library books or materials overdue, damaged or lost (consult the library for schedule of fees)	
Failure to meet administratively required appointment or time limit	2.00
Replacement of laboratory equipment lost or broken	Cost
Diploma re-order fee	1.00
Lost room keys	2.00
Psychology Department lab fee	5.00 to 25.00
Replacement of fee receipt	2.00
Credential Application Fee *	20.00
Check returned for any reason †	2.00

Deposits for locker keys and breakage are required in some laboratory courses. Keys \$2.50; Breakage \$5.00. These are refundable in whole or part. If deposits are not required, charges may still be made against the student for undue breakage or failure to clear locker and/or return key.

Parking Fees:

Regular student, over 6 units, per semester	\$13.00
Limited student, 6 units or less, per semester	6.00
Summer sessions, 6-week session or period	5.00
Summer sessions, 4-week session or period	3.00

Other sessions, one week or more—\$1.00 per week.

Reserve spaces, \$5.00 per calendar month or major fraction thereof.

Two-wheeled self-propelled vehicles, 25% of above fees.

Each alternate vehicle in addition to fee for first vehicle \$1.00

Coin-operated parking meter controlled spaces—at a rate not to exceed \$0.10 per hour.

Coin-operated parking gate controlled spaces—\$0.25 per admission.

No provision is made for part-time reserve parking.

Refund Regulations

All refunds are subject to a service fee. Fees may be refunded in the case of a withdrawal from the College or a reduction of a study load from over six units to six units or less, upon the submission of an application for refund obtainable in the Office of Admissions and Records, Stevenson Hall. This application must be made within the first two weeks of instruction. The refund is not automatic upon withdrawal or reduction of study load. The Student Union fee is not refundable, and \$10.00 of the Materials and Service fee and \$1.00 of the Student Activity fee are retained as a service charge. A charge of \$5.00 is made for a change of program from full-time to part time. In addition, Non-resident and Foreign Visa students are allowed refunds for tuition fees paid in accordance with the following schedule:

1. Before or during first week of semester	100%
2. During the second week	90%
3. During the third week	70%

* Subject to change without notification.

† In addition to the returned check charge, the \$5.00 late fee is charged if the returned check was in payment of registration fees, unless the check is reimbursed prior to commencement of the late registration period.

Fees and Expenses

4. During the fourth week	50%
5. During the fifth week	30%
6. During the sixth week	20%

Requests for refunds regarding either the Extension Division or the Summer Sessions should contact the Dean of Educational Services and Summer Sessions.

Dishonored Checks

When checks are returned for any reason by the student's bank, the remittance to clear the check must be made by cash, certified check or money order. (Charge for refunds is subject to change without notice.)

By authority of the State Administrative Manual, Section 8023, the College will require all persons who previously have given it a check that was dishonored by the bank to make all future payments by cash, certified check, cashiers check or money order.

REGISTRATION

Registration by proxy or by mail is not permitted. Students are given credit only for those courses in which they are formally registered.

Students will be held responsible for completing all courses entered on their official schedule cards except those which are dropped by filing a change of schedule card in the Records Office.

Registration is complete only when all fees, deposits, and charges are paid. Students are required to make all payments on the regularly announced days.

In addition to regular fees, a late registration fee of \$5 will be collected for registration during the late registration period. Late registration will not be allowed after the sixth day of instruction.

Changes in Registration

Adding Courses: Courses may not be added after the second week of instruction.

Dropping Courses: If a student officially withdraws from a course during the first six weeks of a semester, no entry will be made on the record. If he withdraws during the sixth to fourteenth week of instruction either a "W" or a "WF" will be recorded, depending on whether or not he has the approval of the instructor and is doing passing work at the time of official withdrawal. Unofficial withdrawal from a class is indicated on the student's permanent record with the symbol "UW".

No withdrawal is permitted after the fourteenth week of instruction and students dropping out of classes after this time will receive a grade of "F" in each course dropped.

Letter grade or Pass/No credit changes must be completed within the first six weeks of the semester.

Classification of Students

Students are classified as full-time and part-time, and the procedures for registration vary with classification.

Full-time students are those who take more than 6 semester units.

Part-time students are those who take 6 or fewer semester units.

Students are further classified each semester according to earned credits as follows:

<i>Status</i>	<i>Units earned</i>
Lower Division	
Freshman _____	0-29%
Sophomore _____	30-59%
Upper Division	
Junior _____	60-89%
Senior _____	90 or more
Graduate	
Holding a baccalaureate degree from an accredited college.	

Registration

In addition students are classified by their major and/or academic goals as follows:

Majors leading to the Bachelor of Arts Degree

Afro-American Studies	German
Anthropology	History
Art	India Studies
Art History	Management
Art Studio	Mathematics
Biology	Mexican-American Studies
Biology and Mathematics	Music
Chemistry	Philosophy
Economics	Physical Education
English	Physics
European Studies	Political Science
French	Psychology
Geography	Sociology
Geology	Spanish

Majors leading to the Master of Arts Degree

Biology
Education (Reading)
English
History
Mathematics
Physical Education
Political Science
Psychology
Spanish

Credential Programs

Standard Teaching Credential—Elementary
Standard Teaching Credential—Secondary

Grade Points

Grade points for each unit of credit are allowed as follows: A, four points; B, three points; C, two points; D, one point; F, W, WF, UW, and I (incomplete), no points. Incompletes not made up within one year, F, WF, and UW are charged as units attempted. An incomplete when made up will receive the grade points appropriate to the mark received. Grade point average is computed by dividing the number of grade points earned by the number of units attempted.

Registration for Teacher Education Candidacy

Students planning to enter the Teacher Education program should, early in their undergraduate years, ask for an advisor in the Education Department.

Actual application for admission to the program must be filed several months prior to admission. Deadlines for application are subject to change each year and are correctly listed in each current Sonoma State College catalog.

For additional information on credential programs see page 83.

REGULATIONS AND PROCEDURES

Academic Load

The maximum study load recommended by the College is 18½ units. If a student wishes to carry more than 18½ units, he must get special permission. Procedures will be published in the class schedule, Fall 1970.

Two hours of preparation for each hour of regular class work should be expected.

Ordinarily, part-time students who are employed as teachers should not plan to carry more than the equivalent of one three-unit course. Most courses will require library work, and part-time students should plan their schedule accordingly.

A "typical" academic load is becoming less and less common as a result of the increased number of students who find it necessary to work during the academic year. Students should plan their total schedule carefully to assure that they are able to do justice to both work and study.

Grading

The student's work in each course is usually graded, A, B, C, D or F. The C grade is awarded for satisfactory achievement; the grade of B represents commendable but not outstanding performance; and an A grade is reserved for outstanding achievement. The grade of D represents minimum performance acceptable for credit, while an F indicates failure.

I (incomplete), signifies that the student's work was satisfactory but not complete for reasons considered beyond his control. A student receiving an incomplete may under take to change that mark to a letter grade. Arrangements must be made with the original instructor where possible, otherwise with the division chairman.

The make-up of an incomplete as described above is permissible only within the period of a calendar year following assignment of the mark. In exceptional cases the student may initiate a petition for an extension of time with the instructor. Incompletes not made up within this period remain on the student's record and are then counted as units attempted in computing grade point averages. This rule does not apply to incompletes given for the first half of year courses or the masters theses. For an explanation of W, and WF see page 34.

Pass/No Credit Grading

Students in good standing, not on academic probation, may be permitted to enroll in courses outside their major to a maximum of 24 semester units on a Pass/No Credit basis. Instructors may, however,

Regulations and Procedures

restrict enrollment to students desiring a letter grade, or limit enrollment by giving priority to majors, minors, and/or students being graded on a letter-grade basis.

Semester unit credit is allowed for courses with a grade of Pass. No semester unit credit is allowed for courses graded NC (No Credit), and courses graded pass or NC shall not be considered in computing grade point averages. For other purposes the grade of Pass shall be equated to the standard grade of C or better. The grades of Pass and No Credit may not be converted to a standard letter grade at any time for any reason whatsoever.

All enrollments in Pass/No Credit courses will appear on the student's grade report and cumulative permanent record with the proper explanation of the no-penalty status of the Pass/No Credit symbols.

Departments, at their discretion and with approval of the Educational Policies Council, may permit students majoring in that department to take courses in the major on a Pass/No Credit basis, in addition to the 24 units specified above.

If a student changes his major and has taken courses on a Pass/No Credit basis in the new major, such courses, at the lower division level, shall be accepted for the new major. Upper division courses taken on a Pass/No Credit basis may not be accepted for the new major except by petition of the student to the new major department concerned.

Repeat of Courses

An undergraduate student receiving a D or F grade may repeat the course and will be charged units for each time the course is attempted and will earn grade points for each attempt. The student will, however, be credited with earned units only once.

Class Attendance

Students are expected to attend classes regularly, as this is one of the necessary and important means of learning and of attaining the educational objectives of the institution.

Students should not miss classes except for valid reasons, such as illness, accidents, and participation in officially approved college activities. When a student is absent from classes, it is his responsibility to inform his instructors of the reason for absence and to arrange to make up missed assignments and class work insofar as this is possible. Students should be cautioned that even though absences may be for valid reasons, such absences can impair performance and result in a lower grade. If a student is absent for 1 week or more because of illness, he must be cleared by the health center before returning to classes.

If a student who registers for a class does not claim his seat in that class during the first week of instruction, or by the second meeting of the class, whichever is the later, the instructor may assign it to another

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student. The student who has lost his class seat must officially drop the class at the Registrar's Office; failing to do that, he will be assigned the grade of "UW".

Auditors

Auditors are students pursuing courses without credit. Such students are not held for regular attendance at class and for examinations and reports. A student may register as an auditor under the following conditions:

1. When no student enrolled for credit will be deprived of the use of equipment or other college facilities.
2. When the auditor confines his time to the regularly scheduled class and/or laboratory meetings.
3. When the auditor secures the permission of the instructor before he registers in the class.
4. An auditor may not later petition for credit by examination in a course audited.

Auditors must apply to audit, and are required to pay the same tuition and fees as students who enroll in the class for credit.

Withdrawal From the College

Students contemplating withdrawal from the college because of personal or academic problems are encouraged to consult the Counseling Office and their academic advisor before making formal application for withdrawal. If withdrawal is necessary, an appropriate form is to be obtained from the Admissions and Records Office and filed with the Registrar. This procedure should be followed to make certain that incomplete records will not prevent the student from resuming his studies at a later date.

No transcript of record or other college recommendations will be issued by the college to students who have not met all formal obligations such as return of books, college equipment, payment of college loans or fines.

Academic Standards

A student is expected to maintain a grade point average of 2.0 (C) or better to continue in good standing. To be eligible for a bachelor's degree, a student is expected to complete with a grade point average of 2.0 (grade "C" on a five-point scale) or better: (a) all units accepted by transfer from other institutions; (b) all units in the major; and (c) all units attempted at Sonoma State College. Departments within the College may require, at their discretion, individual students to take an additional course for each course which the student completes with a

Regulations and Procedures

passing but unsatisfactory grade. Departments within the College may establish additional admission, retention and graduation standards.

Probation

A student will be placed on scholastic probation whenever either his cumulative grade point average and/or his grade point average for work taken at Sonoma State College falls below 2.0 (C). A student on scholastic probation will be restored to good standing whenever both his cumulative grade point average and his grade point average for work taken at Sonoma State College reach 2.0 or higher.

Disqualification (Undergraduate Students)

1. A student on probation will be disqualified at the end of any semester for which he fails to earn a minimum of a 2.0 (C) average.
2. Any student whose cumulative grade point average and/or his S.S.C. G.P.A. falls below the following scale may be disqualified regardless of whether or not he is on probation:

<i>Units attempted</i>	<i>Disqualification if cumulative grade point average falls below</i>
0-29	1.5
30-59	1.7
60-89	1.9
90 or more	2.0

3. The College Standards Committee may take special action to place a student on probation or to disqualify him when the student's academic performance during any one semester is so poor as to raise serious doubts as to the desirability of his continued enrollment, even though his cumulative grade point record meets minimum scholarship requirements.

Graduate Students

1. Graduate students will be placed on probation at the close of the first semester that they fall below a 2.0 in their Sonoma State College work. If their average has not been brought to a 2.0 average at the close of the second semester, they will be disqualified from further attendance.

Readmission of Disqualified Students

Disqualified students may, after at least one regular semester has elapsed, petition the College Standards Committee through the Office of Admissions for readmission. Petitions will receive consideration if they are accompanied by evidence that would justify readmission, such as satisfactory academic work elsewhere. A disqualified student who is readmitted will be on a probationary basis until he has removed all grade point deficiencies or is again disqualified.

Regulations and Procedures

No application for readmission for a particular semester will be accepted for consideration from a disqualified student if it is presented later than three weeks before the first day of registration.

Student Conduct

Students are expected to conduct themselves so as to reflect credit to themselves and to the college. One of the fundamental objectives of the college is to foster the development of students as active and responsible citizens in a democratic society; and students are, therefore, expected to make steady growth in maturity, self-reliance, and self-discipline as they progress toward a degree or credential. To help students achieve this end, the college places reliance not only upon its instructional program, but also upon student government and student-faculty collaboration in many aspects of college community life. For the vast majority of students, these constructive means of defining and teaching good standards of conduct and integrity are effective.

Recognized student groups are responsible for group conduct at functions sponsored by campus organizations whether the events are held on the campus or elsewhere. Individual or group conduct problems are subject to review by the Student-Faculty Judicial Board, which may recommend appropriate disciplinary action to the President of the college. Where disciplinary action is necessary, the college is guided by the *Sonoma State College Code of Conduct* and the *California Administrative Code*. Copies of both are available in the Dean of Students' office.

These codes provide that a student may be placed on probation, suspended, or expelled for reasons specifically defined within these documents. The *Code of Conduct* and *Statement of Student Rights and Responsibilities*, approved by the Associated Students, the Academic Senate, and the President of the institution, outline in detail procedures and channels through which a student may proceed to be assured of a full and just hearing of any grievance or alleged offense. The Code specifically defines the role, responsibilities, and functions of the Student Affairs Council, the Student-Faculty Judicial Board, the Dean of Students, and the President of the college in protecting the rights and freedom of all segments of the college community.

Student Grievances

If a student believes that he has been treated capriciously or with obvious prejudice by faculty or administrators, he may bring his complaint to the appropriate college authorities and official reviewing body by following the procedures outlined in the *Statement of Student Rights and Responsibilities*. A copy of the procedures may be obtained from the Dean of Students' office.

Dean's List

Each semester the College publishes the Dean's List of undergraduate students who meet the following criteria:

1. Students must be registered in a minimum of 12 semester units of letter grade courses in the semester under consideration.
2. Students must achieve a minimum grade point average of 3.50 for the semester.
3. Only courses taken in resident study will be used in computing the grade point average. Courses taken in extension and credit by examination will not be included in the computation.
4. Only grades for the one semester under consideration will be used in computing the grade point average.
5. Only undergraduates will be considered for the Dean's List.

Foreign Language Requirements

Certain majors at Sonoma State College require the completion of a specified number of units, or equivalent, in a foreign language. Students who, by a Placement Examination administered by the Department of Foreign Languages, demonstrate knowledge equivalent to all or part of this language requirement may select electives accordingly in consultation with their advisors. It is recommended, however, that all students who plan to enter graduate school take additional courses in the reading of a foreign language. Times and places for the Placement Examinations, as mentioned above, will be announced.

Credit Based on Examination

Unit credit toward the degree may be secured by passing an examination given or approved by the proper college authority in courses offered by the college and for which credit has not otherwise been allowed. The College, in the interest of accelerating the work of capable students and recognizing their special interests and backgrounds, encourages this procedure. The following regulations should be observed:

1. Students wishing to challenge a course will secure the appropriate forms from the Registrar's office.
2. The course must be challenged before the expiration of the second week of the semester and the examination must be completed before the expiration of the fourth week of the semester.
3. Only courses or their equivalents listed in the college catalog may be challenged.
4. The instructor, after consultation with the student's advisor, will recommend approval or disapproval.
5. Only students in residence at the College may challenge a course.
6. A student may not obtain credit by examination to exceed 12 units in any one division or 24 units in the College as a whole without special approval of the Dean of the Faculty.
7. When a student passes the examination for credit a "P" will be recorded on his permanent record. Units graded "P" do not affect the grade point average.

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8. If a student fails the examination he may not challenge other courses without special approval of the Dean of the Faculty.

Advanced Placement

The college also will evaluate the results of College Board Advanced Placement Tests, and on the basis of the evaluation by the appropriate department, credit toward the local degree may be granted. Results should be filed with the admissions office as soon as possible after examinations are taken.

Special Courses

The College has established special courses to meet the expressed needs of some students. Independent Study 495 and Special Problems 499 courses are offered for superior students who wish to pursue their individual interests beyond the scope of the established curriculum. Community Involvement courses 295 and 395 are offered for students who wish to participate in community activities. This participation takes the form of a Tutorial Program, Big Brother Program, Playground Supervision, and Outdoor Education. These courses are subject to the following regulations.

495—Independent Study for Majors or Minors

1. A maximum of 4 units per course.
2. A student may have in all areas for graduation no more than 6 units of 495 or 6 units of combined total of 495 and 499.
3. This course may be included in a major pattern as a requirement, or it may be an elective.
4. A student may not pursue in independent study a course which is listed in the catalog and which is normally offered within a two-year period.
5. Independent Study may be designed for one student or be constituted as a seminar for several.
6. Approval for registration must be obtained from the advisor, instructor, and Department Chairman.

499—Special Problems

1. A maximum of 2 units per course.
2. A student may not take more than 2 units per semester.
3. Students may have in all areas for graduation no more than 4 units of 499 or 6 units of combined total of 499 and 495.
4. Normally, enrollment will be limited to seniors and graduate students with "B" average.
5. Designed to meet special needs and interests and thus limited to upper division work not in catalog.
6. Approval for registration must be obtained from the advisor, instructor, Division Chairman, and the Dean of the Faculty.
7. For sufficient and demonstrated cause, the Division Chairman may authorize, with the approval of the Dean of the Faculty, exceptions to items 1, 2, 3, or 4 above.

295 and 395—Community Involvement Project

1. 295 signifies lower division status; 395 signifies upper division status.

Regulations and Procedures

2. Variable credit from 1 to 3 units per course.
3. A maximum of 6 units allowable toward graduation.
4. Approval for registration must be obtained from the student's advisor and the instructor.
5. This course counts toward elective or unspecified requirements of a major or minor, and toward total units required for graduation.

Certification to Selective Service

Selective service local boards may grant a draft deferment to a student provided he is taking a full load of classes and is making normal progress toward his degree objective. At the request of a student, the college will certify enrollment status to a local board. Requests for certification are made through the Veteran's Clerk in the Office of Admissions and Records. Certification must be made one time each academic year. A student is considered to be full-time (for certification purposes) if he is taking 12 or more units. Normal progress toward degree objective is 24 units in the first year; 56 units by the second year; 90 units by the third year; graduation in four years.

Veterans

Sonoma State College is approved for the training of veterans under Public Laws 190, 610, 634, 894, and the California State Bill for Educational Assistance. The College Office of Veterans Affairs, located in the Registrar's Office, will assist veterans in completing the forms for Federal and State Assistance Programs and in supplying information concerning Veterans Administration regulations.

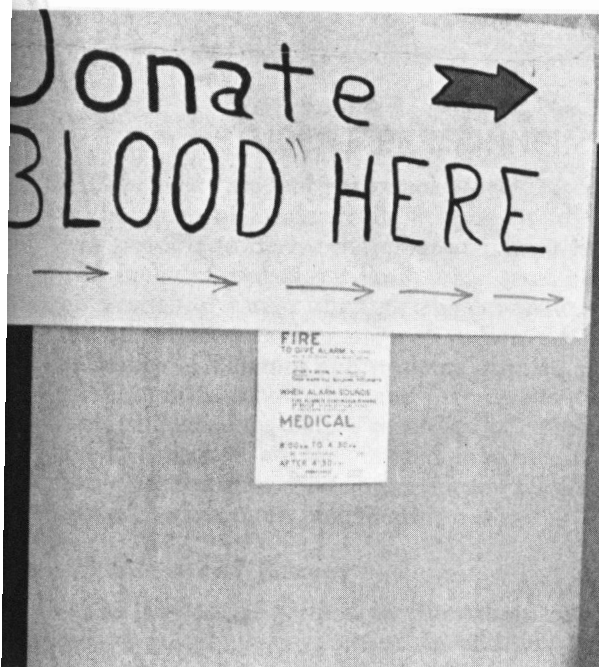
Veterans with no prior training under the G.I. Bill must request a certificate of eligibility at least two months before enrolling; and those transferring from schools should submit transfer requests at least one month before enrolling. These forms should be submitted to the VA regional Office in San Francisco.

To receive (1) full-time subsistence the undergraduate student must carry at least 14 units, the graduate 12 units; (2) three-fourths subsistence the undergraduate must carry at least 10 units, the graduate 9 units; and (3) one-half subsistence the undergraduate must carry at least 7 units, the graduate 6 units.

Students who may be eligible for the Cal Vets program should contact The Department of Veterans Affairs, 350 McAllister Street, San Francisco, California 94102.

Petitions

The college recognizes a need to provide for individual cases meriting exception to basic rules. A petition process has been created permitting individuals to request a change of rules or procedures. The College Standards Committee is the primary faculty committee judging these petitions. However, departments have the authority to rule on petitions for substitution of required courses within that department.



**STUDENT
PERSONNEL
SERVICES**

STUDENT PERSONNEL SERVICES

The college student personnel program is under the general direction of the Dean of Students. Its purpose is to assist the student in every way possible to derive the greatest benefit from his educational career. This includes, but is not limited to: assisting the student in beginning his academic career through the admissions process, counseling and testing services, coordination of student activities and housing, special assistance to Veterans and students from other nations, health and placement services, scholarship and loan assistance, and the maintenance of each student's cumulative records. Both prospective students and those already enrolled are encouraged to take full advantage of the services provided and to suggest other means by which the college experience might become more meaningful.

Admissions and Records

The services performed by the Admissions Office are outlined in the section on admission policies. In addition to the services described in the section on registration, the Registrar's Office maintains all official records of students and checks on the qualifications of degree candidates.

The Evaluations Office examines the previous academic records of applicants for admission to all programs and furnishes candidates with check sheets to assist in program planning. This work is done in cooperation with faculty advisors and administrators.

Counseling Services

The Counseling Office offers a wide range of helping services including individual and group counseling. Opportunities are provided to assist students in career exploration and further development of their inner resources and potential for personal growth.

Testing Services

The Sonoma State College Test Office in cooperation with the Student Personnel Services and the instructional program, administers a wide variety of tests. The outline below summarizes some of the current Sonoma State College test requirements:

Admissions Test (First-time freshmen and lower division transfers)	.....	ACT (Preferred *)
International students	.....	TOEFL †
Graduation requirement (juniors and seniors)	.....	Written English Proficiency
Elementary Education Candidates	.....	Written English Proficiency
Secondary Education Candidates	.....	Written English Proficiency

* SAT scores acceptable if ACT scores are unavailable.

† Test of English as a Foreign Language.

Student Personnel Services

Biology M.A.

candidates GRE Aptitude and Advanced Biology Test

Education M.A. candidates Miller Analogies Test

English M.A. candidates GRE Advanced Literature in English

History M.A. candidates GRE Aptitude and

Advanced Test in History

Mathematics M.A. candidates GRE Advanced Math

Political Science M.A. candidates... GRE Aptitude Test (Preferred*)

These tests are scheduled throughout the academic year. Specific times and places of the various test will be announced later or may be determined by consulting the Test Office.

Students may make appointments in the Counseling and Testing Office, to discuss their test scores with a counselor. Additional aptitude, achievement, vocational interest, and personality measures are available for further self exploration.

Student Activities

It is increasingly apparent today that meaningful human communication is essential if man's humanity, with its potential for growth, is to be realized in the present world of proliferating strife and technological complexity.

At Sonoma State College the activities program seeks to create an environment which offers maximum opportunities for all students to develop. The activities staff feels that the intimate feeling of Sonoma State College is best maintained if each student is involved in a meaningful expression of himself, either individually or in a group. As our numbers increase it is more difficult for people to know what others' interests are or how and where individual interests may best be pursued. The activities staff attempts to provide just such a communication center for all persons in the community of Sonoma State College.

Student Government

The largest organization on campus is the Associated Students, which provides representative student government, in which membership is automatic for each student upon registration at the college. Through the Board of Directors and Academic Senate of the Associated Students, all students may have an official voice in dialogue with the faculty and administration of the college and with the surrounding communities.

The Board of Directors and student Academic Senate are elected annually by the entire student body, are funded by the college registration student activity fee and serve as a non-profit corporation. During weekly public meetings the B.O.D. (Board of Directors) administer

* Miller Analogies Test scores acceptable if GRE scores are unavailable.

Student Personnel Services

the planning, development and funding of student activities at Sonoma State.

Nine student senators are appointed annually from the Student Academic Senate to serve as full voting members of the three faculty Academic Senate Councils; four students serve on the eight member Student Affairs Council; three students serve on the Educational Policies Council and two students serve on the College Services Council. During the 1969-70 academic year, these nine student senators, with the five executive officers of the Associated Students Board of Directors, constituted the fourteen students designated to sit as full voting members of the Faculty Academic Senate. Continuation of student membership on the Faculty Academic Senate is expected to continue in the 1970-71 academic year when the revised constitution is approved by and for the Sonoma State College Faculty.

In addition to maintaining such established student activities as news and literary publications, chartered clubs, lectures and concerts, intramural and intercollegiate athletic programs, the B.O.D. also investigates and supports new projects such as the interim student union (adjacent to The Commons), the C.I.P. (Community Involvement Project) and C.I.A. (Crisis Intervention Association). In C.I.P. our students offer tutorial assistance and one-to-one relationships to pupils in nearby elementary and high school districts. The C.I.A. students work on a telephone answering service available to the college and surrounding communities; this association includes workers and support from such county-wide agencies as the Social Welfare Service and the Mental Hygiene Association.

Campus Clubs and Organizations

Campus Clubs and Organizations are chartered by the Activities Office. Some of these organizations are the A.W.S. (Associated Women Students, to which all women students automatically belong upon registration); the Cossack Ski Club and the Outdoors Club (hiking, skiing and camping for men and women); College Life, Newman Club, and Student's International Meditation Society (for students interested in studying religious systems); the Lenny Bruce Society (sociology club); the Millard T. Fillmore Society (political science club); Biology, Chemistry, Chess, Karate, Management Forum, Music, Psychology, Alpha Phi Omega and Circle K service clubs; Repertory West (drama group); Black Students Union, Campus Mobilization Against the War, Mexican-American Student Confederation, Model United Nations Club, Radio Free Cotati, The Achvah (Hebrew Club).

Athletics

For a full description of the men and women students' intramural activities and the men's intercollegiate competition in the Far Western Intercollegiate Athletic Conference, see page 63 in this catalogue.

Student Personnel Services

Publications

As in the names of the Sonoma State athletic teams, The Cossacks, and the annual information handbook, *The Kiosk*, the Associated Students' newspaper, *The Steppes*, reflects the response of our first students to the fur-trapping Russian influence in this area in the 1800's. *The Steppes* is published weekly by student volunteers and is distributed without charge. *Flight* is the literary, art, music and photography magazine published by the Associated Students.

Student Opinion

Students' opinions and concerns are welcomed on campus and can be expressed in several ways. In addition to *The Steppes*, a Free Expression area is at all times reserved for student use on a first-come, first-served basis, through sign-ups in the Activities Office, Temporary Building A-1. An "Open-Mike" is provided on the lawn east of Stevenson Quad, on The Commons Terrace, or in the Noisy Lounge of the Interim Student Union, depending on the weather. The "Open-Mike" is available for the use of any student, faculty or staff speaker who wishes to sign up for it. The "Open-Mike" is also provided for off-campus speakers who are sponsored by a student organization or other campus entity, providing that, in all cases, debate and discussion are a part of the use of the "Mike."

Further interest in all campus members' opinions and concerns is evidenced by the College President's standing invitation to the on-campus community, to join him in his monthly Open-Forum coffee hours in the President's conference room.

Student Activities Assistance Center

Students are welcome to the offices of the Associated Students and the Student Activities Office located in Temporary Building A.

These offices serve as a source of information and assistance with Associated Students business, club charter applications; the student locator cards are available in the Activities Office, and a master calendar of campus activities is maintained to facilitate the scheduling of meeting rooms and reserving of audio-visual and other equipment. All students are welcome to discuss their special interests and concerns, to find out "what's happening" on campus or to gain assistance in planning programs and solving organizational problems.

Placement Services

The Placement Office functions as an employment guidance and service center for teacher candidates, for graduates seeking employment in business, industry, and government, and for students wishing part-time or summer jobs. In addition to counseling job applicants, keeping candidates informed about employment opportunities, scheduling inter-

Student Personnel Services

views with prospective employers, and processing confidential files for registrants, the Placement Office serves as liaison agent for two automated employment service systems that are national in scope: the NEA Search for staffing Kindergarten through Grade 12 teachers in positions nation-wide and overseas (English language only), and the GRAD System for graduates intending to pursue careers in business and industry. All placement services, except for a nominal charge required of NEA Search participants, are rendered without a fee and may be used as long as registrants keep materials up-to-date and request assistance in finding employment.

Teacher candidates who have completed or are completing teaching credential requirements at Sonoma State College are eligible to receive service from the Placement Office as are credentialed teachers who earn a master's degree in education at Sonoma State College.

Additionally, Sonoma State College students completing the college's requirement for a master's degree in an academic subject matter area will be given teacher placement service for both junior college and secondary school teaching positions.

Non-teaching career placement service is available to graduating seniors, graduate students and alumni who have completed or are completing 24 units at Sonoma State College. Any registered student may receive assistance in finding a part-time job.

Teacher candidates who wish to activate files in the Placement Office should complete all forms and schedule interviews with the Placement Director by December 1, 1970, if they are seeking January employment and by March 1, 1971, if they anticipate being employed in the fall. Non-teaching career candidates should activate files and schedule appointments with the Placement Associate by November 16, 1970, if they wish January employment and by December 15, 1970, if they intend to accept positions in the summer or fall of 1971.

International Students

An advisor is available in the Counseling Office to assist students from other nations who are in this country for the primary purpose of study. Their status is complicated by conditions established by federal law, specific regulations and requirements of the college, and provisos laid down by their governments. Each student must comply with these regulations to continue studies in this country.

Housing

Sonoma State College does not restrict a student's choice of housing nor does it give college approval to the housing listed. Locating suitable housing is appropriately the responsibility of the student and any transaction must be made individually and directly with landlords. However, current housing listings are maintained by the *Activities and Housing Office* which, in keeping with the Governor's Code of Fair Housing

Student Personnel Services

Practices, requires landlords to sign a statement that they will not discriminate on the basis of race, color, creed, or national origin. These listings are posted on the bulletin board outside the Activities and Housing Office, Temporary Building A-1. Since accommodations are available on a basis of first-come, first-served and students have to be here in person to make direct contact with owners and managers who list with the college, it is not practical to send new students copies of current listings. Too often the information is out of date by the time the students arrive on campus.

The following types of accommodations are available:

Dormitory Facilities: *Jack London Hall*, a privately owned, co-educational dormitory is located approximately one mile from the campus and accommodates 123 men and women students. Information concerning accommodations including a schedule of rates and application forms can be obtained by writing directly to Jack London Hall, 781 E. Cotati Avenue, Rohnert Park, California 94928, or by calling 795-6464.

Apartment Facilities: *El Colegio Gardens*, located at 1400 E. Cotati Avenue, Rohnert Park, California, approximately one-half mile from the campus entrance, consists of twenty-six furnished two-bedroom, two-bath units. Each unit accommodates up to four students and the rate is \$60.00 per student per month, which includes all utilities except phone. Application forms can be obtained by writing directly to them or calling 795-3222.

Vista Linda Apartments, located at 1420-1440 Southwest Blvd., Rohnert Park, approximately $\frac{1}{4}$ mile from the campus entrance, consists of 26 furnished two-bedroom, two-bath units, and accommodates 52 men and 52 women students at \$60.00 each per month which includes all utilities except phone. Application forms can be obtained by writing directly to them or calling 795-3155.

In private homes:

Rooms with Kitchen Privileges.....	Approximately \$50- \$60 a month
Sleeping Rooms Only.....	Approximately \$40- \$50 a month
Room and Board.....	Approximately \$80-\$100 a month

Other:

Apartments or Houses.....	Approximately \$70-\$150 a month
Shares (Apartments or Houses).....	Approximately \$35- \$60 a month each person

The Housing Office is open Monday through Friday from 8:00 a.m. to 4:30 p.m.

Health Services

The student and/or his parents must accept responsibility for the health protection of the student. The college operates a Health Service with a full-time professional staff in charge for the treatment of emergencies and minor illnesses. This service is available to full-time students during the normal working hours of the college (8:00 a.m.-4:30

p.m.). More serious illnesses are referred to the proper medical facilities. A health and accident policy is available to all students, and they are encouraged to secure this protection.

Student Financial Aid

The financial aid program provides assistance to many students who could not attend Sonoma State College without it. The Office of Financial Aid, located in Stevenson Hall, Room 2021, seeks and distributes aid funds according to individual student needs, counsels students in financial planning, and encourages programs such as work-study that are relevant to the community.

The policies and procedures of the aid program are formed by the Financial Aid Committee of the Student Affairs Council. This committee has three students and three faculty members who are keenly aware of students' financial problems and of the need to provide additional funds to solve them.

Approximately \$500,000 per year is available for student aid. About 90% of this is in the three Federal programs described below, which assist 15–20% of the students.

Description of Aids

Financial aids are in the form of grants or scholarships (gift aid), loans, or employment, or a combination of these.

Sonoma State College participates in the three basic *Federal* student aid programs described below. These programs are administered so as to give priority to applicants having the greatest financial need.

1. Educational Opportunity Grants (EOG) for students with *exceptional financial need*. To be eligible, gross family income should normally be less than \$6,000 per year. Grants are made first to those students with the greatest need. These grants range from \$200 to \$1,000. A student has to be enrolled for 12 units to be eligible for EOG. Each EOG is accompanied by other forms of aid.
2. Work-Study is primarily for students in families of low income. Most Work-Study jobs are for 10–15 hours per week at rates from \$1.65–\$2.00 per hour. Students may work up to 15 hours average per week while college is in session, and 40 hours maximum during vacation and term breaks. 12 units for undergraduates, 9 for graduates are the minimum course loads required. The Financial Aid Office assists students in finding appropriate work-study employment.
3. National Defense Student Loans (NDSL). The maximum undergraduate NDSL is \$1,000 per year. For the graduate the maximum is \$2,500 per year. 12 units (9 for graduates) are normally required for borrowing the maximum amounts. These loans are

Student Personnel Services

without interest while the student is in college or in the armed forces, Peace Corps, or VISTA. Nine months after completion of school, interest is payable at 3% per year. If you teach, loan principal is reduced at 10% per year for up to 50%. For teaching in a "poverty area", the reduction is 15% per year with no limitation.

A new program of grants, called the *California Educational Opportunity Grants Program*, provides new "Hidden Talent" Program students grants of between \$200 and \$700. Students must meet the same criteria described under the Federal Educational Opportunity Grants. These California grants make possible smaller loan and employment aids.

Other special aid opportunities include short-term loans of up to \$100 which are interest free for 3 months; scholarships for students who need aid, have been at Sonoma State College for two semesters and show high academic promise; and grants and loans for "Hidden Talent" students from monies given by members of the community.

Federally Insured Loans are designed for middle income students. Any student whose family's adjusted gross income is less than \$15,000 per year is eligible to receive up to \$1,500 through this program. The funds are distributed by banks, not by Sonoma State College. Students may pick up application forms in the Financial Aid Office. These loans bear 7% interest which the Federal Government pays while the student is in school.

Application Procedure

First step is to file an application available at the Financial Aid Office. This form asks confidential information about student resources, estimated expenses, and kinds of aid applied for. It should be filed by April 1 each year for aid in the following year, and by November 1 for aid in the spring semester. If these deadlines are not met, the student is unlikely to be considered.

The college also requires the filing of the Parent Confidential Statement (PCS) which asks confidential information about family income, assets, expenses, etc. which the College Scholarship Service and the Financial Aid Office reviews in order to help determine what, if any, aid the student is eligible for. This statement should accompany the application.

If a student claims financial independence from his parents, this claim must be substantiated by the parents, and a special form is provided at the Financial Aid Office for this purpose. The College takes the position that parents have the primary obligation to help meet educational expenses. Therefore, the college will assist only when it is clearly established that the student has been independent for at least one year or when parents are unable to assist. Normally, such students are married or over 25 years old. When the applications are complete,

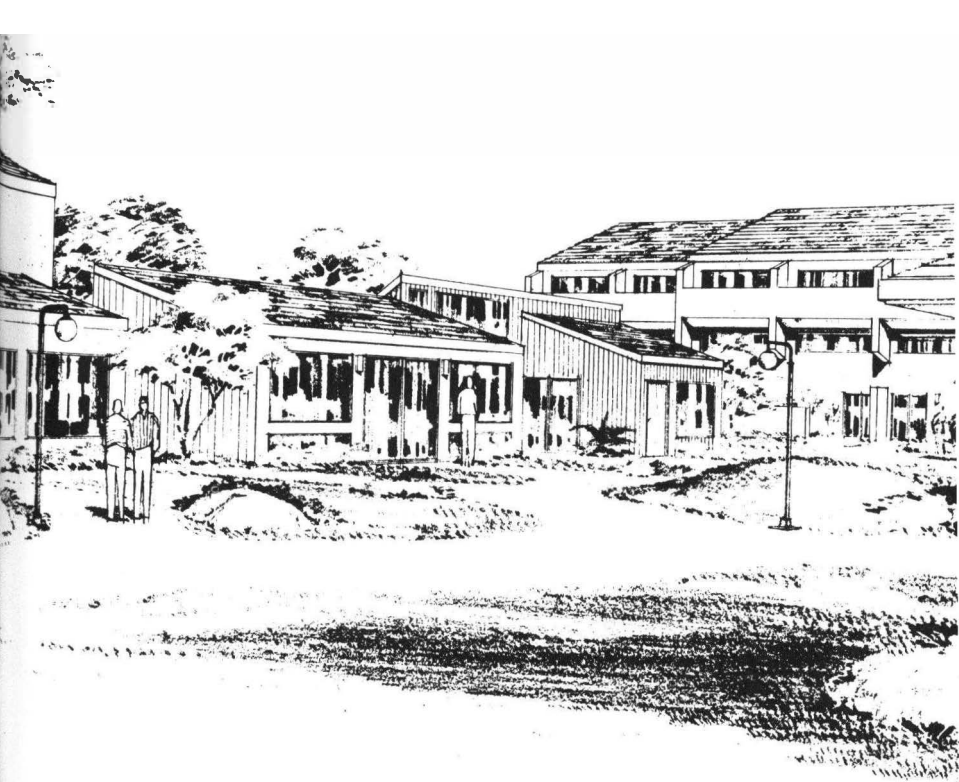
the student's financial need is determined by subtracting those resources available for his education (parents' contribution from income and assets, summer job saving, and the student's other resources) from his educational budget from September to June. The typical budget is \$2,000 for a single student, \$3,000 for a married student.

It is toward meeting this need—difference between costs and resources—that financial aid is directed. Generally, the need is met by a “package”, or “combination” of ingredients—loan, employment, and/or grant. Where feasible, the student's preferences are considered. For example, an outside job and a heavy course load may cause one student to prefer a loan over a Work-Study assignment. Another student, not wishing to borrow, might prefer to earn up to \$1,000 through part-time work in the Work-Study program.

Notification of aid for the following year is sent to each applicant in May and June.

When a student has a subsequent change in status (gets married, has a child) the Financial Aid Office should be notified. If funds are available, a review of the financial need may make it possible to allot additional funds to meet this change. For short-term emergencies, the short-term loan fund, for loans up to \$100 repayable without interest in 3 months, may meet special needs.

Appeal of a financial aid award (or non-award) may be made in writing to the Chairman of the Financial Aid Committee of the Student Affairs Council. The Committee may ask the student to present his appeal in person.



**SPECIAL
FEATURES**

SPECIAL FEATURES

LIBRARY

The new college library building, completed in 1969, provides study space for 600 students. The college library book collection consists of 110,000 volumes and expands at the rate of 30,000 volumes annually. The periodical collection consists of 15,000 bound volumes and subscriptions total 2,000. Augmenting the bound periodicals is a file of microforms totaling over 5,000.

The first floor of the library houses the card catalog, bibliography area and circulation department. Near the card catalog is the information desk where assistance is available to students. Regular books and reserve books are checked out at the circulation counter. The office of the College Librarian, the acquisitions department and catalog department are also located on the first floor.

The book stacks on the second floor contain the periodicals collection and reference books as well as the circulating collection. The periodicals indexes and abstracts are adjacent to the periodicals collection. The books are arranged by the Library of Congress classification letter and number.

In the center of the second floor are the reference offices staffed by trained librarians available at all times to assist students in their reference and reading problems.

Adjacent to the reference offices is the phonolisting area where there are 22 listening stations for tapes and records. In addition, this room has four individual listening booths for students. There is also two group listening rooms for class or informal group listening. The collection consists of over 6,000 phonorecords and tapes.

The documents room for the local, state, and federal documents; a pamphlet room, and a microform room are also located in the center of the building. An extensive microcard, microfiche and microfilm collection as well as reader-printers are located in this room.

The library also has a small collection of juvenile literature and is the regional depository for curriculum material published by school districts in California. An extensive elementary and secondary textbook collection is also maintained. The microfilm room also carries 70,000 microfiche of ERIC (Educational Resources Information Center) which are primarily useful in the field of education.

Student lockers, copying machines, group study rooms and typing room are also available for student use.

INTERNATIONAL PROGRAMS

The California State Colleges offer programs of study for a full academic year at a number of distinguished universities abroad. Students study and live under the same conditions as students at the cooperating

Special Features

universities, but remain enrolled in the California State Colleges, where they may apply their work toward degree requirements in accordance with college regulations. The programs, which are voluntary, cooperative and systemwide in nature are designed as bona fide academic undertakings with clearly defined educational and professional objectives.

For 1970-71, the cooperating Universities are: University of Andes, Bogota, Colombia; University of Aix-Marseilles, France; Free University of Berlin; and University of Jerusalem and Tel Aviv University, Israel; University of Florence, Italy; Waseda University, Tokyo, Japan; University of Granada and University of Madrid, Spain; University of Stockholm and Uppsala University, Sweden; and National University, Taiwan.

Students are selected on the basis of academic, linguistic and personal qualifications. The criteria are:

- a) Upper division or graduate standing by the beginning of the academic year abroad;
- b) Academic achievement;
- c) Proficiency in the language of instruction;
- d) Faculty recommendations.

Programs in Ghana, Israel, Italy, Japan, Sweden and Taiwan do not require previous linguistic preparation; applicants for all other programs must demonstrate adequate facility in the language of instruction at the host university.

Approximate cost to the student during the 1970-71 year, including round trip transportation from San Francisco, room and board for the academic year, and medical insurance, is \$2,300 for Colombia, France, Germany and Spain; \$2,000 for Israel and Taiwan; and \$2,500 for Ghana, Italy, Japan and Sweden.

Application for the 1971-72 academic year should be made early in the fall semester of 1970. Detailed information may be obtained from the Office of International Programs, The California State Colleges, 1600 Holloway Avenue, San Francisco, California 94132.

INTERNATIONAL STUDIES

The Division of Social Sciences offers an interdepartmental minor in International Studies designed to introduce the student to the methodologies of the social sciences appropriate to the study of international and intercultural affairs. It is especially recommended for students interested in international affairs, overseas employment and teaching.

After the student has been introduced to the concepts of the social sciences, he will utilize these methods for research in an interdisciplinary seminar designed to apply analyses of the various fields to a problem or area of international study.

In order to fulfill the requirements for the minor, the student will complete: (1) a series of approved courses, taken from at least four of the five departments in the Division of Social Sciences, and (2) an interdisciplinary seminar.* A student with a major in a department of the Social Sciences Division may credit the approved courses within that department to both his major and the International Studies minor.

The International Studies Minor †

- 1) At least one course from each of four of the fields below:

Anthropology/Sociology

- Soc. 432—Social Organization of Western and Non-Western Societies
- Anthro. 342—Social Structure

Economics

- 202—The U.S. in a Changing World Economy
- 203—Problems of the Developing Nations
- 210—Problems of Competing Economic Systems

Geography

- 320—Political Geography

History

- 460—U.S. Foreign Relations to 1897
- 461—U.S. Foreign Relations since 1897

Political Science

- 342—International Politics

- 2) One interdisciplinary course (after completion of the series above):

- a) Seminar in Area Studies (Geography 460 or Poli. Sci. 460) OR
- b) Seminar in International Organization (Poli. Sci. 345 and 346)
(the latter by special permission)

Total units required for the International Studies Minor: 20
(21 if including Poli. Sci. 345 and 346).

* All courses carry four units of credit except Political Science 345 (2) and 346 (3) which total five units.

† The numbered courses listed here are described in more detail in the departmental sections of the catalog. There are no prerequisites for courses listed under 1 below.

SUMMER SESSIONS AND EXTENSION

Carroll V. Mjelde, Dean of Educational Services and Summer Sessions

The Office of Educational Services and Summer Sessions, Sonoma State College, conducts an area-wide extension and educational services program to provide continuing education opportunities for adults in the six county service area of the College including courses for persons employed in school districts, governmental agencies, industries, and other organizations. The continuing education extension program includes both credit and non-credit extension courses, institutes, workshops, conferences, and travel study tours offered by the various departments of the college.

The semester credit hours, offered for extension study provided in each of the college's subject areas, may be applicable toward degree, credential, and other in-service and continuing educational objectives. Special non-credit programs are also offered for those who desire to meet their needs for a continuing education in an organized manner.

In cooperation with the Center for the Performing Arts, continuing education cultural programs are presented by choral, drama, dance, jazz, opera, and orchestra performing groups both on campus and for groups of students and adults in locations throughout the College's six county service area.

Subject to the approval of the department concerned, all extension courses may count toward college degrees and/or school service credentials except that no more than twenty-four units normally may be counted toward the baccalaureate degree, nor more than six toward the master's degree. Students who plan to become candidates for a degree must file with the College Admissions Office.

The Summer Sessions of Sonoma State College offer many courses regularly given during the academic year in order that students who desire to do so may progress toward the attainment of their degrees and credentials during the summer months. In addition, the College offers a variety of special conferences, institutes, demonstration schools and workshops.

The three summer sessions include the one week intersession, the regular six weeks summer session, and the three week post-session. With classes meeting five days a week, the general rule is that one unit of semester credit may be earned for each week of attendance. Thus, in the ten weeks of the three summer sessions a student may earn a total of ten units of semester credit, either graduate or undergraduate. It is not necessary for enrollees in the summer sessions or extension courses to formally matriculate for admission at Sonoma State College by filing transcripts, taking entrance examinations, etc.

Special Features

Requests for the *Summer Session 1970 Catalog*, the *Extension Bulletin*, or other information regarding either the Extension Division or the Summer Sessions should be sent to the Dean of Educational Services and Summer Sessions.

MEN'S INTERCOLLEGIATE ATHLETICS

An athletic program is available at the Junior Varsity and Varsity levels for those students who wish to participate in intercollegiate competition. The college currently competes in cross country, basketball, football, wrestling, track and field, golf, tennis, fencing, gymnastics and baseball. Water polo, swimming, and soccer will be added to the program at an appropriate time in the growth of the college.

Sonoma State College is a member of the Far Western Intercollegiate Athletic Conference. Other conference schools include University of California at Davis, Chico State College, Humboldt State College, California State College at Hayward, Sacramento and San Francisco State Colleges.

WOMEN'S INTERCOLLEGIATE ATHLETICS

The intercollegiate athletic program for women includes: field hockey, fencing, gymnastics, volleyball, basketball, tennis, track and field, cross country and softball. This program will be expanded with student interest, participation and when faculty are available. Sonoma State College is a member of the Northern California Women's Intercollegiate Council. Member schools include 16 colleges and universities in this area.

INTRAMURALS

An intramural athletic program for all students is currently offered which includes flag football, cross country, basketball, horseshoes, swimming, etc. A full listing of the sports offered is included in the Sonoma State College Intramural Sports Handbook.

EUROPEAN STUDIES PROGRAM

(Division of Humanities—Division of Social Sciences)

Gerald Egerer, Associate Professor of Economics Program Director

Robert Brown	Assistant Professor of History
Robert Clayton	Associate Professor of English
Yvette Fallandy	Professor of French
Marion Nielsen	Professor of German
Robert Smith	Assistant Professor of Political Science
David Sprung	Assistant Professor of Music
John Steiner	Associate Professor of Sociology
Philip Temko	Associate Professor of Philosophy

The B.A. in European Studies is a program of an interdisciplinary nature emphasizing language skills and focusing upon Europe. Students will be encouraged to spend one year in residence at a European university, earning credits which will be applied towards the degree. The program provides a basic preparation for teaching and post graduate study, and for employment with the Federal government and corporations with European interests.

EUROPEAN STUDIES MAJOR—COURSE REQUIREMENTS

1. A concentration (minimum 40 units) within

A. The Humanities, to include

Art History
Drama and Dance
English Literature
French Literature
German Literature
Music
Philosophy
Russian Literature
Spanish Literature

AND

B. The Social Sciences, to include

Economics
History
Political Science
Sociology

2. A language minor (minimum 22 units) in either French or German or Russian or Spanish. (In subsequent years it is hoped that Italian will be offered.)

The individual courses available within each field are set out below. Course elections will be guided by the criterion of interdisciplinary association, i.e. courses in several disciplines relating to the same period or movement or theme; e.g. The Age of Reason, The Romantic Movement, The European Novel. Each student, in developing his individual program, will be able to work closely with an advisor.

COURSES QUALIFYING FOR THE PROGRAM

(for descriptions consult the Department's listings)

Art History

- 210—Introduction to Art History I
- 211—Introduction to Art History II
- 413—Northern Renaissance Art
- 414—Northern Baroque Art
- 415AB—Italian Renaissance Art
- 415C—Italian Baroque Art
- 418AB—History of Modern Art
- 419—Modern Architecture

Drama and Dance

- 300—Theater History 500 B.C.–1642
- 301—Theater History 1642–present
- 350—History of Dance
- 410—Historical Styles for Theater Design

Economics

- 210—Problems of Competing Economic Systems
- 313—Seminar on Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776)
- 330—Free Trade and Economic Integration in Western Europe
- 405—Seminar in the History of Economic Thought

English Literature

- 350–351—Survey of English Literature
- 419—The Political Novel
- 420—Development of English Drama
- 422—Development of Modern English Poetry
- 424–425—Development of the English Novel
- 430—Modes of Literature
- 445—Chaucer
- 450AB—Shakespeare
- 463—Middle English Literature
- 465—Literature of the Renaissance
- 467—English Literature of the 17th Century
- 469—Restoration and 18th Century Literature
- 475—English Literature of the Romantic Period
- 476—English Literature of Victorian Period
- 478—English Literature of the 20th Century
- 494—Seminar for English Majors
- 550—Shakespeare Seminar

European Studies

- 495—Independent Study for Majors and Minors
- 499—Special Problems

French Literature

- 310—Survey of French Literature (Middle ages through 17th Century)
- 311—Survey of French Literature (18th and 19th Century)
- 315—The Contemporary French Novel in Translation
- 316—The Contemporary French Theater in Translation
- 430—French Culture and Civilization (origins through 1715)
- 431—French Culture and Civilization 1715–present

Special Features

- 435—Medieval French Literature
- 440—The 16th Century
- 445—The 17th Century
- 446—The 17th Century
- 450—The 18th Century
- 451—The 18th Century
- 455—The 19th Century
- 456—The 19th Century
- 460—The 20th Century
- 461—The 20th Century
- 470—Individual Author or Movement
- 496—Seminar in French Literature

German Literature

- 302—Introduction to Study of German Literature
- 304AB—German Civilization and Culture
- 312—The Young Goethe and *Sturm und Drang*
- 320—German Lyric Poetry
- 325—Narrative Prose of 19th Century
- 330—German Drama of 19th Century
- 340—German Literature in Translation
- 412—The Medieval Epic
- 413—Literature of the Baroque and Enlightenment
- 415—The Age of Goethe
- 418AB—The Modern Period
- 430—Faust
- 432—German Romanticism
- 435—Individual Author
- 496—Seminar for German Majors

History

- 111—Foundations of World Civilization
- 112—Development of the Modern World
- 400—The Greco-Roman World
- 402—Medieval Europe
- 405—Renaissance and Reformation
- 406—Absolution and Enlightenment
- 409—Europe: The Age of Revolution, Nationalism and Industrialism
- 410—Europe: War and Totalitarianism
- 414—Intellectual and Cultural History of Europe
- 415—Modern Germany
- 417—Modern France
- 419—Origins of Modern Russia to 1856
- 420—Modern Russia and the Soviet Union
- 421—Modern England
- 423—Spain and Portugal
- 482—Seminar in European History to 1600
- 483—Seminar in European History since 1600
- 523—Graduate Seminar in Medieval History
- 525—Graduate Seminar in Modern European History
- 527—Graduate Seminar in Contemporary European History

Music

- 301AB—History of Music
- 350—Music of Middle Ages
- 355—Music of Renaissance

- 360—Music of the Baroque
- 365—Music of the Classic Period
- 370—Music of the Romantic Era
- 435—Contemporary Music
- 440—History of Opera
- 442—Beethoven
- 444—Wagner
- 446—Bach and Handel
- 448—Haydn and Mozart

Philosophy

- 100—Introduction to Philosophy
- 250AB—History of Philosophy
- 310—19th Century Philosophy
- 320—20th Century Philosophy
- 370—Social Philosophy
- 380—Existential Philosophy

Political Science

- 212—Basic Issues in Political Theory
- 310—Ancient and Medieval Political Thought
- 311—Political Thought since 1500
- 350—Parliamentary Democracies
- 351—Totalitarian Systems and Dictatorships
- 415—Seminar in Contemporary Political Thought
- 456—Seminar in Revolutionary Change
- 458—Seminar in Causes of War

Russian Literature

- 310–311—Survey of Russian Literature in Translation
- 320AB—Introduction to the Reading of Literature in Russian

Sociology

- 432—Social Organization of Western and non-Western Societies
- 450—History of Sociological Thought

Spanish Literature

- 315—Spanish Literature in Translation
- 400—Spanish Medieval Literature
- 405—Spanish Renaissance Literature
- 420—Spanish Baroque Literature
- 440—Spanish Neo-Classical and Romantic Literature
- 450—Spanish Literature from 1850–1898
- 480–481—Don Quixote
- 485—The Civilization and Culture of Spain
- 497—Seminar in Spanish Literature
- 502—Classical Influences
- 503—European Literature and the Italian Renaissance
- 505—Medieval and Renaissance Poetry
- 506—Medieval and Renaissance Prose
- 507—Golden Age Drama
- 508—Golden Age Poetry
- 509—Golden Age Prose
- 510—Cervantes
- 511—Spanish Literature 1700–1850
- 512—19th Century Novel and Short Story

Special Features

- 513—The Generation of '98, Precursors and Influences
- 514—20th Century Novel
- 515—20th Century Essay
- 516—20th Century Poetry
- 517—20th Century Theater
- 522—10th Century Prose
- 523—El Modernismo
- 591—Special Studies in Spanish Literature

Language Courses

French

- 101-102—Elementary French
- 201-202—Intermediate French
- 220-221—Introduction to the Reading of French Literature
- 250—Conversational French
- 301-302—Advanced Grammar and Composition

German

- 101-102—Elementary German
- 201-202—Intermediate German
- 301-302—Advanced Grammar, Composition and Conversation

Russian

- 101-102—Elementary Russian
- 201-202—Intermediate Russian
- 301-302—Advanced Grammar, Composition and Conversation

Spanish

- 101-102—Elementary Spanish
- 150—Phonetics
- 201-202—Intermediate Spanish
- 210-211—Reading in Spanish
- 250—Conversational Spanish
- 301-302—Advanced Composition and Conversation

INDIA STUDIES MAJOR FOR THE B.A. DEGREE

An interdepartmental major designed to serve the needs of students desiring a general education in this important area of the world. The core of the program emphasizes India, but the format places India in the context of the whole of Asia. Thus the major may serve either as a terminal degree or as a preparation for graduate work.

INDIA STUDIES MAJOR COURSE REQUIREMENTS

Required Core Courses

Anthropology 203—Cultural Anthropology.....	4 units
Art 417A or B—Oriental Art.....	3 units
English 431A—Classical Indian Literature.....	3 units
History 428—History of India.....	4 units
India Studies 301—Seminar: (may be repeated once).....	4 units
Philosophy 380A—Eastern Thought: India.....	3 units
Psychology 404A—Psychology of the East: India.....	4 units

25 units

Special Features

Electives

A student must complete 12 units from the following courses of which 4 units must be in the Division of Social Sciences.

Art 417 (part of the sequence not taken above).....	3 units
Economics 203—Problems of the Developing Nations.....	4 units
English 431B—Classical Japanese Literature.....	3 units
English 432A—Modern Indian Literature.....	3 units
Geography 430—Geography of Asia.....	4 units
History 424—History of the Far East.....	4 units
History 425—History of the Far East.....	4 units
History 426—History of China.....	4 units
Music 451—Asian Music.....	3 units
Philosophy 380B—Eastern Thought: China, Japan and the Influence of Indian Buddhism	3 units
Political Science 452—Asian Governments.....	4 units
Political Science 455—Seminar in Political Development.....	4 units
Psychology 404B—Psychology of the East: Japan.....	4 units
India Studies 301—(if repeated).....	4 units
India Studies 495—Independent Study.....	1-3 units
India Studies 499—Seminar in Special Problems.....	2-4 units
Total for the Major	37 units

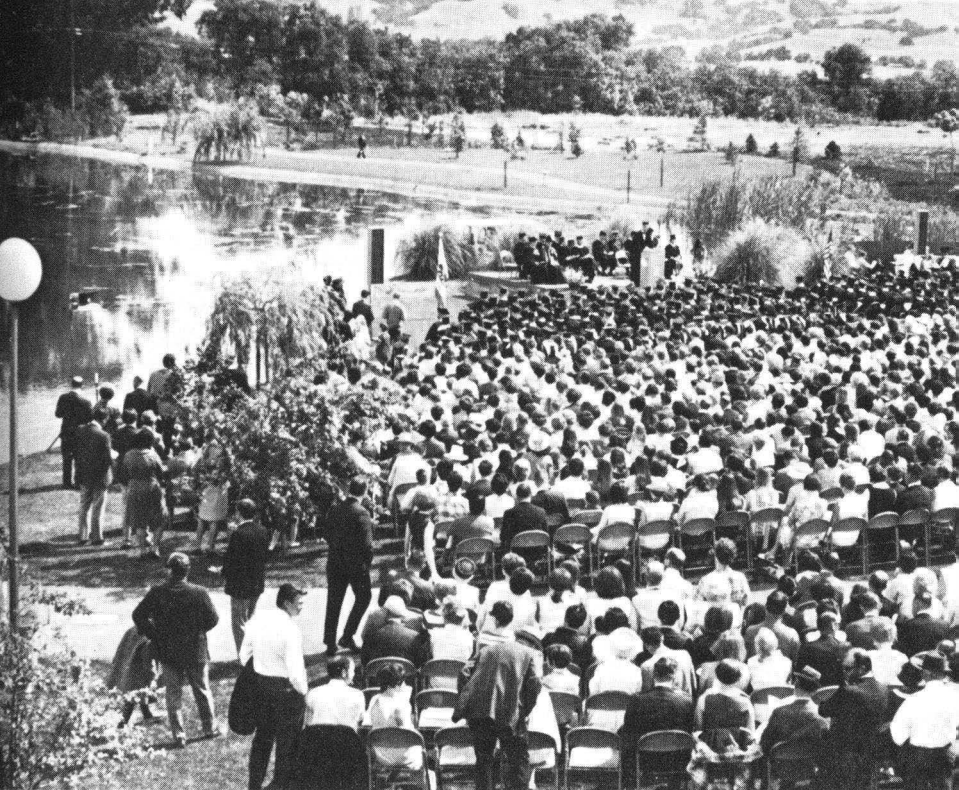
INDIA STUDIES

301. Seminar: India (4-4) I and II

An examination, in depth, or in a survey, of specific Indian problems, customs, periods of history, or other aspects of Indian culture. Different topics will be selected each semester. (May be repeated once).

495. Independent Study for Majors (1-3) I and II

499. Special Problems (2-4) I and II



**DEGREES
AND
PROGRAMS**

BACHELOR OF ARTS DEGREE

(Fields for Majors and Minors)

<i>Division</i>	<i>Majors</i>	<i>Minors</i> *
American Ethnic Studies	Afro-American Studies Mexican-American Studies	Afro-American Studies Mexican-American Studies
Education and Psychology	Physical Education Psychology	Physical Education Psychology
European Studies	European Studies	
Humanities	Art English French German Music Philosophy Spanish	Art Drama English French German Music Spanish
India Studies	India Studies	
Natural Sciences	Biology Biology and Mathematics Chemistry Geology Mathematics Physics	Biology Chemistry Geology Mathematics Physics
Social Sciences	Anthropology Economics Geography History Management Political Science Sociology	Anthropology Economics Geography History International Studies Management Political Science Sociology

MINIMUM REQUIREMENTS FOR THE DEGREE

General Education	40 units †
Major	24 36 units
Minor and/or electives	48-64 units
Minimum requirements for the bachelor of arts degree	124 units

* Although a minor is not required for the bachelor's degree, many students find it to their advantage to complete one or more minors.

† Credential candidates should consult with an advisor in the Department of Education about fulfilling both the College General Education requirements and credential General Education requirements, since there are differences between the two sets of requirements.

GRADUATION REQUIREMENTS

Candidates for graduation should file a "Request for Degree and/or Credential" form with the Admissions and Records Office two semesters prior to the anticipated date of graduation. This will enable the Evaluations Office to check and determine remaining requirements before the opening of the final semester. A thorough reading of this catalog will assure that one is aware of all requirements. In addition, the following general rules should be kept in mind:

1. A minimum of 124 units is required for the BA degree.
2. At least 40 units of upper division (courses numbered 300-499) work must be included in the degree program.
3. Twelve of the last 20 units must be completed in residence study at Sonoma State College.
4. Twenty-four units in residence (work completed at Sonoma State College) is the minimum required for graduation.
5. A grade point average of C (2.0) or better is required in work undertaken at Sonoma State College as well as in the student's total undergraduate work in his major field.
6. A maximum of 24 semester units of credit earned by examination may be applied toward degree requirements. A student may not obtain credit by examination to exceed 12 units in any one division or 24 units in the College as a whole without special approval of the Dean of the Faculty.
7. A maximum of 24 semester units earned in correspondence and extension studies may be applied toward degree requirements. Of the 24 maximum only 12 units may be transferred from another college or university.
8. Total of not more than 6 units of 295 and 395 courses and 495 and 499 courses may be counted toward graduation without approval of the Dean of the Faculty.
9. California law specifies that in order to receive a bachelor's degree, students must fulfill requirements in U.S. History and Constitution and California State and Local Government. These requirements may be fulfilled in either of two ways:
 1. By taking *one* of the following courses:

History 250 History 251 Political Science 200	}	These courses may also be used to fulfill General Education requirements.
-----------------------------------------------------	---	---------------------------------------------------------------------------
 2. By taking an examination administered by the Division of Social Sciences.
10. All specific major, and General Education requirements must be completed. (For General Education requirements see page 76.)
11. During the junior or senior year a test of competence in English composition must be passed or a grade of C or better earned in an advanced composition course taken at Sonoma State College.

Degrees and Programs

12. A student who is in a period of continuous attendance at the time of filing application for degree and/or credential may elect to meet the catalog requirements in effect at the beginning of his last previous period of continuous attendance or at the time of completion of the curriculum. A student is considered in continuous attendance if he registers for at least one semester or summer session within any 12 month period.

A student not in a period of continuous attendance at the time of filing for a degree and/or credential must meet the catalog requirements in effect at that time. Special exceptions may be made for students on active military duty.

Degrees are awarded in January, June and August. Commencement ceremonies are held once a year, in June.

Honors at Graduation

Two types of honors at graduation are awarded by the College to students meeting the criteria listed below:

"With Honors" are granted upon award of the baccalaureate degree to candidates whose entire collegiate scholastic record indicates a minimum grade point average of 3.30.

The following conditions also must be met by all candidates to be considered for honors:

1. A minimum of 45 semester units offered for the degree must have been earned in resident study at Sonoma State College. In exceptional cases this condition may be petitioned to the College Standards Committee.
2. The grade point average of all work completed at Sonoma State College must meet a minimum grade point average of 3.30.

An honors list will be computed on the basis of all work excluding the last semester. Those meeting honors requirements on this basis will be designated on the commencement program as "eligible for honors." The actual honors list will be computed on the basis of all work necessary for the degree. "With Distinction" in a student's major department will be awarded at graduation to students who meet the following criteria:

1. Recommendation of the faculty of the departmental major.
2. Approval by the entire faculty.

GENERAL EDUCATION

The program of General Education at Sonoma State College is intended to provide students with a general intellectual point of reference and a common foundation of knowledge for specialized study leading to the bachelor's degree. More specifically, the courses are intended to serve a three-fold purpose within the framework of a liberal education.

To acquaint the student with those human achievements in philosophy, science, the letters and the arts which are of recognized universal value.

To help make the student aware of himself and of his relation to his natural, physical, and intellectual environment.

To make the knowledge which the student acquires relevant to the intellectual, social and ethical problems of his time.

ENTERING FRESHMEN

Entering Freshmen will fulfill the General Education requirements of the college through the following pattern:

Humanities

- Humanities 201, 202. *Introduction to Humanistic Studies* 12 units
An integrated examination of art, literature, philosophy and the performing arts. Fulfills General Education requirements in the Humanities and in English Composition. Six units each semester. Humanities 201 is a prerequisite to Humanities 202. (Four units of this course apply toward the Basic Subject requirement, as noted below.)

Social Sciences

8 units

General Education requirements in Social Sciences may be fulfilled by 2 four-unit courses, in two different fields, chosen from the following:

- Anthropology 203. *Introduction to Cultural Anthropology* (4 units)
Economics 201. *Introduction to Economics* (4 units)
Economics 220. *Urban Crisis* (4 units)
Geography 201. *Introduction to Physical and Cultural Geography* (4 units)
History 111. *Foundations of World Civilization* (4 units)
History 112. *Development of the Modern World* (4 units)
History 250. *A History of the United States to 1865* (4 units)
History 251. *A History of the United States since 1865* (4 units)
Management 225. *Law and Society* (4 units)
Political Science 200. *American Government* (4 units)
Sociology 201. *Principles and Procedures in Sociology* (4 units)

Natural Sciences

9 units

General Education requirements in the Natural Sciences may be fulfilled by choosing 2 or more courses (to a total of 9 units or more) from the following list. The courses chosen must include at least one

Degrees and Programs

in the biological sciences and one in the physical sciences, including one laboratory course.

Biological Sciences

- Biology 110. Evolution of Life on Earth (3 units)
- Biology 111. Man and His Environment (3 units)
- *Biology 112. Introduction to Oceanology (3 units)
- Biology 114. Introduction to Behavioral Biology (3 units)
- Biology 115. Principles of Life Science (4 units)
- Biology 116. Plant Science (4 units)
- Biology 117. Animal Sciences (4 units)
- Biology 200. Trees and Shrubs (3 units)
- Biology 305. Conservation of Natural Resources (3 units)
- Biology 314. Field Biology (3 units)
- Biology 332. Plants and Man (3 units)

Physical Sciences

- *Astronomy 100. Introductory Astronomy (3 units)
- *Astronomy 300. Cosmology and Extraterrestrial Intelligence (3 units)
- *Chemistry 102. Fundamentals of Chemistry (3 units)
- Chemistry 115A. General Chemistry (5 units)
- Chemistry 125A. General Chemistry (5 units)
- Geology 102. General Geology (3 units)
- Geology 115. Physical Geology (4 units)
- *Physics 100. Descriptive Physics (3 units)
- Physics 210A. General Physics (4 units)
- Physics 215A. Introductory Physics-Mechanics (4 units)

Ethnic Studies

4 units

General Education requirements in Ethnic Studies may be fulfilled by choosing one of the following courses or another course selected with approval of the advisors from the American Ethnic Studies Division.

- AAMS 250. An Analysis of Afro-American Arts (4 units)
- AMES 210. Ethnic Groups in America (4 units)
- MAMS 220. Mexican-American Culture (4 units)
- NAMS 200. Introduction to American Indians (4 units)

Basic Subjects

3 units

Four units of Humanities course apply toward partial fulfillment of the requirement in Basic Subjects. In addition, the student must take *one* of the following courses:

- Mathematics 107. Algebra and Trigonometry (4 units)
- Mathematics 115. Fundamentals of Mathematics (3 units)
- Mathematics 117. Mathematics for the Social Sciences (3 units)
- Mathematics 140. Calculus I or Mathematics 162. Calculus with Applications I (4 units)
- Mathematics 165. Elementary Statistics (3 units)
- Mathematics 190. Calculus II (4 units)
- Philosophy 200. Introduction to Logic (3 units)

* Non-laboratory course.

Degrees and Programs

Electives

4 units

In order to complete the 40-unit General Education requirements for graduation, the student may elect two or more courses from the following areas, with no more than 4 units in any area:

Psychology 200. Human Behavior (4 units)

Classical Studies

Some departments offer courses in Classical Studies as a General Education elective. Classical Studies are designated by the course number 313 under individual department headings. "Classical Studies" courses take an important text (in translation when required) for intensive study both of the text itself and its influence and other implications.

Language Studies

- French 101, 102. Elementary French (4-4 units)
- French 201, 202. Intermediate French (3-3 units)
- French 315. The Contemporary French Novel in Translation (3 units)
- French 316. The Contemporary French Theater in Translation (3 units)
- German 101, 102. Elementary German (4-4 units)
- German 201, 202. Intermediate German (3-3 units)
- German 306. German Culture and Civilization (2 units)
- German 307. German Culture and Civilization (2 units)
- German 340. German Literature in Translation (3 units)
- Russian 101, 102. Elementary Russian (5-5 units)
- Russian 201, 202. Intermediate Russian (3-3 units)
- Russian 310. Survey of Russian Literature in Translation (3 units)
- Russian 311. Survey of Russian Literature in Translation (3 units)
- Spanish 101, 102. Elementary Spanish (4-4 units)
- Spanish 201, 202. Intermediate Spanish (3-3 units)
- Spanish 315. Spanish Literature in Translation (3 units)
- Spanish 316. Spanish-American Literature in Translation (3 units)
- Spanish 485. The Culture and Civilization of Spain (3 units)
- Spanish 490. The Culture and Civilization of Spanish America (3 units)

Physical Education

- Physical Education 100. Scientific Basis of Health and Physical Education (2 units)
- Physical Education 101. Physical Education Activities (1 unit)

No courses chosen to fulfill General Education requirements may be used to fulfill requirements in a major.

Substitutions for specific courses may be made with the approval of the student's advisor and the chairman of the appropriate department. Petitions for substitution are available in the Registrar's Office.

TRANSFER STUDENTS

Sonoma State College accepts the certification from a junior college that the 40-unit General Education requirement has been fulfilled. However, a transfer student who is not certified in all areas at the time of entrance may complete the area requirements by choosing appropriate courses from those listed above, or by choosing from the following courses:

Humanities

Humanities 250AB. Introduction to the Humanities (3–3 units)

Art 210. Introduction to Art History (3 units)

Art 211. Introduction to Art History (3 units)

Art 250. Introduction to Art (3 units)

Music 250. Introduction to Music Literature (3 units)

or

Music 301A or B. History of Music (3 units)

Literature (English, American, or other, in the language or in translation)

If a transfer student has yet to fulfill 6–12 units of Humanities General Education requirements, he is required to take Humanities 201.

Natural Sciences

Any course in the Physical and/or Biological Sciences.

Social Sciences

Any course in Anthropology, Economics, Geography, Sociology, Political Science, Management, or History for which prerequisites have been completed. Such courses should be chosen in consultation with advisor.

Basic Subjects

English 101AB. Basic Composition (6 units)

Electives

One or more of the courses listed under *Electives* on page 78. Ethnic Studies may be chosen as an elective for transfer students.

GRADUATE STUDY AT SONOMA STATE COLLEGE

Graduate students at Sonoma State College fall into three categories: unclassified graduate students, teaching credential candidates, and classified graduate students.

1. *Unclassified students.* A student without a degree or credential objective (or who has not yet been accepted by a department into an M.A. program) may apply for admission to the college as an unclassified graduate student. Such a student must file, at the time of application, an official transcript showing that he has received a baccalaureate or higher degree from an accredited college or university. Many students planning to work for Master's Degrees enroll as unclassified students and are transferred to classified status when they secure departmental approval.*
2. *Classified students.* Classified graduate students are those who have been accepted by one of the departments as candidates for the degree of Master of Arts. No student, of course, can achieve classified status until he is admitted to the college. All students desiring classified status should come to the office of the Dean of the Faculty to pick up the mimeographed instructions, "Steps Toward the Master's Degree." (The Dean of the Faculty is presently serving as the College Coordinator of Graduate Studies.) As they are completed, these forms are posted to the student's permanent record in the Office of Admissions and Records. See page 81 for information concerning M.A. degree programs.
3. *Teaching credential candidates.* Increasing enrollment pressures and limited openings in the credential programs make it expedient to complete both the application for admission to the college and to the desired credential program as soon as possible. (See "Academic Calendar" in this catalog for both deadline dates.) See page 83 for information concerning credential programs.

* The M.A. Programs in Psychology and Political Science are exceptions. Applicants for these programs should secure acceptance by the department as a prerequisite for admission to the college; enrollment in them is limited and students should not pay any fees prior to departmental acceptance. No unclassified students are accepted in Graduate courses in Psychology or Political Science, with the single exception of Political Science 514, which is open to all graduate students. See the description of the program in the Psychology and Political Science sections of the catalog.

MASTER OF ARTS DEGREE

(Fields for Majors)

The Master of Arts degree at Sonoma State College is designed to improve the candidate's professional competence, develop his ability for independent study, and afford him an opportunity to increase his cultural background.

The college offers master's degree programs in the following disciplines at present. Additional offerings will be added from time to time as the college continues to expand.

Biology	Physical Education
Education (Reading)	Political Science (Political involvement emphasis)
English	Psychology
History	Spanish
Mathematics	

Minimum Requirements for the Degree

Minimum requirement	30 units
Minimum in 500-numbered courses.....	12 units
Minimum in major field.....	18 units
Residence requirement	24 units

Additional Regulations:

1. At least 15 units must be taken after admission to classified Graduate Standing.
2. A maximum of 6 units of extension or transfer credit, or combination of the two, may be allowed, subject to the approval of the department or division concerned.
3. Student teaching is not acceptable toward a master's degree.
4. A maximum of 6 units of credit may be granted for the master's thesis.
5. A candidate must have a 3.0 (B) grade point average in all course work taken to satisfy the requirements for the degree.
6. A candidate must complete a master's thesis, a creative project, or an investigative project which will be subject to approval by the candidate's committee and the Graduate Studies Committee.
7. For special regulations applying to particular degree programs, consult the section of this catalog under the departmental title.

Provisional Unclassified Graduate Status for Senior Students

Any student in his final semester before award of the baccalaureate degree by Sonoma State College may petition for provisional unclassified graduate credit. The petition may include any upper division and graduate level courses he will complete in the final semester that are not required for the baccalaureate degree. The petition for provisional unclassified graduate status must be filed at the same time as the application for the award of the degree.

The following procedure will apply:

1. Courses taken in provisional graduate status will be recorded in the student's record as courses taken prior to the award of the

Degrees and Programs

baccalaureate degree but allowed provisional unclassified graduate credit.

2. Only courses numbered upper division and graduate will be allowed.
3. Courses taken in provisional unclassified graduate status may, at the discretion of the department involved, be applied to any graduate objective but there is no guarantee that they will.
4. If a student fails to complete the baccalaureate degree at the date specified on his application, the petition for provisional unclassified graduate credit becomes null and void.

CREDENTIAL PROGRAMS

Admission to the college does not constitute admission to credential programs. Application is made separately at the Department of Education.

CREDENTIALS FOR PUBLIC SCHOOL SERVICE

Sonoma State College offers courses leading to the Standard Teaching Credential with specializations in elementary and secondary teaching, and special education. A program leading to a pre-school instruction permit is also available.

The College is accredited by the State Board of Education.

Detailed information regarding professional requirements, and requirements for teaching majors and minors may be obtained in the Department of Education.

Students who plan to work toward a teaching credential should go to the Education Department during their first semester at the college for assignment of an education advisor.

REQUIREMENTS FOR ADMISSION TO TEACHER EDUCATION PROGRAMS

The requirements for admission to Elementary and Secondary Teacher Education Programs for all students, including transfer graduate students, are:

1. Accumulative grade point average of 2.5 or higher, or an upper division and graduate grade point average of 2.75 or higher.
2. Approval of the Department of Education and the major department. Secondary candidates with P.E. majors must have the approval of the minor department. Only candidates who can demonstrate promise of success and fitness should be recommended for admission to a teacher education program.
3. Passage of Written English Skills Test.*
4. Clearance by the Student Health Service.
5. Candidates must demonstrate their ability to satisfy all requirements for the major by the end of the Summer Session following their second semester of student teaching.

STANDARD TEACHING CREDENTIAL (Elementary Teaching Specialization)

Holders of this credential will be authorized to teach in kindergarten and grades one to nine, inclusive. All majors offered at Sonoma State College except Physical Education and Management are acceptable teaching majors for the Elementary Credential.

* In English 375 (Advanced Composition) this test is administered. Passage of this course with a grade of C fulfills this requirement.

Degrees and Programs

There are two options available to students for the completion of the program leading to the Elementary Credential. Under one option—the five-year option—the student may take a regular four-year undergraduate program satisfying major requirements, and take all of his professional work in his post-degree year.

Under the other option—the four-year option—the student will complete requirements for the major in his four years of undergraduate work, will only partially satisfy credential requirements for the minor, and will partially satisfy professional requirements, including student teaching, during his senior year. Upon graduation from the college he will be granted the Standard Teaching Credential with a specialization in Elementary Teaching under a “Postponement of Requirements” provision which will make it possible for him to satisfy the remaining minor and professional requirements, and the 30-unit post degree requirement, in the succeeding seven years.

PROFESSIONAL REQUIREMENTS

Sequence of Courses

4 Year Elementary Program—Sonoma Undergraduates

Senior Year:

1st Semester:

Educ. 405A	(4)
Educ. 407	(3)
Educ. 402	(2)
Electives †	(6)
Total	(15)

2nd Semester:

Educ. 405B	(5)
Educ. 400	(2)
Educ. 403	
or	
Educ. 408	(2)
Electives †	(6)
Total	(15)

†Should be in major field if major is not completed. Eng. 400 and Math. 300 may be taken in 1st semester, concurrently with Educ. 407 and Educ. 402 if major can be completed by end of following summer session.

5 Year Elementary Program—Sonoma Undergraduates

Post Degree Year:

1st Semester:

Educ. 405A	(4)
Educ. 402	(2)*
Educ. 407	(3)**
Art, Music or	
P.E. 400	(2-3)
Psych. 417	(4)
Total	(15-16)

2nd Semester:

Educ. 405B	(5)
Educ. 400	(2)
Educ. 403	(2)
Educ. 408	(2)
Educ. 410	(3)
Total	(14)

*Math. 300 is prerequisite. May be taken concurrently in lieu of Art, Music or P.E. which would be deferred to summer session following 2nd semester of student teaching.

5 Year Elementary Program—Transfer Graduate Students

Same as for 5 year elementary program for Sonoma State undergraduates. Math. 300 and Eng. 400, or equivalents, should be taken prior to entry. May be taken concurrently with Educ. 402 and Educ. 407 in 1st semester. This will necessitate deferring Art, Music or P.E. 400 and Psych. 417 to the following summer session—or deferring the 1st semester of student teaching, thus extending the student's program over a 3 semester period.

**English 400 is prerequisite. May be taken concurrently in lieu of Psych. 417 which would be deferred to summer session following 2nd semester of student teaching.

Degrees and Programs

Deferred Requirements: (To be completed within seven years.)

Psych. 417	(4)	Art, Music or P.E. 400	(2-3)
Educ. 410	(3)	Educ. 403 or 408	(2)
		General Electives	(18-19)

MINOR FIELD FOR ELEMENTARY CREDENTIAL CANDIDATES

Neither the State of California nor the college require a minor for this credential. However, it is of importance to the employability and professional future of the candidate that he discuss with his major and education advisors the value, in his case of completing a minor.

STANDARD TEACHING CREDENTIAL

(Secondary Teaching Specialization)

Holders of this credential will be authorized to teach their major or minor subjects in grades 7 through 12. All majors and minors offered at Sonoma State College, except Philosophy and Management are acceptable as teaching majors and minors. However, choice of majors and minors should be discussed with education advisor.

Prospective secondary teachers may not choose interdepartmental majors such as Biological Sciences and Mathematics or Physical Science and Mathematics.

The majors and minors of students transferring from other colleges will be evaluated for acceptability by the appropriate instructional divisions and the Education Department.

PROFESSIONAL REQUIREMENTS

Post Degree Year

Sequence of Courses

1st Semester:

Educ. 522	(2)
Educ. 410	(3)
Educ. 425 Phase I	(2)
Electives *	(8)

Total (15)

2nd Semester:

Psych. 417	(4)
Educ. 425 Phase II	(8)
Educ. 426	(1)
Electives *	(2)

Total (15)

Social Science majors must have completed Education 410 prior to student teaching. Provided this requirement is met, student teaching may be done in Semester I. Otherwise the following program must be followed:

Semester I

1. Social Foundations (Educ. 410) 3 units
2. Electives (300, 400, or 500 level at least) 11 units
(including at least 6 units at 400 or 500 level in major and approved by your major department.)

* Must include a total of 6 units in 400 or 500 level courses in major in post degree year.

Degrees and Programs

Semester II (Student Teaching Semester)

No courses other than the following may be taken during this semester.

1. Psych. 417	4 units
2. Educ. 425E	9 units
3. Educ. 522E	3 units
	<hr/> 16 units

MINOR FIELD FOR SECONDARY CREDENTIAL CANDIDATES

Neither the State of California nor the college require a minor for this credential except for P.E. majors. However, it is of importance to the employability and professional future of the candidate that he discuss with his major and education advisors the value, in his case, of completing a minor. In some fields, such as the natural sciences and the social sciences, it is likely to be of great importance.

PROGRAM IN PRE-SCHOOL EDUCATION

General Description

The Pre-School Education Program is designed for those students who are interested primarily in the education of young children, from two to five years old. The courses are scheduled to enable such students to complete the program by the end of their senior year in college. A certificate is awarded upon completion of the program which qualifies the holder to teach in any type of pre-school situation, public or private, in California. After two years of experience the graduate will be eligible for a Type A Supervision Permit authorizing supervision of children's center programs consisting of any number of centers.

Prerequisites

1. Either (a) a major in Psychology, Anthropology or Sociology or an approved behavioral science or (b) a minimum of 12 semester units in Psychology including Psychology 420.
2. Junior standing, or above.
3. Persons actively working in programs involving young children may enroll in this program with consent of instructor to continue their career development.

Admission Procedures (See special note page 87)

1. Fill out an application for admission form, available from the Credentials Secretary, Stevenson 3081.
2. Make an appointment with one of the instructors involved in the program, to whom the secretary will direct you. This instructor will become your program advisor.

Degrees and Programs

3. At the time of your appointment with your advisor, the program will be explained, and your schedule of courses outlined. Be sure to bring your completed application form with you.
4. Make an appointment in the Counseling Office, Stevenson 2020 to take the Edwards Personal Preference Schedule. When the scoring is completed, see your advisor to discuss the results.

Please Note:

Students who meet the prerequisites and complete the admission procedure will automatically be accepted into the program. However, continuous evaluation will be made of each student's progress and growth by the student, the instructors of the required classes, the student's advisor and participating teachers, both individually and jointly. Therefore, automatic acceptance into the program does not mean automatic completion of it by every student who is admitted.

Sequence of Courses

<i>Junior year</i>		<i>Senior year</i>	
Psych. 420	(3)	Educ. 432	(3)
Educ. 431	(3)	Educ. 433	(4)
Educ. 435	(3)	Educ. 434	(3)
<hr/>		<hr/>	
9		10	

PROGRAM IN SPECIAL EDUCATION *

The Special Education Program is designed to prepare personnel for service with various types of exceptional children. Completion of a prescribed sequence of courses can be substituted for a teaching minor in regular education and authorizes the person to serve in special education programs at both the elementary and secondary level.

The Sonoma State College Special Education Program includes all courses leading to a credential to teach the mentally retarded in California and supplemental courses to assist teachers who are involved with gifted children and educationally handicapped children. Although it is possible to begin taking special education courses during the junior and senior year, most students tend to major in special education during their fifth year since a baccalaureate degree is part of the minimum requirements for a teaching credential.

* Application has been made to the State Department of Education requesting accreditation of this program.

Degrees and Programs

Professional Requirements

<i>Required Courses</i> *		<i>Elective Courses</i>	
Educ. 430	(3)	Educ. 447	(3)
Educ. 441	(3)	Educ. 448	(3)
Educ. 442	(3)	Educ. 449	(3)
Educ. 443	(3)	Educ. 450	(3)
Educ. 444	(3)	Educ. 451	(3)
Educ. 445	(3)	Educ. 454	(3)
Educ. 446	(3)	Educ. 456	(3)
Educ. 452	(4)		
Educ. 488	(3)		

Students preparing for service with exceptional children should meet with the college coordinator of special education to plan their course sequence since the number of unit requirements varies according to the type of credential sought.

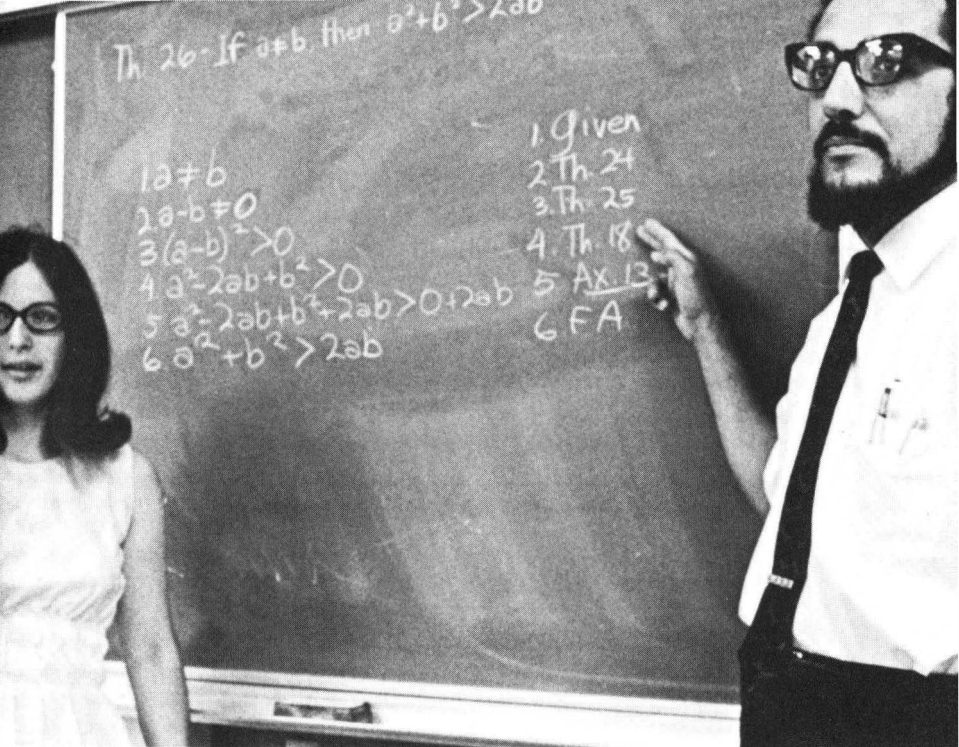
Admission Requirements (Special Education only)

1. A cumulative grade point average of 2.5 or higher, or an upper division and graduate grade point average of 2.75 or higher.
2. Approval of the Coordinator of Special Education.
3. Passage of Written English Skills Test.†
4. Clearance by the Student Health Service.
5. Junior standing or above.

Special education courses are also recommended for all persons planning to work with economically and socially disadvantaged children, and children with academic or learning problems.

* Courses required by State Title V Code.

† In English 375 (Advanced Composition) this test is administered. Passage of this course with a grade of C fulfills this requirement.



COURSES
OF
INSTRUCTION
AND
DEGREE
REQUIREMENTS

Numbering of Courses

Course Numbers

1- 99	Noncredit courses.
100-299	Freshman and sophomore.
300-399	Upper division, <i>not</i> acceptable for graduate credit.
° 400-499	Upper division <i>may be</i> acceptable for graduate credit.
500-599	Graduate

- ° Although all courses numbered 400-499 are acceptable for salary increment credit for teachers, the acceptability of these courses as a part of a master's degree program is entirely dependent upon approval of the degree candidate's committee.

ANTHROPOLOGY

(Division of Social Sciences)

Mildred Dickeman, Chairman of Department
David A. Fredrickson, David W. Peri, Albert L. Wahrhaftig

The major in anthropology is directed toward a cross-cultural understanding of human culture and biology, based on a world sample of past and present human populations. It provides a useful framework for a liberal education, as well as developing the skills and theoretical background necessary for graduate work in the field, or for careers in teaching or research.

ANTHROPOLOGY MAJOR FOR THE B.A. DEGREE

General Education	40 units
Anthropology Courses	40 units
Supporting Subjects	16 units
Foreign Language and/or Electives	28 units
Total	124 units

ANTHROPOLOGY MAJOR COURSE REQUIREMENTS

Anthropology 201—Introduction to Physical Anthropology	4 units
Anthropology 203—Introduction to Cultural Anthropology	4 units
Anthropology 301—Modern Human Variation	4 units
Any course in Archaeology	4 units
Any course in Cultural Anthropology	4 units
Ethnographic Areas (courses numbered 360–379)	4 units
Seminars	4 units
Other Anthropology courses	12 units
Supporting Subjects	16 units

Supporting subjects are to be chosen to enhance the breadth of the major or the depth of a particular area of specialization within the major. Consultation with the major advisor is required for approval of the program of supporting subjects. Consideration will be given to minors and second majors in certain subjects as meeting the supporting subjects requirement.

Minor in Anthropology

The anthropology minor consists of 20 units with at least one course chosen from each of the following groups:

Introductory Courses;
Physical Anthropology or Archaeology;
Cultural Anthropology;
Ethnographic Areas.

With the approval of the instructor, substitution can be made employing advanced anthropology courses.

ANTHROPOLOGY Introductory Courses

201. Introduction to Physical Anthropology (4)

An introduction to the evolutionary biology of man: his genetics, his adaptations, and the developmental history of man and his primate ancestors.

203. Introduction to Cultural Anthropology (4)

The comparative study of cultures; the basic components of cultural systems and their variations.

Anthropology

Physical Anthropology

301. Modern Human Variation (4)

Application of evolutionary theory to living and recent human populations, with special attention to the evidence for adaptations, the role of culture in human evolution, and analysis of the concept of race.

311. Primate Behavior (4)

Examination of the behavior of man's living primate relatives, with special attention to recent field studies; application of primate studies to an understanding of human psychosocial behavior.

312. Human Paleontology (4)

Analysis of the fossil remains of man and the man-apes; discussion of the problems involved in reconstructing the direction of human evolution.

Archaeology

321. Archaeology and Society (4)

Archaeological methods and their uses in the study of man's past.

325. Evolution of Culture (4)

Examination of general theories of culture growth which have attempted to delineate developmental regularities in human prehistory; their role in the history of anthropology and the interaction between theoretical formulations and archaeological research.

331. Archaeology of North America (4)

Discussion of the origin of human populations and cultures in North America; examination of prehistoric traditions: sources, adaptations and development; discussion of archaeological method and theory as applied to North American material.

Cultural Anthropology

342. Social Structure (4)

Discussion of cultural systems as they relate to subsistence and technology, social groupings, and decision-making. Extensive use of cross-cultural comparisons.

351. Culture Contact (4)

Discussion of the varieties of culture contact, and the roles of contact agents and institutions; special attention to Western and non-Western contacts, and the growth of revitalization movements.

353. Psychological Anthropology (4)

Examination and review of the psychological implications of alternate culture patterns; cross-cultural survey of such concepts as world view, value orientation, personality, cognition, deviant behavior, social control, and indigenous psychotherapy.

354. Educational Anthropology (4)

The application of anthropological field techniques to the study of educational institutions; cross-cultural analysis of formal educational systems in non-Western and Western societies and the operation of formal education in situations of culture contact.

359. Art and Culture (4)

The forms and functions of plastic and graphic arts in relation to the rest of culture. Special attention to the arts of prehistory and of non-civilized societies; analysis of the concept of "primitive art."

Ethnographic Areas

360. Indians of North America (4)

Discussion of the origins, history and cultures of the Indians of North America.

361. Indians of California (4)

Survey of the Indian cultures of California; discussion of linguistic diversity, varieties of customs, and relationships between the Indians and the early Europeans.

363. Ethnography of Mesoamerica (4)

An introduction to the area in which Aztec, Maya, and other civilizations emerged. Particular emphasis on contemporary community studies and their contribution to an understanding of local communities as a persisting basic unit of sociocultural organization.

364. Indians of the Southwest United States (4)

Examination of the relationship between Southwest Indian Cultures and the ecology of the Southwest; review of the history of occupation and its relation to present Southwest Indian cultures, with specific attention to differing forms of cultural adaptation and integration. Attention to processes of culture change in the area, and to the importance of the Southwest culture area in the history of anthropology.

370. Cultures of Oceania (4)

An introduction to the cultures of Melanesia, Micronesia and Polynesia; their prehistory and the settlement of the Pacific basin; their ecological adaptations and sociocultural variety and their responses to contact with Western society.

381. African Music (3)

African Music will examine the history, organization, function and the music (melody, text, instruments) of various African musical types: social music; occupational music; music for political institutions; music for religious institutions; music for rights of passage (birth, nursery, puberty, circumcision, marriage, death). In addition, the course will examine the mutual influences of contemporary African and Western cultures. Also offered as Music 450 A.

Language and Linguistics

390. Language and Culture (4)

The relation of linguistics to cultural systems; the role of language in cognition and expression. Speech communities and the relation of language to social stratification; bilingualism, pidgins and creoles and the development of national languages.

391. Descriptive Linguistics (4)

Introduction to the methods of recording, description and analysis of linguistic systems; attention to phonological and morphological components. Lecture, 2 hours; laboratory and field work, 6 hours.

Advanced Studies

410. Methods in Physical Anthropology (4)

Laboratory and field methods in the measurement and analysis of human populations.

Lecture, 2 hours; laboratory and field work, 6 hours.

Anthropology

422. Archaeological Methods (4)

Examination of field and laboratory methods in archaeology, using primarily California materials, with an emphasis upon research design, hypothesis formation, and interpretation.

Lecture, 2 hours; laboratory and field work, 6 hours.

441. Ethnographic Field Methods (4)

Field methods in ethnography, including techniques of sampling, interview, life history and participant observation. Special attention to the problems of rapport, and the political and moral implications of field research.

Lecture, 2 hours; laboratory and field work, 6 hours.

491. Seminar in Human Biology (4)

Discussion of selected topics in human biology, with emphasis on the application of evolutionary theory to man.

492. Seminar in Archaeology (4)

Advanced examination and application of archaeological interpretation; discussion of the relationship of research design to interpretation; examination of conceptual units employed in taxonomic systems.

493. Seminar in Cultural Anthropology (4)

Intensive investigation of selected areas of cultural anthropology with an emphasis upon cross-cultural comparisons.

495. Independent Study in Anthropology (1-4)

499. Special Problems in Anthropology (2-4)

ART

(Division of Humanities)

Mary Anderson, Kathryn Armstrong, Gerald Bol, Helen Breger, Hubert Crehan, Stephen Dubov, Leland Gralapp, Robert Gronendyke, George Gunter, Walter Kuhlman, William Morehouse, Myron Ort, Wright Putney, Harold Skinner.

The following programs aim to assist the student in gaining insight into his cultural heritage and in clarifying his attitudes and values so that he may more fully realize his own potentialities. On the basis of these objectives, the program establishes a core of fundamental studies that would lead to eventual concentration in the areas of art history, or studio. From the latter a student may select an emphasis in painting, sculpture, graphic arts, or filmmaking. A key assumption is that a grasp of the history and theory of art is indispensable to the studio major, just as involvement in creative studio activity is invaluable to the student of art history. The program likewise offers appropriate courses for the general education curriculum and provides the necessary foundation for those who intend to continue their studies at the graduate level.

ART MAJOR WITH ART HISTORY CONCENTRATION FOR THE B.A. DEGREE

General Education	40 units
Major	41 units
Foreign Language	14 units
	(or equivalent *)
Electives	29 units
Total	124 units

COURSE REQUIREMENTS FOR ART MAJOR WITH CONCENTRATION IN HISTORY

Freshman and Sophomore Years

202A—Drawing	2 units
210, 211—Introduction to Art History.....	6 units
250—Introduction to Art	3 units
220—Painting	} A minimum of 3 courses selected from among these studio courses
230—Sculpture	
240—Printmaking	
260—Ceramic Sculpture	
275—Multi-media Arts	
285—Filmmaking	
	6 units

Junior and Senior Year

418AB—History of Modern Art.....	6 units
404, 405-417, 419—Upper Division Period Courses in History of Art.....	15 units
450—Pro-seminar in Art Historical Method	3 units
Total.....	41 units

The candidate will be required to pass a comprehensive examination in his field.

* Determination to be made by the Foreign Language Department, or may be met by qualifying examination.

Art

ART MAJOR WITH STUDIO CONCENTRATION FOR THE B.A. DEGREE

General Education	40 units
Major	42 units
Electives	42 units
Total	124 units

GENERAL REQUIREMENTS FOR ART MAJORS WITH STUDIO CONCENTRATION

1. Incoming freshmen and lower division transfer students declaring themselves art studio majors will be required to meet with a committee from the Art Department for an interview prior to enrollment in studio courses. This should be accomplished by the end of the 12th week of instruction of the semester prior to the one in which the student intends to enroll. Information as to dates and portfolio materials required for the interview are available from the Art Department secretary. Students will be considered probationary majors for the first semester of enrollment in studio courses in the department.
2. Transfer art studio majors with upper division standing, upon acceptance into the college, must also apply for interview prior to enrollment in upper division studio courses. A probationary status also obtains for upper division transfer students for the first semester enrollments in courses in the department. In addition, prior to enrollment in any upper division studio courses, including independent study, approval for enrollment in such courses must be obtained from the Advanced Studio Practices Committee.
3. Currently enrolled art studio majors, in order to enroll in *upper division* advanced studio courses, must demonstrate the capability to pursue individual creative projects in their chosen area of concentration. Petitions, portfolios, and recommendations must be submitted to the *Advanced Studio Practices Committee* prior to enrollment or pre-enrollment in these courses. Currently enrolled majors will be advised of submission dates of each semester prior to pre-enrollment periods. Transferring majors in upper division should apply at the earliest opportunity to the Art Department secretary for information regarding requirements.
4. Students who have achieved less than a 2.75 average in the first 9 units attempted in art studio classes at Sonoma State College may not be favorably regarded by the Advanced Studio Practices Committee on the basis of grade point average alone. Thus applications for enrollment in upper division advanced studio classes may be denied. Major advisors should be consulted if such an average is not achieved, or is not anticipated, in art classes attempted within the first year.

COURSE REQUIREMENTS FOR ART MAJOR WITH STUDIO CONCENTRATION Freshman and Sophomore Years

202AB—Drawing	4 units
210, 211—Introduction to Art History	6 units
251—Introduction to Art Studio Practices	3 units
220—Painting	} A minimum of 4 courses selected from among these studio courses *
230—Sculpture	
240—Printmaking	
260—Ceramic Sculpture	
275—Multi-media Arts	
285—Filmmaking	8 units
Sub-total	21 units

* May be repeated for elective credit up to 6 additional units in each subject area.

Junior and Senior Years

302ABC—Advanced Drawing	5 units
418AB—History of Modern Art	6 units
A minimum total of 10 units is required in the area of emphasis; all courses in upper division advanced Studio areas. Subject areas for emphasis include Painting, Sculpture (metal, ceramic, general, synthetic), Printmaking, and Filmmaking	
	10 units
Subtotal	21 units
Total number of units required for major	42 units

The Art Department reserves the right to retain for its permanent collection representative examples of student work.

ART MAJOR WITH FILMMAKING EMPHASIS IN THE STUDIO CONCENTRATION FOR THE B.A. DEGREE

General Education	40 units
Major	46 units
Electives	38 units
Total	124 units

COURSE REQUIREMENTS FOR ART MAJOR WITH FILMMAKING EMPHASIS IN THE STUDIO CONCENTRATION

Freshman and Sophomore Years

202AB—Drawing	4 units
210, 211—Introduction to Art History	6 units
212—Introduction to the Film	4 units
251—Introduction to Art Studio Practices	3 units
220—Painting	} A minimum of 4 courses selected from among these studio courses *
230—Sculpture	
240—Printmaking	
260—Ceramic Sculpture	
275—Multi-media Arts	
285—Filmmaking	
Subtotal	25 units

Junior and Senior Years

302ABC—Advanced Drawing	2 units
418AB—History of Modern Art	6 units
452—Pro-seminar: Theory of the Film	3 units
485AB—Advanced Filmmaking	10 units †
Subtotal	21 units †

* May be repeated for elective credit up to 6 additional units in each subject area.

† A minimum total of 10 units is required in the area of emphasis. The B semester of advanced studio courses may be repeated twice (for a total of 9 units) subject to the approval of the departmental advisor and the instructor.

Total number of units required for major

‡ Students completing the Bachelor's Degree with filmmaking emphasis who intend to enter the credential program should take an additional 3 upper division units in the major.

ART**200. Basic Arts and Crafts (2) II**

A breadth of experiences in materials and processes related to art at the elementary and secondary levels.

†† 202A. Drawing. (2) I and II

A beginner's course in drawing from imagination and observation employing several media.

†† 202B. Drawing. (2) I and II

A beginner's course in drawing from imagination and observation employing several media.

210. Introduction to Art History (3) I

Painting, sculpture, and architecture of prehistoric and primitive cultures, ancient, classical, and medieval civilizations.

211. Introduction to Art History (3) II

Painting, sculpture, and architecture from the Renaissance to the present.

*** 212. Introduction to the Film (4)**

Historically representative and significant films are screened and discussed. Artistic and social values of the cinema as an art form. Lecture 3 hours, Laboratory 1 hour.

†† 220. Painting (2)

Studio course in painting in acrylic or oil media. Directed problems. Work from imagination, still life and the figure. Group and individual criticism.

Prerequisite or corequisite: 2 units of Art 202 or equivalent.

Corequisite for art studio majors only: Art 251.

*** 230. Sculpture (2)**

Studio course in three-dimensional media. Experience with basic sculptural materials and processes; directed problems. Group and individual criticism.

Prerequisite or corequisite: 2 units of Art 202 or equivalent.

Corequisite for art studio majors only: Art 251.

*** 240. Printmaking (2)**

Studio course with directed problems in various printmaking media including woodcut and linocut, etching, collagraph and engraving.

Prerequisite or corequisite: 2 units of Art 202 or equivalent.

Corequisite for art studio majors only: Art 251.

250. Introduction to Art (3) I and II

The creative process, the work of art, and the act of appreciation, with emphasis on appreciation as a creative act in terms of the validity for the individual of his own feelings and toward the end of providing a solid base for the discovery of the self in relation to the world of art. Not a survey of art history.

251. Introduction to Art Studio Practices (3)

Lecture, demonstration and directed studio projects designed to precede and/or accompany enrollment in studio courses. An introduction to art as an activity and a practice. Basic experience in the tools, crafts and practices in art studios.

* Laboratory fee may be charged in connection with this course.

†† Model fee may be charged in connection with this course.

Emphasis is placed on the art media and their applications as the means of self-expression. Two lectures and one 3-hour studio weekly. Open only to art studio majors. Required of all beginning or transfer art studio majors.

*** 260. Ceramic Sculpture (2)**

Studio course in working with ceramic clay as a sculptural material. Basic experience in hand-building of forms, firing and glazing. Group and individual criticism.

Corequisite for art studio majors only: Art 251.

275. Multi-media Arts (2)

Exploratory work in a variety of media not traditionally considered as fine-art media. Experience in application of these media as means for creative individual expression; emphasis is on experimentation rather than production. Course may explore kinetics, light, sound electronics, computers, and a broad spectrum of unrelated media as possible forms for artistic expression.

Corequisite for art studio majors only: Art 251.

*** 285. Filmmaking (2)**

Basic experience in the use of motion picture film as a creative medium. Directed problems in the use of 8 mm film. Group and individual criticism.

Corequisite for art studio majors only: Art 251.

295. Community Involvement Project (1-4)

Involves students in basic community problems. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

301. Assistance Projects (1-2)

Designed for advanced students to gain practical experience in the functions of art studios, workshops, classrooms or exhibition projects. Work under supervision of faculty or staff.

***† 302ABC. Advanced Drawing (2-2-1)**

Directed problems in drawing for the advanced student. Work from imagination or nature. Can be arranged as correlative drawing problems done in conjunction with advanced studio projects in area of emphasis, or independent study.

305 Mural Painting (3) I

Exploration of techniques of mural painting in a *secco* process. Emphasis is on the development of the student as a creative worker.

Prerequisite: For art majors or consent of instructor.

395. Community Involvement Project (1-4)

Involves students in basic community problems. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

*** 400. Curriculum of the Elementary School (Art) (2) II**

Consideration of the child's changing needs for artistic expression; methods for organizing and presentation for different age levels and classroom situations. Labora-

* Laboratory fee may be charged in connection with this course.

† The B (or C) semester of advanced studio courses may be repeated twice subject to the approval of the departmental advisor and the instructor.

Art

tory work, lectures, reading, and general discussion of current problems in art education.

Enrollment limited to students admitted to Elementary Education Curriculum, or by consent of instructor.

For Secondary School Curriculum and Instruction see course 522I in the Education Curriculum.

404AB. History of Printmaking (3-3)

Development of the principal media of printmaking from their origins to the present time.

Prerequisite: Art 211 or equivalent.

405. Prehistoric Art of Europe and the Americas (3)

History of the arts and architecture of the pre-literate Old World and the pre-Columbian New World.

406. African and Oceanian Art (3)

History of the arts and architecture of Black Africa and of Oceania before European conquest.

407. Pre-Classical Art (3)

History of the arts and architecture of Egypt, Crete, and the Near East before the conquests of Alexander the Great.

408. Greek Art (3)

History of ancient Mycenaean and Greek art and architecture.

409. Roman Art (3)

Etruscan and Roman art and architecture to the time of Constantine.

410. Early Christian and Byzantine Art (3)

Christian art and architecture through the eighth century in the West and the end of Byzantine dominance in the East.

411. Carolingian, Ottonian, and Romanesque Art (3)

Western European art and architecture from the late eighth through the mid twelfth centuries.

412. Gothic Art (3)

The art and architecture of Western Europe from the twelfth through the fifteenth centuries.

413. Northern Renaissance Art (3)

Painting, printmaking, sculpture, and architecture of the Fifteenth and Sixteenth Centuries in Europe apart from Italy.

414. Northern Baroque Art (3)

Non-Italian art of Europe and Colonial America during the Seventeenth Century.

415AB. Italian Renaissance Art (3-3)

Painting, sculpture, and architecture in Italy of the Fifteenth and Sixteenth Centuries.

415C. Italian Baroque Art (3)

Italian painting, sculpture, and architecture from Caravaggio and the Carracci to G. B. Tiepolo and his followers (ca. 1590 to 1790).

416. Eighteenth Century Art (3)

Rococo and contemporary developments in the arts and architecture of Europe and Colonial America to the time of the French Revolution.

417AB. Oriental Art (3-3)

The arts of India and Indonesia, of China and Japan from their origins to modern times.

418AB. History of Modern Art (3-3)

Painting, sculpture, and architecture of the Western World from the French Revolution to the present time: Neo-Classicism, Romanticism, Realism and Naturalism, Impressionism and Pointillism, Post-Impressionism, Fauvism and Expressionism, Dada and Surrealism, Cubism, Futurism, Abstraction, Abstract Expressionism, The New Realism and other recent developments.

Prerequisite: For art majors or consent of instructor.

419. Modern Architecture (3)

Architectural developments from ca. 1750 to 1950 in relation to the thought of the period and to currents of expression in the other artistic media.

†† 420AB. Advanced Painting (3-3) I and II

Prerequisite: Art 220 or equivalent.

425A. Materials and Techniques of the Artist (3)

The materials and methods of the visual arts. Historical survey of materials and techniques and an exploration of new media and their applications. Lecture and demonstration. Limited to Art Majors with prerequisite of 2 units of Drawing and 2 units of Painting or Sculpture, or with consent of instructor.

425B. Materials and Techniques of the Sculptor (3)

Materials, tools and techniques of the artist working in three dimensional media. Lecture, demonstration and directed projects in understanding and manipulation of traditional and experimental sculptural methods. Limited to enrollment as in 425A.

(Note: 425A and B to be offered alternate years).

†° 430AB. Advanced Sculpture (3-3)

Studio work in metal as a sculptural material; brazing, welding, and founding.

Prerequisite: Art 230 or equivalent.

†° 431AB. Advanced Sculpture, Synthetics (3-3)

Studio work in synthetics as sculptural materials, thermoplastics and thermo-setting plastics.

Prerequisite: Art 230 or consent of instructor.

†° 440AB. Advanced Printmaking (3-3)

Advanced problems in relief and intaglio methods.

Prerequisite: Art 240 or equivalent.

450. Pro-Seminar in Art Historical Method (3)

Concentration on the discipline and philosophy of art historical studies. Emphasis will be placed on formal and stylistic problems. Readings designed to stress the variety of relevant approaches possible to a given problem. Approval of instructor required of non-majors.

° Laboratory fee may be charged in connection with this course.

† The B semester of advanced studio courses may be repeated twice (for a total of 9 units) subject to the approval of the departmental advisor and the instructor.

†† Model fee may be charged in connection with this course.

Art

451. Pro-seminar: Creativity and the Individual (3) I

Designed to assist the student to deepen his awareness of himself in relation to the creative process. Includes review and study of recent research on creativity in Science, the Arts, and other relevant disciplines.

Approval of instructor required of non-majors.

Upon consultation with the advisor an appropriate Psychology class dealing with creativity can be used to fulfill this requirement.

452. Pro-Seminar: Theory of the Film (3)

Investigation of the nature of the film medium. Analysis and comparison of selected theoretical approaches. Examination and application of aesthetic considerations.

Prerequisite: Art 285 or consent of instructor.

†* 460AB. Advanced Ceramic Sculpture (3-3)

Studio work in ceramic sculpture with an emphasis on individual research and experimentation.

Prerequisite: Art 260 or consent of instructor.

475AB. Advanced Multi-Media Arts (3-3)

Studio work, or individual projects, in any of a variety of media. Course may explore kinetics, light, sound, electronics, computers, and a broad spectrum of unrelated media as possible forms for artistic expression.

†* 485AB. Advanced Filmmaking (3)

Application of advanced methods to individual projects. Completion of film compositions (8mm or 16mm) utilizing contemporary available techniques including: optical effects, creative montage, film printing and processing, sound track construction, experimental devices, stylistic development of camera operation, methods of distribution, and public presentation.

Prerequisite: Art 285 or consent of instructor.

495. Independent Study for Majors or Minors (1 to 3) I and II

499. Special Problems (1 or 2) I and II

* Laboratory fee may be charged in connection with this course.

† The B semester of advanced studio courses may be repeated twice (for a total of 9 units) subject to the approval of the departmental advisor and the instructor.

ASTRONOMY

(Division of Natural Sciences)

Samuel L. Greene, George L. Johnston

Completion of a minimum of 20 units in Astronomy and physical science courses, at least 12 of which must be in Astronomy, will constitute a minor in Astronomy. Interested students should consult with an advisor in the Department of Physics regarding their programs.

100. Introductory Astronomy (3) I and II

Lecture, 3 hours.

Greek and medieval astronomy; Newton's Laws; gravitation; atomic structure, light and telescopes. The solar system; spaceflight; stars and stellar evolution; interstellar matter; star clusters; galaxies; the universe.

231. Astronomical Measurements (2) I

Laboratory, 6 hours.

Field and laboratory studies of astronomical objects. Identification of constellations, astronomical coordinates, use of the telescope, simple techniques in spectroscopy and photography.

Prerequisite: Astronomy 100 or consent of instructor.

300. Cosmology and Extraterrestrial Intelligence (3) II

Lecture, 3 hours.

A largely descriptive survey. Theories of the universe, as advocated by the Greeks, Newton, Einstein, Lemaitre, Gamow, Hoyle, etc. Cosmological implications of recent discoveries. Theories of the origin of life; conditions for extraterrestrial intelligence; problems of communication.

Prerequisite: Astronomy 100 or equivalent.

310AB. Introductory Astrophysics (3-3)

Lecture, 3 hours.

Astrophysical quantities; stellar and interstellar spectroscopy; stellar and galactic structure and evolution; quasars; pulsars, cosmology.

Prerequisite: Physics 210B or Physics 215C; Math 190 or Math 212.

320. Space and Planetary Physics (3) I

Lecture, 3 hours.

The Earth's environment in space. The solar wind; interplanetary magnetic phenomena; meteors; dust and gas. Planetary formation; the surfaces and atmospheres of the planets; theories of planetary interiors.

Prerequisite: Astronomy 310AB; Math 262 or 290; or consent of instructor.

410. Stellar Structure and Evolution (3) II

Lecture, 3 hours.

The theoretical history of a star is followed from its condensation from a gas cloud to its ending as a white dwarf or neutron star. Structural equations are derived and studied for the various stages of the process.

Prerequisite: Astronomy 310AB or consent of instructor.

431. Astrophysical Measurement Techniques (3) I

Laboratory, 9 hours.

A study of those experimental techniques in Physics which are particularly applicable to Astrophysics.

Prerequisite: Astronomy 231 or consent of instructor.

Astronomy

480. Recent Developments in Astronomy (3) II

Lecture, 3 hours.

Selected research papers and review articles on rapidly developing areas of Astronomy will be read and discussed. Examples of possible topics: quasars, pulsars, gamma ray, x-ray and infrared Astronomy; Cosmology.

Prerequisite: Consent of instructor.

495. Independent Study (1-3) I and II

499. Special Problems in Astronomy (1-2) I and II

BIOLOGY

(Division of Natural Sciences)

Wesley W. Ebert, Chairman of Department

John Arnold, Ruth Blitz, Joe Brumbaugh, Ralph Bushnell, Galen Clothier, David Hanes, Colin Hermans, John Hopkirk, Donald Isaac, John Iversen, Chris Kjeldsen, F. Russell Lockner, Thomas Porter, Joe Powell, Kenneth Stocking

The major in biology is recognized as the basis for B.A., M.A., and Ph.D. degree in biology, botany, and zoology.

The Department of Biology offers the undergraduate a broadly-based major in the biological sciences. This does not preclude the possibility of electing areas of specialization within the broader major.

BIOLOGY MAJOR FOR THE B.A. DEGREE

General Education	40 units
Foreign Language	0- 8 units
Physical science (15-18 units, 5 applied in G.E.)	10-13 units
Biological sciences (40 units, 4 applied in G.E.)	36 units
Electives	38-27 units
	<hr/>
	124 units

BIOLOGY MAJOR COURSE REQUIREMENTS

Lower Division

Knowledge of the fundamentals of biology	
Biology 115—Principles of Life Science (4 units, applied in G.E.)	0 unit
Biology 116—Plant Science	4 units
Biology 117—Animal Science	4 units

Upper Division

A minimum of 28 units of upper division courses, to include one course from each of the following groups:

- A. (4 units) Biology 400 Ecology
 Biology 430 Plant Taxonomy
 Biology 438 Phycology
 Biology 450 Natural History of Invertebrates
 Biology 458 Natural History of Vertebrates
- B. (3-4 units) Biology 320 General Genetics
 Biology 321 General Genetics Lab
 Biology 322 Genetics and Human Heredity
- C. (4 units) Biology 315 General Physiology
 Biology 324 Animal Physiology
 Biology 334 Plant Physiology
- D. (3-5 units) Biology 340 General Bacteriology
 Biology 437 Plant Anatomy
 Biology 440 Plant Morphology I
 Biology 441 Plant Morphology II
 Biology 451 Functional Morphology of Marine Invertebrates I
 Biology 452 Functional Morphology of Marine Invertebrates II
 Biology 470 Comparative Anatomy of Vertebrates
 Biology 472 Vertebrate Embryology

E. Other courses in upper division biology to reflect students' interests, areas of specialization, or career objectives. Courses selected in consultation with departmental advisor and/or from suggested plans.

Biology

Students seeking recommendation for a teaching credential with a major in biology must include a course covering the biological techniques. It is recommended that they have a balance of courses emphasizing the broad aspects of both plant and animal systematics and a course in the history of biology.

ADVISORY PLANS FOR THE BIOLOGY MAJOR

The following are three broad plans, which are designed to provide guidelines, for majors who wish to advance toward a specific goal in the biology major.

Consultation with your departmental advisor regarding specific course patterns within this program is strongly recommended. Careful note should be made of prerequisites for advanced courses or other particular requirements of specific goal objectives.

Plan I

This plan within the biology major is designed as a guide for students planning careers in fields such as elementary teaching, national park service, state park, junior museums or similar programs.

General Education	40 units
Physical Science (15-18 units, 5 in G.E.)	10-13 units

The student is advised to consult with a departmental advisor regarding applicability of particular courses. Courses in the following areas are recommended: Fundamentals of Chemistry, Physics, and Geology

Biology	
<i>Lower Division Biology (required)</i>	8 units
Biology 115, 116, and 117 (12 units, of which 4 units apply to G.E. and 8 units to major) or equivalent.	
<i>Upper Division Biology (required)</i>	14-17 units
One course each from Group A, B, C, and D. (Note specific prerequisites if Biology 324 or 334 is selected from Group C.)	
<i>Upper Division Biology (electives)</i>	14-11 units
It is recommended that a broad spectrum of field courses be included. Students should consult with departmental advisor.	
<i>Additional Electives</i>	38-35 units

The following non-science courses other than General Education are recommended for students following this plan.

History 473—Contemporary California
English 461—American Folklore

Plan II

This program is designed for students interested in entering fields such as secondary education, marine biology, research service in agriculture, pre-dentistry, pre-medicine, pre-pharmacy, pre-veterinary medicine or as an academic major preparatory to continued work at the post-graduate level in such disciplines as genetics, physiology, developmental biology, marine biology, animal behavior, or similar programs.

General Education	40 units
Physical Science (15-18 units, 5 in G.E.)	10-13 units

The following or their equivalents are recommended:

Chem. 115AB or Chem. 125AB
General Chemistry (10 units)
Chem. 232 or 340
Introductory Organic or Introductory
Biochemistry (4-3 units)

Physics 212 or Physics 210AB or Geology 210
 A survey of Introductory Physics or
 General Physics or Principles of Geology
 (3-8 units)

Biology

Lower Division Biology (required) 8 units

Biology 115, 116, and 117 (12 units, of which 4 units apply
 to G.E. and 8 units to major) or equivalent.

Upper Division Biology (required) 14-17 units

One course each from Group A, B, C, and D. Biology 324 or
 334 is recommended from Group C.

Upper Division Biology (electives) 14-11 units

Courses chosen will reflect areas of specialization and/or career
 objectives. Students should consult with a departmental advisor
 and are advised to investigate requirements of other institutions
 if transfer to graduate or professional schools is anticipated.

Additional Electives 38-35 units

The following courses are highly recommended:

Chem. 310—Introductory Physical Chemistry

Chem. 440AB—Biochemistry

Chem. 441—Biochemical Methods

Math. 165—Elementary Statistics

Math. 162, 212—Calculus with Applications I and II

A reading knowledge in French, German, or Russian is recom-
 mended for students planning on graduate work.

Plan III

This program is designed for students interested in entering fields such as
 clinical laboratory technology, public health microbiology, related paramedical and
 research laboratories, or an academic major preparatory to continued work at the
 postgraduate level in such disciplines as microbiology, cellular biology, or similar
 programs.

General Education 40 units

Physical Science (15-18 units, 5 in G.E.) 10-13 units

The following or their equivalents are recommended:

Chem. 115AB or Chem. 125AB

General Chemistry (10 units)

(Chem. 255—Analytical Chemistry or equivalent is recom-
 mended if Chem. 115AB is taken)

Chem. 232—Introductory Organic Chemistry (4 units)

Physics 210A—General Physics (4 units)

Biology

Lower Division Biology (required) 8 units

Biology 115, 116, and 117 (12 units, of which 4 units apply to
 G.E. and 8 units to major) or equivalent.

Upper Division Biology (required) 14-17 units

One course each from Group A, B, C, and D. Biology 324 or
 334 is recommended from Group C.

Upper Division Biology (required) 14-11 units

Students should consult with a departmental advisor regarding
 electives chosen from the following:

Biol. 340 Bacteriology

480 Immunology

Biology

- 481 Infection and Disease I
- 482 Infection and Disease II
- 484 Hematology
- 423 Radiation Biology
- 424 Cell Physiology
- 425 General Cytology
- 439 Mycology
- 455 Entomology

Additional Electives38-35 units

The following are essential supporting courses for this plan:

Chem. 340 and 441—Introductory Biochemistry and Biochemical Methods

or

Chem. 440AB and 441—Biochemistry and Biochemical Methods

Physics 210B—General Physics

Math. 165—Elementary Statistics

or

Math. 162, 212—Calculus with Applications I and II

Strongly recommended: Additional applicable courses when offered as Biol. 496, 497 or in the graduate level listing. A reading knowledge of French, German, or Russian is highly recommended.

MEDICAL TECHNOLOGY

It is recommended that students interested in becoming Medical Technologists choose the following upper division biology courses: Group A, Biol. 458; Group B, Biol. 322; Group C, Biol. 324; Group D, Biol. 340; Electives, Biol. 480, 481, 482, 484, and 439. Students following these recommendations for the B.A. in Biology will be eligible for a 12-month traineeship in an approved clinical laboratory.

MINOR IN BIOLOGY

(A minimum of 20 units with a GPA of 2.0 or above.)

Biology 115 Principles of Life Science.....	4 units
Biology 116 Plant Science.....	4 units
Biology 117 Animal Science.....	4 units
Upper Division to include one laboratory and one field oriented course....	8 units
	<hr/>
	20 units

In addition, the candidate for the teaching credential with a minor in Biology will be required to take Education 403, Curriculum in Elementary School Science, or Education 522B Secondary School Curriculum and Instruction (Biological Science). The teaching minor program must be approved by the Chairman of the Department of Biology or his representative. Students are urged to seek this approval not later than the junior year.

BIOLOGY AND MATHEMATICS*

A DIVERSIFIED MAJOR FOR THE B.A. DEGREE

This diversified major is designed for students who want a broad background in the biological sciences and mathematics. The major consists of 24 upper division units to be taken in mathematics and biological sciences. It is an appropriate major

* For course descriptions in Math., see page 193.

for, but not limited to, students preparing for the elementary school credential. The general unit breakdown is as follows:

General Education	40 units
Mathematics	16 units
Biological Sciences	18 units
Electives	50 units

COURSE REQUIREMENTS

A. Mathematics

A 3 unit course satisfying the General Education requirement.....	0 units
Math. 140—Calculus I	4 units
Math. 300—Elementary School Math.....	3 units
Math. 301—Secondary School Math. or 308 College Geometry.....	3 units
Math. 165—Elementary Statistics	3 units
Math. 306—Number Theory or Math. 410 History of Math.....	3 units

B. Biology

Biol. 115—Principles of Biol. (4 units, all Gen. Ed.).....	0 units
Biol. 116—Plant Science (4 units, 2 Gen. Ed.).....	2 units
Biol. 117—Animal Science	4 units
Additional courses (all upper division) selected from Biol. 302, 314, 320, 321, 322, 400, 415, 490 with at least one lab and one field course, with Biol. 314 strongly recommended.....	12 units

MASTER OF ARTS DEGREE IN BIOLOGY

Since the fall of 1966, Sonoma State College has offered a program leading to the Master of Arts in Biology. The following statements outline the policies of the Biology Department governing this graduate degree program and attempt to answer most of a student's questions as he proceeds through candidacy to the degree.

I. Scope and Objectives

The Master of Arts in Biology embodies the objectives of increasing the candidate's knowledge and expertise in the area of his thesis and expanding his understanding and ability to communicate the concepts of biology.

II. Admission to Classified Status

A. Requirements

A maximum of 15 units taken as an unclassified graduate may, with the approval of the candidate's thesis committee, be applied towards the master's degree. To become a classified graduate student the applicant must show evidence of the following.

1. A Bachelor's Degree with an undergraduate major in Biology or a related field from an accredited college or university.
2. A high standard of scholarship in his undergraduate major and a grade point average of 3.0 in upper division. A student with an undergraduate deficiency may be considered for classified status after demonstrating a high standard of scholarship as an unclassified graduate student.
3. Completion of the Graduate Record Examination with a combined score of 1000 in verbal and quantitative.
4. Acceptance by the departmental graduate committee and by a thesis advisor.

B. Application Dates

Applications for acceptance to classified status must be received by the Department by March 15 for admission for the fall semester. Applicants will be notified

Biology

of action taken by the Department by April 15. Corresponding dates for the spring semester are November 15 and December 15. Students seeking assistantships should indicate this on their applications. A student who is not eligible for classified status may register as an unclassified graduate.

III. Requirements for the Completion of the M.A.

A. Completion of 30 units of approved graduate study, 18 of which must be in biology, with at least an accumulative 3.0 grade point average.

B. Completion of at least 12 non-thesis units in 500 level biology courses.

C. Fifteen units must be taken after a student is admitted to classified standing for the M.A. degree. Students are urged to apply for classified standing as early as possible. All course work taken during the semester in which the student is admitted to classified standing will be counted.

D. A maximum of 6 units of extension or transfer credit, or combination of the two, may be allowed, subject to approval of the candidate's thesis committee.

E. A maximum of 6 units credit may be granted for the thesis.

F. Completion of acceptable course work concerned with the scope and depth of biology as determined by the thesis committee.

G. Passage of a comprehensive examination at least one semester before the thesis is submitted. The examination, oral or written, will be administered by the candidate's thesis committee. The candidate will be examined in the concepts of general biology and in areas related to his research.

H. Demonstration of reading knowledge of a foreign language not later than one semester before acceptance of the thesis. Ordinarily this will be in German, French or Russian. Demonstrated ability must be approved by the candidate's thesis committee.

I. Acceptance of a thesis by the candidate's thesis committee.

J. Consultation with the committee on the content of the thesis seminar.

K. Final presentation of the thesis in a seminar open to all faculty and students.

BIOLOGY

110. The Evolution of Life on Earth (3)

Lecture, 2 hours; laboratory, 3 hours.

A General Education course in which living beings, including man, are examined and interpreted from an evolutionary viewpoint.

Prerequisites: None.

111. Man and His Environment (3)

Lecture, 2 hours; laboratory or field, 3 hours.

A General Education course in which man and other living beings are studied in their relationships with each other and with the earth which they share.

Prerequisites: None.

112. Introduction to Oceanology (3)

Lecture, 2 hours; laboratory, 3 hours.

A course designed to give a broad general background in the science of oceanology, with emphasis on the relationships between oceanology and other fields.

Prerequisites: High school biology and chemistry.

114. Introduction to Behavioral Biology (3)

Lecture, 2 hours; laboratory 3 hours.

The nature and evolution of behavior of animals (including man) with particular emphasis on vertebrate animals.

Prerequisite: None.

115. Principles of Life Science (4)

Lecture, 2 hours; laboratory, 6 hours.

Basic concepts and principles of molecular and cellular biology, cellular physiology, systematics, cell division, reproduction, heredity, and evolution.

Prerequisites: High school chemistry or equivalent.

116. Plant Science (4)

Lecture, 2 hours; laboratory, 6 hours.

An introduction to the plant kingdom with emphasis on various forms and groups.

Prerequisites: Biology 115 strongly recommended.

117. Animal Science (4)

Lecture, 2 hours; laboratory, 6 hours.

An introduction to the characteristics of the major groups of the animal kingdom.

Prerequisites: Biology 115 strongly recommended.

200. Trees and Shrubs (3)

Lecture, 2 hours; laboratory or field, 3 hours.

The ecology, evolutionary relationships, and identification of native and exotic woody plants.

Prerequisites: None.

224. Human Physiology (5)

Lecture, 3 hours; laboratory, 6 hours.

An introductory course in the principles of physiology as they relate to the processes, activities, and phenomena of the living human body.

Prerequisites: Chemistry 102 or equivalent, Biology 115.

302. Biological Techniques (3)

Lecture, 1 hour; laboratory, 6 hours.

A course designed to teach the commoner field and laboratory techniques used by biologists in the preparation of specimens both microscopic and macroscopic.

Prerequisites: Three units in biological sciences and three units in physical sciences.

305. Conservation of the Natural Resources (3)

Lecture, 3 hours.

Study of the biological resources and means of their intelligent use and preservation.

Prerequisites: None.

310. Human Anatomy (3)

Lecture, 2 hours; laboratory, 3 hours.

A course surveying the body systems. Designed for Health Education and Physical Education Majors.

Prerequisites: Biology 115 and Physics 100 or Chemistry 102.

314. Field Biology (3)

Lecture, 2 hours; laboratory, or field, 3 hours.

Prerequisite: A minimum of three units in biological science, or permission of instructor.

315. General Physiology (4)

Lecture, 2 hours; laboratory 6 hours.

Biology

A general survey of plant, animal, and cellular function designed as a terminal course in physiology. Topics include nutrition, metabolism, water balance, regulation, respiration, transport, excretion, integration and photosynthesis.

Prerequisites: Biology 115, 116, and 117 and Chemistry 102 or equivalent.

320. General Genetics (3)

Lecture, 3 hours.

An introduction to genetics; the principles of Mendelian heredity are correlated with the recent advances in molecular genetics. Some consideration is given to the application of genetics with reference to agriculture, biology, and man.

Prerequisites: Knowledge of basic biology, and chemical and physical principles.

321. General Genetics Laboratory (1)

Laboratory, 3 hours.

Exercises are carried out which will guide the student in performing certain genetics experiments. These experiments are carried out through actual contact with various organisms such as *Drosophila*, *Hordeum*, *Neurospora*, *E. coli*, and Phage.

Prerequisites: Biology 320 or 322, or concurrent registration.

322. Genetics and Human Heredity (3)

Lecture, 3 hours.

An introduction to basic principles of genetics and their application to human heredity.

Prerequisites: An introductory biology course.

324. Animal Physiology (4)

Lecture, 2 hours; laboratory, 6 hours.

Basic principles and concepts of general animal function.

Prerequisites: Biology 115 and Biology 117, Chemistry 115AB or Chemistry 125AB.

332. Plants and Man (3)

Lecture, 3 hours; field trips.

Plants and their characteristics which have uniquely influenced economics, sociology, history, art and literature.

Prerequisite: Upper division standing.

334. Plant Physiology (4)

Lecture, 2 hours; laboratory, 6 hours.

Basic concepts and fundamental principles of the various aspects of plant physiology. The following areas are investigated in detail: photosynthesis, water relations, mineral nutrition, and plant growth regulation.

Prerequisites: Biology 115 and 116 and Chemistry 115AB or Chemistry 125AB.

340. General Bacteriology (5)

Lecture, 3 hours; laboratory, 6 hours.

A survey of the fundamental principles and techniques of bacteriology.

Prerequisites: Biology 115 and 116 and Chemistry 115AB or Chemistry 125AB.

400. Ecology (4)

Lecture, 2 hours; laboratory or field, 6 hours.

Study of general principles relating to populations, natural communities, and ecosystems.

Prerequisites: Biology 115, 116 and 117, or consent of instructor.

401. Marine Ecology (4)

Lecture, 2 hours; laboratory or field, 6 hours

The marine environment and the biology of the organisms therein. The course embraces broad aspects of the interrelations of organisms and their environment.

Prerequisites: Biology 400 and a course in marine fauna or flora.

415. Evolution (3)

Lecture, 3 hours.

A study of the organic processes of evolution with major emphasis on the "how" and "why" of evolution.

Prerequisites: Biology 115, 116 and 117, or consent of instructor. Biology 320 or 322 strongly recommended.

416. Biogeography (4)

Lecture, 2 hours; laboratory, 6 hours; some overnight field trips. Study of patterns of geographic distribution of terrestrial plants and animals with explanations based on ecology and evolution.

Prerequisites: Advanced upper division standing. A course in field biology, such as Biology 400, 430, 440, 450, or 458; and a course in earth science, such as Geography 302 or Geology 210.

417. Paleontology (4)

Lecture, 3 hours; laboratory and/or field, 3 hours.

An introduction to the morphology, taxonomy and evolution of invertebrate and vertebrate fossil faunas and of fossil plants.

Prerequisites: Biology 115, 116, and 117 and an Introductory Geology course or consent of instructor.

423. Radiation Biology (3)

Lecture, 2 hours; laboratory 3 hours.

A course concerned with effects of natural and artificial radioactive isotopes on life processes. Ultraviolet and cosmic rays are also considered. Effects of radiations on reproduction, chromosome, and gene replication, cell permeability and length of life are considered.

Prerequisites: Biology 115, 116 and 117 and Chemistry 232 or equivalent.

424. Cellular Physiology (4)

Lecture, 2 hours; laboratory, 6 hours.

Basic principles and concepts of physiological and biochemical function at the cellular level.

Prerequisites: Biology 324 or 334; Chemistry 232, or equivalent.

425. General Cytology (4)

Lecture, 2 hours; laboratory, 6 hours.

Microscopy as it relates to cytology. Structural and functional organization of the animal and plant cell as a unit: Cytoplasm and cytoplasmic inclusions, the nucleus, chromosome structure and duplication during mitosis and meiosis, the cytology of gametogenesis and reproduction.

Prerequisites: Biology 115, 116, and 117, or consent of instructor.

430. Plant Taxonomy (4)

Lecture, 2 hours; laboratory or field, 6 hours.

An introductory course in biosystematics and nomenclature with emphasis on field work with the California flora.

Prerequisites: Biology 115 and 116, or consent of instructor.

Biology

437. Plant Anatomy (4)

Lecture, 2 hours; laboratory, 6 hours.

The ontogenetic development of the structural features of the vascular plants are studied. This involves the study of individual cell types, tissues, and tissue systems.

Prerequisites: Biology 115 and 116.

438. Phycology (4)

Lecture, 2 hours; laboratory, 6 hours.

The study of marine and freshwater algae, their structure, reproduction, ecology, taxonomy, physiology, and economic importance.

Prerequisites: Biology 115 and 116, Biology 440 and/or 450 strongly recommended.

439. Mycology (4)

Lecture, 2 hours; laboratory, 6 hours.

Introduction to structure, physiology, relationships, life cycles, and genetics of selected species of fungi.

Prerequisites: Biology 340 or may be taken concurrently.

440. Plant Morphology I (3)

Lecture, 2 hours; laboratory, 3 hours.

A survey of the algae and fungi with emphasis on comparative morphology, ecology, and evolution.

Prerequisites: Biology 115 and 116.

441. Plant Morphology II (3)

Lecture, 2 hours; laboratory, 3 hours.

A survey of the Bryophytes and vascular plants with emphasis on comparative morphology, ecology, and evolution.

Prerequisites: Biology 115 and 116. Biology 440 strongly recommended.

450. Natural History of the Invertebrates (4)

Lecture, 2 hours; laboratory or field, 6 hours.

Identification and ecology of local invertebrate fauna. The course considers some of the environmental stresses facing the organisms and structural and behavioral adaptations that have evolved in various invertebrate groups in order to meet these stresses.

Prerequisites: Biology 115, 116, and 117.

451. Functional Morphology of Marine Invertebrates I (4)

Lecture, 2 hours; laboratory, 6 hours.

Study of the evolutionary relationships of the Lower Phyla, Echinoderms, and Protochordates with evidences drawn from comparative anatomy, comparative embryology, comparative biochemistry, and paleontology.

Prerequisites: Biology 115 and 117. Biology 450 strongly recommended.

452. Functional Morphology of Marine Invertebrates II (4)

Lecture 2 hours; laboratory, 6 hours.

Continuation of Biology 451. Molluscs, annelids, arthropods, and allied minor phyla. While the two courses form a continuous sequence, either may be taken separately.

Prerequisites: Biology 115 and 117. Biology 450 and 451 strongly recommended.

455. Entomology (4)

Lecture, 2 hours; laboratory, 6 hours.

Basic concepts and fundamental principles to the study of insects. Major areas investigated include the taxonomy, morphology, development, ecology, and physiology of insects.

Prerequisites: Biology 115, 116, and 117.

456. Insect Taxonomy (4)

Lecture and/or discussion, 3 hours; laboratory, 3 hours.

An examination of insects and their classification. Some field work.

Prerequisite: Biology 455.

458. Natural History of the Vertebrates (4)

Lecture, 2 hours; laboratory, 6 hours, at least one weekend field trip. Studies on the basic anatomy, systematics, and ecology of vertebrate animals—fish, amphibia, reptiles, birds, and mammals.

Prerequisites: Biology 115 and 117, or consent of instructor.

460. Ichthyology (3)

Lecture, 1 hour; laboratory or field, 6 hours. At least one weekend field trip.

An introduction to systematic and ecological ichthyology.

Prerequisites: Biology 115 and 117, or consent of instructor.

462. Herpetology (3)

Lecture, 1 hour; laboratory, 6 hours; plus two weekend field trips.

The biology of amphibians and reptiles; a survey of the amphibians and reptiles in terms of comparative morphology, classification, distribution, ecology, and evolutionary history.

Prerequisites: Biology 115 and 117. Biology 458 and/or 470 strongly recommended.

465. Ornithology (3)

Lecture, 1 hour; laboratory and field, 6 hours.

This course progresses from basic avian anatomy through a study of feathers and plumages to the life histories of birds including such topics as molts, distribution, migration, breeding habits, etc. Basic classification is learned in the laboratory and in the field.

Prerequisites: Biology 115 and 117, or consent of instructor.

468. Mammalogy (3)

Lecture, 1 hour; laboratory and field, 6 hours.

Fundamentals of mammalian anatomy, classification, distribution, and ecology.

Prerequisites: Biology 115 and 117, or consent of instructor.

470. Comparative Anatomy of Vertebrates (4)

Lecture, 2 hours; laboratory, 6 hours.

Morphogenesis and evolutionary development of vertebrate structure.

Prerequisites: Biology 115 and 117.

472. Vertebrate Embryology (4)

Lecture, 2 hours; laboratory, 6 hours.

Developmental morphology and physiology of the vertebrates.

Prerequisites: Biology 115 and 117.

475. Animal Behavior (4)

Lecture, 2 hours; laboratory, 6 hours.

A discussion of: both the classical concepts of innate behavior and experimental studies; the endogenous and exogenous mechanisms which control behavior; and ecological and evolutionary adaptations of behavioral patterns.

Prerequisites: Biology 324. Biology 450 or 458 strongly recommended.

Biology

480. Immunology (5)

Lecture, 3 hours; laboratory, 6 hours.

The component elements of the immune response; antigens and antibodies; theories of antibody synthesis, cellular reactivities; hypersensitivity; immunogenetics.

Prerequisites: Biology 115 and 117; Chemistry 232. Biology 340 strongly recommended.

481. Infection and Disease I (5)

Lecture, 3 hours; laboratory, 6 hours.

Principles of host-parasite relationships. Etiology, immunology, and epidemiology of infections of major importance to man. Laboratory techniques for the isolation and identification of pathogens. Pathogens studied: helminths, protozoa, fungi, and bacteria.

Prerequisites: Biology 340 or consent of the instructor.

482. Infection and Disease II (5)

Lecture, 3 hours; laboratory, 6 hours.

Continuation of Infection and Disease I. Pathogens studied: mycoplasma, rickettsiae, chlamydiae, and viruses. While the two courses form a continuous sequence, either may be taken separately.

Prerequisites: Biology 340 or consent of the instructor. Biology 481 strongly recommended.

484. Hematology (3)

Lecture, 2 hours; laboratory, 3 hours.

A detailed study of the chemistry, physics, and morphology of blood.

Prerequisites: Chemistry 232, Physics 210A, and Biology 115 or equivalent.

490. History of Biology (2)

Lecture, 2 hours.

A concise history and presentation of the ideas in development of major concepts in the biological sciences.

Prerequisites: Senior or graduate standing in biology or consent of instructor.

495. Independent Study for Majors or Minors (1-3)

Prerequisites: A major or minor in biology with upper division standing and consent of instructor and department chairman.

496. Senior Seminar in Biology (1)

A seminar dealing with a particular biological topic for biology majors with advanced standing. The seminar may be repeated for credit and may be applicable to the requirements for a major in biology.

Prerequisites: Biology majors with advanced standing by consent of instructor.

497. Topics in Biology (2-4)

A course dealing with intensive study of a particular biological topic. The topic will vary from semester to semester. The course may be repeated for credit and may be applicable to the requirements for a major in biology.

Prerequisites: Biology majors with advanced standing by consent of instructor.

499. Biology—Special Problems (1-2)

Prerequisites: Approval of advisor, Department Chairman, and Dean of the Faculty.

500. Graduate Seminar in Biology (1-2)

A master's degree candidate may take from one to four seminars including no more than one in each of the following subject areas of biology: Molecular, Cellular, Developmental, Genetic, Structural, Systematic, and Environmental Biology.

Prerequisites: Graduate standing or last semester senior with consent of instructor.

510. Selected Topics in Biology (2-4)

Prerequisites: Adequate undergraduate preparation in the topic under consideration and graduate standing or last semester senior with consent of instructor.

511. Selected Topics in Physiology (2-4)

Prerequisites: Adequate undergraduate preparation in the topic under consideration and graduate standing or last semester senior with consent of instructor.

512. Selected Topics in Systematics, Genetics and Evolution (2-4)

Prerequisites: Adequate undergraduate preparation in the topic under consideration and graduate standing or last semester senior with consent of instructor.

513. Selected Topics in Ecology (2-4)

Prerequisites: Adequate undergraduate preparation in the topic under consideration and graduate standing or last semester senior with consent of instructor.

514. Selected Topics in Morphology and Development (2-4)

Prerequisites: Adequate undergraduate preparation in the topic under consideration and graduate standing or last semester senior with consent of instructor.

523. Radioactive Tracers in Biology (2)

Discussion, 1 hour; laboratory, 3 hours.

An examination of methods of using radioactive precursors and liquid scintillation counting as well as radioautography in biological research.

Prerequisites: Biology 423 or Biology 424 or Biology 340 or Chemistry 340 or consent of instructor.

525. Biological Electron Microscopy (4)

Lecture, 2 hours; laboratory, 6 hours.

A study of the techniques of electron microscopy with laboratory experience in preparation of biological materials, transmission electron microscopy, and photographic techniques of data presentation.

Prerequisites: Biology 425 (Cytology) or strong background in biochemistry or biophysics and consent of instructor.

595. Special Studies in Biology (1-3)

Prerequisites: Graduate standing and consent of instructor and major advisor.

599. M.A. Thesis (3-3)

Prerequisites: See Master's Degree requirements.

CHEMISTRY

(Division of Natural Sciences)

Robert Holmes, Chairman of Department

F. Leslie Brooks, Vincent Hoagland, Marvin Kientz, Donald Marshall, Ambrose Nichols, Jr., Douglas Rustad, Gene Schaumberg, Dale Trowbridge.

Variations in the basic curriculum provide suitable preparation for advanced degrees in chemistry; industrial positions; teaching credential, or pre-professional curricula.

CHEMISTRY MAJOR FOR THE B.A. DEGREE

General Education	40 units
Major	40 units
Supporting Subjects	17-19 units
Electives or Minor	27-25 units
<hr/>	
124 units	

CHEMISTRY MAJOR COURSE REQUIREMENTS

Basic Chemistry Courses:

{ 115AB—General Chemistry (10 units—5 in Gen. Ed., 5 in Major)	5 units
and	
{ 255—Analytical Chemistry	4 units
OR in place of 115AB and 255	
{ 125AB—General Chemistry (10 units—5 in Gen. Ed., 5 in Major)	5 units
and	
{ 455—Advanced Analytical Chemistry	4 units
335AB, 336AB—Organic Chemistry.....	10 units
375AB, 376—Physical Chemistry	9 units
495, and/or 496—Independent Study and Selected Topics.....	1 unit
497—Seminar	1 unit
Upper Division Chemistry Electives.....	10 units
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40 units	

SUPPORTING COURSES

Mathematics

162, 212, 262, 312—Calculus with Applications I, II, III, IV (3 units in Gen. Ed., 9 units in major) (Recommended sequence).....	9 units
OR	
140, 190, 240, 290—Calculus I, II, III, IV (3 units in Gen. Ed., 11 units in major) (Optional sequence).....	11 units

Physics

215AB—General Physics	8 units
215C strongly recommended (4 units)	

A Chemistry Major must take the Basic Chemistry and Supporting courses. In consultation with and with the approval of his advisor in the Chemistry Department, a student can choose a pattern of chemistry upper division electives to concentrate in the areas of analytical, inorganic, organic, physical, or biochemistry.

Minor in Chemistry

Completion of a minimum of 20 units in chemistry courses will constitute a minor in chemistry. Students should consult with an advisor in the Department of Chemistry regarding course requirements.

CHEMISTRY**100. Chemical Mathematics (1)**

Lecture, 1 hour.

A survey of the basic mathematics necessary for satisfactory understanding of Chemistry 115AB: elementary algebra, exponents, powers of ten, fractions, products, quotients, quadratic formula, simultaneous equations, proportionality, logarithms, and slide rule. Pass/No credit.

102. Fundamentals of Chemistry (3)

Lecture, 3 hours.

A descriptive survey of some aspects of chemistry. An approach designed for the General Education requirement; not suitable for science majors. Chemistry 102 not open to students with credit in Chemistry 115A or 125A.

115AB. General Chemistry (5-5)

Lecture, 3 hours, laboratory lecture, 1 hour, laboratory, 3 hours.

General principles of chemistry from a physical approach. This course is designed for science majors and pre-professional curricula. Can also be used to satisfy the General Education requirement.

125AB. General Chemistry (5-5)

Lecture, 3 hours, laboratory, 6 hours.

An accelerated course in general chemistry designed for the chemistry and physics major. Includes introductory aspects of quantitative analysis, physical chemistry and instrumental analysis. Chemistry majors completing this course will bypass Chemistry 255.

Prerequisite: High school chemistry and physics.

200. Glassblowing (1)

Laboratory, 3 hours.

Elementary training in glass manipulation and apparatus fabrication.

Prerequisite: Declared science major status.

232. Introductory Organic Chemistry (4)

Lecture, 3 hours; laboratory, 3 hours.

An introduction to the important principles, compounds and reactions of organic chemistry. Particular emphasis on compounds of biological significance. Laboratory includes an introduction to basic techniques of organic chemistry with emphasis on their application to natural products. Course designed for students not majoring in chemistry.

Prerequisite: Chemistry 115A or 125A or consent of instructor.

255. Analytical Chemistry (4)

Lecture, 2 hours, laboratory, 6 hours.

Elementary theory and practice of volumetric, gravimetric, and selected instrumental methods of analysis.

Prerequisite: Chemistry 115B.

295. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, reading for the blind, etc. In chemistry students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. May be taken by petition only and does not fulfill any requirements of the chemistry major.

Chemistry

310. Introductory Physical Chemistry (3)

Lecture, 3 hours.

Aspects of physical chemistry having application in biological sciences. Knowledge of calculus not required.

Prerequisite: Chemistry 115B or Chemistry 125B.

311. Elements of Electronics (3)

Lecture, 2 hours, laboratory, 3 hours.

Basic circuit theory; operation of tube and transistor devices; analysis of typical circuits used in power supplies, amplifiers, and electronic instruments; and the uses of operational amplifiers.

Prerequisite: Completion of the general education requirements in mathematics and physical science and either junior standing or consent of instructor.

This course is the same as Physics 311.

313. Classical Studies (1-3)

An intensive study of a work or a closely-related group of works which has figured importantly in the development of chemistry. This course satisfies the *elective* General Education requirement.

Prerequisite: Chemistry 102 or equivalent, or consent of instructor.

335AB. Organic Chemistry (3-3)

Lecture, 3 hours.

Basic course in the general theory and reactions of organic chemistry. Emphasis on basic principles. Recommended for science and pre-professional majors.

Prerequisite: Chemistry 115B or 125B.

336AB. Organic Chemistry Laboratory (2-2)

Laboratory, 6 hours.

Fundamental techniques of organic chemistry including an introduction to modern instrumental methods. Includes an introduction to qualitative organic analysis. Designed to complement 335AB.

Prerequisite: Chemistry 335 or concurrent registration.

340. Introductory Biochemistry (3)

Lecture, 3 hours.

A survey of the structure and function of proteins, nucleic acids, lipids, carbohydrates and other biological molecules.

Prerequisite: Chemistry 232 or Chemistry 335A; Chemistry 115B.

375AB. Physical Chemistry (3-3)

Lecture, 3 hours.

Theoretical principles of chemical structure, thermodynamics, equilibrium, kinetics, and quantum mechanics.

Prerequisites: Chemistry 255 or 125B; Physics 215AB and Mathematics 240 or 262, concurrent registration or consent of instructor. Physics 215C strongly recommended.

376. Physical Chemistry Laboratory (3)

Lecture, 1 hour, laboratory, 6 hours.

Physico-chemical measurements with emphasis on instrumental techniques and report writing.

Prerequisite: Chemistry 255, or Chemistry 125AB, Chemistry 375A; Chemistry 375B or concurrent registration.

385. Molecular Spectroscopy (2)

Lecture, 1 hour, laboratory, 3 hours.

Spectroscopic study of the molecular structure of compounds with ultraviolet and infrared spectrophotometers. Identification and analysis of gases, liquids, solutions, and solids.

Prerequisites: Chemistry 255 or Chemistry 125B.

390. History of Physical Science (2)

Lecture, 2 hours.

A survey of the historical development of the physical sciences. This course is the same as Geology 390 and Physics 390.

Prerequisite: Major in the physical sciences or consent of the instructor.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, reading for the blind, etc. In chemistry students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. May be taken by petition only and does not fulfill any requirements of the chemistry major.

425. Advanced Inorganic Chemistry (3)

Lecture, 3 hours.

Periodic relationships, atomic structure, nature of the chemical bond, and systematic study of representative and transition elements and their compounds.

Prerequisite: Chemistry 375B or concurrent registration.

436. Modern Techniques of Organic Chemistry (3)

Lecture, 1 hour, laboratory, 6 hours.

Preparation and characterization of organic compounds by modern methods; includes special techniques of synthesis and interpretation of spectral data.

Prerequisites: Chemistry 335B, 336B.

437. Advanced Organic Chemistry (2)

Lecture, 2 hours.

Physical and physiochemical consideration of organic chemistry with emphasis on reaction mechanisms, reactivity and structure, and recent developments from current literature.

Prerequisite: Chemistry 335B.

440AB. Biochemistry (3-3)

Lecture, 3 hours.

A study of proteins, lipids, nucleic acids, enzymes, hormones, vitamins and carbohydrates considering their composition, structure, and properties in relation to biological phenomena and metabolism.

Prerequisite: Chemistry 335B.

441. Biochemical Methods (3)

Lecture, 1 hour, laboratory, 6 hours.

Applications of biochemical techniques to the study of proteins, enzymes, and nucleic acids.

Prerequisites: Chemistry 232 or 336A and 340 or 440A.

455. Advanced Analytical Chemistry (4)

Lecture, 2 hours, laboratory, 6 hours.

Advanced theory and practice of analytical chemistry with emphasis on instrumental methods of analysis.

Prerequisites: Chemistry 375B or concurrent registration.

Chemistry

470. Advanced Physical Chemistry (3)

Lecture, 3 hours.

Basic theories and methods of quantum chemistry and statistical thermodynamics. Emphasis on the application of these techniques to molecular structure.

Prerequisites: Chemistry 375AB, Mathematics 290, or 312.

475AB. Radiochemistry (2-2)

Lecture, 2 hours.

Theory of radioactive tracer methods, radioactivity, and radioisotopes as a research tool in the physical and biological sciences.

Prerequisite: Chemistry 310 or 375A or consent of instructor.

476AB. Radiochemistry Laboratory (2-2)

Laboratory, 6 hours.

Nuclear-chemical phenomena; nuclear properties and reactions; radioactivity; radiological safety; tracers; instrumentation and laboratory practices.

Prerequisite: Chemistry 475 or concurrent registration.

495. Independent Study for Majors or Minors (1-3)

496. Selected Topics in Chemistry (1-3)

A study of an advanced topic in chemistry. May be repeated for additional credit with new subject matter. Topics such as: solid state; proteins; enzymes; chemical evolution; inorganic and organic syntheses; heterocyclic organic compounds; structure and drug action; thermodynamics, kinetics, quantum chemistry, bonding theories, molecular spectra; oceanography.

497. Seminar (1-2)

First semester may be taken on a pass-no credit basis.

Prerequisite: Concurrent or previous enrollment in Chemistry 495.

499. Special Problems (1-2)

ECONOMICS

(Division of Social Sciences)

Richard Van Gieson, Chairman

Gerald Egerer, Barry Ben-Zion, Warren Roberts, David Schlow, Bruce Woelfel

The Economics major, emphasizing issues and problems of the economies of the cities, the nation, and the world, is designed not only to provide a sound liberal arts background for undergraduates, but also to serve students who may wish to undertake graduate work or who contemplate a career in teaching.

ECONOMICS MAJOR FOR THE B.A. DEGREE

General Education	40 units
Economics Courses	48 units
Foreign language and/or electives.....	36 units
Total	124 units

ECONOMICS MAJOR COURSE REQUIREMENTS*

1. All majors are required to take the following courses..... 24 units

Econ. 201—Introduction to Economics.....	4 units
Econ. 304—Macroeconomic Theory	4 units
Econ. 305—Microeconomic Theory	4 units
Econ. 315—Social Science Statistics.....	4 units
Econ. 340—American Economic History.....	4 units
Econ. 405—Seminar in History of Economic Thought.....	4 units
2. In addition majors will take two of the following fields..... 24 units
 - A) International Economics

Econ. 202—The U.S. in a Changing World Economy.....	4 units
Econ. 302—Theory of International Trade.....	4 units
Econ. 402—Seminar in International Trade.....	4 units
 - B) Economic Development

Econ. 203—Problems of the Developing Nations.....	4 units
Econ. 303—Theory of Economic Development.....	4 units
Econ. 403—Seminar in Economic Development.....	4 units
 - C) Comparative Economic Systems

Econ. 210—Problems of Competing Economic Systems....	4 units
Econ. 310—Theory of Comparative Economic Systems....	4 units
Econ. 410—Seminar in Comparative Economic Systems..	4 units
 - D) Regional and Urban Economics

Econ. 220—The Urban Crisis.....	4 units
Econ. 320—Regional and Urban Economic Analysis.....	4 units
Econ. 420—Seminar in Regional and Urban Economics....	4 units

3. Foreign Languages and/or Electives

Those planning to go to graduate school should take at least one foreign language. Majors contemplating careers in government are advised to take political science as their minor field, with an emphasis appropriate to their particular needs (local, state, federal, or international government and politics.)

Candidates for the Secondary Credential are advised to take history as their minor field.

* Upper division Economics courses may not be taken P/NC for credit in the major.

Economics

4. Mathematics

Majors intending to go to graduate school are advised to take the following courses:

Math. 162—Calculus with Applications I

Math. 212—Calculus with Applications II

MINOR IN ECONOMICS

The following minor is recommended for teacher credential candidates and others.

Econ. 201—Introduction to Economics..... 4 units

Econ. 202—The U.S. in a Changing World Economy..... 4 units

Econ. 203—Problems of the Developing Nations..... 4 units

Econ. 210—Problems of Competing Economic Systems..... 4 units

Econ. 220—The Urban Crisis..... 4 units

20 units

ECONOMICS

NOTE: 200 level courses, other than 201, are recommended for non-majors. Also recommended for non-majors are 300 level courses without prerequisites such as 313, 330, and 340.

201. Introduction to Economics (4)

Readings and discussion concerning the goals of economic security, growth, just income distribution, efficiency, and freedom. Emphasis on use of elementary economic principles in the analysis of problems created by these goals.

202. The United States in a Changing World Economy (4)

An introduction to the problems of international trade as they affect the United States today, and to the international institutional framework of trade and payments.

203. Problems of the Developing Nations (4)

An analysis of the factors which intensify and perpetuate today's international poverty and underdevelopment. A broad view of both economic and non-economic determinants of underdevelopment, and an analysis of the policies that could close the gap between the world of the "haves" and that of the "have nots."

206. Minority Poverty (4)

An examination of problems facing disadvantaged minorities in the American economy. Emphasis will be given to proposed solutions to the minority poverty problem offered by various government and private organizations.

207. Urban Development and Planning (4)

A study of major public policies affecting economic growth and community development in urban areas. Policies governing housing, transportation, education, land use, open space, pollution, and public services will be considered in terms of present planning efforts on the part of local government and regional agencies.

208. The Economics of War and Peace (4)

Can the United States convert to a peace-time economy without a major recession? Is there an inherent need for war spending? The course will examine the structural forces leading to ever increasing military budgets. Consequences for long-term growth and employment and accompanying social costs will be assessed. The economics of a society at peace will be explored.

210. Problems of Competing Economic Systems (4)

An inquiry into the organization of economic systems popularly referred to as Capitalist and Socialist. Examination of public and private ownership, regulation and planning, in the United States and Europe.

220. The Urban Crisis (4)

An examination of contemporary thinking by economists on the issues and problems facing the urban areas now and in the future.

240. California's Economy—Issues and Problems (4)

A study of the growth and development of the economy of California, with emphasis on the contribution of regional economic problems confronting local and state government at the present time. Recommended for teachers.

260. Technology and Society (4)

A look at the way technology may be fundamentally altering man's relationship to the economy and society.

302. Theory of International Trade and Finance (4)

An examination of the classical theory of comparative advantage, the balance of payments, and techniques for achieving equilibrium, all in relation to U.S. foreign economic policy and international institutions.

Prerequisites: From 201 and Econ. 202.

303. Theory of Economic Development (4)

Theories of economic development and underdevelopment. Examination of problems and policies for achieving growth in both poor and rich countries.

Prerequisites: Econ. 201 and Econ. 203.

304. Macroeconomic Theory (4)

The theory of national income and employment. Primary emphasis placed upon the analysis of equilibrium and growth.

Prerequisites: Econ. 201 and Math. 117 or its equivalent.

305. Microeconomic Theory (4)

Theories of demand, the formation of prices, and production in various industries and market situations.

Prerequisites: Econ. 201 and Math. 117 or its equivalent.

310. Theory of Comparative Economic Systems (4)

A critical examination of the theoretical structure of contemporary economic systems. Attention will be given to current developments tending to dissolve the traditional capitalist-socialist dichotomy in Europe and the United States.

Prerequisites: Econ. 201 and Econ. 210.

311. Managerial Economics (4)

Economic analysis applicable to the problems of enterprise in the areas of pricing, output, capital budgeting, marketing, new product development, competition, and the efficient use of resources. Emphasis on the practical contribution of economic thinking to management policies.

Prerequisites: Introductory Economics and Math. 117 or its equivalent.

312. Economic Fluctuations and Business Forecasting (4)

Examination of the techniques of long and short-run analysis and forecasting of economic activity for the economy and the firm.

Prerequisite: Econ. 201 and Math. 117 or its equivalent.

Economics

313. Classical Studies (2)

An intensive study of a work or a closely-related group of works which has figured importantly in the development of economics. This course may be counted toward the elective General Education requirement.

No prerequisites; recommended for non-majors.

315. Social Science Statistics (4)

This course is designed to provide a background for quantitative studies in economics, management, sociology, political science, and history. Topics: presentation of data; misuse of statistics; averages and dispersions; sampling; the concept of "association"; time series and cyclical variations; and index numbers.

320. Theory of Regional and Urban Economic Development (4)

An examination of alternative theories accounting for the growth and structure of economies of cities, counties, states and larger regions.

Prerequisites: Econ. 201, 202, 203.

330. Free Trade and Economic Integration in Western Europe (4)

An examination of the changing economic organization of Western Europe since 1945, and its significance for the United States. Regional economic cooperation; the theory of customs unions; economic integration (European Economic Community).

No prerequisites; recommended for non-majors.

340. American Economic History (4)

Examination of the development of the American economy from the colonial era to the mid-twentieth century. Developments in industry, agriculture, transportation, the consumer sector, and labor organization considered. The role of government in economic growth is analyzed. Cross-listed as History 462.

No prerequisites; recommended for non-majors.

402. Seminar in International Trade and Finance (4)

The theoretical conditions necessary for achieving internal and external equilibrium simultaneously; the policies available to the U. S. government in practice; the Bernstein Report; recent reports by, and memoranda submitted to, the Joint Economic Committee of Congress.

Prerequisite: Econ. 302.

403. Seminar in Economic Development (4)

Studies of the evolving pattern of development in terms of basic institutions and growth problems.

Prerequisite: Econ. 303.

404. Seminar in Monetary and Fiscal Policy (4)

Prerequisites: Econ. 304 and 305.

405. Seminar in the History of Economic Thought (4)

A critical examination of economic thought in relation to the basic economic problems which have confronted every society. Mercantilism in England; Quesnay and physiocracy in France; Adam Smith and the rise of classical economics; marginalism; English and French socialists; Marx; the historical school in Germany; the institutionalists in the United States; Keynes and "the new economics."

410. Seminar in Comparative Economic Systems (4)

An evaluation of the performance of selected economies in the light of their theoretical structures. Particular attention will be paid to the differing needs and capabilities of developing, as compared with developed, nations.

Prerequisite: Econ. 310.

420. Seminar in Regional and Urban Economics (4)

The seminar involves a semester length empirical research project in which the student will combine theory and practice in dealing with an economic problem of one of the smaller economies of the Northern California area.

Prerequisites: Econ. 320. Students taking the regional and urban economics are required to take the following two upper division courses in political science: Poli. Sci. 320 and 485.

450. Seminar in the Economic Development of Latin-America (4)

A study of the economic development of Latin America with special attention to related social and political changes, including revolution and expropriation of foreign capital. The course will survey current developments from Castroism to The Alliance for Progress.

490. Seminar in Economic Research (4)**495. Independent Study for Majors or Minors (4)****499. Special Problems (2-4)**

EDUCATION

(Division of Psychology and Education)

John D. Lawrence, Chairman of Department

Frank Bills, Russell Broadhead, Thorsten Carlson, George Elliott, James B. Enochs, Robert Fletcher, Herbert Fougner, Robert Fuchigami, Evangeline Geiger, Duncan Gillies, Bernice Goldmark, Betty Helpen, George Hom, Bjorn Karlsen, George McCabe, Carroll Mjelde, Ethel Polhemus, Charles Rhinehart, Thalia Silverman, Harold Skinner, David Thatcher, Eva Washington, Jean Young.

CREDENTIAL AND PERMIT PROGRAMS

Programs leading to the Standard Elementary and Secondary Credentials, Special Education Credential, and to the Instructional Permit for pre-school centers are described on page 83.

MASTER OF ARTS IN EDUCATION

The Master of Arts program in Education offers courses of graduate study to prepare teachers for specialized teaching and curriculum and instructional leadership responsibilities in the schools. The present program provides for an area of concentration in reading. The reading option is the first of several options which will be developed.

Admission Requirements

- A. B.A. degree from an accredited institution.
- B. Twenty semester units in education.
- C. Regular teaching credential.
- D. Cumulative grade point average of 2.5 or an upper division and graduate grade point average of 2.75, and a grade point average of 3.0 for previous work in education.
- E. Part-time students must obtain the favorable recommendation of the department after having completed two courses in the program and prior to admission to classified graduate status.

Required Courses

A. Core Courses

Educ. 516—Advanced Educational Psychology.....	3 units
Educ. 574AB—Research Seminar in Education.....	6 units
Educ. 575AB—Master of Arts Thesis	0 units
and one course chosen from:	
Educ. 510—Seminar: Educational Sociology (3)	
Educ. 511—Seminar: Comparative Education (3)	
Educ. 512—Seminar: History of Education (3)	3 units
Educ. 513—Seminar: Philosophy of Education (3)	

B. Area of Concentration

Educ. 507—Seminar: Curriculum and Research in Reading	3 units
Educ. 560AB—Diagnosis and Remediation of Learning Difficulties in Reading	6 units

C. Supporting Courses

Twelve units chosen with the advisor's approval from 400 or 500 level courses having an appropriate bearing on the student's objectives.

EDUCATION**200. Introduction to Education (3)**

Opportunities and challenges in public school service. Education as a social institution and a teaching-learning process. School organization, curriculum, and current problems. Weekly observations required.

291. Seminar for Tutors (2-3)

Open to students who are tutoring on campus or in the community, or who are interested in tutoring. Focus on problems of inter-personal relationships, social contexts of tutors, learning styles, techniques of teaching, and individual problems encountered in tutoring.

295. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

400. Curriculum of the Elementary School (Social Sciences) (2)

Meets 4 hours

An examination of principles, methods, and materials of instruction in the elementary schools Social Studies Curriculum, including Audio-Visual.

Prerequisite: Admission to Elementary Education Curriculum.

401. Conservation Education (3)

An introductory course in conservation education for preservice and inservice teachers. Includes a definition of terms, the history of conservation, conservation's scope, current problems and issues and the interrelations between conservation and education. Conservation curricula and practices will be available for study with the local outdoor education program providing the outdoor laboratory.

402. Curriculum of the Elementary School (Mathematics) (2)

Meets 4 hours

Principles, methods and materials of instruction in mathematics in the elementary school, including Audio-Visual.

Prerequisite: Admission to Elementary Education Curriculum and Math. 300.

403. Curriculum of the Elementary School (Science) (2)

Principles, methods and materials of instruction in science in the elementary school, including Audio-Visual.

Prerequisite: Admission to Elementary Education Curriculum.

405AB. Student Teaching (Elementary School) (4-5)

Teaching experience in an elementary school under the guidance of a supervising teacher. Pass-no credit grades only.

Prerequisite: Admission to Elementary Curriculum. Approval of Education Department.

Education

407. Curriculum of the Elementary School (Reading) (3)

Meets 6 hours

Principles, methods and materials of instruction in the teaching of reading in the elementary school, including Audio-Visual.

Prerequisite: Admission to Elementary Education Curriculum and English 400.

408. Curriculum of the Elementary School (Language Arts) (2)

Meets 4 hours

Principles, methods and materials of instruction in the teaching in the elementary school of writing, spelling, speaking and listening, including Audio-Visual.

Prerequisite: Admission to Elementary Education Curriculum and English 400.

409AB. Intern Teaching (4-4)

Limited to credential candidates who have been employed as elementary teachers in a school district which has an intern program and which has contracted with the college for cooperative supervision. Includes teaching experiences under supervision with weekly seminars conducted by a college faculty member.

410. Social Foundations (3)

Brief survey of history and philosophy of education as background for contemporary educational problems. Influence of social structure on schools, school systems; American cultural values and their influence on education.

411. Curriculum of the Elementary School (Foreign Language) (3)

Meets 6 hours

Principles, methods and materials of instruction in the teaching in the elementary school of the reading, writing and speaking of a foreign language.

425. Student Teaching (Secondary) (Phase I—2 units; Phase II—8 units)

Teaching experience in a secondary school under the guidance of a supervising teacher with the exception of Social Science majors. Each student must complete two semesters of student teaching. Both semesters will be in the major field, except that Phase I will be exploratory and will include a variety of experiences. Three hours per week of student teaching is required for each unit of credit. Pass-no credit grades only.

425A. English and Humanities

425B. Biological Sciences

425C. Physical Sciences

425D. Mathematics

425E. Social Sciences (combined Phase I and Phase II) 9 units

425F. Physical Education

425G. Foreign Language

425H. Music

425I. Art

425J. Psychology

Prerequisites: Admission to Secondary Education Curriculum. Approval of Education Department.

426. Seminar Accompanying Student Teaching (Secondary) (1)

An examination of the problems faced by the enrollees in their student teaching. Emphasis on the planning and evaluation of instruction, and the evaluation of learning. Classroom management and control, record keeping. To be taken concurrently with Educ. 425—Phase II. Pass-no credit grades only.

Prerequisite: Approval of Education Department.

430. Exceptional Children (3)

Survey of programs and services involving the education and habilitation of exceptional children.

431. Practicum in Child Study (3)

An intensive study of the growth and learning of children through observation and participation in selected situations. May be taken twice for credit.

Prerequisite: Admission to Pre-School Education Curriculum or consent of instructor.

432. Nursery School Curriculum (3)

Materials and methods of instruction for children from 2-5.

Prerequisite: Admission to Pre-School Education Curriculum or consent of instructor.

433. Student Teaching in Pre-School Programs (4)

Observation, student teaching and scheduled seminars. Emphasis on planning activities for 2-5 year old children and evaluation of growth and learning in the young child.

Prerequisite: Admission to Pre-School Education Curriculum or consent of instructor.

434. Supervision of Pre-School Educational Programs (3)

Principles and methods of supervision in pre-school education. An examination of team teaching, and the contributions of teachers' aides and volunteer helpers to pre-school programs.

Prerequisite: Admission to Pre-School Education Curriculum or consent of instructor.

435. Organization of Pre-School Programs (3)

An examination of the history, philosophy and administration of pre-school education, with emphasis on cultural patterns, social structure, and community resources.

Prerequisite: Admission to Pre-School Education Curriculum or consent of instructor.

436. Kindergarten Curriculum (3)

Principles, methods and materials of instruction in the kindergarten.

437. Early Childhood Education (3)

Principles, methods and materials of instruction in the primary grades.

439. Teaching Educationally Disadvantaged Children (3)

Current theories concerning the society of the "culturally disadvantaged"; family structures, values, child-rearing practices, cognitive styles, emotional problems and language patterns; new programs and new possibilities for teaching.

440. Methods and Materials for Underachievers (3)

Methods of identifying children with learning difficulties. Means of adjusting learning experiences to meet various kinds of difficulties.

441. Field Experiences with Exceptional Children (3)

Variety of field observations and field experiences with exceptional children. Minimum of 6 hours field study per week plus seminar.

Prerequisite: Educ. 430 or concurrent enrollment in Educ. 430.

442. Mental Retardation (3)

Intensive study of problems and issues related to mental retardation.

Education

443. Instruction Strategies in Special Education (3)

Intensive study of the instructional process. Simulation presentations required.
Prerequisite: Educ. 488.

444. Language Disorders and Development (3)

Study of the causes and remediation of speech and language disorders. Some field work with small groups and individuals required.

445. Counseling and Rehabilitation of the Handicapped (3)

Study of counseling techniques for coping with the problems of exceptionality as it affects children, siblings and parents. Some field work required.

Prerequisite: Educ 430 or concurrent enrollment in Educ. 430.

446. Education of the Severely Retarded (3)

Study of education and rehabilitation problems of severely retarded children. Observations and participation assignments required.

Prerequisite: Educ. 442.

447. Educational Assessment of Exceptional Children (3)

Educational assessment and interpretation of diagnostic instruments used with exceptional children. Some field experience required.

Prerequisite: Educ. 430.

448. Learning Disabilities (3)

Introduction to various theories, issues, and problems related to learning disabilities in children.

Prerequisite: Educ. 430 or concurrent enrollment in Educ. 430.

449. Educationally Handicapped (3)

Study of programs and problems of the educationally handicapped in California. Some field work required.

Prerequisite: Educ. 430 or concurrent enrollment in Educ. 430.

450. The Gifted Child (3)

Intensive study of gifted children.

Prerequisite: Educ. 430 or concurrent enrollment in Educ. 430.

451. Recreation for the Handicapped (3)

Principles, techniques and organization of recreation programs for the handicapped. Some field work required.

Prerequisite: Educ. 430 or concurrent enrollment in Educ. 430.

452. Student Teaching with Exceptional Children (4)

Student teaching with at least two groups of exceptional children.

Prerequisite: Consent of Special Education Coordinator.

454. Education of the Emotionally Disturbed (3)

Theoretical discussions and practical applications of techniques used in the education of the emotionally disturbed.

Prerequisite: Educ. 430 or concurrent enrollment in Educ. 430.

455. The Guidance Process (3) II

Study of guidance as an interpersonal process with particular attention to the pupil-teacher relationship. Role of guidance. Study of guidance tools and techniques.

456. Precision Teaching (3)

Behavior modification principles and application. Field work required.

468. Evaluation in Education (3)

An analysis of the role of evaluation in the educational process. Emphasis will be upon evaluation techniques used by teachers and will include appraisal of standardized tests and an interpretation of the data they provide.

486. Creative Utilization of Educational Media (2)

Exploration of ways to utilize and create media for the teaching-learning environment. Laboratory practice in the planning and production of audio-visual materials. Basic graphic techniques for preparation of transparencies, mounted materials and other projected and non-projected media. Limited instruction in photography and videotape.

488. Curriculum and Materials Modification in Special Education (3)

Analysis of curriculum and materials modifications. Emphasis is on the educable level retarded.

Prerequisite: Educ. 442.

491. Seminar for Tutors (2-3)

Open to students who are tutoring on campus or in the community, or who are interested in tutoring. Focus on problems of inter-personal relationships, social contexts of tutors and their students, learning styles, techniques of teaching, and individual problems encountered in tutoring.

493. An Interdisciplinary Approach to the Learning Environment (4)

An interdisciplinary analysis of the American school system in terms of the variant values of the controlling, client and personnel groups involved in it, and the sources of their values (including their perception of themselves, their own needs, and of others involved in institutional interactions with them). The course will combine field work and seminar sessions.

495. Independent Study for Majors or Minors (1-3)**499. Special Problems (1-2)****501. Seminar for Supervising Teachers of Student Teachers
(Elementary School) (2)**

Problems arising from work with student teachers. Co-ordination of college and classroom supervision of student teachers in kindergarten and elementary grades. Open to teachers supervising student teachers or to those having prior approval of instructor. May be taken twice for credit.

502AB. Advanced Seminar: Curriculum in Mathematics (3-3)

Study of trends, programs, and controversial issues in mathematics education. Consideration of the purposes underlying the inclusion of certain new topics in current programs, together with a study of the mathematical concepts involved.

504. Advanced Seminar: Research in Mathematics Education (3)

Readings in the research literature on methods, materials, principles of learning and psychological factors in the teaching of mathematics. Creation and execution of a small research project.

507. Advanced Seminar: Curriculum and Research in Reading (3)

Readings in the research literature on methods, materials, principles of learning and psychological factors in the teaching of reading. Study of trends and controversial issues in reading instruction.

Prerequisite: Educ. 407 or equivalent. Approval of Education Department.

Education

508. Advanced Seminar: Curriculum and Research in Language Arts (3)

Readings in the research literature on methods, materials, principles of learning and psychological factors in the teaching of language arts.

Prerequisite: Educ. 408 or equivalent.

509. Organization, Administration and Supervision of Reading Instruction (3)

Principles and procedures in administration and supervision of instruction in reading, including surveys of current practices.

510. Seminar: Educational Sociology (3)

An inquiry into alternative concepts in Sociology, their relation to education, and their consequences for teaching; the role of the school as an institution in a society of changing values; the social structure of the schools.

511. Seminar: Comparative Education (3)

A study of school systems of other countries, including consideration of educational objectives, organization, administration and curriculum.

Prerequisite: Approval of Education Department.

512. Seminar: History of Education (3)

A study of major developments in the history of education in Europe and America.

513. Seminar: Philosophy of Education (3)

An inquiry into alternative philosophies of education; their philosophic assumptions, values, ends, methods, problems, and consequences for classroom teaching; how should a philosophy of education be built?

514. Selection and Evaluation of Reading Materials (3)

Evaluation of commercially published and teacher prepared instructional materials and devices for use in reading instruction.

516. Seminar in Advanced Psychology of Education (3)

Study of psychological theories and research relevant to teaching and learning in the public school classroom.

Prerequisite: Approval of Education Department.

522. Secondary School Curriculum and Instruction (2)

Meets 4 hours

Scope, sequence and methods of instruction in the several fields of the secondary school curriculum. Planning instruction and evaluating learning. Examination of underlying assumptions regarding instructional goals in the several fields, and evaluation of conflicting theories.

Each section limited to majors concurrently enrolled in Educ. 425 student teaching Phase I.

522A. English and Humanities

522B. Biological Sciences

522C. Physical Sciences

522D. Mathematics

522E. Social Sciences

522F. Physical Education

522G. Foreign Language

522H. Music

522I. Art

522J. Psychology

Prerequisite: Admission to Secondary Education Curriculum. Approval of Education Department.

532. Reading in the Secondary School (3)

Techniques and procedures for improving reading habits and skills and stimulating reading interests of secondary students.

560AB. Diagnosis and Remediation of Learning Difficulties in Reading and Language Arts (3) (3)

Education 560B may be taken twice for credit. Approval of Education Department.

561. Diagnosis and Remediation of Learning Difficulties in Mathematics (2)**562. Advanced Problems in Special Education (3)**

Recent trends, issues, and problems in special education will be identified and discussed. Students will be expected to collect data to support and refute positions and statements.

563. Administration and Supervision in Special Education (3)

Organization and operation of various special education programs will be studied. Recent federal and state legislation in special education will be reviewed. Procedures for writing proposals and grants will be studied and students will be expected to submit an acceptable project proposal as part of the course requirement.

564. Seminar: Research in Special Education (3)

Researchable problems in special education will be identified and discussed. Students will be expected to review the research literature and submit an acceptable research proposal.

574AB. Research Seminar in Education (3) (3)

Principles of research in education; methods of organization and presentation of research data; selection, design and reporting of original investigations.

Prerequisite: Approval of Education Department.

575AB. Master of Arts Thesis (0) (0)

Pass-no credit grades only.

ENGLISH

(Division of Humanities)

Eugene Soules, Chairman of Department

Martin Blaze, John Bullen, John Clark, Robert Clayton, John Dennis, Nirmal Dhesi, Sally Ewen, Gerald Haslam, James Kormier, Hector Lee, William Lee, Dorothy Overly, Mary Rich, Lionel Williams, Janice Wilson, Caroline Zainer.

The major in English is designed both as a liberal education and as a sound undergraduate foundation for work toward the Ph.D. in English. It can also serve as an academic major for the standard teaching credential.

ENGLISH MAJOR FOR THE B.A. DEGREE

General Education	40 units
Foreign Language: see advisor	0-14 units
Major	36 units
Electives	34-48 units
Total	124 units

ENGLISH MAJOR COURSE REQUIREMENTS

<i>Genre Courses</i>	3 units
To be selected from 312, 313, 314, 315, 316, 317, 420, 421, 422, 424, 425.	
<i>Junior Seminar</i>	3 units
<i>Survey Courses</i> (English and/or American Literature)	6 units
<i>Required Core Courses</i>	
375—Advanced Composition	3 units
400—Study of Language	3 units
450—Shakespeare	3 units
* <i>Period Courses and/or Author Courses</i>	6 units
<i>English Electives</i>	9 units

TEACHING MINOR IN ENGLISH 20 UNITS

Students may complete a minor in English by taking 20 units, of which 14 must be in upper division courses. The units in the lower division may include courses taken for the General Education requirement in English, but not English 101A-101B. The units should be distributed as follows: (a) either English 400, Study of Language or English 403, Structure of English; (b) English 375, Advanced Composition; (c) 6 units of survey courses in either English or American literature; (d) a 3 unit genre course; (e) 5 units of electives.

MASTER OF ARTS DEGREE IN ENGLISH

Objectives

The Master of Arts in English at Sonoma State College serves either as a terminal degree for teachers or as a preparatory degree for the Ph.D. It embodies the double objectives of increasing the candidate's knowledge of literature and of preparing him to deal with critical, linguistic, and interdisciplinary aspects of literature.

Program

The candidate has a maximum of freedom in the pursuit of his interests. After completing an introductory course, he selects one of three categories—Language and Criticism, Comparative Literature, or English and American Literature—as his area of specialization. He then develops his thesis through nine units of additional

* Period or Author courses at the 400 level must be substituted for whatever parts of the Survey are not taken.

support courses and supervised reading. After submitting his thesis, he takes an oral examination.

Admission Requirements

To be admitted to the program, the candidate must:

- A. Have a bachelor's degree with an undergraduate major in English from an accredited institution;
- B. Have maintained a 3.0 (B) grade point average in his major and an overall grade point average of 2.75;
- C. Have a reading knowledge of a foreign language;
- D. Have completed the Graduate Record Examination in Literature with a score of 570 or above or earned a grade of B or better in the Senior Seminar (Eng. 494) at Sonoma State College;
- E. Have been assigned to and accepted by an advisor.

Degree Requirements (Also see general College Requirements)

To complete the program, the candidate must:

- A. Maintain a grade point average of 3.0 or better;
- B. Complete thirty units of approved graduate study, in conformity with the options described above;
- C. Complete a thesis acceptable to the candidate's committee;
- D. Pass an oral examination on his special field of study to be administered by a designated committee of the department.

Course Pattern

English 500	Introduction to Graduate Study.....	3 units
English 599	Master's Thesis and accompanying directed reading.....	6 units
	Specialized studies and support courses.....	21 units
		<hr/>
		30 units

ENGLISH

(Course titles followed by I are offered in the fall semester; those followed by II in the spring.)

101AB. Basic Composition (3-3) Yr

Study and practice in the expression of facts and ideas; principles of investigation, of organization, and of effective writing style, with emphasis upon expository writing and upon developing analytical reading ability.

Entering freshman are required to fulfill the requirement in English Composition by taking Humanities 201, 202. Only transfer students who have not fulfilled the general education requirement in composition need take English 101AB.

250-251. Survey of English Literature (3-3) Yr

Development of English literature from Anglo-Saxon times to the twentieth century, with emphasis on the major writers in relation to historical backgrounds.

260-261. Survey of American Literature (3-3) Yr

*** 295. Community Involvement Project (1-4) 1 and II**

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

* Can be taken only on P/NC basis.

English

311. Explorations in Literature (3) I and II

An experimental course in literary explorations that will include subjects not normally offered in the regular curriculum. See class schedule for current titles. May be repeated for credit.

312. Poetry (3) I

Form and function.

313. Classical Studies (3)

In-depth study of individual works and writers. Consult the class schedule for current listing.

314. The Novel (3) II

Themes, ideas, and techniques in the novel.

315. Drama (3) I

Themes, ideas, and techniques in the drama.

316. The Short Story (3) II

The short story as a distinctive literary form. Critical analysis of representative modern stories.

301. Junior Seminar (3) I and II

The art of critical writing in each genre, and the application of traditional and modern criticism to the study of literature. All English majors must take this course in their junior year.

305. Children's Literature (3) II

A study of children's books, with emphasis on both traditional and modern materials. Consideration of children's reading interests and criteria for selection of books.

317. Biography (3) II

Development of biography and biographical forms from Plutarch through Malcolm X.

325. Creative Writing: Fiction (3) I

Criticism and discussion of students' works. Enrollment limited to 15.

Prerequisite: Consent of instructor.

326. Creative Writing: Poetry (3) I

Criticism and discussion of students' works. Enrollment limited to 15.

Prerequisite: Consent of instructor.

327. Creative Writing: Playwriting (3) II

375. Advanced Composition (3) I and II

Purposeful writing for individual needs of students beyond the first year. Emphasis on effective organization, sentence structure, diction, and clarity of expression.

*** 395. Community Involvement Project (1-3)**

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

* Can be taken only on P/NC basis.

400. The Study of Language (3) I and II

Introduction to the nature of language, examining philosophical approaches as well as the insights of modern linguistic science.

403 Structure of English (3) II

Examination of syntactic structure, including phonological and morphological considerations of traditional, structural and transformational models of English Grammar.

Prerequisite: English 400 or consent of instructor.

405. Social Functions of Language (3) II

The study of communication as it is carried on through regional and social dialects and a concern with the problems of judgment and authority which ensue.

Prerequisite: English 400 or consent of instructor.

408. Special Studies in Language (3) I

Detailed study of major areas of linguistics science. Such a subject as History of the English language, Semantics, or Traditional Grammar will be examined. Consult class schedule for current offering. May be taken twice for credit.

Prerequisite: English 400 or consent of instructor.

412. Studies in Modern Literature (3) II

A consideration of various genres and national literatures written in modern times. Consult class schedule for current topic.

419. The Political Novel (3) I

Offered jointly with the Department of Political Sciences. An analysis of selected American and European political novels from the nineteenth and twentieth centuries.

*** 420. Development of English Drama (3) I**

A study of representative plays of literary value chosen from medieval, renaissance, and neoclassical drama.

*** 421. Development of Modern Drama (3)**

Study of representative plays selected from the major twentieth century authors of British, American and European dramatists.

422. Development of Modern British Poetry (3) II

Themes, modes, and techniques of 20th century poetry of England and America.

423. Development of Modern American Poetry (3) II

Themes, modes, and techniques of twentieth century poetry of America.

424-425. Development of the English Novel (3-3) Yr**430. Modes of Literature (3) II**

Each semester, a single literary mode (Tragedy, Comedy, Satire, etc.) will be selected for study in depth. Consult class schedule for current offering. Course may be repeated for credit.

431. Classical Asian Literature (3) I

A study of the literary classics of China, India, Japan or the Middle East in English translation. May be repeated for credit.

* Not offered in 1970-71.

English

* 432. Modern Asian Literature (3)

A study of the literatures of China, Japan, or India-Pakistan in English translation or written primarily in English. Period covered: about 1910 to the 1960's. Not open to freshmen. May be repeated for credit.

435. Studies in World Literature (3) II

Studies of literature in translation. Consult class schedule for current offering.

445. Chaucer (3) I

Critical reading of Chaucer's principal works including the *Canterbury Tales* and *Troilus and Criseyde*, with individual studies in cultural and biographical background.

450-451. Shakespeare (3) I and II

Various comedy, tragedy, and history plays in each course. 450 is not prerequisite for 451. Either course fulfills Shakespeare requirement for majors.

453. Studies in Early American Literature (3) II

Close study of topics unique to American Literature before 1850. Consult class schedule for current offering. Course may be repeated for credit.

455. American Transcendentalists (3) I

A study of the major writings of the Transcendentalists and the most important New England poets of the Nineteenth Century.

* 456. Hawthorne and Melville (3)

A study in depth of the major short stories and novels.

457. The Twentieth Century American Novel (3) II

A consideration of major novelists beginning with Howells and Crane and ending with the Post World War II generation.

460. Western American Literature (3) II

A regional approach to the literature of the trans-Mississippi West. Readings selected from nineteenth and twentieth century writers.

461. American Folklore (3)

Types and forms of folklore in America, with emphasis on California historical, literary, and traditional materials. Teachers may relate folklore to teaching units. Students will be encouraged to follow special interests, such as the ballad, tale, folk speech, customs, or local history.

463. Middle English Literature (3) II

Critical readings in the literature of England from 1200-1500 with emphasis on the non-Chaucerian tradition.

* 465. Literature of the Renaissance (3)

Non-Dramatic English literature (1485-1600).

467. English Literature of the 17th Century (3) I

Nondramatic poetry and prose from Donne to Dryden, including Milton.

469. Restoration and 18th Century Literature II

English literature (1660-1800).

475. English Literature of the Romantic Period (3) II

Significant writers of the early nineteenth century including Wordsworth, Coleridge, Byron, Shelley, Keats, Scott, and Lamb.

* Not offered in 1970-71.

476. English Literature of the Victorian Period (3) II**478. English Literature of the 20th Century (3) I****485. Individual Author (3) I and II**

Each semester one author will be selected for study in depth. Consult class schedule for the author to be studied. Course may be repeated for credit.

486. Studies in Later American Literature (3) II

Close study of topics unique to American Literature since 1850. Consult class schedule for current offering. Course may be repeated for credit.

490. Literary Criticism (3) I

The historic and present responses to the problems of evaluation of literature.

491. Studies in Criticism (3) II

Courses in aesthetics and special problems designed to introduce students to the interests of criticism, enabling them to concentrate in areas relevant to their broader studies in literature.

494. Seminar for English Majors (3) I and II

Individual readings and reports, group discussions, and directed study to integrate courses of the English major. Open also to students offering English as a minor. Recommended for students planning graduate studies.

495. Independent Study for Majors or Minors (1-3) I and II**498. Special Studies (3)**

Specialized studies currently needed or requested by students but which may not justify a permanent place in the curriculum. May be taken more than once.

499. Special Problems (1-3) I and II**500. Introduction to Graduate Study in English (3) I and II**

Provides training in the use of reference materials and library resources, introduces the student to a variety of critical approaches and techniques, and encourages the formulation of individual goals in graduate study. Required of all students during the first semester of graduate study.

*** 503. Teaching English as a Second Language (3)**

In-depth study and application of the principles of teaching English to people whose native language is not English.

Prerequisite: Consent of instructor.

508. Seminar in Language Study (3) II

An intense examination of primary linguistic material, stressing depth reading and original research.

Prerequisite: Consent of Instructor.

511. Studies in Comparative Literature (3) I

Studies related to different aspects of world literature, tracing the influence of interrelationship of ideas, themes, and forms in different literatures. Course content to vary from semester to semester. Course may be taken more than once for credit.

*** 522. Seminar in Teaching College English (2) I and II**

Discussions in methods and materials of teaching English in junior colleges and four-year colleges.

Prerequisite: Consent of instructor.

* Can be taken only on P/NC basis.

English

*** 523. Practicum: Teaching College English (2) I and II**

Practical experience of supervised teaching in a college English classroom.

Prerequisite: Consent of instructor.

*** 525. Seminar in Genre (3)**

A single topic in a specific genre will be selected for study in depth. Consult class schedule for current offering. May be repeated for credit.

550. Shakespeare Seminar (3) I

Critical reading and analysis in depth of representative modes such as tragedy or comedy, etc., in Shakespeare.

Prerequisite: An upper division course in Shakespeare.

560. Seminar for Studies in English Literature (3) II

A single topic of English literature will be selected for study in depth. Consult class schedule for current offering. May be repeated for credit.

586. Seminar for Studies in American Literature (3) I

A single topic of American Literature will be selected for study in depth. Consult class schedule for current offering. Course may be repeated for credit.

590. Principles of Literary Form (3) II

Intensive analysis of the structures which give rise to literary forms in order to conceive form as a key to meaning and to perceive form as an aesthetic principle in literature.

595. Independent Study (1-3)

598. Special Studies Seminar (3) II

599. Thesis and Accompanying Directed Reading (6)

* Can be taken only on P/NC basis.

ETHNIC STUDIES

(Division of American Ethnic Studies)

LeVell Holmes, Chairman of Division

Frank Cruz, Isaias De La Rosa, William Garret, Gerald Haslam, Velesta Jenkins,
Ernest Martinez, David Peri, Weldon Populus, Lionel Williams

The Ethnic Studies Program provides interdisciplinary study of ethnic groups within the United States. The program allows for specialization and emphasis on one ethnic group while enabling students to choose from a wide range of courses. The major in Ethnic Studies is designed both as a liberal education and as an academic major for the standard teaching credential. The program also serves as a sound undergraduate foundation for work toward the M.A. and Ph.D. in multi-culture, urban education or in any social science field. All majors are required to complete a minimum of forty (40) units:

Twenty (20) units in courses related to one ethnic group.

Eight (8) units in "core courses" and,

Twelve (12) units in two additional fields of study within the Ethnic Studies Division.

Students majoring in Ethnic Studies are encouraged to acquire a speaking and/or reading knowledge of Spanish.

AFRO-AMERICAN STUDIES

The major in Afro-American Studies is designed as an academic major for the elementary or secondary credential for teachers. It also serves both as a liberal education and as a preparation for graduate work.

AFRO-AMERICAN MAJOR FOR THE B.A. DEGREE

General Education	40 units
Major	40 units
Lower Division	12 units
Upper Division	28 units
Supporting subjects	8 units
Language and/or Electives	36 units
 Total	<hr/> 124 units

For both the B.A. degree and the B.A. degree with teaching credential, a total of at least 28 units must be taken in the upper division. Supporting subjects and/or electives are to be selected in consultation with the major advisor.

AFRO-AMERICAN MAJOR COURSE REQUIREMENTS

A. Lower Division

AAMS 201—Origins of Afro-Americans <i>or</i>	
NAMS 200—Regional Historical Studies <i>or</i>	
AAMS 250—An Analysis of Afro-American Arts	4 units
AAMS 270—Sketches in Black Expressions	4 units
 Total units in excess of General Education	<hr/> 8 units

B. Upper Division

AMES 430—Seminar in Community Involvement	4 units
AAMS 405—The Black Family	4 units

Ethnic Studies

AAMS 345—Black History: Sunni Ali Ber to W.E.B. DuBois.....	4 units
AAMS 430—Introduction to Afro-American History.....	4 units
AAMS 470—Afro-American Literature	4 units
Electives in Mexican-American Studies	4–12 units
Electives in Native-American Studies	4–12 units
Electives in Euro-American and/or Asian American Studies.....	4–12 units
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Total upper division AAMS	32 units

C. Additional Requirements

Recommended courses in other divisions	8 units
General Education	40 units
Foreign Language and/or second major	36 units
<hr/>	
Total units for B.A.	124 units

MINOR IN AFRO-AMERICAN STUDIES

The minor listed below is designed to meet the requirements for the Standard Teaching Credential for both elementary and secondary school specializations. The minor may be altered in consultation with the student's advisor.

Lower division units in excess of the 40 units of General Education.

AAMS 250—An Analysis of Afro-American Arts or	
NAMS 200—Regional Historical Studies or	
MAMS 220—Mexican-American Cultures	4 units
Upper division units in excess of the 40 units of General Education:	
AAMS 345—Black History: Sunni Ali Ber to W.E.B. Du Bois.....	4 units
AMES 450—Black, Brown, Red Education in America.....	4 units
Electives in Asian-American, Euro-American, Mexican-American or	
Native-American Studies	4 units
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Total	20 units

AFRO-AMERICAN STUDIES

201. Origins of Afro-Americans (4)

A survey of blacks and their cultures prior to the discovery of America. The myths and facts on the origin of the Negro.

250. Analysis of Afro-American Arts (4)

A laboratory and clinical approach to an understanding of the Negro through a study of art forms.

270. Sketches in Black Expressions (4)

Designed to capture unique and/or classical expressions of black individuals and the black community involved in activities. All means of recording expressions will be utilized and encouraged.

300. Introduction to Black Music (4)

A survey of Afro-American music from its African origins through spirituals, blues, jazz, folk and classical music to "rhythm and blues."

345. Black History: Sunni Ali Ber to W.E.B. Du Bois (4)

Afro-American History from 1468 until the writing of "*The Souls of Black Folks*."

350. Black History: N.A.A.C.P. to Black Power (4)

A study of the 20th Century Negro in the United States.

380. Afro-American and African Dance (4)

Exercises and direction in techniques of body movements needed to master Afro-American, Afro-Cuban and African dance. Students are expected to have laboratory work beyond the regular class meetings.

390. Introduction to Black Drama (4)

A study of plays and characters of black writers and of skits designed to capture Negro expressions and characterizations.

400. Black Cultures in the Americas (4)

A study of Afro-American cultures in the Western Hemisphere.

405. The Black Family (4)

An analysis of the Negro family in the United States from the 17th Century to the present.

410. Contemporary Black Poetry (4)

A study and analysis of black poets and poetry from 1940 to the present.

448. Black Reconstruction (4)

A study of Negro thoughts, ideas, philosophies, organizations, etc. from 1865 to 1915. The course is ideal for history majors and social science teachers.

465. Religion in the Black Community (4)

A study of the church and the Negro preacher as forces within the black community.

468. The History of Black Americans (4) (Also listed as History 468)

The Negro in America from the beginning of the African slave trade in the 15th century to the present.

470. Afro-American Literature (4)

A survey of black literature by 19th and 20th Century Negro writers.

487. Afro-American Children's Literature (4)

Designed to examine, discuss and to evaluate books and stories for black children from childhood through the sixth grade.

495. Independent Study for Majors or Minors (1-3)

A course designed to direct a student's study in a particular area of interest.

499. Special Problems in Afro-American Studies (1-4)

A course designed to allow a student a wide latitude of work and study connected with the Afro-American experience.

AMERICAN ETHNIC STUDIES

210. Ethnic Groups in America (4)

A study of non-European ethnic groups in the United States. The course will encompass the achievements, contributions and experiences of these groups in America.

340. Theories of Ethnic Studies (4)

Historical study of cultural and racial attitudes encountered in the western world. Attitudes and practices toward all ethnic groups, Catholic-Americans and other noticeable groups in America.

Ethnic Studies

345. Comparative Ethnic Folklore (4)

A survey of American Folklore of major ethnic groups in America.

410. Social Psychology in Ethnic Studies (4)

A comparison of the psychological environments of ethnic minorities within a dominant society.

430. Seminar in Community Involvement (4)

Group studies, projects and institutions which result in interchanges between the college student and members of the community at large.

450. Black, Brown, Red Education in America (4)

Problems confronting the Afro-Americans, Mexican-Americans, and Native-Americans within the traditional educational institutions of America. Methods and techniques for improving the teaching of non-European students.

ASIAN-AMERICAN STUDIES

400. The Chinese in America (4)

A historical study of the Chinese in the United States from the building of the Trans-Continental Railroad to the present.

405. The Japanese in America (4)

The Japanese in America in the 20th Century. A study in American attitudes toward the Japanese-American past and present.

415. Asian-American Folklore (4)

The folklore of Asian Ethnic groups created within the United States or related to their "American Experience".

EURO-AMERICAN STUDIES

400. Jewish Cultures in the Americas (4)

A survey of the social, economic, political, and religious institutions within the Western Hemisphere.

410. The Irish American (4)

A history of the Irish as a laborer, political and religious force in the United States.

420. The Italian in America (4)

A survey of the role, culture and contributions of the Italian in the United States.

450. The Eastern and Southern Europeans in America (4)

A survey of small European ethnic groups in the United States and the problems of maintaining cultural and ethnic identities.

MEXICAN-AMERICAN MAJOR FOR THE B.A. DEGREE

General Education	40 units
Major	40 units
Lower Division	8 units
Upper Division	32 units
Supporting subjects	8 units
Language and/or Electives.....	36 units
Total	124 units

For both the B.A. degree and the B.A. degree with teaching credentials, a total of at least 32 units must be taken in the upper division. Supporting subjects and/or electives are to be selected in consultation with the major advisor.

MEXICAN-AMERICAN MAJOR COURSE REQUIREMENTS

A. Lower Division

MAMS 220—Mexican-American Cultures <i>or</i>	
NAMS 200—Introduction to American Indians.....	4 units
MAMS 250—Mexican-American Sketches	4 units
<hr/>	
Total units in excess of General Education.....	8 units

B. Upper Division

AMES 430—Seminar in Community Involvement.....	4 units
AMES 450—Black, Brown, Red Education in America.....	4 units
MAMS 345—Mexican-American History	4 units
MAMS 350—Mexican-American Identity	4 units
MAMS 470—Youth in the Mexican-American Community.....	4 units
Electives in Afro-American Studies.....	4-12 units
Electives in Euro-American and/or Asian-American.....	4-12 units
Electives in Native-American Studies.....	4-12 units
<hr/>	
Total upper division MAMS.....	32 units

C. Additional Requirements

Recommended courses in other divisions.....	8 units
General Education	40 units
Spanish Language and/or second major.....	36 units
<hr/>	
Total units for B.A.....	124 units

MINOR IN MEXICAN-AMERICAN STUDIES

The minor listed below is designed to meet the requirements for the Standard Teaching Credential for both elementary and secondary school specializations. The minor may be altered in consultation with the student's advisor.

Lower division units in excess of the 40 units of General Education:

AAMS 250—An Analysis of Afro-American Arts	4 units
MAMS 220—Mexican-American Cultures	4 units

Upper division units in excess of the 40 units of General Education:

AMES 430—Seminar in Community Involvement.....	4 units
MAMS 345—Mexican-American History	4 units
MAMS 350—Mexican-American Identity	4 units
Electives in Afro-American, Asian-American, Euro-American or Native-American Studies	4 units

Total	20 units
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MEXICAN-AMERICAN STUDIES

220. Mexican-American Culture (4)

A survey of the Mexican-American culture, its beliefs, religion, family, community, education and economy.

Ethnic Studies

225. Mexican-American Spanish (4)

Designed to increase proficiency in understanding, speaking, reading and writing Spanish.

250. Mexican-American Sketches (4)

A study of the Mexican-American through an examination of his art forms.

300. Mexican-American Music (4)

A survey of Mexican-American music in the 20th Century.

340. Mexican-American Folklore (4)

Stories and myths of Spanish and Indian origin in North America.

345. Mexican-American History (4)

The Mexican in the United States from the Mexican-American War until the present.

350. Mexican-American Identity (4)

The personality, cultural and political aspects of the American citizen of Mexican background.

400. Cultures of the Southwest (4)

A study of the people who settled the Southwest and their impact on each other until the Mexican-American War.

405. The Mexican-American Family (4)

A study of the family unity in Mexican-American culture, the roles of family members in the inter and intra-culture relations.

425. Ejido Al Vendido (4)

The Mexican-American worker to the entrepreneur. The problems and changes occurring in socioeconomic status of the Mexican worker.

430. Mexican-American Field Study (4)

Work and study within the Mexican Barrio.

465. Mexican Drama (4)

The theater as a form of art and culture expression. The Mexican playwright in the 20th Century.

470. Youth in the Mexican-American Community (4)

The roles and influence of young people within the changing structure of the barrio and community.

475. Mexican-American Literature (4)

A survey of Mexican and Mexican-American literature in translation.

490. Children's Literature: Mexican-American (4)

495. Independent Study for Majors or Minors (1-4)

499. Special Problems (1-4)

NATIVE-AMERICAN STUDIES

200. Introduction to American Indians (4)

A study of American-Indian tribes and nations from their origins until 1800.

301. Native-Californian Cultures (4)

A survey of the cultures, and histories of Native California from the time of contact to the present.

317. Prehistory of California (4)

A survey and analysis of the findings of archaeology contributing to the understanding of the evolution of Native Californian cultures.

330. Regional Historical Studies (4)

A comprehensive discussion of the cultural history of Native-Americans in a particular regional or cultural area from the time of contact to the present.

332. Native-American Cultures of the Plains (4)

An in-depth focus on the indigenous cultures of the plains and their change and disruptions from the arrival of De Soto to the Battle of Wounded Knee.

333. Native-American Cultures of Western North America (4)

An in-depth focus on the indigenous cultures of Western North America and their changes and disruptions from the period of Spanish Dominations to the 1890 Ghost Dance.

335. Cultures of Northern North America (4)

A survey of the cultures and histories of Native-American people of Canada and Alaska from contact to the present.

355. Native-American Literatures (4)

A discussion of the traditional myths, songs and oral traditions as well as contemporary, literary works of Native-Americans.

356. Musical and Visual Arts of Native-America (4)

A survey and analysis of both traditional and contemporary musical and visual arts.

410. Seminar in Individual Native-American Cultures (4)

An in-depth focus on the cultural experience of an individual Native-American people.

440. Seminar in Native-American Languages (4)

A survey and analysis of the relationship between the languages and cultures of Native-American people.

499. Special Problems (4)

EUROPEAN STUDIES

See page 64.

FOREIGN LANGUAGES AND LITERATURES

(Division of Humanities)

(French, German, Russian, Spanish)

William O. Cord (Spanish), Chairman of Department

Mary Arnold (Russian), Philip Beard (German), Sterling Bennett (German), Aaron Berman (Teacher Education), Yvette Fallandy (French), Francisco Gaona (Spanish), William Guynn (French), Howard Limoli (French), Marion Nielsen (German), Michelle Ogor (Visiting Professor of French), Pablo Ronquillo (Spanish), Gary Thomas (German), Rosa Vargas-Arandia (Spanish).

INTERNATIONAL PROGRAMS

Students of Sonoma State College who participate in the International Programs of the California State Colleges may undertake a full academic year at certain designated major institutions of higher learning located outside of the United States. Studies may be pursued at any of the following universities:

Formosa—National University of Taiwan, Taipei

France—University of Aix-Marseille, Marseille

Germany—Free University of Berlin, West Berlin

University of Heidelberg, Heidelberg

Israel—University of Tel Aviv and Hebrew University

Italy—University of Florence, Florence

Japan—Waseda University, Tokyo

Spain—University of Madrid, Madrid

University of Granada, Granada

Sweden—University of Stockholm, Stockholm

Uppsala University, Uppsala

(A limited number of students will also be accepted in each of the following countries: Colombia, Ghana, Greece, Lebanon, the Netherlands, Peru, Portugal, and the United Kingdom.)

Students may pursue studies in any field. Academic work completed successfully in these programs, and credit earned, will be counted as *in-residence* work and credit at Sonoma State College. Course work and credit earned may be applied to degree requirements in accordance with College regulations. Prior to departure, students are urged to consult with their major and minor advisers regarding a program of study. Where it is impractical or impossible to arrange a specific schedule of courses or when appropriate study opportunities are available at the host institution but no counterpart courses are offered at Sonoma State College, students may register in any of the courses listed below. Credit may not exceed 30 semester units in an academic year.

Upon completion of the academic year, a report in detail of the work of each student will be prepared by the Resident Director. This report will be forwarded to the College for evaluation by each department concerned. In accordance with College regulations, earned credits may be allowed to meet requirements in the major and/or minor or may be counted as electives.

Costs of programs vary from country to country. Each program has a fixed fee out of which are paid all tuition fees, room and board, roundtrip jet transportation. In most programs, the student is expected to demonstrate some proficiency in the language of the country of the host institution.

Deadline dates for applications and other information and brochures may be secured from the Student Personnel Office.

The following course designations are used in cases where there is no exact correspondence between the course in the foreign university and a course listed in the Sonoma State College catalog:

Foreign Language 101 i.s. (1-8)

A maximum of 8 units may be earned in elementary courses of a foreign language.

Foreign Language 201 i.s. (1-6)

A maximum of 6 units may be earned in intermediate courses of a foreign language.

International Programs 300 (1-3)

May be repeated and/or multiple registrations may be made concurrently.

International Programs 400 (1-3)

May be repeated and/or multiple registrations may be made concurrently.

International Programs 500 (1-3)

May be repeated and/or multiple registrations may be made concurrently.

PLACEMENT IN FOREIGN LANGUAGE COURSES

A student who has studied a foreign language in high school *only* may begin study for credit of that language in the lower-division course (courses numbered 100-299) of his choice. Once a student has completed successfully a lower-division course, he may continue study of the same language for credit only in those lower-division courses whose number and/or letter succeed that of the course originally studied at Sonoma State College.

The staff of the Department of Foreign Languages will assist students in the matter of placement although the following schedule is *recommended*:

	Courses Numbered
1. Less than 2 years of high school study.....	101
2. Two years of high school study.....	102
3. Three years of high school study.....	201
	or
	any other 200 course except
4. Four years of high school study.....	202
	or
	and other 200 course except
	201

Transfer students with college credit in a foreign language will not receive credit for work in the same language which duplicates that done at another college or university. Exceptions may be made by the Chairman of the Department when the following conditions are met:

1. The courses involved are of lower-division classification.
2. The original study was accomplished three or more years prior to enrollment in the language course at Sonoma State College.

FRENCH

The major in French is designed both as a liberal education and as a preparation for graduate work in the field. It may also serve as an academic major for the standard teaching credential (elementary or secondary specialization).

French

MAJOR IN FRENCH

The major in French for the B.A. degree shall include a minimum of 30 semester units in upper division courses (300–400 courses) consistent with the pattern of course requirements. Students are cautioned to study carefully the prerequisites for upper division courses.

FRENCH MAJOR COURSE REQUIREMENTS

Upper Division

301AB—Advanced Grammar and Composition.....	6 units
310, 311—Survey of French Literature.....	6 units
425—Applied Linguistics	3 units
445—The Seventeenth Century.....	3 units
495—Seminar for Majors.....	3 units
Nine units selected from French 435 through 490, except 445 (see above)	9 units

MINOR IN FRENCH

Students wishing to minor in French must complete a minimum of 20 units in French, including French 301AB, or its equivalent, and French 425.

Unless stated otherwise, all courses are conducted in French.

101–102. Elementary French (4–4)

Systematic study of spoken French with practice in understanding, speaking, reading, and writing. A minimum of 2½ hours per week of practice sessions in the language laboratory are required in addition to class-meetings. No prerequisite for 101.

Prerequisite for 102: 101 or equivalent.

201–202. Intermediate French (3–3)

Review of fundamentals and study of more advanced aspects of grammar with practice in understanding, speaking, reading, and writing. A minimum of 1½ hours per week of practice sessions in the language laboratory are required in addition to the class meetings.

Prerequisite for 201: French 102 or equivalent.

Prerequisite for 202: French 201 or equivalent.

220AB. Introduction to the Reading of French Literature (2–2) Yr

Reading in 19th and 20th century French literature; rapid reading techniques; literary analysis; vocabulary drill. Prerequisites: French 102 or equivalent. May be used in conjunction with other lower division language courses to satisfy foreign language requirements of other departments of the College.

250. Conversational French (2)

Systematic improvement of fluency, pronunciation and modern idiomatic usage in a framework of both free and directed conversation. Discussion of current newspapers and periodicals. Includes individual and class assignments in the language laboratory.

Prerequisite: French 102 or equivalent; French 202 highly recommended.

295. Community Involvement Project (1–4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. Does not count toward major or minor.

301AB. Advanced Grammar and Composition (3-3) Yr

Written composition; style and idiom; oral analysis of literary texts. Prerequisite: French 202 or equivalent.

310. Survey of French Literature (Middle Ages through 17th Century) (3)

Chanson de Roland, medieval narrative and lyric poetry; the *Pléiade*; humanism; classicism. Prerequisites: French 202 or equivalent; French 220AB highly recommended.

311. Survey of French Literature (18th and 19th Centuries) (3)

The Enlightenment, the development of poetry and the novel in the 19th century. Prerequisites: French 202 or equivalent; French 220AB highly recommended.

313. Classical Studies in French (3)

A detailed and thorough study of a classical text of literature, in translation, as a point of departure toward an understanding of the author and of his time. Conducted in English. No prerequisite: Does not count toward the major or minor.

315. The Contemporary French Novel in Translation (3) I

Gide, F. and C. Mauriac, Robbe-Grillet, Duras, Simon, Butor. No prerequisite. Does not provide credit toward the major. Class discussion will be in English.

316. The Contemporary French Theater in Translation (3) II

Claudel, Sartre, Anouilh, Becket, Ionesco, Adamov, Genêt. No prerequisite. Does not provide credit toward the major. Class discussion will be in English.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. Does not count toward major or minor.

425. Applied Linguistics (3)

Perfection of pronunciation and intonation through intensive study of phonetics: laboratory practice, individual work, audition of recorded French literature. Prerequisite: French 301AB or equivalent.

435. Medieval French Literature (3)

The *chansons de geste*, the *roman médiéval*, Marie de France, Chrétien de Troyes, literature of the bourgeoisie, religious drama, comedy, lyric poetry, François Villon. Prerequisite: French 301AB or equivalent; 310 highly recommended.

440. The 16th Century (3)

Marot, Rabelais, the *Pléiade*, Calvin, the *romanesque* drama, Montaigne. Prerequisite: French 301AB or equivalent; 310 highly recommended.

445. The 17th Century (3)

Corneille, Racine, Molière, La Fontaine. Prerequisite: French 301AB or equivalent; 310 highly recommended.

446. The 17th Century (3)

Descartes, Pascal, Mme de Lafayette, Mme de Sévigné, La Rochefoucauld, Bossuet, Fénelon, La Bruyère. Prerequisite: French 301AB or equivalent; 310 highly recommended.

450. The 18th Century (3)

Saint-Simon; rationalism: Lesage, Fontenelle, Montesquieu, *l'Encyclopédie*, Voltaire. Prerequisite: French 301AB or equivalent; 311 highly recommended.

German

451. The 18th Century (3)

Sensibilité: Marivaux, the salons, Prévost, St-Pierre, Rousseau; Sade. Prerequisite: French 301AB or equivalent; 311 highly recommended.

455. The 19th Century (3)

The romantic poets, Hugo, Stendhal, Balzac, Flaubert, Maupassant. Prerequisite: French 301AB or equivalent; 311 highly recommended.

456. The 19th Century (3)

The realistic novel, naturalism, the Parnassians, symbolism. Prerequisite: French 301AB or equivalent; 311 highly recommended.

460. The 20th Century (3)

Proust, Gide, the Catholic writers, surrealism. Prerequisite: French 301AB or equivalent; 311 highly recommended.

461. The 20th Century (3)

The Existentialists, *le nouveau roman*, contemporary theater including *le théâtre de l'absurde*. Prerequisite: French 301AB or equivalent; 311 highly recommended.

470. Individual Author or Movement (3)

Intensive study of a single French literary figure or movement of international significance through lectures, discussion, and individual topics. Prerequisite: French 301AB or equivalent. French 311 highly recommended.

490. Explication de textes (2)

Techniques of textual analysis. Prerequisite: French 301AB or equivalent. French 311 highly recommended.

495. Independent Study for Majors or Minors (1-3)

Directed and individual study, discussions, and reports on selected topics. Prerequisite: French 301AB and French 310-311 or equivalent.

496. Seminar in French Literature (3)

Intensive study of a series of specific problems, including their bibliography, historical and/or biographical aspects, literary criticism and analysis.

Prerequisite: French 301AB or equivalent; French 310-311 highly recommended.

499. Special Problems (1-2)

Prerequisite: French 301AB and French 310-311 or equivalent.

GERMAN

The major in German is designed both as a liberal education and as a preparation for graduate work in the field. It may also serve as an academic major for the standard teaching credential (elementary or secondary specialization).

MAJOR IN GERMAN

The major in German for the B.A. degree shall include a minimum of 26 semester units in upper-division courses (300-400 courses) consistent with the pattern of course requirements. Students are cautioned to study carefully the prerequisites for upper division courses.

GERMAN MAJOR COURSE REQUIREMENTS

Lower Division

250—Phonetics and Conversation 2 units*

* Transfer students only may take German 250 concurrently with upper division courses during the first and/or second semester of study at Sonoma State College.

Upper Division

301AB—Advanced Grammar and Composition	4 units
414—The Young Goethe and <i>Sturm und Drang</i> or 415—The Age of Goethe or 430—Faust	3 units
425—Applied Linguistics	2 units
490—Senior Tutorial for Majors	3 units
496—Seminar for Majors	3 units
Electives from 300–400 courses	10 units

MINOR IN GERMAN

Students wishing to take a Minor in German must complete a minimum of 20 units in German, of which 9 units must be in approved upper-division courses and include German 425.

The German language will be used extensively in all German courses except where noted “taught in English”. In upper division literature courses, primary emphasis will be placed on the students’ expression of ideas, not on the external form which this expression might take.

101–102. Elementary German (4–4) Yr

Systematic study of the fundamentals of German grammar, with practice in understanding, speaking, reading, and writing. Daily laboratory work required. No prerequisite for 101.

Prerequisite for 102: German 101 or equivalent.

201–202. Intermediate German (3–3) Yr

Review of fundamentals and study of more advanced aspects of grammar with further practice, on an intermediate level, in understanding, speaking, reading, and writing. Daily laboratory work required. Prerequisite for 201: German 102 or equivalent.

Prerequisite for 202: German 201, or equivalent.

210–211. German for Reading Knowledge (2–2)

Primarily for non-majors interested in developing a reading knowledge of German for graduate school or other purposes. Reading of prose texts from a variety of fields.

Prerequisite: German 102 or equivalent.

250. Phonetics and Conversation (2)

A systematic study of the German sound system; drills for perfecting pronunciation; practice in conversation.

Prerequisite: German 102 or equivalent.

251. Conversation (2)

Systematic improvement of fluency, pronunciation, and modern idiomatic usage in both free and directed conversation.

Prerequisite: German 102 or equivalent.

295. Community Involvement Project (1–4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. Does not count toward the major.

German

301AB. Advanced Grammar and Composition (2-2)

Study of German grammar on an advanced level; written composition; style and idiom.

Prerequisite: German 202 or equivalent.

306. German Culture and Civilization (2)

From the earliest times to the 18th century. Conducted in English.

No prerequisite.

307. German Culture and Civilization (2)

From the 18th century to the present. Conducted in English.

No prerequisite.

313. Classical Studies in German (3)

A detailed and thorough study of a classical text of literature, in translation, as a point of departure toward an understanding of the author and of his time. Conducted in English. No prerequisite. Does not count toward the major or minor.

320. German Lyric Poetry (3)

From the Middle Ages to 1832.

Prerequisite: German 202 or equivalent.

321. German Lyric Poetry (3)

From 1832 to the present.

Prerequisite: German 202 or equivalent.

325. Narrative Prose of the 19th Century (3)

With special emphasis on the *Novelle*.

Prerequisite: German 202 or equivalent.

330. German Drama of the 19th Century (3)

Reading and analysis of plays from Kleist to the early work of Gerhart Hauptmann.

Prerequisite: German 202 or equivalent.

340. German Literature in Translation (3)

Not a survey course. Emphasis as to period, genre, author, or authors will vary from semester to semester. Does not count toward the major. Conducted in English.

No prerequisite.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. Does not count toward major.

412. The Medieval Epic and Medieval Poetry (3)

The *Nibelungenlied*, Hartmann von Aue's *Der arme Heinrich*, and portions of Wolfram von Eschenbach's *Parzival*; the poetry of Walter von der Vogelweide.

Prerequisite: German 202 or equivalent.

414. The Youth Goethe and *Sturm und Drang* (3)

The critical and philosophical foundations of the *Sturm und Drang* movement; Goethe's early poetry and his *Götz von Berlichingen* and *Die Leiden des jungen Werthers*. The dramas of Lenz and other contemporaries of the young Goethe.

Prerequisite: German 202 or equivalent.

415. The Age of Goethe (3)

A study of the Age of Goethe in its broadest sense: Rationalism and the literary and critical work of Lessing; Goethe and his work after 1775; Schiller.

Prerequisite: German 202 or equivalent.

418. The Modern Novel (3)

A study of representative novels by German authors in the 20th century.

Prerequisite: German 202 or equivalent.

419. The Modern Drama (3)

A study of representative plays by German authors in the 20th century.

Prerequisite: German 202 or equivalent.

425. Applied Linguistics (3)

Contrastive analysis of the German and English sound systems and grammatical structures, with emphasis on those problems which will be of greatest help to future teachers of German.

Prerequisite: German 202 or equivalent.

430. Faust (3)

The historical Faust and the development of the Faust legend; reading and detailed study of the text of Goethe's *Faust* I; summary of *Faust* II, with portions assigned for reading and analysis.

Prerequisite: German 202 or equivalent.

432. German Romanticism (3)

The critical and philosophical foundations of the Romantic Movement in Germany; reading of selected works of the major writers of the movement, poetry and prose.

Prerequisite: German 202 or equivalent.

435. Individual Author (3)

May be repeated for credit for different authors.

Prerequisite: German 202 or equivalent.

490. Senior Tutorial for Majors (3)

To be taken by each German major during one of the semesters of his senior year. Students will meet individually or in pairs on a regular schedule with the professor assigned to the tutorial to discuss German literary works on the "German B.A. Reading List."

Prerequisite: Student must have senior standing as a German major.

495. Independent Study (1-3)

Directed individual study; discussions and reports on selected topics.

Prerequisite: German 202 or equivalent.

496. Seminar for German Majors (3)

Study in depth of a topic related to a specific writer, period, or literary movement; preparation of a paper for discussion in the seminar.

Prerequisite: German 202 or equivalent.

499. Special Problems (1-2)

Prerequisite: German 202 or equivalent.

RUSSIAN

The minor in Russian is designed to broaden the liberal education of undergraduates, to provide a basis for graduate work in any field where the Russian

Russian

language is a necessary tool, and to serve as a teaching minor for a credential. The objective of the minor in Russian is to ensure competency in the language and a general knowledge of Russian literature.

Students wishing to take a minor in Russian must complete a minimum of 9 semester units in upper division courses consistent with the pattern of course requirements. Students are cautioned to study carefully the prerequisites for upper division courses.

RUSSIAN MINOR COURSE REQUIREMENTS

301-302—Advanced Russian 6 units

425—Applied Linguistics 3 units

Unless stated otherwise, all courses are conducted in Russian.

101-102. Elementary Russian (5-5) Yr

Systematic study of the fundamentals of Russian grammar with practice in the four basic skills of understanding, speaking, reading and writing. A minimum of five (one daily) $\frac{1}{2}$ hour practice sessions in the language laboratory is required. No prerequisite for 101.

Prerequisite for 102: Russian 101 or equivalent.

201-202. Intermediate Russian (5-5) Yr

Continuation of the study of the fundamentals of Russian grammar, with emphasis on advanced problems and practice on an intermediate level in the basic skills. A minimum of five (one daily) $\frac{1}{2}$ hour practice sessions in the language laboratory is required.

Prerequisite for 201: Russian 102 or equivalent.

Prerequisite for 202: Russian 201 or equivalent.

295. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. Does not count toward minor.

301-302. Advanced Russian (3-3) Yr

Selected problems in the Russian language; written and oral composition, both controlled and free.

Prerequisite for 301: Russian 202 or equivalent.

Prerequisite for 302: Russian 301 or equivalent.

310. Survey of Classic Russian Literature in English (3)

Survey of major authors and literary trends in the 19th century, from Pushkin to Chekhov.

Prerequisite: Upper division standing. Does not count toward the minor.

311. Survey of Soviet Russian Literature in English (3)

Survey of major authors and literary trends beginning with the pre-Revolutionary period to the present day.

Prerequisite: Upper division standing. Does not count toward the minor.

312. Tolstoy and Dostoevsky in English (3)

Prerequisite: Upper-division standing; Russian 310 highly recommended. Does not count toward the minor.

313. Classical Studies in Russian (3)

A detailed and thorough study of a classical text of literature, in translation, as a point of departure toward an understanding of the author and of his time. Conducted in English. No prerequisite. Does not count toward the minor.

320-321. Reading of Literature in Russian (2-2) Yr

Selected readings in Russian of an intermediate to advanced degree of difficulty designed to serve as an introduction to the reading of literary works in Russian with emphasis on vocabulary building and analysis of literary works.

Prerequisite: 202 or equivalent; Russian 310 highly recommended.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. Does not count toward minor.

425. Applied Linguistics (3)

Systematic study of the phonology, morphology and syntax of the Russian language with emphasis on pronunciation.

Prerequisite: Russian 302 or equivalent.

495. Independent Study (1-3)

Directed and individual study, discussions, and reports on selected topics.

Prerequisite: Russian 302 or Russian 321 or equivalent.

499. Special Problems (1-2)

Prerequisite: Russian 302 or equivalent.

SPANISH

The major in Spanish is designed both as a liberal education and as a preparation for graduate work in the field. It may also serve as an academic major for the standard teaching credential (elementary or secondary specialization).

MAJOR IN SPANISH

The major in Spanish for the B.A. degree shall include a minimum of 29 semester units in upper division courses (300-400 courses) consistent with the pattern of course requirements. Students are cautioned to study carefully the prerequisites for upper division courses.

SPANISH MAJOR COURSE REQUIREMENTS

Lower Division

150—Applied Phonetics, or equivalent 2 units*

Upper Division

300AB—Introduction to Literary Analysis..... 4 units

301AB—Advanced Composition and Conversation 4 units*

305 or 306—Survey of Spanish American Literature or 311 Survey of Spanish Literature 18th Century to 20th Century..... 3 units

310—Survey of Spanish Literature 12th Century to 17th Century..... 3 units

400—Spanish Medieval Literature or 405 Spanish Renaissance Literature or 410 Spanish-American Colonial Literature or 420 Spanish Baroque Literature 3 units

* Transfer students only may take Spanish 150 and Spanish 301AB concurrently with upper division courses during the first and/or second semester of study at Sonoma State College.

Spanish

425—Applied Linguistics	3 units
430—19th Century Spanish-American Literature or 440 Spanish Neo-Classic and Romantic Literature or 450 Spanish Literature from 1850 to 1898	3 units
460—20th Century Spanish American Literature or 470—Spanish Literature, 1898–1927 or 475—Spanish Literature since 1927 or 480A or B— <i>Don Quijote</i>	3 units
496—Seminar in Spanish American Literature or 497—Seminar in Spanish Literature	3 units

MINOR IN SPANISH

A minor in Spanish shall consist of Spanish 150 plus nine units of upper-division units courses and shall include 425.

MASTER OF ARTS DEGREE IN SPANISH

The Master of Arts Degree in Spanish is designed to provide qualified students with a program of advanced studies in the literatures and linguistics of the Spanish-speaking cultures.

The program is flexible in that it accommodates the candidate's special interests or needs and incorporates all fundamental work in bibliographical research, linguistics, and in the external influences which have helped to mold the cultures. It attempts to prepare the candidate to deal with critical and linguistic analyses of literature and language and to relate these studies to the culture and civilization of their origin. Students may concentrate their efforts in either Peninsular or Latin American areas, or both.

Elementary and secondary teachers may regard the degree as terminal, but it also serves as a preparation for those continuing study for the Ph.D.

Admission Requirements

To be admitted to the program, the candidate must:

1. Have a bachelor's degree and an undergraduate major in Spanish (minimum of 24 semester units of upper-division work) from an accredited institution.
2. Have maintained a 3.0 (B) under-graduate grade point average in the major.
3. Have maintained an overall grade point average of 3.0 (B) at the time of the bachelor's degree or, with the approval of the advisor, have maintained a 3.0 (B) grade point average during a semester of full-time graduate work.

Admission to Classified Status

To be admitted to Classified Status (Candidacy), the candidate must:

1. Complete a diagnostic oral interview in Spanish to the satisfaction of the faculty.

Requirements for the Degree

1. Maintain a grade point average of 3.0 (B).
2. Complete a series of courses as described below in Course Pattern.
3. Pass a reading examination in a language approved by the major advisor and other than that of the major field and English.
4. Pass a written and an oral Comprehensive Examination.
5. Complete a thesis acceptable to the candidate's committee.

Course Pattern

The minimum course requirements (30 units) for the degree are as follows:

- | | |
|----------------------------------------------------|---------|
| 1. 500 Bibliography and Research Methods..... | 3 units |
| 2. 501 Diachronic Linguistics | 3 units |
| 3. 502 Classical Influences on European Literature | |

OR

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 503 European Literature and the Italian Renaissance..... | 3 units |
| 4. 590 Thesis | 3 units |
| 5. 595 Comprehensive Examination Tutorial..... | 3 units |
| 6. A minimum of 15 units of electives at the 500 course level. (A maximum of 6 units taken at the 400 level—except 425—beyond the requirements of the under-graduate major may, on approval by the Department, be included in this requirement.)..... | 15 units |

Unless stated otherwise, all courses are conducted in Spanish.

101–102. Elementary Spanish (4–4) Yr

Systematic study of the fundamentals of Spanish grammar with practice in understanding, speaking, reading, and writing. A minimum of five (one daily) ½ hour practice sessions in the language laboratory is required. No prerequisite for 101.

Prerequisite for Spanish 102: Spanish 101 or equivalent.

150. Applied Phonetics (2)

A systematic study of Spanish sounds through practical exercises.

Prerequisite: None.

201–202. Intermediate Spanish (3–3) Yr

Review of fundamentals and study of more advanced aspects of grammar with practice, on an intermediate level, in understanding, speaking, reading, and writing. A minimum of three ½ hour practice sessions per week in the language laboratory is required.

Prerequisite for 201: Spanish 102 or equivalent.

Prerequisite for 202: Spanish 201 or equivalent.

210–211. Reading and Translation in Spanish (3–3)

Readings from current Spanish language magazines and journals to develop the ability to translate Spanish into English and to develop an acceptable receptive vocabulary. Taught in English.

Prerequisite: Spanish 102.

250. Conversational Spanish (2)

Free and directed conversation in Spanish to improve pronunciation, fluency, and modern idiomatic usage. Includes individual and class assignments in the language laboratory.

Prerequisite: Spanish 102 or equivalent. Spanish 201–202 highly recommended.

295. Community Involvement Project (1–4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. Does not count toward the major or minor.

300AB. Introduction to Literary Analysis (2–2) Yr

An introduction to the methods of literary analysis through reading and discussion of representative works, both Peninsular and Spanish-American.

Prerequisite: Spanish 202.

Spanish

301AB. Advanced Composition and Conversation (2-2) Yr

Study of advanced aspects of grammar with emphasis on syntax and semantics; controlled and free composition in Spanish.

Prerequisite: Spanish 202.

305-306. Survey of Spanish-American Literature (3-3)

A survey of the major authors of Central and South America and their literary works from the Conquest to the present. 305 includes the works of the period 1492-1888. 306 includes those works of the period 1888 to the present. 305 is not a prerequisite for 306.

Prerequisite: Spanish 202.

310-311. Survey of Spanish Literature (3-3)

A survey of the major literary works of Spain from the *Poema de Mío Cid* to the 20th Century.

Prerequisite: Spanish 202.

313. Classical Studies in Spanish (3)

A detailed and thorough study of a classical text of literature, in translation, as a point of departure toward an understanding of the author and of his time. Conducted in English. No prerequisite. Does not count toward the major or minor.

315. Spanish Literature in Translation (3)

Peninsular literature in English. Conducted in English. No prerequisites. Does not count toward the major or minor in Spanish.

316. Spanish-American Literature in Translation (3)

The literature of the Spanish-speaking countries of the Western Hemisphere in English. Conducted in English. No prerequisites. Does not count toward the major or minor in Spanish.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree. Does not count toward the major or minor.

400. Spanish Medieval Literature (3)

The major Spanish literary works between 1140 and 1492. The *Poema de Mío Cid*, *Berceo*, *Libro de Buen Amor*, D. Juan Manuel, M. de Santillana, the *Roman-cero*, Manrique, *La Celestina*.

Prerequisite: Spanish 301AB.

405. Spanish Renaissance Literature (3)

Spanish literature of the 16th Century. Italian and Classical influences. Boscán, Garcilaso, the theater before Lope, Lazarillo de Tormes, Fray Luis de León, Herrera, the Spanish mystics, Lope de Vega.

Prerequisite: Spanish 301AB.

410. Spanish-American Colonial Literature (3)

A study of the principal literary works produced in Spanish-America between 1521 and 1821.

Prerequisite: Spanish 301AB.

420. Spanish Baroque Literature (3)

Cervantes, Góngora, Quevedo, Gracián, Calderón, The Picaresque Novel.

Prerequisite: Spanish 301AB.

425. Descriptive Linguistics (3)

Systematic study of syntax, articulatory phonetics and phonemics of the Spanish language with emphasis on pronunciation, linking, stress, and intonation. Conducted in English.

Prerequisite: Spanish 301AB.

430. 19th Century Spanish-American Literature (3)

The poetry and prose of the independent Spanish-American nations. *Gauche* poetry; *Modernismo*.

Prerequisite: Spanish 301AB.

440. Spanish Neo-Classical and Romantic Literature (3)

The theater of Moratin and the fables of Iriarte and Samaniego, *Costumbrismo*, Larra, the Romantic Theater, Zorrilla, Espronceda and Bécquer.

Prerequisite: Spanish 301AB.

450. Spanish Literature from 1850 to 1898 (3)

The Spanish novel and short story of Galdós, Valera, Pardo Bazán and others.

Prerequisite: Spanish 301AB.

460. 20th Century Spanish-American Literature (3)

Main currents of contemporary literature in Spanish-America.

Prerequisite: Spanish 301AB.

470. Spanish Literature 1898–1927 (3)

Poetry, drama, novel, and essay.

Prerequisite: Spanish 301AB.

475. Spanish Literature Since 1927 (3)

Poetry, drama, novel, and essay.

Prerequisite: Spanish 301AB.

480AB. Don Quijote (3–3)

An intensive study of Cervantes' masterpiece, of the influences it reflects and its relation to Cervantes' other works.

Prerequisite: Spanish 301AB.

485. The Civilization and Culture of Spain (3)

Conducted in English. No prerequisite. Does not count toward major or minor.

490. The Civilization and Culture of Spanish America (3)

Conducted in English. No prerequisite. Does not count toward major or minor.

495. Independent Study for Majors or Minors (1–3)

Directed and individual study, discussions, and reports on selected topics.

Prerequisite: Spanish 301AB.

496. Seminar in Spanish American Literature (3)

Directed and individual study, discussion, and reports on selected topics directly related to aspects of Spanish-American language, literature, and/or civilization.

Prerequisite: Spanish 301AB.

497. Seminar in Spanish Literature (3)

Directed and individual study, discussions, and reports on selected topics, directly related to aspects of Spanish and Hispanic language, literature, and/or civilization.

Prerequisite: Spanish 301AB.

Spanish

499. Special Problems (1-2)

Prerequisite: Spanish 301AB.

- 500. Bibliography and Research Methods (3)**
- 501. Diachronic Linguistics (3)**
- 502. Classical Influences on European Literature (3)**
- 503. European Literature and the Italian Renaissance (3)**
- 505. Medieval and Renaissance Poetry (3)**
- 506. Medieval and Renaissance Prose (3)**
- 507. Golden Age Drama (3)**
- 508. Golden Age Poetry (3)**
- 509. Golden Age Prose (3)**
- 510. Cervantes (3)**
- 511. Spanish Literature 1700-1850 (3)**
- 512. 19th Century Spanish Novel and Short Story (3)**
- 513. The Generation of '98, Precursors and Influences (3)**
- 514. 20th Century Novel (3)**
- 515. 20th Century Essay (3)**
- 516. 20th Century Poetry (3)**
- 517. 20th Century Theater (3)**
- 518. Structural Linguistics (3)**
- 519. The Literature of the Conquest (3)**
- 520. Colonial Literature (3)**
- 521. Literatura Gauchesca (3)**
- 522. 19th Century Prose (3)**
- 523. El Modernismo (3)**
- 524. Theater in Latin America (3)**
- 525. 20th Century Novel (3)**
- 526. 20th Century Poetry (3)**
- 527. 20th Century Essay (3)**
- 590. Thesis (3)**
- 591. Special Studies in Spanish Literature (3)**
- 592. Special Studies in Spanish American Literature (3)**
- 595. Comprehensive Examination Tutorial (3)**

GEOGRAPHY

(Division of Social Sciences)

William Frazer, Chairman of Department

Timothy Bell, William Crowley, Leon Hunsaker, Claude Minard, Jr., Eldor Pedersen

GEOGRAPHY MAJOR

The Geography Major is designed to serve a dual purpose. Geographic study of both the natural and cultural environment and the relationships between the two, forms a broad-based area of knowledge for the student desirous of a liberal arts education. For a student who wishes to pursue graduate study in geography, the major provides the necessary technical skills, methodological viewpoints, and fields of knowledge. It serves as an academic major for those who contemplate a career in teaching.

GEOGRAPHY MAJOR FOR THE B.A. DEGREE

General Education	40 units
Geography Courses	42 units
Supporting Subjects	8 units
Foreign Language and/or electives.....	34 units
Total	124 units

GEOGRAPHY MAJOR COURSE REQUIREMENTS

The geography course requirements (42 units) are divided into four groups, as listed below. In addition, the geography major is required to complete eight (8) units in courses from related disciplines as listed below, or courses otherwise approved by the department. Geography majors entering graduate studies are also advised to complete two years of foreign language.

I. Basic: Geography 302, 303, 340, 390.....	14 units
II. Systematic: to be chosen from Geography 305, 310AB, 315AB, 320, 325, 330, 350, 360, 370, 380, 383, 385, 386, 403, 423, 433, 443, 453, 465, 480.....	16 units
III. Regional: to be chosen from Geography 400, 410, 415, 420, 430, 440, 450, 460.....	8 units
IV. Geographic Thought: Geography 490.....	4 units

Supporting Units: 8 units from the following:

Social Science

Anthropology 301—Modern Human Evolution.....	4 units
Anthropology 325—Evolution of Culture.....	4 units
Anthropology 331—Archaeology of North America.....	4 units
Anthropology 351—Culture Contact	4 units
Anthropology 360—Indians of North America.....	4 units
Anthropology 361—Indians of California.....	4 units
Anthropology 370—Cultures of Oceania.....	4 units
Economics 302—Theory of International Trade and Finance.....	4 units
Economics 303—Theory of Economic Development.....	4 units
Economics 310—Theory of Comparative Economic Systems.....	4 units
Economics 320—Theory of Regional and Urban Economic Development	4 units
History—Selected courses with approval of advisor	
Political Science 342—International Politics	4 units
Political Science 452—Asian Governments	4 units
Political Science 485—The Metropolis	4 units

Geography

Sociology 414—Rural and Urban Life	4 units
Sociology 432—Social Organization of Western and Non Western Societies	4 units

Humanities

English 431—Classical Asian Literature	3 units
English 432—Modern Asian Literature	3 units
English 461—American Folklore	3 units

Natural Science

Biology 305—Conservation of Natural Resources	4 units
Biology 400—Ecology	4 units
Biology 401—Marine Ecology	4 units
Geology 302—Marine Geology	3 units
Geology 320—Field Geology	3 units
Mathematics 345—Probability Theory	3 units
Mathematics 365—Intermediate Statistics	3 units

GEOGRAPHY MINOR

The Geography Minor (20 units) is divided into the following groupings and the number of units required for each group.

I. Basic	12 units
II. Systematic	4 units
III. Regional	4 units

201. Introduction to Physical and Cultural Geography (4)

A survey of the elements of physical geography: weather and climate, soils, vegetation landforms; population, patterns of settlement, resources and manufacturing.

(This course is designed as a one semester course which provides background work for advanced geographical work, or satisfies the Social Science Division elective in the General Education program. With the consent of the advisor, it may be substituted for certain courses in the Basic group.

I. Basic

302. Physical Geography (4)

Lecture, 3 hours; laboratory, 3 hours

A systematic exploration of the physical elements of geography. Atmospheric elements, meteorological, and climatological patterns; their effect on soil and vegetation distribution. Landforms: geomorphological structures and the erosive processes through which they have been formed. Laboratory period will include field trips and work with weather and topographic maps.

303. Cultural Geography (4)

A study of the inter-relationships between man and the physical environment. Attention is focused on man's role in changing the face of the earth, and on the manner in which the cultures of peoples have influenced their utilization of the environment. Diverse theories of man-environment relationships are discussed.

340. Economic Geography (4)

A study of the distribution, production, and utilization of the world's basic resources.

390. Geography of California (2)

A regional study of California. Geomorphic and climatic regions are delineated and areal patterns of population and transportation are correlated with environ-

mental, historical, and contemporary influence. The location and nature of economic activities are studied, emphasizing the relationship between economic activity, population distribution, and water availability.

II. Systematic

A.

305. Geography. *Man and Weather* (4)

Man's use and abuse of the atmosphere. Meteorological and climatological aspects of resource utilization, industrial location, and related economic activities. Legal and economic consideration of weather modification, environmental deterioration, and related topics.

310A. Meteorology (3)

Observing the weather, interrelationships of temperature, pressure and wind, the general circulation, air masses and fronts, precipitation, storms, world weather relationships and climatic influences.

Prerequisites: Geography 201, 302, Physical Science, or consent of instructor.

NOTE: A student must register concurrently for Geography 310B (Meteorology) when the lab is offered.

310B. Meteorology Laboratory (1) 3 hours

Problems, experiments, and demonstrations dealing with weather instruments and observations; analysis of weather maps and charts.

315A. Meteorology (3)

Analysis of static and dynamic properties of the atmosphere. Weather observations, reporting, and representation.

Prerequisite: Meteorology 310A or consent of instructor.

Note: A student must register concurrently for Geography 315B (Meteorology) when the lab is offered.

315B. Meteorology Laboratory (1) 3 hours

Compilation and interpretation of meteorological data. Experiments and exercises.

325. Elementary Weather Analysis (4)

Introduction to application of basic meteorological principles to weather analysis and forecasting through construction and interpretation of surface and upper air weather maps, preparation and analysis of stability diagrams, and familiarization with weather reports and codes. Emphasis will be placed on examination of historical case studies.

360. Geomorphology (4)

Lecture 3 hours; laboratory 3 hours.

Detailed study of the earth's landforms; emphasis upon geologic structures, erosional and depositional processes and interrelationships with soils, vegetation and hydrology. Use of topographic maps, geologic maps and cross sections and aerial photos in the interpretation of landforms. Field trips and field reports.

Prerequisite: Geography 201; 302; Geology 315; or consent of instructor.

370. Climatology (4)

Lecture 3 hours; laboratory 3 hours.

Climatic regions based upon descriptive and statistical analysis of energy budgets and temperature, pressure and precipitation distribution. Includes study of climatic anomalies, microclimates and paleoclimates.

Prerequisite: Geography 201; 302; 310A; 315A; or consent of instructor.

Geography

B.

320. Political Geography (4)

An inquiry into the structure and characteristics of political units in order to compare the concepts of state and nation state. The nature of boundaries, frontiers and shatter zones is studied in detail and the development of geo-political theories is traced.

330. Historical Geography (4)

Sequential analysis of the settlement and economy in the changing environment and resource pattern of Anglo-America.

350. Urban Geography (4)

The origin and growth of cities, with emphasis on the site and locational factors. Interrelations of urban functions, internal structure, and the distribution of cities and their territories.

403. Seminar in Cultural Geography (4)

Advanced investigations and inquiries into the many facets of cultural geography with emphasis on such sub-groupings as: agricultural geography, cultural ecology, settlement geography, and other man-environment relationships.

Prerequisite: Geography 303 or equivalent, or consent of instructor.

416. Biogeography (4)

Lecture, 2 hours; laboratory, 6 hours; some overnight field trips. Study of patterns of geographic distribution of terrestrial plants and animals with explanations based on ecology and evolution.

Prerequisites: Advanced upper division standing. A course in field biology, such as Biology 400; 430; 440; 450; 451; or 458; and a course in earth science such as Geography 302 or Geology 115.

423. Seminar in Political Geography (4)

Investigations will vary over a wide range of topics including the analysis of theories and philosophies of political geography and systematic studies of political problem areas.

Prerequisite: Geography 320 or equivalent, or consent of instructor.

433. Seminar in Historical Geography (4)

Investigations and discussions will vary over a wide variety of topics including the geographic landscapes of particular historical periods and areas; the origins, spread and legacy of specific forms of the landscape and cultural traits; and the sequent occupation of selected regions.

Prerequisite: Geography 330 or equivalent, or consent of instructor.

443. Seminar in Economic Geography (4)

Investigations into the theories and methods of quantitative techniques in the field of geography.

Prerequisite: Geography 340 or equivalent, or consent of instructor.

445. Transportation Geography (4)

An historical and theoretical analysis of transportation and communication networks to better understand contemporary patterns of spatial interaction. The influence of transportation and communication networks on trade flows, industrial and urban location patterns, and area development will be examined.

Prerequisite: Geography 340, or equivalent, or consent of instructor.

453. Seminar in Urban Geography (4)

Discussions and investigations of urban problems within the realm of geographic inquiry. Spatial organization, function, growth, historical development and other subjects will be treated. Field investigation will be included when possible.

Prerequisite: Geography 350 or equivalent, or consent of instructor.

465. Seminar in Conservation, Resources and Men (4)

Geography of resources in relationship to man in terms of demographic trends and adequacy of food, mineral and energy resources. Special emphasis on conservation and resources of California.

Prerequisite: Geography 390 or consent of instructor.

C.**380. Map Interpretation (2)**

Lecture 1 hour; laboratory 3 hours.

Systematic study of maps, their construction and utilization. Introduction into the use of aerial photos and their interpretations.

Prerequisite: 4 units of Geography, Geology, or consent of instructor.

383. Air Photo Interpretation (3)

Lecture 1 hour; laboratory 6 hours.

Fundamentals of aerial photographs with emphasis on interpretation of physical and cultural elements of the landscape.

385. Cartography (3)

Lecture 1 hour; laboratory 6 hours.

The study of the theory of map projections and instruction in the technical cartographical techniques necessary for map construction. Emphasis is on the qualities of map projections and on the maximization of the utility of cartographical tools in geographic studies.

386. Advanced Cartography (3)

Lecture 1 hour; laboratory 6 hours.

Prerequisite: Cartography 385.

480. Field Methods and Techniques (4)

Lecture 2 hours; field work 6 hours.

Instruction and field experience in mapping and data collection and analysis, including a consideration of both natural and cultural features, with preparation of reports based on field data.

Prerequisite: Senior year geography majors, open to others with consent of instructor.

III. Regional**400. Seminar in the Regional Geography of Anglo-America (4)**

Offerings will vary and will focus upon special topics of interest, such as problems of population growth and distribution, resources and economic development, and regionalism in the continent.

410. Seminar in the Regional Geography of South America (4)

Offerings will vary and will focus upon special topics of interest, such as problems of developing countries and regionalism in the Western Hemisphere.

415. Seminar in the Regional Geography of Middle America (4)

Offerings will vary and will focus upon special topics of interest, such as problems of development and accomplishments and future of developing countries.

Prerequisite: Geography 410.

Geography

420. Seminar in the Regional Geography of Europe (4)

Offerings will vary and will focus upon special topics of interest, such as the European Common Market and its geographic basis and regionalism in Europe.

430. Seminar in the Regional Geography of Asia (4)

Offerings will vary and will focus upon special topics of interest, such as population, problems of land use, and problems of economic and political development.

440. Seminar in the Geography of the Pacific (4)

Offerings will vary and will focus upon special topics of interest, such as the origin and movement of culture groups and problems of economic and political development.

450. Seminar in the Geography of Africa (4)

Offerings will vary and will focus upon special topics of interest, such as origins and movement of culture groups and economic and political problems of developing countries.

460. Seminar in Area Studies (4)

This course will provide offerings in area studies—for example; China and South East Asia, arid lands and underdeveloped lands.

IV. Geographic Thought

490. Seminar in the Development of Geographic Thought from Ancient to Modern Times (4)

Prerequisite: Senior year Geography Majors; open to others with permission of instructor.

495. Independent Study for Majors or Minors (1-4)

499. Special Problems (2-4)

GEOLOGY

(Division of Natural Sciences)

Rolfe C. Erickson, Chairman of Department

Thomas Anderson, G. Davidson Woodard,
William Wright

The geology major program is designed to give the student basic professional competence. It provides an excellent foundation for graduate school or a professional career. It is an approved major for students planning a career in secondary school education in earth science. Students interested in the geology major are urged to see a geology advisor early in their college career.

GEOLOGY MAJOR FOR THE B.A. DEGREE

Major Courses	43 units
General Education	40 units
Supporting Courses	24 units
Electives	17 units
	124 units

GEOLOGY MAJOR REQUIRED COURSES

Geology 210—Principles of Geology	4 units
Geology 305—Mineralogy—Optics	4 units
Geology 310—Igneous and Metamorphic Petrology	4 units
Geology 311—Sedimentary Petrology	4 units
Geology 315—Structural Geology	4 units
Geology 320—Field Geology	3 units
* Geology 325—Advanced Field Geology	4 units
Geology 417—Paleontology	4 units
Geology 450—Senior Seminar	3 units
Upper division electives with approval of Advisor	9 units
	43 units

REQUIRED SUPPORTING COURSES FOR THE MAJOR IN GEOLOGY

Chem. 115AB—General Chemistry	10 units
Physics 210AB—General Physics	8 units
Math 310—Applied Calculus	3 units
Math 165—Elementary Statistics	3 units
	24 units

MINOR IN GEOLOGY

Completion of a minimum of 20 units in geology courses will constitute a minor in geology. Students should consult with an advisor in the Department of Geology regarding required courses.

GEOLOGY

102. General Geology (3)

Lecture, 2 hours; laboratory, 3 hours.

A course to satisfy the General Education requirement in science, for students who have preferably completed high school chemistry and/or physics. Not recom-

* The Sonoma State College Geology Department is not presently able to offer this course. Many colleges and universities in the west run summer field camps in geology, and it is recommended that students consult their geology advisor regarding application to one of these.

Geology

mended for science majors. An introduction to the principles of physical and historical geology. Not intended for geology majors.

120. Regional Field Geology (3)

Lecture, 1 hour; 10-day field trip.

A study of rocks and minerals as they are found in the earth as well as the history of their present distribution in the western United States. The field aspects of geology will be emphasized. A 10-day field trip will be taken during spring vacation to study geology in classical localities such as Yosemite and Grand Canyon National Parks. Not intended for geology majors.

Prerequisites: Geology 102 or consent of instructor.

202. Rocks, Time and Evolution (3)

Lecture, 2 hours plus one discussion-demonstration section per week.

An introduction to the chronologic sequence of life throughout the earth's geologic past *also* emphasizing the applications of the study of fossils in understanding the historical development of the earth's crust. The course is designed for general educational interest and is not intended for majors in geology.

210. Principles of Geology (4)

Lecture, 3 hours; laboratory, 3 hours.

Advanced treatment of the principles, methods, and tools of geology emphasizing the materials which constitute the earth and the processes which act or have acted upon them in the present and the geologic past. Required of *all* prospective geology majors; recommended for those strongly interested in science.

301. Geophysics (3)

Lecture, 3 hours.

The principles of physics as they are related to the earth. Physical basis for the methods of geophysical investigation: seismology, gravity and magnetism. Application of geophysical methods to geological problems such as oil exploration and continental drift.

Prerequisites: Geology 102 or 210, Math 310, or consent of instructor.

302. Marine Geology (3)

Lecture, 3 hours.

Origin and morphology of the ocean basins; marine environments; factors controlling the distribution and deposition of marine sediments.

Prerequisite: Geology 102, or consent of instructor.

305. Mineralogy—Optics (4)

Lecture, 2 hours; laboratory, 6 hours.

Study of minerals in hand specimen; crystal structure and chemistry; crystallography; introduction to optical theory and optical examination of minerals.

Prerequisite: Geology 210 or Geology 102.

310. Igneous and Metamorphic Petrology (4)

Lecture, 2 hours; laboratory and/or field, 6 hours.

Includes one required weekend field trip.

A study of the origin, nature, classification and occurrence of igneous and metamorphic rocks. Laboratory exercises in the classification and description of minerals, textures and structures of the more common rock types. Extensive use of the petrographic microscope.

Prerequisite: Geology 305 or equivalent.

311. Sedimentation-Sedimentary Petrology (4)

Lecture, 2 hours; laboratory, 6 hours. Required field trips.

The origin, classification and physical stratigraphy of sedimentary rocks. Modern techniques of studying sediments and sedimentary rocks including extensive use of the petrographic microscope.

Prerequisite: Geology 310.

315. Structural Geology (4)

Lecture, 3 hours; laboratory, 3 hours. Includes one required weekend field trip.

Introduction to theoretical and experimental rock deformation; description and genesis of folds, faults and related minor structures; study of the field occurrence of folds, faults, mountain ranges, continents and the crust and interior of the earth. Laboratory and field study of structural problems using geological maps.

Prerequisites: Geology 210, Math 107 or equivalent.

316. Advanced Structural Geology Seminar (1-3)

Lecture-discussion, 1-3 hours.

Individual presentation and discussion of specific problems in structural geology. The literature of structural geology as well as field investigations by the class will be used as a basis for discussion.

Prerequisites: Geology 315, or consent of instructor.

320. Field Geology (3)

Lecture-laboratory, 1-3 hours. One day a week field trips and terminal field project (spring vacation) required.

Principles of geologic mapping, structural geology, stratigraphy, interpretation of geologic maps, use of surveying instruments, preparation of field reports.

Prerequisite: Geology 311 and 315.

330. Engineering Geology (3)

Lecture, 3 hours.

The study of geological materials (rock and soil) and their mechanical behavior. Methods of field, laboratory and theoretical investigation of the stability of natural materials under induced stress will be used to approach problems in foundation engineering and slope stability.

Prerequisites: Geology 102 or 210. Physics 210AB or equivalent.

360. Geomorphology (4)

Lecture 3 hours; laboratory 3 hours.

Detailed study of the earth's landforms; emphasis upon geologic structures, erosional and depositional processes and interrelationships with soils, vegetation and hydrology. Use of topographic maps, geologic maps and cross sections and aerial photos in the interpretation of landforms. Field trips and field reports.

Prerequisites: Geography 201, 302, Geology 315, or consent of instructor.

390. History of Physical Science (2)

Lecture, 2 hours.

A survey of the historical development of the physical sciences. This course is the same as Physics 390 and Chemistry 390.

Prerequisites: Upper class standing and consent of the instructor.

401. Geotectonics (3)

Lecture, 3 hours.

A synthesis of geophysics, structural geology, stratigraphy, and petrology as applied to the history of formation and distribution of large-scale geologic features of the earth. Specific problems to be considered will include continental drift, sea-floor spreading and the origin of mountain ranges.

Prerequisites: Geology 315, or consent of instructor.

Geology

406. X-ray Analysis of Geologic Materials (2)

Laboratory, 4 hours.

Introduction to the use of x-ray diffraction techniques in the geological sciences.

Prerequisite: Consent of instructor.

417. Paleontology (4) II

Lecture, 3 hours; laboratory and/or field, 3 hours.

An introduction to the morphology, taxonomy and evolution of invertebrate and vertebrate faunas and of fossil plants.

Prerequisite: Geology 202 or 210, or consent of instructor.

418. Stratigraphic Paleontology (4)

Lecture, 3 hours; laboratory, 3 hours.

Elements of physical and biostratigraphy and the stratigraphic sequence of fossils; interpretation of sequence, relationship, and correlation of time-rock units with special emphasis on the Tertiary.

Prerequisite: Geology 417.

422. Geochemistry (3)

Lecture, 3 hours.

Introductory cosmochemistry and origin of the elements; the earth as a chemical system; structure of the earth; chemistry and environments of crustal rocks; mineral phase and crystal chemistry; introduction to geochronology and stable isotope variations in nature.

Prerequisite: Chemistry 102, 115A, or 125, or consent of instructor.

445. Geology of the United States (3)

Lecture, 3 hours.

The stratigraphic and structural development of the North American continent. Theories concerning the origin of continents and their tectonic elements. Special emphasis on California.

Prerequisite: Geology 210 and 315, or consent of instructor.

450. Senior Seminar in Geology (3)

Critical study of problems in current geological research; course content will vary from year to year. Extensive reading in, and discussion of articles from major professional journals. One or more papers on selected topics.

Prerequisite: Completion of at least 15 units of upper division geology courses.

478. Seminar in Physical Stratigraphy and Sedimentation (3)

An advanced seminar dealing with classical and modern problems in the areas of physical stratigraphy and sedimentation. Emphasis will be placed on individual presentation and discussion of pertinent literature with field required class and individual investigations.

Prerequisite: Consent of instructor.

495. Independent Study for Majors or Minors (1-3)

Individual study under guidance of an advisor of an advanced field, laboratory or literature problem.

Prerequisites: Approval of advisor, instructor, and Department Chairman.

499. Geology—Special Problems (1-2)

Special study under guidance of an advisor to increase the student's strength in an area of geologic training.

Prerequisites: Approval of advisor, instructor, Division Chairman, and Dean of the Faculty.

HEALTH SCIENCES

(Division of Psychology, Education, Health Sciences and Physical Education)

G. Edward Rudloff, Department Chairman

Kenneth Flynn, James Gale, Lloyd Helgeson, Robert Lynde,
Robert Sorani, Ella Trussell, Martha Yates

(Course titles followed by I are offered in the fall semester;
those followed by II in the spring.)

300. Curriculum of the Elementary School—Health Science (3) II

Practical experiences are provided for each student in determining philosophy, objectives, analyzing curriculum, developing resource units, and evaluation techniques, selecting and using textbooks and other teaching materials, using a variety of classroom procedures.

305. Care and Prevention of Injuries (2) I and II

A study of the types of injuries which occur in athletic participation. Prevention, care and rehabilitation of injuries through selection and use of equipment, and properly applied techniques of training and conditioning.

Prerequisite: Biology 310.

310. Kinesiology (4) II

The analysis of human movement. Consideration of functional anatomy, basic mechanics of leverage, vectors, and projectiles as they relate to performance in sports and dance activities.

Prerequisites: Biology 310, Physics 100.

315. Physiology of Exercise (4) I and II

Study of the acute and chronic effects of activity on the human organism. Laboratory and field experiences in the measurement of work capacity, cardio-respiratory function and skeletal muscle physiology. An analysis of the physiological factors related to teaching and coaching.

Prerequisites: Chemistry 102, Biology 224.

325. School Health Programs (3) II

Health, needs, interests, and problems of elementary, secondary and junior college students. Legal aspects. Teaching methods. Evaluation of health services, health instruction, and the school health environment programs.

495. Independent Study for Majors or Minors (1-3) I and II

HISTORY

Theodore Grivas, Chairman of Department

Robert Brown, Thomas Caulfield, Taro Gehani, Dennis Harris, LeVell Holmes,
Albert Laferriere, Han-sheng Lin, Donald Johnson, Glenn Price,
Stephen Watrous, D. Anthony White.

HISTORY MAJOR FOR THE B.A. DEGREE

General Education	40 units
History Courses	40 units
Lower Division	12 units
Upper Division	28 units
Supporting Subjects	8 units
Foreign Language and/or Electives	36 units
Total	124 units

HISTORY MAJOR COURSE REQUIREMENTS

The total program allows sufficient latitude both within the specialization areas and the elective category for students to choose from a wide range of courses. Some specialization will be required in United States, Asian, African or European history. All majors are required to complete a total of eight (8) units in two other Social Science fields. Additionally, majors are strongly advised to complete a minimum of two years of a foreign language and other requirements as follows:

A. Lower Division—Units in excess of the 40 units of General Education requirements.			
1. History 111 and 112	8 units		
2. History 250 and 251	4 units		
Total units in excess of General Education		12 units	
B. Upper Division			
1. Seminar: History 440	4 units		
2. Electives in European, Asian, African History	4-12 units		
3. Electives in American, Latin American, Afro-American History	4-12 units		
4. Seminar in American, Latin American, Afro-American History	4 units		
5. Seminar in European, Asian-African History	4 units		
Total upper division history		28 units	
C. Additional Requirements			
1. A course in each of two Social Science areas	8 units		
2. General Education	40 units		
3. Foreign Language and/or Electives	36 units		
Total units for B.A.		124 units	

MINOR IN HISTORY

The minor listed below is designed to meet the requirements for the Standard Teaching Credential for both elementary and secondary school specializations.

A. Lower Division—Units in excess of the 40 units of General Education requirements.			
1. History 111 and 112	8 units		
2. History 250 and 251	4 units		
B. Upper Division			
1. Seminar: History 440	4 units		
2. One upper division course	4 units		
Total		20 units	

MASTER OF ARTS DEGREE IN HISTORY

The Master of Arts Degree in History is designed to provide students with a program of advanced, comprehensive history courses leading to broad specialties in American, European, Asian, African and Latin American history. Apart from the master's thesis requirement, the master's degree program contains sufficient flexibility to meet varying student needs. Elementary and secondary school teachers entering the program may regard the master's degree as a terminal degree. Their motivation may be to become more effective teachers of history by strengthening and broadening their backgrounds in the particular field within the discipline. Other candidates may view the master's program as preparation for entering a doctoral program. In each case students will be advised by their graduate committee to pursue a program calculated to achieve their goals.

The prerequisites and criteria for admission to the master's degree program in history are as follows:

1. A bachelor's degree with a major in history from an accredited college or university. (Students having undergraduate majors in other disciplines will be admitted on the basis of the Graduate Record Examination and the recommendation of the graduate committee of the graduate studies committee.)
2. A grade point average of 3.0 (B) in the undergraduate major.
3. The completion of the Graduate Record Examination with a score acceptable to the graduate committee.
4. Recommendation by the graduate committee.

In order to successfully complete the degree program in history a student must:

1. Maintain a grade point average of 3.0.
2. Satisfactorily complete 30 units of approved graduate study of which 12 units must be at the 500 level, excluding 6 units for thesis.
3. Complete a master's thesis approved by the graduate committee.

College regulations require that:

1. A maximum of 6 units of extension or transfer credit or combination of the two may be allowed subject to the approval of the History Department.
2. Units earned in student teaching are not acceptable towards the master's degree.

A summary of the unit requirements for the Master of Arts Degree in History are as follows:

Three 4 unit courses at the 400 level	12 units
(At the recommendation of the graduate committee, some course work may be taken outside the field of history.)	
Three 4 unit courses at the 500 level	12 units
Master's thesis	6 units

Total units in the program	30 units
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THE MASTER'S THESIS

The master's thesis must be based on research in primary source materials. Subjects for the master's thesis will be determined by the student and his graduate committee. While students may find collections of published documents available in the Sonoma State College Library useful to their topics, in most instances they will find it necessary to use libraries and depositories in the greater bay area. Students will be encouraged to pursue topics of a regional nature, i.e., historical aspects of various parts of the north bay area where sources can be found in county, municipal and state archives. The student's graduate committee will work closely with the candidate during the preparation of the thesis, making suggestions

History

during every phase of its development. The candidate will submit his thesis to the graduate committee for its final approval.

HISTORY COURSES

111. Foundations of World Civilization (4)

Cultural, intellectual and political development of world civilization from pre-historic times to modern times, emphasizing the interdependence of cultures and peoples.

112. Development of the Modern World (4)

The nation state and its impact on the world in modern times. Expansion and influence of world cultures, ideas, and politics in the non-European world.

250. A History of the United States to 1865 (4)

Analysis of the major historical developments, political, cultural, and economic, from colonization through the Civil War.

251. A History of the United States Since 1865 (4)

Analysis of the major historical developments from Civil War to the Cold War.

313. Classical Studies (4)

An in depth semester study in selected sources which have had an historic impact upon man's thought and culture. Meets the General Education requirement in Classical Studies.

Prerequisite: English 101A,B, Humanities 201-202, or the equivalent.

320. Colonial Latin America (4)

Spanish-Portuguese colonization of the Western Hemisphere. A study of the social, political, economic institutions and the blending of Pre-Columbian, African, and Iberian cultures to the Wars of the Revolution.

321. Latin American Republics (4)

From the colonial background of the Greater American Revolution through the establishment of the Latin American Nations to the present day.

390. History of Science (4)

Cross listed with Chemistry 390, Geology 390, and Physical Science 390.

395. Community Involvement Project (1-2)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

400. The Greco-Roman World (4)

A political, intellectual and cultural survey of the period from the emergence of Greece to the decline of Rome.

402. Medieval Europe (4)

Europe from the fall of the Roman Empire to the decline of the Holy Roman Empire. Examination of the Byzantine Empire is included. Emphasis on political, religious, and cultural life.

405. Renaissance and Reformation (4)

The flowering of Italian art and literature, its expansion and influence. The political, economic, and religious issues, Protestant vs. Catholic, and the loss of religious unity in Europe.

406. Europe: The Age of Absolutism and Enlightenment (4)

From mid-17th Century to the Democratic revolutions of the 18th. Absolutism vs. constitutionalism, enlightened despotism, the expansion of Europe overseas, colonial rivalry to the French Revolution.

409. Europe: The Age of Revolutions, Nationalism and Industrialism (4)

From the French Revolution to the Great War. A study of European political, economic, and social movements of the 19th century and their impact on the world.

410. Europe: War and Totalitarianism (4)

From the Great War to the Cold War. A Study of European political, economic, and social movement of the 20th century and their impact on the world.

414. Intellectual and Cultural History of Europe (4)

Selected studies in intellectual developments and "climates of opinion" from the 17th to the 20th Century.

415. Modern Germany (4)

From the rise of Brandenburg Prussia to the Bonn Republic. A study of German historical growth to include Germany's pivotal role in international affairs and cultural developments.

416. Germanic Europe to 1870 (4)

From the medieval Holy Roman Emperors, through the Reformation, Thirty Years' War, rise of Prussia, Napoleonic period, emergence of nationalism, Hapsburg-Hohenzollern rivalry to the unification of Germany.

417. Modern France (4)

A study of the major historical developments in France from the classical age of Louis XIV to the decline and rebirth of the French Republic.

419. Origins of Modern Russia: to 1856 (4)

Russia's development during the Kievan, Mongol, and Muscovite periods, with greater attention given to Imperial Russia, from Peter through the Crimean War. The nature of Russian society, culture, and state, along with changing relationships with the West, is stressed.

420. Modern Russia and the Soviet Union: since 1856 (4)

The transformation of Russia through reform, industrialization, and the revolution of 1905; the transition to a Soviet state in 1917; the Soviet Union under Lenin, Stalin, and their successors. Ideological, political, social and artistic developments receive special attention.

421. Tudor-Stuart England (4)

Studies of the history of England in the Tudor and Stuart period and includes the study of the development of the Tudor national state, the 17th century English Civil War, and origins of the modern parliamentary system in England.

422. Modern England (4)

Studies English history from the 18th century to the present and highlights the consolidation of the parliamentary system, the 19th century rise of England to world power and its 20th century decline.

423. Spain and Portugal

From the Greek and Roman beginnings through the Moslem period and the establishment of the monarchies to the development of the Spanish and Portuguese Nation-States.

History

424. History of the Far East (4)

A general survey of the historical development of the peoples in East Asia from the beginnings to the present. Stress will be given to important aspects of the growth of these civilizations—political, social, economic, and cultural.

425. The Far East in the Modern World (4)

A survey of China, Japan, Southeast Asia and Korea in the 19th and 20th centuries. The traditional civilizations and their varied responses to the impact of the West, the rise and fall of Imperial Japan and of Republican China, the emergence of Communism in China and Southeast Asia, and the United States' role in the Far East.

426. History of Modern China (4)

A study of the developments of China from the Seventeenth century to the present day. Emphasis is on the impact of the West on China's modern transformation—social, economic, political and cultural. Close attention will be given to the rise of Communism.

427. History of Japan (4)

A study of the development of Japan from its beginning to the present date. Emphasis will be given to the impact of the West on Japan's modern transformation—social, economic, political, and cultural.

428. History of India (4)

A study of political, economic, social, and religious developments during the British rule in India which took place after the revolt of 1857.

430. History of Mexico (4)

From the Pre-Columbian civilizations and the establishment of New Spain through the 19th century struggle of the Republic to the present day.

434. History of Argentina, Brazil, and Chile (4)

A study of the social, economic, political institutions, and the development of the Latin American Nations from colonial days to the present.

436. Latin America in the Twentieth Century (4)

A study of the major social, economic, political and cultural developments in Latin America since the outbreak of the Mexican Revolution of 1910 to the Cuban Revolution of 1959. In addition, the subject of United States-Latin American relations will be explored.

440. The Study of History (4)

Required of all history majors. Basic historical methodology of history, the historical method, historical criticism and form, and history as a literary art.

441. The British Empire to World War I (4)

A survey of the impact of the British Imperial attitudes toward her colonies of Australia, Canada, India, New Zealand, South Africa, and West Indies, and the study of the expansion of the British empire after the Napoleonic Wars.

442. The British Empire Since 1900 (4)

A study of the major political, social, and economic developments in Britain and her colonies during the Twentieth Century. The study will also trace the evolution of the Commonwealth concept and discuss the place of the British Commonwealth in the modern world.

443. South Asia Since 1947 (4)

Recent history of India, Pakistan and Ceylon since achieving independence from the British rule. Major topics of study will be geography of the subcontinent political parties and political developments, relations between the Federal government and provincial units, economic development, planning, population, progress on the social scene, role of religion in society, caste, status of women, educational development, and several other themes of topical interest.

445. Introduction to African History (4)

The African continent from prehistoric history and the Arab conquest to the advent of European exploration. Emphasis on African and Arab civilization prior to the coming of the Europeans.

446. Africa Since 1850 (4)

The partition of Africa; European colonization and the development of African nationalism to the establishment of the Organization for African Unity.

447. History of West Africa (4)

History of Africa (Bantu), Arab and European institutions, rules, and cultural influences in West Africa.

448. Historiography (4)

The course deals with major histories of Western Civilization. The changes that occurred in the interpretation of history are emphasized, while some attention will necessarily be directed to the nature of historical forces and the philosophy of history. Discussion of and oral reports on major historical works enable the student to critically analyze significant historical writings.

450. The American Colonies, 1607–1763 (4)

The colonial origins of the American people. Colonization, political ideas and institutions, economic foundations, social trends, and the emergence of an American society.

451. The Birth of a Nation, 1763–1815 (4)

A study of the foundations of American civilization emphasizing British colonial policy following the close of the Seven Years War, and the Confederation period, the Constitution of 1787, establishment of the national government, rule of the Federalist Party, rise of Jeffersonian democracy, and the War of 1812.

452. The New Nation: Expansion and Reform, 1815–1850 (4)

Expansion and sectional change, economic sectionalism and national politics rise of Jacksonian democracy, and social and political reform.

453. Civil War and Reconstruction, 1850–1877 (4)

A detailed examination of the background and causes of the Civil War. The problems of the war period, and the struggles of the Reconstruction Era.

454. Emergence of Modern America, 1877–1929 (4)

Important political, economic, diplomatic, and constitutional developments in America from the Compromise of 1877 to the Stock Market Crash of 1929; the rise of the United States as an industrial nation; the Populist Revolt; Imperialism; the Progressive Era; and the First World War to the Great Depression.

455. Contemporary America, 1929–1967 (4)

Recent American history with an emphasis upon political, economic, diplomatic, and constitutional developments. The emergence of the United States as a world power, Hoover and the Great Depression, Franklin Roosevelt and the New Deal,

History

the second World War, the politics of the Cold War, and the administrations of Truman, Eisenhower, Kennedy, and Johnson.

460. Diplomacy of a Rising American Empire, 1763–1897 (4)

An analysis of the major problems in the first century of American diplomatic history. Independence and non-entanglement, the Monroe Doctrine and Manifest Destiny.

461. United States: Diplomacy of a World Power, 1897–Present (4)

Selected depth studies of development of new principles in policies in major diplomatic actions. Humanitarian, economic, and strategic imperialism, neo-isolationism, and collective security, total war and undeclared war.

462. American Economic History (4)

A history of economic institutions (including business enterprise) and economic thought in America from the beginnings to the present day; the economic interpretation of historical events, the influence of economic developments in history, will be closely examined. Cross-listed as Economics 340.

466. Intellectual and Cultural History of the United States (4)

An analysis of the origin and development of the national character as reflected in the major intellectual currents—Puritanism, Rationalism, Transcendentalism, Naturalism, Pragmatism—and their implications for the arts, social thought, and politics.

467. History of American Labor (4)

A study of labor and laboring classes in an industrializing and urbanizing America. This course will focus on the working men themselves—non-union and union, employed and unemployed—and the conditions in which they lived.

468. The History of Black Americans (4) (Also listed as AAMS 468)

The Negro in America from the beginning of the African slave trade in the 15th century to the present.

470. The American West (4)

A regional history of the area of the Trans-Mississippi West. An analysis and evaluation of the major social, economic and political events of the Western United States.

472. Spanish and Mexican California (4)

Colonization and expansion of New Spain. The development of social, political, and economic institutions of Mexican California, the American conquest, and the early decades of California as a State in the Union.

473. Contemporary California (4)

Social, economic, and political currents in 20th Century California. An analysis and evaluation of major issues from the late 19th Century to the present moment.

474. History of the South (4)

The social, political, and economic life of the South from the beginning to the present day; the development of the South as a unique section and culture in America.

479. Seminar in Asian and African History (4)

480. Seminar in American History to 1860 (4)

The instructor will select one of the following periods each semester for detailed study: (a) 1607–1690; (b) 1690–1763; (c) 1763–1789; (d) 1789–1820; (e) 1820–1850; (f) Intellectual and Cultural; (g) Afro-America.

481. Seminar in American History Since 1860 (4)

The instructor will select one of the following periods each semester for detailed study: (a) 1860–1877; (b) 1877–1901; (c) 1901–1921; (d) 1921–1939; (e) 1939–1965; (f) Intellectual and Cultural; (g) Afro-America.

482. Seminar in European History to 1600 (4)

The instructor will select one of the following periods each semester for detailed study: (a) Ancient Greece; (b) Rome; (c) Early Middle Ages; (d) Higher Middle Ages; (e) Renaissance and Reformation; (f) Russia; (g) Intellectual and cultural.

483. Seminar in European History Since 1600 (4)

The instructor will select one of the following periods each semester for detailed study: (a) Age of Absolutism; (b) Age of Enlightenment; (c) Revolutionary Era; (d) Age of Liberalism; (e) Twentieth Century (f) Intellectual and Cultural; (g) Soviet Union.

484. Seminar in the American West (4)

The instructor will select one of the following periods each semester for detailed study: (a) Early Colonial West; (b) Trans-Mississippi West; (c) California and the Southwest.

487. Seminar in Latin American History (4)

a. Colonial Period; b. Revolutionary Period; c. The National States; d. Twentieth Century Latin America.

495. Independent Study for Majors or Minors (4)**499. Special Problems (2 and 4)****522. Graduate Seminar in African History (4)****523. Graduate Seminar in Medieval History (4)****524. Graduate Seminar in Asian History (4)****525. Graduate Seminar in Modern European History (4)****527. Graduate Seminar in Contemporary European History (4)****528. Graduate Seminar in Early Modern European History (4)****531. Graduate Seminar in Colonial and Early National American History (4)****535. Graduate Seminar in 19th Century American History (4)****536. Graduate Seminar in 20th Century American History (4)****539. Graduate Seminar in the American West (4)****540. Graduate Seminar in History of Western Hemisphere (4)****599. Masters Thesis (6)**

HUMANITIES

(Division of Humanities)

Edward Mooney, Warren Olson, Philip Temko

201, 202. Introduction to Humanistic Studies (6-6)

An integrated examination of art, literature, philosophy and the performing arts. Fulfills General Education requirements in the Humanities and in English Composition. Six units each semester.

250AB. Introduction to the Humanities (3-3) Yr

An interdisciplinary course which introduces the student to major works of literature, and philosophy, from ancient to modern times. The approach is analytical and critical, and centers on certain key themes which have contemporary relevance.

INTERNATIONAL STUDIES MINOR

See page 60 for details.

HUTCHINS SCHOOL OF LIBERAL STUDIES

Warren E. Olson, Director

Arthur Bauman, Ira Kalet, Robert Rueping, Jerry Tucker

The Robert Maynard Hutchins School of Liberal Studies was inaugurated in the Fall of 1969 as the first "cluster school" on the campus of Sonoma State College. The Hutchins School offers a broad, interdisciplinary liberal arts program for undergraduates and has a faculty drawn from a variety of academic disciplines. While autonomous in its academic program, the Hutchins School draws upon the resources and facilities of the parent school and cooperates in the formulation of overall college policy.

The Hutchins School seeks to provide an integrated liberal arts education for students who do not wish to specialize in a traditional academic discipline but who would like to pursue their own interests in relation to a common core of studies. An important aim is that of encouraging students to become responsible for their own learning in the context of maximal personal contact with faculty. To that end, instruction in the Hutchins School is centered around seminars and independent study guided by frequent conferences with the instructor.

Since the seminar is the chief instrument of instruction, each student in the Hutchins School is responsible for helping to make the seminars work. Students are expected to be largely self-motivated, to keep up with assignments on their own initiative, and to participate fully in seminar discussions. In other words, the student must take an active, rather than passive, role in his own education. Grading is on a Pass/No Credit basis.

ADMISSION

Students who have been admitted to Sonoma State College may apply for admission to the Hutchins School by writing to its Director. A student seeking admission ordinarily should:

1. Be a first-time freshman.
2. Plan to complete his degree in the Hutchins School.
3. Enter in the fall term.

Some first-term juniors will be admitted (beginning in 1971) but only on the recommendation of a member of the Hutchins School faculty who has had an interview with the applicant.

CURRICULUM

Lower division coursework in the Hutchins School consists of a sequence of four seminars (Liberal Studies 101-4) each of which provides twelve units of credit. Seminars focus upon specific themes or topics and draw materials from the various academic disciplines. Students are expected to pursue independent study of topics of their own choosing. Of the 48 units earned, 40 units serve to fulfill the College General Education requirement and 8 are counted as elective units.

Plans for the upper division program are being prepared for submission to the California State College Board of Trustees. It is anticipated that these plans will be approved by the Trustees for inclusion in the next catalog.

101. Images of Man (12) I

Examination of the various ways man sees himself and his relations to the world as presented in literature, philosophy, ethnography, religion, psychology, and biology.

102. Man in Civilization (12) II

Man as an historical being, specifically the contemporary American, is the focal point of study. Emphasis is placed on social character, economic theories, the

Hutchins School of Liberal Studies

functioning of democratic government, education, the arts, and philosophic beliefs in the context of their origins and development.

201. Change and Continuity in Modern Society (12) I

A study of the nature, impact, and scope of the various revolutions of the nineteenth and early twentieth centuries; specifically, the Industrial, Darwinian, Marxian, and Freudian revolutions. Attention is paid to the mechanisms and techniques of change as well as to theories and cultural impact.

202. Alternatives for the Future (12)

A series of contemporary problems will be examined and students will attempt to devise solutions. Problems will include the population explosion, alternatives to war, alienation, quest for community, the future of religion, impending ecological disaster, etc. Students will have an opportunity to deal intensively with those problems which most interest them.

INDIA STUDIES

See page 68.

MANAGEMENT

(Division of Social Sciences)

Delmar S. Valleau, Chairman of Department
Richard Bell, Ronald Coles, Wyman Hicks
Wallace Lowry, John G. Rohrman, Jr.

"Management" may be defined as "the process of accomplishing goals by working through and with people." The student of management will become aware of the large and growing body of knowledge and theory which seeks to explain and predict events in this area of human development and organizational processes.

The Management Major is designed to familiarize the students with concepts and trends in the modern managerial environment. It views management as a social science, and emphasizes a broad foundation, framed to permit the student to grow in self-awareness and responsibility, to become a functioning member of society, and to develop capabilities useful in a variety of career objectives, and particularly in business or public service. This major is especially appropriate as preparation for company management development programs that are now widely used in industry, or for further study at the graduate level.

MANAGEMENT MAJOR FOR THE B.A. DEGREE

General Education	40 units
Core courses (Econ. and Mgmt.)	24 units
Area of concentration	12 units
Other Management courses, including elective courses in Management	8 units
Supporting courses	12 units
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Total required for major	56 units
Electives	28 units
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Total required for degree	124 units

MANAGEMENT MAJOR COURSE REQUIREMENTS

Students planning to become Management Majors should take preparatory work in English, Mathematics, and introductory Economics. Students are strongly advised to take the English proficiency examination early in the junior year. Economics 201 and Mathematics 117 are requirements for entry into the Management program. They may be taken as part of the 40 unit General Education program.

Students planning to prepare for graduate work are advised to take Mathematics 118 as an elective.

Students who would like to take a minor in another department should consult their advisors to determine the most economical way to do this.

A student majoring in Management will ordinarily take a group of core courses, a number of electives in Management courses, twelve units of supporting courses, and at least twelve units in an area of concentration. The four concentrations are: Management Theory (emphasizing either general management or human relations), Marketing Management, Financial Management, and Managerial Information (emphasizing either accounting, or quantitative methods and computers). Concentrations are meant to be guidelines only; the student should work with his advisor to develop a program that will emphasize those courses within a concentration that are relevant to his own goals.

Management

Core Courses

Economics Courses

Econ. 311—Managerial Economics	4 units
Econ. 312—Economic Fluctuations and Business Forecasting	4 units

General Management Courses

Mgmt. 225—Law and Society	4 units
Mgmt. 350—Principles of Management	4 units

Tool Courses

Mgmt. 230A—Accounting Principles and Management Decisions	4 units
Mgmt. 315—Statistics for the Social Sciences	4 units

Total Core Courses	24 units
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Supporting Courses

Twelve units of supporting courses are to be chosen in consultation with the student's advisor. They should be outside the student's area of concentration, and except in very special cases they should be in the other social sciences.

Areas of Concentration

Management Theory

Mgmt. 230B, and two courses in General Management	12 units
or	
Three courses in Human Relations	12 units
or	
"Special Program in Human Relations"	12 units

(The special program in human relations is an option limited to specially qualified students. Such students, with the approval of the department and in consultation with their advisor, may propose a "contract" to cover their entire 56 unit management major. Such a planned program must emphasize management theory, and especially human relations and behavioral science.)

Marketing Management

Management 230B, or Management 415, and two courses in Marketing	12 units
or	
Three courses in Marketing, or some aspect of this subject	12 units

Financial Management

Management 230B	4 units
Two courses in Finance	8 units
Total	12 units

Managerial Information

Mgmt. 230B	4 units
Two additional courses in Accounting, or	
Two courses chosen from computers or quantitative methods courses	8 units
Total	12 units

MINOR IN MANAGEMENT

A minor in management shall consist of any twenty units in management approved by an advisor in the Management Department.

MANAGEMENT**208. The Economics of War and Peace (4)**

Can the United States convert to a peace-time economy without a major recession? Is there an inherent need for war spending? The course will examine the structural forces leading to ever increasing military budgets. Consequences for long-term growth and employment and accompanying social costs will be assessed. The economics of a society at peace will be explored.

216. Uses of Computers (4)

A thorough treatment of the Fortran compiler language and its use in solving a variety of problems. Course work includes solving, then programming and processing, business oriented problems. Flowchart and decision table techniques, binary and hexadecimal arithmetic procedures.

225. Law and Society (4)

An analysis of the nature and functions of law in relation to social problems. Course work will focus on the theory of contractual obligations, jurisdiction, judicial procedure, and the concepts of legal rights and responsibilities in a democratic society.

230AB. Accounting and Managerial Decisions (4-4)

Fundamentals of the accounting process. A study of problems in financial and managerial accounting with emphasis given to the interpretation of accounting data. These courses are designed to provide a foundation for further work in any area of management.

Prerequisite: None for 230A. Prerequisite for 230B is 230A, or equivalent.

315. Statistics for the Social Sciences (4)

By developing an awareness of statistical reasoning, concepts and procedures, the course provides essential background for the social and behavioral sciences. Topics include elementary probability, averages and dispersions, sampling and sampling distributions, misuse of statistics, statistical inference and estimation, correlation and regression, and economic and business indices and statistics.

316. Computer Management (4)

An introduction to material which will be useful in the design of information systems for planning and control in organizations. Study of tools available to the systems analyst in applying this knowledge. Assignments will include exercises in computerized accounting, business statistics, and business management.

Prerequisite: Mgmt. 216, and Mgmt. 230A, or equivalent preparation.

330. Intermediate Accounting (4)

The functions, theory, and practice of accounting and its relationship to business management. Usefulness and limitations of accounting in providing relevant information. Determination of income, and of equity interests. Presentation, interpretation, and analysis of financial data and financial statements.

Prerequisites: Mgmt. 230AB and Math. 117 or consent of instructor.

340. Manpower Administration (4)

An introduction to that field of management that is concerned with planning and carrying out the function of procuring, developing, maintaining, directing, and leading the labor force of the organization.

342. Human Relations in Management (4)

Study of human relations and behavioral science aspects of relationships in organizations and between subcultures, and their effect on the management process.

Management

350. Principles of Management (4)

A study of the managerial functions of planning, organizing, directing, controlling and staffing. Applications of management principles.

360. Principles of Marketing (4)

Study of marketing as a decision-making process within an environment of continually interacting economic, sociological, psychological, and political forces.

Prerequisite: Economics 201 or consent of the instructor.

370. Introduction to Managerial Finance (4)

Consideration, at an introductory level, of the management of the company finance function. Topics include alternate forms of the business enterprise, with special emphasis on the corporation; stocks and bonds; conversion, refunding and redemption; raising long and short term capital; surplus, dividend, and reserve policies; relationships with the banking system; financial difficulties and the re-planning process.

371. Financial Institutions (4)

A study of the role of banking and monetary institutions and financial intermediaries in serving the needs of government, business, and individuals, with a survey of how these sources of credit are used.

375. Money and Banking (4)

The Federal Reserve System, the Treasury, and banking and financial institutions will be studied. Special attention will be given to their role in determining interest rates and the supply of loanable funds. Study of factors and interactions leading to inflation or recession; growth or stagnation. Alternative goals and policy measures.

Prerequisites: Econ. 201 and Math. 117.

381. Management Research Methods and Reports (4)

Develops an awareness of the uses and limitations of scientific methodology in the social sciences, with particular reference to contemporary business, social, and governmental problems. Problem analysis and research planning will be emphasized.

Prerequisite: Math. 117.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

400. Manpower and Income Theories (4)

An examination of the body of developing law and theory relating to manpower and income, from the Employment Act of 1946 to the present.

401. The Minority Entrepreneur (2-4)

Research in and discussion of developments which may gain for minority peoples a larger share in ownership and management of America's economic resources. Black business will be the topic for 1970-71. Offered as a 2 unit class or a 4 unit seminar. May be repeated for credit.

Prerequisite for the 4 unit seminar: consent of instructor.

415. Quantitative Analysis for Economics and Management (4)

An introduction to the use of models, simulation, and other quantitative methods in managerial decision making. Applications in accounting, economics, and general management theory.

Prerequisite: Management 315 or Economics 315, and Math. 315.

416. Seminar on the Computer and Society (4)

Individual studies of advanced applications and experiments with computers to investigate the reasons for the widespread suspicion of computers in our society, and the reluctance to accept their handling of tasks for which they are technically efficient as a socially desirable trend. No previous knowledge of computers is required.

425. The Legal Environment of Management (4)

A study of the legal framework within which management decisions are made. Frequent attention will be given to the role of government participation in the operation of American economic enterprise.

431. Seminar in Accounting for Management (4)

This course stresses substantive knowledge related to the management functions of planning and control, including accounting and financial aspects, as well as increase in skill in problem solving and decision making.

Prerequisites: Mgmt. 230AB and Math. 117, or consent of instructor.

432. Seminar in Finance and Accounting in Planning and Reporting (4)

The student plays the role of the executive in charge of the finance function, dealing with contemporary real-world problems.

Prerequisites: Mgmt. 230AB and Math. 117, or consent of instructor.

433. Tax Law (4)

440. Seminar in Manpower Policy (4)

Current issues in manpower policies, centered around the two questions of employment as a source of status and income on the one hand, and as an important national resource on the other.

444. Seminar in Human Relations (4)

Research and discussion of human relations aspects of current issues in management.

450. Seminar in Advanced Management Theory (4)

An eclectic and interdisciplinary approach to the study of management theory and organizational behavior. Topics studied include behavioral science, human relations, the process school, management philosophy and policy, direction and leadership, decision theory, organization theory, comparative management, and other current issues in the management sciences.

Prerequisite: Mgmt. 231A, Econ. 201, Math. 117, or consent of instructor.

451. Management Theory with Practical Applications (4)

Theory and practice of decision making in planning and control.

452. Seminar in The Management of Innovation in Institutions (4)

460. Marketing Management (4)

Marketing theory and the marketing concept are studied, making use of material borrowed from economics, the behavioral sciences, and mathematics, as well as research in the specific field of marketing. Stress is placed on decision-making.

Prerequisite: Economics 201 and Management 360, or consent of the instructor.

Management

461. Consumer Protection Law (4)

An analytical study of consumer protection legislation, with emphasis on anti-trust laws, the Federal Trade Commission, the Food and Drug Administration, and other current issues in laws relating to marketing generally, and consumer protection in particular.

462. Seminar in Marketing Research (4)

470. Managerial Finance (4)

Theory of managerial decision making in its financial and economic context. Topics include the decision making environment; financial planning, budgeting, and control; long term investment decisions and capital budgeting techniques; working capital management; the cost of capital, valuation, and rates of return; choosing between alternative sources of funds.

Prerequisite: Management 230A or consent of instructor.

471. Public Finance (4)

Use of fiscal policy to achieve economic growth, full employment, and other policy goals. Real costs of public debt and limits on its expansion. What are the consequences of present federal, state and local tax structures and how can they be made more equitable and more consistent with a progressive economy.

472. Investments (4)

A study of the investment setting, sources of investment information, security valuation, investment timing, and portfolio management.

481. Seminar in the Conduct of Inquiry (4)

Consideration, by advanced, eager students, of sophisticated techniques for analyzing and solving problems, especially under conditions of uncertainty. The role of inquiry in man's decision processes.

Prerequisite: Mgmt. 381 or consent of instructor.

491. Seminar in Management Theory and Policy (4)

Group discussion of case studies in managerial policy. Readings and discussions in management theory. Study of social responsibility and the managerial process in a pluralistic society.

Prerequisite: Mgmt. 350 or consent of instructor.

495. Independent Study for Majors or Minors (1-4)

496. Supervised Individual Projects (1-4)

Field experience in Business or Government. Enrollment by prior arrangement only.

499. Special Problems (1-4)

MATHEMATICS

(Division of Natural Sciences)

Donald Duncan, Chairman of Department

William Barnier, Clement Falbo, Norman Feldman, Robert Johnson,
Thomas Nelson, Charles Phillips, Thomas Volk, Sommai Vongsuri

A basic curriculum suitable for continuation toward advanced degrees in mathematics as well as an approved major for teaching credentials.

MATHEMATICS MAJOR FOR THE B.A. DEGREE

General Education	40 units
Major	44 units
Electives	40 units
Total	124 units

MATHEMATICS MAJOR COURSE REQUIREMENTS FOR THE B.A. DEGREE

140—Calculus I (3 units in G.E., 1 unit in major)	1 unit
190—Calculus II	4 units
220—Finite Mathematics	3 units
240—Calculus III	3 units
290—Calculus IV	3 units
320—Modern Algebra I	3 units
322—Linear Algebra	3 units
328—Foundations of Mathematics	3 units
340—Real Analysis I	3 units
345—Probability Theory	3 units
418—Topology or 460—Complex Variables	3 units
440—Real Analysis II	3 units
Upper Division Electives in Mathematics	9 units
Total	44 units

MINOR IN MATHEMATICS—20 UNITS

Approval of the Department of Mathematics should be obtained by the junior year at the latest in order to properly plan the minor. The 20 units must include analytic geometry and calculus and a course in statistics.

MATHEMATICS

Lower Division

107. Algebra and Trigonometry (4) I and II

Intermediate algebra and trigonometry.

Prerequisite: One year of high school algebra or consent of the instructor.

115. Fundamentals of Mathematics (3) I and II

A general education course designed to give cultural depth in the mathematics required for a liberal education. This course is designed to give the student an insight into the inner workings of a mathematician's thoughts as each instructor develops his own material for the course.

Prerequisite: None.

Mathematics

117. Mathematics for the Social Sciences (3) I

Applications to problems from management, sociology, psychology. Topics include a review of algebraic expressions, inequalities, business mathematics, sets and functional representation, systems of linear equations and inequalities, differential calculus of algebraic functions, antiderivatives, and integrals.

Prerequisite: None.

118. Mathematics for the Social Sciences (3) II

A continuation of Mathematics 117. Topics include vectors and matrices, mathematics of finance, probability distribution functions, linear programming, introduction to theory of games, Markov analysis, statistics.

Prerequisite: Math. 117 or equivalent, or consent of instructor.

120. Machine Programming (2) I

Programming high speed electronic computers, the main emphasis will be on the FORTRAN language.

Prerequisite: Math. 107 or Math. 115 or consent of instructor.

140. Calculus I (4) I and II

Functions, limits and continuity, introduction to integration and differentiation.

Prerequisite: Math. 107 or consent of instructor.

162. Calculus with Applications I (3) I and II

Curves and slopes, elementary derivatives and applications, plane analytic geometry, trigonometric functions, complex numbers, DeMoivre's theorem, elementary integration.

Prerequisite: Math. 107 or consent of instructor.

165. Elementary Statistics (3) I

Descriptive statistics, measures of central tendency, variation, correlation. Elementary discrete probability, sampling and sampling distributions. Tests of statistical hypotheses.

Prerequisite: Math. 107 or equivalent or consent of instructor.

190. Calculus II (4) I and II

Derivatives and applications, the definite integral, elementary functions, applications of integration.

Prerequisite: Math. 140 or equivalent or consent of instructor.

212. Calculus with Applications II (3) I and II

Methods and applications of integration, arc length, theorem of Pappus, transcendental functions, improper integrals, conic sections, polar coordinates.

Prerequisite: Math. 162 or consent of instructor.

220. Finite Mathematics (3) I and II

Elementary concepts of set theory, logic, and vector spaces. Other subjects of finite mathematics may also be covered.

Prerequisite: Math. 140 or equivalent or consent of instructor. It is suggested that mathematics majors take this course concurrently with Math. 190 and before Math. 240.

240. Calculus III (3) I and II

Vector analysis, partial differentiation, derivative, gradient, curl, divergence, multiple integrals, theorems of Gauss, Green and Stokes.

Prerequisite: Math. 190 or equivalent or consent of instructor.

262. Calculus with Applications III (3) I and II

Vector functions and their derivatives, velocity and acceleration, linear equations and determinants, polar and cylindrical coordinates, partial differentiation, gradient, chain rule, exact differentials.

Prerequisite: Math. 212 or consent of instructor.

290. Calculus IV (3) I and II

Infinite series, power series, sequences of functions.

Prerequisite: Math. 240 or equivalent or consent of instructor.

295. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

Upper Division**300. Elementary School Mathematics (3) I and II**

The new math topics of elementary schools. Theory of the structure of arithmetic and algebra of the real number system. Essentially: Changing number bases, study of sets, and laws of arithmetic. Numbers and operations, systems of numeration, geometry, measurement, sets, logic.

Prerequisite: One semester of college mathematics or consent of instructor.

301. Secondary School Mathematics (3) I

Topics from analytic geometry, trigonometry, and algebra.

Prerequisite: One semester of college mathematics or consent of instructor.

306. Number Theory (3) I

Mathematical induction, Euclidean algorithm, congruences, fundamental theorem of arithmetic, perfect numbers, number theoretic functions, prime number theorem.

Prerequisite: Math. 140 or Math. 117 or consent of instructor.

308. College Geometry (3) II

Studies of axiom systems in geometry, comparison of Lobachevskian, Euclidean and Riemannian geometries. The Hilbert postulates.

Prerequisite: One year of college mathematics or consent of instructor.

312. Calculus with Applications IV (3) I and II

Multiple integrals and applications, spherical coordinates, line integrals, Green's theorem, Stokes' theorem, divergence theorem, infinite series, power series expansion of functions, tests for convergence, Taylor's theorem, elementary complex variable, power series of functions of a complex variable, elementary differential equations.

Prerequisite: Math. 262 or consent of instructor.

318. Advanced Geometry (3) I

Geometry of Euclidean n -space, convex sets, transformations and applications to linear programming and game theory.

Prerequisite: Math. 190, and 322 or consent of instructor.

320. Modern Algebra I (3) I

Basic algebraic properties of number theory, mappings, groups.

Prerequisite: Math. 220 or consent of instructor. This course and Math. 220 may be taken concurrently with consent of the instructor.

Mathematics

321. Modern Algebra II (3) II

A continuation of Math. 320. Topics include: Rings and ideals, fields, Galois theory.

Prerequisite: Math. 320 or consent of instructor.

322. Linear Algebra (3) II

Vectors and vector spaces, transformations of coordinates, linear transformations, geometry of real vector spaces, determinants, applications to physics and geometry.

Prerequisites: Math. 220 and one year of calculus or consent of instructor.

328. Foundations of Mathematics (3)

Sets, infinite unions and intersections, index sets, functions, partially ordered and totally ordered sets, axiom of choice, other topics.

Prerequisite: Math. 220, 290, and 320 or consent of instructor.

330. Differential Equations (3) I

Existence and uniqueness theorems for linear differential equations. Complete solution to linear equations with constant coefficients. Method of solving equations with variable coefficients. Iterative methods for nonlinear equations. Phase plane solutions. Applications.

Prerequisite: Math. 190 or 212 or 311 or consent of instructor.

331. Differential Equations II (3) II

Continuation of Mathematics 330. Laplace transform method. Power series method. Equations of hypergeometric type. Orthogonal sets, Fourier series and simple boundary value problems.

Prerequisite: Math. 330 or consent of instructor.

340. Real Analysis I (3) I

Sequences, series, metric spaces, continuity, and possibly differentiation.

Prerequisites: Math. 220 and 290 or Math. 290 and 312, or consent of instructor. This course and Math. 220 may be taken concurrently with consent of instructor.

345. Probability Theory (3) I

Combinatorial probability, Markov chains, random variables, probability densities, distribution functions, characteristic functions. Topics are continued in the second course. (See Math. 515)

Prerequisite: Math. 220 or consent of instructor. This course and Math. 220 may be taken concurrently with consent of instructor.

352. Numerical Analysis (3) II

Selected numerical and iterative processes for solving equations. Topics may include: Finite difference and Lagrangian interpolation formulas.

Prerequisites: Math. 240 or 262, and Math. 120 or equivalent, or consent of instructor.

360. Design of Experiments (3)

Principles used; comparison of designs; interpretation of results.

Prerequisite: Math. 165 or consent of instructor.

365. Intermediate Statistics (3) II

A course in mathematical statistics, concerned with developing the concepts of statistics by use of the calculus. Topics include: Theory of sampling, problem of estimation, tests of significance, confidence limits, the t , F , and chi-square distributions, analysis of variance and covariance, applications.

Prerequisites: Math. 190 and Math. 345 or consent of instructor.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

Upper Division Courses with Graduate Credit**410. History of Mathematics (3) II**

Mathematics from ancient times to the present. The student learns how to solve problems of the past using only the tools of the past.

Prerequisite: One semester of college mathematics or consent of instructor.

418. General Topology (3) II

Definition of topology, closed sets, relativizations, base and subbases of a topology. Compact topological spaces, separation axioms, normal spaces, regular spaces, metric spaces, continuous mappings, product spaces, function spaces.

Prerequisites: Math. 328 and Math. 340 or consent of instructor.

430. Partial Differential Equations (3) I

Classification of second order equations, method of characteristics for quasi-linear first order equations, boundary value problems for elliptic and parabolic equations, difference methods, Cauchy-Kowalewsky theory. Fourier transforms.

Prerequisites: Math. 290 and Math. 330 or consent of instructor.

438. Differential Geometry (3) II

Study of geometry in Euclidean space by means of calculus. Curves and surfaces in 3-space, Frenet formula, Gaussian curvature. Euclidean motions. Intrinsic Geometry of curves and surfaces, isometrics, geodesics, Gauss Bonnet Theorem.

Prerequisite: Math. 340 and consent of instructor.

440. Real Analysis II (3) II

Differentiation, Riemann integral, sequences of functions, Taylor series.

Prerequisite: Math. 340 or consent of the instructor. This course is a continuation of Math. 340.

441. Real Analysis III (3) I

Advanced topics in analysis.

Prerequisite: Math. 440 or consent of the instructor.

450. Systems Programming (3) I

Theory and construction of monitors, simulators, assemblers, and compilers.

Prerequisite: Math. 120 or consent of instructor.

460. Introduction to Complex Variables (3) II

The complex field, functions, limits, continuity, complex differentiation and the Cauchy-Riemann equations, complex integration, residues, conformal mappings.

Prerequisite: Math. 340 or equivalent or consent of the instructor.

465. Decision Theory (3)

Structure of statistical decision problems; principles of choice; Bayes rules; sufficiency; invariance; sequential analysis; estimation.

Prerequisite: Math. 365 or consent of instructor.

470. Measure and Integration (3) I

Lebesgue measure and the Lebesgue integral, convergence theorems, L_p spaces, functions of finite variation, the indefinite Lebesgue integral, probability theory.

Prerequisite: Math. 440 or consent of instructor.

Mathematics

480. Integral Transforms (3) II

Laplace transforms and their inverses, applications to differential and integral equations, Fourier transforms. Other topics from current literature.

Prerequisites: Math. 340 and Math. 330 or consent of instructor.

495. Independent Study for Majors or Minors (1-3)

496. Pro-Seminar in Mathematics (1-3) I and II

A mutual exploration of selected current issues in mathematics by members of the mathematics staff and mathematics majors. Non-majors may enroll by permission of the instructors.

Prerequisite: Upper division standing.

499. Special Problems

MASTER OF ARTS DEGREE IN MATHEMATICS

The following requirements are prescribed for the degree of Master of Arts in Mathematics.

1. Admission to candidacy:

- A B.A. degree from Sonoma State College or its equivalent. Undergraduate mathematics courses must include the equivalent of 345, 320, 322, or 321, 340, 328, 440, 418 or 460, or permission of the Mathematics Department.
- A high standard of scholarship in his undergraduate work and major, a grade point average of 3.0 in upper division work.
- Taking of a graduate record examination or its equivalent.
- Acceptance by a graduate departmental advisor. Mutual agreement by the department and advisor that the area of interest of the student is compatible with the facilities and interests of the department.

2. Requirements for the Degree:

- Completion of 30 units of approved graduate study with at least 24 units in mathematics, and a 3.0 G.P.A. in all mathematics courses.
- Completion of at least 12 non-thesis units in 500 level mathematics. Courses must include Math. 550 and a 500 level course in analysis and a 500 level course in topology.
- Passage of a comprehensive examination at least one semester before graduation.
- Acceptance of a thesis and final presentation of the thesis in a seminar open to all faculty and students.

Graduate Courses

515. Advanced Probability Theory (3) I

A continuation of Math. 345, topics include: Law of large numbers, jointly distributed random variables, sums of independent random variables, central limit theorem.

Prerequisite: Math. 345 or consent of instructor.

518. Algebraic Topology (3) II

Two-dimensional manifolds, properties of compact, connected manifolds. The concept of the fundamental group of a topology. Covering spaces.

Prerequisites: Math. 418, Math. 321, and Math. 441 or consent of instructor.

520. Nonlinear Differential Equations (3) II

Approximation methods for solving nonlinear differential equations. Iterative techniques. Theory of convergence. Difference equations.

Prerequisite: Math. 430 and Math. 441 or consent of instructor.

525. Numerical Analysis (3)

Selected topics in numerical analysis which are of present day interest to the applied mathematician.

Prerequisite: Math. 330 and 352 or equivalent or consent of instructor.

535. Ordinary Differential Equations (3) II

Linear systems, existence theorems regular and irregular singular points. Topics from regular and singular boundary value problems. Qualitative behavior of solutions, perturbation methods, stability theory.

Prerequisites: Math. 430 and Math. 438 or consent of instructor.

540. Functional Analysis I (3) I

Topics studied are: abstract linear spaces, linear operators, topological spaces, including Hausdorff. Normed linear spaces, especially Banach and Hilbert. Minkowski functionals, differential and integral equations, L^2 kernels.

Prerequisites: Math. 441 or 570 and Math. 418 or consent of instructor.

541. Functional Analysis II (3) II

A second course continuing with general theorems on linear operators. Spectral analysis; including Ascoli's theorem, operational calculus, and spectral mapping theorem. Integration and linear functionals.

Prerequisite: Math. 540 or consent of instructor.

550. Abstract Algebra-Group Theory (3) I

The Jordan-Holder-Schreier theorem. Galois theory, ideal theory, multilinear algebra.

Prerequisites: Math. 322 and Math. 328 or consent of instructor.

551. Abstract Algebra—Algebraic Number Theory (3)

A continuation of Mathematics 550, with emphasis on algebraic number fields and their applications to the Galois theory.

Prerequisite: Math. 550 or equivalent or consent of instructor.

560. Operations Research (3) II

Unconstrained and constrained optimization, linear programming, queues and inventories.

Prerequisite: Math. 322, 345, or consent of instructor.

565. Applications of Stochastic Processes (3)

Theory and applications of processes, including stationary and non-stationary processes.

Prerequisite: Math. 345 or consent of instructor.

Recommended corequisite: Math. 515.

568. Special Topics in Topology (3) I

Topics of current interest in topology.

Prerequisite: Math. 418 or equivalent or consent of instructor.

570. Real Variables (3) I

A sophisticated approach to real analysis, includes rigorous treatment of real numbers, limits, integration, convergence, various special functions.

Prerequisite: Math. 340 or consent of instructor.

595. Special Studies in Mathematics (2-3)**599AB. Thesis (3-3)**

Prerequisite: See Master's Degree requirements.

MUSIC

(Division of Humanities)

Margaret Donovan-Jeffry, Chairman of Department

Ellen Amsterdam, Albert Cognata, Lynn Dowdey, Phillip Elwood, Joann Feldman, G. Arthur Hills, William Johnson, Walter Oster, Gardner Rust, Eugene Shepherd, David Sprung, Jean Stevens, Marian Marsh-Wade, Fred Warren.

The major in music is designed as a liberal education and as a good undergraduate foundation for graduate work in music.

It can also serve as an academic major for the Standard Teaching Credential.

MUSIC MAJOR FOR THE B.A. DEGREE

General Education	40 units
Foreign Languages and/or Electives	41 units
Major	43 units
Total	124 units

(A minor is not required for the B.A. in Music.)

Music majors may take 14 units of French or German, or 14 units of electives selected with consent of advisor.

MUSIC MAJOR PROFICIENCY REQUIREMENTS

The following proficiencies are required in addition to the basic College requirements for the B.A. degree and the specific course requirements for the major in music.

Piano Proficiency Examination

To be taken during registration week of the first semester of the student's residence in the College. All transfer students are required to take this examination upon entrance. All students are expected to demonstrate a minimum proficiency in piano comparable to that achieved in Music 102. This requirement should be filled as early as possible, and not later than the end of the junior year. The examination will be offered every semester, and students may repeat it when they think that they are ready to pass the requirement.

Placement Examination in Music

Students entering without previous college credit in music theory must demonstrate literacy in basic music grammar comparable to that achieved in Music 105.

Transfer Students Qualifying Examination

To be admitted to upper division course work, all transfer students will be required to demonstrate proficiency in theory and ear-training equivalent to that achieved in Music 110AB, 120AB, 210AB, and 220AB, and in music history equivalent to that achieved in Music 301AB if they have completed such a course in another institution in addition to the piano examination described above.

Comprehensive Examination

All music majors will be required to pass a comprehensive examination in music in their last semester as candidates for the B.A. degree. This examination will test the student's proficiency in the written skills of theory and analysis, in sight-singing and dictation, in performance on an instrument or voice, and his knowledge of music history and literature. During the first week of his final semester, the student must register for the comprehensive examination with the Music Department Chairman.

MUSIC MAJOR PERFORMANCE REQUIREMENTS

Only a part of a student's education in music can be provided by courses of instruction. While such courses are the first responsibility of the College to its students, participation in performing groups is a necessary and invaluable supplement. Each student is therefore required to participate in at least one performing organization at Sonoma State College each semester.

Music majors are required to participate in one of the choral organizations for at least one year as part of this requirement. All performance courses may be taken with or without credit, with a maximum of eight units which can be applied to the B.A. degree. These units will count as electives, not as part of the major.

MUSIC MAJOR COURSE REQUIREMENTS

Lower Division

Music 110AB—Theory I	6 units
Music 120AB—Ear-training I	2 units
Music 250—Introduction to Music Literature.....	3 units
Music 210AB—Theory II	6 units
Music 220AB—Ear-training II	2 units

Upper Division

Music 301AB—History of Music.....	6 units
Music 305—Sixteenth Century Counterpoint.....	3 units
Music 311AB—Form and Analysis.....	4 units
Music 315AB—Orchestration	4 units
Music 430—Conducting	2 units
Music 490—Senior Seminar in Music.....	1 unit

In addition, four units are to be selected from the following courses:

Music 425A—Composition	2 units
Music 425B—Advanced Composition	2 units
Music 426A—Seminar in Music History.....	2 units
Music 426B—Seminar in Music History II.....	2 units

Total	43 units
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Students working for a Standard Teaching Credential are also required to take:

Music 115—Voice Technique	1 unit
Music 116—Instrumental Technique—Strings	1 unit
Music 117—Instrumental Technique—Woodwinds	1 unit
Music 118—Instrumental Technique—Brass	1 unit
Music 119—Instrumental Technique—Percussion	1 unit

The student is advised to consult his adviser in the Education Department for further courses in Education needed for the Credential.

TEACHING CREDENTIAL MUSIC MAJOR

The Teaching Credential program requires a year of post-graduate study. Candidates must (a) complete the requirements for admission to teacher education (see Department of Education) and (b) complete, in addition to the requirements for the baccalaureate degree major, the following program:

Music 115, 415—Basic Voice	1 unit
Music 116, 416—Instrumental Techniques—Strings	1 unit
Music 117, 417—Instrumental Techniques—Woodwinds	1 unit
Music 118, 418—Instrumental Techniques—Brass	1 unit
Music 119, 419—Instrumental Techniques—Percussion	1 unit

Music

Music 400—Music in the Elementary School 3 units
or

Music 500—Music in the Secondary School 3 units

A student should consult his advisor before registering in either Music 400 or Music 500.

MINOR IN MUSIC

Students may complete a minor in music by taking Music 250, Introduction to Music Literature, in partial fulfillment of the General Education requirement, and by adding 17 additional units in consultation with the departmental advisor. Students contemplating minoring in music should consult the music department at the earliest possible date for approval and advising.

MUSIC

100AB. Elementary Piano (1-1)

A beginning course in the development of fundamental keyboard skills. Emphasis on functional keyboard harmony and improvisation.

101. Intermediate Piano (1)

Prerequisite: Music 100B or consent of instructor.

102. Advanced Piano (1)

Prerequisite: Music 101 or consent of instructor.

105. Elementary Musicianship (3)

A basic course in reading notes, ear training, dictation, sight-singing, etc. Designed for non-music majors or for prospective elementary school teachers. Upon satisfactory completion a student would be able to start courses in theory and ear-training.

110AB. Theory I (3-3)

Diatonic harmony and contrapuntal techniques with supplementary keyboard assignments. Must be taken concurrently with Music 120AB.

Prerequisite: Music 105, or equivalent, or consent of instructor for 110A, or consent of instructor for 110B.

112. Class Instruction in Organ (1)

A beginning course in organ playing. Normally piano proficiency at the level of Book II of the Bartok *Mikrokosmos* is prerequisite. In special cases the prerequisite may be waived with consent of the instructor.

115. Voice Technique (1)

Group work in the fundamental techniques of singing. Problems of tone production, breath control, diction, repertoire and interpretation.

116. Instrumental Technique—Strings: May be taken as Music 416 (1)

117. Instrumental Technique—Woodwinds: May be taken as Music 417 (1)

118. Instrumental Technique—Brass: May be taken as Music 418 (1)

119. Instrumental Technique—Percussion: May be taken as Music 419 (1)

120AB. Ear-training I (1-1)

Sight-singing and dictation.

Prerequisite: Music 105, or equivalent, or consent of instructor.

210AB. Theory II (3-3)

Chromatic harmony and contrapuntal techniques with advanced keyboard harmony. 210B will include 20th century techniques. Must be taken concurrently with 220AB.

Prerequisites: 110AB, 120AB, or equivalents, or permission of instructor for 210A; 210A, or equivalent, or consent of instructor for 210B.

220AB. Ear-training II (1-1)

Advanced sight-singing and dictation.

Prerequisites: Music 120B or equivalent, or permission of instructor for 220A; Music 220A or equivalent, or consent of instructor for 220B.

250. Introduction to Music Literature (3)

An introductory course in listening to music, with lectures and demonstrations dealing with rudiments of music and principal forms and styles.

295. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

*** 300A. Individual Lessons—Keyboard (1)**

On campus private lessons with approved instructors. Special fee.

*** 300B. Individual Lessons—Voice (1)**

On campus private lessons with approved instructors. Special fee.

*** 300C. Individual Lessons—Instrument (1)**

On campus private lessons with approved instructors. Special fee.

301AB. History of Music (3-3)

A study of the development of music from antiquity to the present.

Prerequisite: Music 250 or consent of instructor.

305. Sixteenth Century Counterpoint (3)

Prerequisite: Music 110B, 120B, or equivalents, or consent of instructor.

306. Eighteenth Century Counterpoint (3)

Prerequisites: Music 210A, 220A, or equivalents, or consent of instructor.

311AB. Form and Analysis (2-2)

The structure of music through formal analysis of works representing the important forms in musical literature from all periods. Elements of structure in music (such as motive, phrase, period).

Prerequisite: Music 210B and 220B, or equivalents, or consent of instructor.

315AB. Orchestration (2-2)

Study of the instruments of the orchestra, with exercises in writing for instrumental groups and scoring for the orchestra as a whole. Prerequisite: Music 210B, 220B, or consent of instructor.

316AB. Stage Band Composition and Orchestration (2-2) I and II

Study of the instruments of the stage band, with examples in writing for various instrumental groups and scoring for the band as a whole. Admittance by audition.

319. Jazz in American Society (3)

* Individual instruction courses (Music 300ABC) may be repeated for credit. A maximum of 8 units in such courses may count toward the B.A. degree in music.

Music

325. Chorus (1)

The study and presentation of choral music from all periods of musical literature.
Consent of Instructor.

326. Men's Chorus (1) I and II

Consent of instructor.

327. Band (1)

The study and presentation of band music from all periods of musical literature.
Consent of Instructor.

328. Orchestra (1)

The study and presentation of orchestral music from all periods of musical literature. Consent of instructor.

329. Chamber Music Workshop (1)

Instruction and coaching in the performance of chamber music.

Prerequisite: Consent of instructor.

330. Opera Workshop (1)

A course devoted to the study and performance of the operatic literature. The workshop, designed for singers, accompanists, and others interested in the lyric theater will place emphasis on total music theater artistry. Admission to the workshop is by audition or by consent of instructor.

340. Acting and Directing for the Lyric Theater (2)

A course designed primarily for singers, actors and stage directors in which emphasis is placed on the study of the interdependence of music and drama in relation to the lyric stage.

Prerequisite: Consent of instructor.

350. Music of the Middle Ages (2)

Survey of the development of polyphony from its beginnings through ca. 1450.

Prerequisite: Music 250.

355. Music of the Renaissance (2)

Survey of the developments in music of the 15th and 16th centuries. Consideration of vocal music and the formulation of an independent instrumental style, the rise of the harmonic principle and the beginnings of dramatic music.

Prerequisite: Music 250.

360. Music of the Baroque (2)

Survey of the development of music from ca. 1600–1750. Consideration of the origin and growth of opera, the dramatic choral literature, the sonata, and the concerto.

Prerequisite: Music 250.

365. Music of the Classic Period (2)

Survey of the styles and forms of the classic era. Consideration of the origin of sonata form, the development of the symphony and opera, culminating in the works of Haydn, Mozart, and Beethoven.

Prerequisite: Music 250.

370. Music of the Romantic Era (2)

Intensive study of musical styles and influences throughout the 19th century. The prevailing social and philosophical influences of the times on music.

Prerequisite: Music 250.

374. Music on the American Scene (3)

A course designed for any student interested in examining and becoming better acquainted with the mixtures of styles which are part of American music today. Topics will include: Rock: style, genre and point of view; Jazz since the Second World War; The Academic Avant-Garde; The Ritual Crisis in "Serious" music today; Music and Economics; The American Experimental Tradition. Students are encouraged to compose and/or perform as a part of their study of various facets of the music of today.

Prerequisite: None.

380. American Folk Music (2)

A survey of the history and development of American folk music.

390. Jazz Workshop (1)

Performance and rehearsal of literature in the contemporary jazz idiom.

Prerequisite: Consent of instructor.

393. Madrigal Singers (1)

Study and performance of Renaissance and Baroque choral literature.

Prerequisite: Consent of instructor.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

400. Curriculum of the Elementary School (Music) (3) I and II

Philosophy, method and materials for teaching music in the elementary school. Enrollment limited to students admitted to Elementary Education Curriculum, or by consent of instructor.

412. Class Instruction in Organ (1)**415. Basic Voice Technique (1)****416. Instrumental Technique—Strings (1)****417. Instrumental Technique—Woodwinds (1)****418. Instrumental Technique—Brass (1)****419. Instrumental Technique—Percussion (1)****425A. Composition (2)**

This course will serve as the culmination of the student's advanced work in theory and will integrate previous study. Individual projects in creative work.

Prerequisite: Music 210B, and 220B, or consent of instructor.

425B. Advanced Composition (2)

Elective continuation of 425A. May be repeated for credit.

Prerequisite: 425A or consent of instructor.

426A. Seminar in Music History (2)

Individual or class projects on particular aspects of music history. The emphasis will be on studies in depth, integrating previous study in history and analysis.

Prerequisites: Music 301AB, 311AB, or consent of instructor.

426B. Seminar in Music History

Elective continuation of 426A.

Prerequisite: Music 426A or consent of instructor.

Music

427A. Twentieth Century Analysis (2) I

Analysis of music of the 20th century with emphasis on non-dodecaphonic procedures.

Prerequisite: 311AB or consent of instructor.

427B. Twentieth Century Analysis (2) II

Analysis of music of the twentieth century with emphasis on dodecaphonic and serial procedures.

Prerequisite: Music 311AB, or consent of instructor.

430. Conducting (2)

Prerequisite: Music 311AB, or consent of instructor.

431. Advanced Conducting (2)

Prerequisite: Music 430 or consent of instructor.

432. Score Reading at the Piano (2)

Prerequisite: Music 102 or consent of instructor.

435. Contemporary Music (2)

A survey of contemporary music from Debussy to the present.

Prerequisite: Music 250 or consent of instructor.

436. Studies in Performance Practice (3)

Research and inquiry into the authentic procedures of musical performance of a period, style or civilization. The specific topic will vary each time the course is offered.

Prerequisite: Consent of instructor.

440. History of the Opera (2)

A study of the development of opera from its beginnings, with musical illustrations from the works of Monteverdi, Gluck, Mozart, Verdi, Wagner, Mussorgsky, Debussy, and others.

Prerequisite: Music 250 or consent of instructor.

442. Beethoven (3)

A study of selected works to show the development of Beethoven's style, with emphasis on his last works.

Prerequisite: Music 250 or consent of instructor.

444. Wagner (3)

The romantic operas and late music dramas: their antecedents in France and Germany and their relation to Wagner's own aesthetic and dramatic theories.

Prerequisite: Music 250 or consent of instructor.

446. Bach and Handel (3)

An examination of representative vocal, instrumental, and chamber-music works, considered in relation to the intellectual and social life of the early 18th century.

Prerequisite: Music 250 or consent of instructor.

448. Haydn and Mozart (3)

The rise and development of the Viennese classical style, particularly as reflected in the quartets and symphonies of Haydn and the operas and concertos of Mozart.

Prerequisite: Music 250 or consent of instructor.

450A. African Music (3)

African Music will examine the history, organization, function and the music (melody, text, instruments) of various African musical types: Social Music; Occu-

pational Music; Music for Political Institutions; Music for Religious Institutions; Music for Rites "de passage" (birth, nursery, puberty, circumcision, marriage, death). In addition, the course will examine the mutual influences of contemporary African and Western cultures.

450B. Workshop in African Music and Dance (2)

A laboratory devoted to instruction in African drumming, songs, and dances. An opportunity to gain understanding of African music and dance through participation. Must be enrolled in Music 450A.

451. Asian Music (3)

A study of the repertory, instruments, and performance practices in Asian music, with emphasis on the classical traditions in Indian, Tibetan, Chinese, Balinese and Japanese music.

Prerequisite: Music 250 or consent of instructor.

460. Mixed Media Composition (3)

The study of technical and aesthetic principles which underly recent art works coordinating music, art, cinema, dance and drama; and the application of these principles in the creation of original conceptions.

Prerequisite: Consent of instructor.

461. Electronic Music Composition (3)

A study of techniques of the classical studio (tape composition, mixing techniques concrete sound sources), sound generation using a digital computer and composition using direct sound generation systems. Problems involved in the construction of sound systems will also be considered.

Prerequisite: Consent of instructor.

462. History of Musical Instruments (3)

A study of the evaluation of musical instruments, western and non-western, from their origins to the present.

463. History of Theory (3)

A comprehensive survey of the important theoretical writings of western music. A consideration of the work of Pythagoras, Schütz, Descartes, Rameau, Reicha, Riemann, Schenker, Babbitt and others whose thought seeks to explain the nature of western music as it evolves.

Prerequisite: Music 311AB or consent of instructor.

464. Studies in Musical Aesthetics and Criticism (3)

A course in the reading and writing of criticism. Critical viewpoints will be studied in the light of the aesthetic values they assume, and an attempt will be made to define a role for criticism today. Musical criticism will provide the focus, but students with other artistic interests are encouraged to enroll.

Prerequisite: Consent of instructor.

465. Baroque and Classical Ornamentation (3)

The study of authentic procedures of ornamentation and improvisation in European music of the 18th Century.

Prerequisites: Ability to read music, and at least one performance or music literature course dealing largely with baroque or classical music. Performing ability recommended.

490. Senior Seminar in Music (1)

A course designed to culminate the work of the music major. Group or individual projects in research, analysis, or theory, bringing together all the skills and

Music

proficiencies that have been developed. The work in the seminar may include a recital on an instrument or voice.

Prerequisite: Music 301AB, 305, 311AB, 315AB or consent of instructor.

495. Independent Study for Majors or Minors (1-4)

499. Special Problems (1-2)

By consent of instructor.

500. Music in the Secondary School (3)

Place and function of music in grades 7 through 12, with emphasis on general music, choral and instrumental classes; aims, methods, and materials.

Prerequisite: Consent of instructor.

501. Introduction to Graduate Study (3)

A course in the methods and materials for research in music. Proficiency in an imaginative use of the library will be developed through projects in bibliography. Some original research will be expected.

525. Chorus (1)

Prerequisite: Consent of the Graduate Committee.

528. Orchestra (1)

Prerequisite: Consent of the Graduate Committee.

529. Chamber Music Workshop (1)

Prerequisite: Consent of the Graduate Committee.

530. Opera Workshop (1)

Prerequisite: Consent of the Graduate Committee.

554AB. Graduate Seminar in Music Education (3-3)

Advanced studies in Music Education. Examination of music studies in public schools and their relationship to the creative process. The role of music in culture and its relationship to music education.

Prerequisite: Consent of the Graduate Committee.

590. Jazz Workshop (1)

593. Madrigal Singers (1)

PHILOSOPHY

(Division of Humanities)

Philip Temko, Chairman of Department

Harold Alderman, Stanley McDaniel, Edward Mooney, Richard Paul,
George Proctor, John Smaby.

The major in philosophy provides an introduction to different areas of philosophy as well as a specialization which culminates in the preparation of a senior thesis. The major consists of 33 units. This must include, a) at least one course in each of the 4 specified areas, b) the senior project (6 units), and d) at least 3 units of philosophy seminar. With the exception of the requirements of the general education program, there are no specific course requirements for work done outside the department and a good deal of experimentation is encouraged, through the experimentation might be guided by the work done in philosophy. For example, a student whose primary interest is philosophy of science might develop a minor in one of the sciences, a student interested in aesthetics might develop a minor in one of the arts, etc. For students interested in graduate school a foreign language is recommended.

Majors are strongly encouraged to work closely with their advisors. (Note: Majors and minors interested in obtaining a teaching credential should inquire about special requirements.)

The minor in philosophy consists of 18 units approved by the department advisor.

At pre-registration time each semester the Philosophy Department publishes a guide sheet indicating which courses will be offered, their prerequisites if any, and something of their content.

A minimum of 124 units is required for the B.A. degree.

100. Introduction to Philosophy (3)

An examination of selected problems and texts within the discipline of philosophy. Topics and approaches vary greatly among the departmental members. May be used for major credit but not required.

Value Theory

240. Ethics (3)

An introduction to the philosophical analysis of morals, morality and value. Among several fundamental questions to be examined are the following: "What is a good life?" "Is benevolence self-interest in disguise?" "Can disagreements be resolved by logic?" "Is morality absolute or relative? Objective or subjective?" Readings and discussion.

360. Aesthetics (3)

An analysis of the nature of art through a consideration of such problems as the cognitive role of art, art and perception, the artist and his world, among others.

370. Social and Political Philosophy (3)

A critical analysis of theories concerning the good society, the nature and importance of freedom, the relations between the individual and organizations, and right social action.

373. Philosophy of Law (3)

344. Seminar: Topics in Value Theory (3)

Philosophy

Logic, Epistemology, Methodology

200. Introduction to Logic (3)

A study of deductive and inductive argument, meaning, and the uses of language. The purpose of the course is to develop an understanding of the rules of clear and critical thinking and of the structure of arguments.

300. Symbolic Logic (3)

Prerequisite: Philosophy 200 or consent of the instructor.

351. Epistemology (3)

A critical examination of the nature and scope of knowledge, with particular emphasis on the concepts of meaning, truth, and validity.

430. Seminar in Philosophy of Language (3)

A study of classical and current theories about the nature and functions of language, and about truth and meaning. Analysis of the relevance of philosophy of language to other branches of philosophy, to linguistics, psychology, and the social sciences. Analysis of philosophical issues in the study of fiction and poetry.

440. Seminar: Philosophy of Science (3)

An examination of the central concepts of modern science (causality, explanation, theory, prediction, evidence, experiment, probability, etc.) and of the open philosophical problems and conflicting views to which these concepts give rise. Consideration of the nature of science, with particular attention to the relation between the social and physical sciences, and the scientific "status" of the former. Selected readings in recent literature on the subject.

460. Phenomenology (3)

A discussion of the origin of phenomenology in the work of Brentano and Husserl and an examination of key concepts such as intentionality, epoche, world, etc. The distinction between eidetic and existential phenomenology, and a consideration of the use of phenomenology in the social sciences.

364. Seminar: Topics in Logic, Epistemology, Methodology (3)

History of Philosophy

250. Greek Philosophy (3)

A study of Greek philosophy from the Milesians to the Stoic and Epicurean philosophers. Particular emphasis is on the development of Plato and Aristotle and their influence on later classical philosophy.

260. Medieval Philosophy (3)

A study of philosophy from Plotinus to Occam with particular emphasis on Augustine and Aquinas. Epistemological, metaphysical, and ethical problems are analyzed and discussed.

310. 19th Century Philosophy (3)

A selective examination of the works of thinkers such as Fichte, Hegel, Marx, Kierkegaard, Nietzsche, Mill, Pierce, James and others. May be repeated.

315. Continental Rationalism (3)

A systematic study of rationalistic metaphysics as exemplified in Descartes, Spinoza, and Leibnitz.

320. 20th Century Philosophy (3)

A selective examination of the work of thinkers such as Husserl, Heidegger, Russell, Whitehead, Wittgenstein, and others. May be repeated.

325. British Empiricists (3)

An examination of British philosophy from Bacon to Hume. Special attention will be given to epistemological and moral philosophy.

340AB. Eastern Philosophy (3)

An introduction to the major philosophical and religious thought of the East, including Yoga, Hinduism, Jainism, and Buddhism. The second semester will include Tibetan Buddhism, Taoism, and Zen Buddhism.

475. Kant. (3)

A systematic examination of the *Critique of Pure Reason* and the *Critique of Practical Reason* focusing on the epistemological, metaphysical, and moral problems treated in these works.

354. Seminar: Topics in History of Philosophy (3)

Speculative Philosophy

350. Philosophy of Religion (3)

A philosophical study of religion concerned to explore its language, meaning, and possible basis in feeling, intuition, or reason.

352. Metaphysics (3)

A consideration of the nature of metaphysical thought through an examination of both classical and contemporary sources such as Aristotle, Kant, Pepper, Heidegger, Collingwood, Wisdom and others.

362. Marxism (3)

A selected study of one or more 19th or 20th Century Marxists. Special emphasis will be placed on the variety of perspectives within the Marxist tradition and the evolutionary nature of that tradition.

372. Pragmatism (3)

An examination of the pragmatic doctrines of meaning, truth, man, and society as presented in the works of Pierce, James, Dewey, Santayana and Lewis.

380AB. Existential Philosophy (3)

A is an examination of the background of existential thought in Kierkegaard and Nietzsche and an examination of basic existential concepts such as being-in-the-world, dread, and attunement. B is an intensive examination of texts selected from the works of Heidegger, Sartre, Camus, Marcel, Jaspers, and others.

Prerequisite: A is the prerequisite for B.

382. Non-Western Speculative Systems (3)

Study of metaphysical attitudes and systems outside the main-stream of European civilization, including India, China, Japan, Tibet, and various primitive non-European societies. (Specific texts will be selected each semester by the instructor.)

392. Philosophy of Man (3)

An inquiry into the nature of man considering both philosophical and anthropological sources. Approach varies among members of the department.

374. Seminar: Topics in Speculative Philosophy (3)

Special Courses

490. Philosophy Seminar (3)

An examination of a selected topic, work, or philosopher. Limited to students with at least 15 hours of philosophy or with consent of instructor. May be repeated.

Philosophy

495. Independent Study for Majors or Minors (1-3)

496. Senior Thesis (6)

Writing of a paper deemed acceptable by a faculty director and reader. Superior papers nominated for honors will be defended before the philosophy faculty.

Graduate Level Courses

485. Seminar in Value Theory (4)

Topic to be selected.

486. Seminar in Logic and Epistemology (4)

Topic to be selected.

487. Seminar in History of Philosophy (4)

Topic to be selected.

488. Seminar in Speculative Philosophy (4)

489. Graduate Thesis (6)

PHYSICAL EDUCATION

(Division of Psychology, Education, Health Sciences and Physical Education)

G. Edward Rudloff, Chairman of Department

Mary Covington, Robert Donlan, C. Douglas Earl, Kenneth Flynn, James Gale, William Gray, Lloyd Helgeson, Charlotte Lemley, Robert Lynde, Charles Pease, Carl Peterson, Robert Sorani, Ella Trussell, Martha Yates.

Subsequent to establishing a "track" within the major, by appropriate choice of electives, students can obtain a major in Physical Education which will satisfy the requirements for any of the following objectives: Graduate school preparation, secondary teaching credential, pre-professional curriculum, i.e., physical therapy, public health research.

PHYSICAL EDUCATION MAJOR FOR THE B.A. DEGREE *

General Education	40 units
Major Requirements †	36 units
Support Subjects	9 units
Electives or Minor	39 units
Total	124 units

PHYSICAL EDUCATION MAJOR COURSE REQUIREMENTS

Physical Education, the study of man as an individual engaging in motor activities, expressing his aesthetic values and/or his physical and competitive nature, is concerned with contributing to man's understanding of nature and himself. The major provides a sound basis for students wishing to go on to a graduate school or into the teacher education program.

A. Physical Education Courses—all majors

Hlth 310 Kinesiology	4 units
Hlth 315 Physiology of Exercise	4 units
Phys. Ed. 300 ABCD Analysis of Motor Performance	8 units
Phys. Ed. 305 Psychological Factors	4 units
Phys. Ed. 315 Sociology of Sport	4 units
	24 units

B. Related Courses—all majors

Physics 100 Descriptive (2 units—G.E.)	1 unit
Chemistry 102 Inorganic Chemistry (3 units—G.E.)	0 unit
Biol. 115 Principles of Life Science (4 units—G.E.)	0 unit
Biol. 224 Human Physiology	5 units
Biol. 310 Human Anatomy	3 units
Soc. 201 Intro. (4 units—G.E.)	0 unit
	9 units

C. Majors shall elect *two areas* for study. ‡

I. Sociology

Anthro. 203	4
Plus 8 units of upper division course work	8
	12 units

III. Psychology

Psych. 240	4
Plus 8 units of upper division course work	8
	12 units

* Teaching majors and minors must participate in one intercollegiate sport each year.

† For those students minoring in the Biological, the Sociological, or the Behavioral Sciences; other major will be 48 units.

‡ Teaching majors must select Area IV as an area of concentration.

Physical Education

II. Biology

12 units will be selected by the student in consultation with his advisor, 8 of which will be upper division. 12 units

IV. Pre-Professional—Required 12 units

Required—8 units

Phys. Ed. 301 Philosophy of Secondary School Phys. Ed.	3 units	
Hlth. Sci. 305 Care and Prevention of Injuries	2 units	
Phys. Ed. 320 Practicum	1 unit	
Phys. Ed. 330 Measurement and Evaluation	2 units	
		<hr/> 8 units

Electives—4 units

Phys. Ed. 325 Developmental and Adaptive	2 units	
Phys. Ed. 326 Rehabilitative Phys. Ed.	2 units	
Phys. Ed. 400 Curriculum in the Elementary School	3 units	
Phys. Ed. 430 Field Experience	1-3 units	4 units
		<hr/> 12 units

and as graduates:

Phys. Ed. 500 Research Design	3	
Phys. Ed. 501 Graduate Seminar	3	
		<hr/> 6 units

MINOR IN PHYSICAL EDUCATION

Students must obtain departmental approval before enrolling as Physical Education minors. The minor consists of a minimum of 20 units of physical education courses (including work in Biology and Health).

An interdepartmental minor is available to the Physical Education minor who wishes to concentrate in dance. The minor includes 9 units offered in dance by the Division of Humanities.

MASTER OF ARTS IN PHYSICAL EDUCATION

The goal of the Master of Arts degree program in Physical Education is to provide increased understanding of the body of knowledge in physical education which is based on the biological, sociological, and psychological implications of man as he performs in games, sports, and dance.

I. Required Courses

P.E. 500 Research Design	4 units
P.E. 501 Graduate Seminar	3 units
P.E. 525 Thesis	3 units
and two courses selected from:	
P.E. 505 Advanced Motor Learning	3 units
P.E. 510 Advanced Kinesiology	3 units
P.E. 515 Physiological Basis of Movement	3 units
P.E. 520 Cultural Factors Seminar	3 units
	<hr/> 6 units

II. Elective Courses

14 units

Selected with approval of advisor from natural, social or behavioral sciences or physical education.

Total	<hr/> 30 units
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For admission to the program, the candidate must:

1. Have completed and undergraduate major comparable to that offered at Sonoma State College.
2. Have maintained a 3.0 (B) GPA in his major and an overall upper division GPA of 2.75 or attained a minimal acceptable score on the Graduate Record Examination.
3. Apply for admission at least four weeks prior to the beginning of the term.
4. Be accepted for admission by the departmental graduate committee.

For completion of the degree, the candidate must:

1. Complete the contract program (30 units) with a 3.0 GPA.
2. Complete a thesis acceptable to the candidate's committee.
3. Successfully participate in a final oral examination administered by the candidate's graduate committee.

PHYSICAL EDUCATION

100. Scientific Basis of Health and Physical Education (2) I and II

This course is designed to inform the student why one should engage in physical activity by analyzing in physical and physiological terms modern day problems such as the nation's death rate from heart disease. The student is asked to form conclusions from the evidence presented in lecture form and from empirical evidence gathered in the laboratory.

101. Physical Education Activities (1) I and II

Activities Classes: Most sections meet twice weekly. Classes are conducted in the following activities: archery, badminton, bowling, fencing, golf, gymnastics, judo, wrestling, modern dance, physical fitness, swimming, trampoline, tennis, and folk and square dance.

102. First Aid (1) I

Survey of common accidents, injuries and illnesses with an emphasis on prevention and emergency care. Laboratory experience in learning and applying accepted first aid skills. Successful completion of course can lead to certification.

103. Life Saving and Water Safety (1) II

Emphasis is on review of holds, breaks and carries along with teaching procedure, sequence of instruction, methodology and evaluation of teaching performance. Successful completion of course can lead to certification.

180. Freshman Intercollegiate Sports (1) I and II

Activities include: I. Cross-country, basketball, gymnastics, football, water polo, wrestling, swimming. II. Golf, baseball, tennis, track and field.

189. Freshman Intercollegiate Sports for Women (1) I and II

Activities include: field hockey, volleyball, tennis, track and field, cross-country, basketball, gymnastics, and softball.

300ABCD. Analysis of Neuromuscular Skills (1-2) I and II

Lecture/laboratory

This course is designed to provide the students with an understanding of the mechanics of the neuromuscular skills and the functional application of the activities presented within the course.

Prerequisites: Competency in the neuromuscular skills included in the course as approved by the student's advisor.

301. Philosophy of Physical Education (3) I

The philosophic process applied to physical education. Exploration of contemporary values and critical issues in physical education.

Physical Education

305. Psychological Factors of Motor Performance (4) I and II

Perception, learning, motivations and emotion in relation to motor performance; reaction time and coordination. The psychology of competition and personal adjustment and social behavior as observed in play.

315. Sociological Foundations of Physical Education (4) I and II

Examines and utilizes basic sociological concepts and demonstrates their manifestations within the area of sport.

Prerequisite: Physical Education 301.

320. Practicum (1) I and II

Two semesters of supervised observation and teaching experience in physical education activity programs.

325. Developmental and Adaptive Physical Education (3) I

Lecture, laboratory.

A survey of programs, their scope and purpose, for handicapped children; regulations and guidelines for program development. Study and analysis of common injuries and orthopedic deviations examining the etiology, symptoms, limitations imposed, and types of physical activities which are ameliorative and/or beneficial to the total person.

Prerequisite: Health Science 310, 315.

326. Developmental and Adaptive Physical Education (3) II

Lecture, laboratory.

A survey of non-orthopedic conditions, examining the etiology, limitations imposed, and types of physical activities which are ameliorative and/or beneficial to the total person. Mental health problems will also be discussed.

Prerequisite: Physical Education 325.

330. Measurement and Evaluation (2) I and II

Emphasis in developing a broad concept of evaluation and its place in the total educational scheme; familiarize the student with techniques of measurement and evaluation, as applied to objectives, program and student achievement; study of principles of test selection, construction, administration and interpretation, with some emphasis on descriptive statistics.

380. Varsity Intercollegiate Sports (1) I and II

Activities include: I. Cross-country, basketball, football, gymnastics, swimming, water polo, wrestling. II. Golf, baseball, tennis, track and field.

389. Varsity Intercollegiate Sports for Women (1) I and II

Activities include: field hockey, volleyball, tennis, track and field, cross-country, basketball, gymnastics, and softball.

400. Elementary School Physical Education (3) I

Theory and practice in teaching, and directing rhythms, self-testing activities, individual, dual, and team games of the elementary school. Emphasis is on program planning, methods, and evaluation.

430. Field Experience (1-3) I and II

Emphasis is on advanced study in the public school and in specified areas of public health.

495. Independent Study for Majors or Minors (1-3) I and II

Includes completion of a project designed to meet a highly specialized advanced study need. Project to be selected in conference with the faculty adviser.

Prerequisite: Consent of advisor.

499. Special Problems (1-2) I and II

500. Research Design (4) I

Study of research design and its application to health and physical education. An introduction to statistical analysis of data as a tool for understanding of pertinent literature and development of personal research.

Prerequisite: Physical Education 330.

501. Research Seminar (3)

Exploration of various individual research problems in the areas of health and physical education. Emphasis will be on research in areas of interest to the student, which will enable him to develop a deeper insight into research techniques and methodologies. Students will report and discuss current research developments and independent student research problems.

505. Advanced Motor Learning (3)

The course is designed so that the graduate in physical education becomes knowledgeable in the specifics of motor learning. Included in these specifics are the factors of neuroanatomy concerning motor performance, theories of learning (both physiological and psychological) and transfer of learning. Independent research projects concerning these specifics will afford students the necessity for use of laboratory facilities. A portion of study will be made upon neurologically motor-retarded children and corrective programs designed for these children.

510. Advanced Kinesiology (3)

Consideration of anatomical and mechanical principle of human movement, and analysis of movement by goniometric, photographic, cinematographic, electromyographic and associated techniques.

Prerequisite: Undergraduate course in Kinesiology.

515. Physiological Bases of Human Movement (3)

A laboratory course which includes the evaluation of human work capacity, the effects of exercise on cardiorespiratory function and metabolism, and the physiology of muscular contraction.

Prerequisite: Undergraduate course in physiology of exercise.

520. Cultural Factors Seminar (3)

Advanced research, the development of papers and intragroup discussions based upon an analysis of cultures, their sports, games and dance programs with emphasis on causes and effects.

525. Thesis (4)

The master's thesis is based upon laboratory and library research with focus on a project "central" to the student's area of concentration.

530. Psychology of Teaching and Coaching (3)

The course is designed to expose the graduate physical educator to various psychological parameters that will assist him in understanding the athlete in competition. Investigations of various techniques of determining and improving skilled performance will ensue. Among the techniques to be studied are effects of practice schedules, results of psychological (personality) inventories, effects of environmental stress (audience peer groups), and the effects of other factors of competition. Much research will be devoted to the superior performer.

535. Administration (3)

Emphasis on school law and its interpretation, accounting and budgeting, selection of faculty, accountability and philosophies of administration and organization.

540. Site Development and Facilities Planning (3)

Study of site selection, soils analysis and construction implications, plans development and analysis, curricular implications of plant development, facilities master planning.

PHYSICS

(Division of Natural Sciences)

Samuel L. Greene, Chairman of Department

William Aberth, John Dunning, Jr., George Johnston, Duncan Poland,
Garrison Sposito

The major in physics is a thorough introduction to natural philosophy as well as a strong foundation for graduate study or industrial research. It is also an approved major for those wishing to pursue careers in secondary school teaching.

PHYSICS MAJOR FOR THE B.A. DEGREE

General Education	40 units
Major	39 units
Supporting Courses	24 or 26 units
Electives and Foreign Language	21 or 19 units

PHYSICS MAJOR COURSE REQUIREMENTS

The student is expected to have completed introductory chemistry, calculus, and introductory physics by the end of his fourth semester.

215ABC—Introductory Physics (6 units in G.E.).....	6 units
215ABC—Introductory Physics	6 units
320—Analytical Mechanics	3 units
330AB—Electricity and Magnetism.....	6 units
332—Electronics and Physical Measurements	3 units
340—Theory of Light	3 units
450—Statistical Physics	3 units
431 or 461—Advanced Electronics or Modern Physics Laboratory	3 units
460AB—Quantum Physics	6 units
* Physics Elective	6 units

39 units

SUPPORTING COURSES

A. Mathematics

120 and 140 or 162 (3 units in G.E.).....	3 or 2 units
190 or 212, 240 or 262, 290 or 312, 330.....	13 or 12 units

16 or 14 units

B. Chemistry

125AB or 115AB	10 units
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MINOR IN PHYSICS

Completion of a minimum of 20 units in physics courses will constitute a minor in physics. Interested students should consult with an advisor in the Department of Physics regarding required courses.

100. Descriptive Physics (3) I and II

A descriptive survey of the important principles of physics. This course may be used to fulfill part of the general education requirement in natural science. Not recommended for science majors. Registration for credit in this course by Chemistry, Physics or Mathematics majors requires approval of the Physics Department.

* Electives to be chosen from Physics 310, 355, 390 and any course numbered in the 400's; or Astronomy 310AB.

Physics

210AB. General Physics (4-4)

Lecture, 3 hours; laboratory, 3 hours.

A basic course in physics for students majoring in Biology, Bio-chemistry or pre-professional programs. Fundamentals of Newtonian mechanics, thermophysics, optics; electricity and magnetism, special relativity, and quantum physics. Registration by Physics, Mathematics or Chemistry majors requires Physics Department approval.

Prerequisite: High school algebra, trigonometry and a high school physical science.

212. A Survey of Introductory Physics (3) I

This course will cover, in a cursory and elementary fashion, most of the topics covered in Physics 215ABC. It is designed for those prospective physics, chemistry, and mathematics majors who need additional background before entering Physics 215A.

Prerequisite: None.

215A. Introductory Physics—Mechanics and Thermodynamics (4) I and II

Lecture, 3 hours; laboratory, 3 hours.

Introduction to vectors; Newton's laws, mechanics of point masses, statistics and dynamics of particle aggregates; rigid body motion; introduction to the special theory of relativity; elementary fluid mechanics; the laws of thermodynamics; absolute temperature; ideal gases; entropy.

Prerequisite: Concurrent enrollment in Mathematics 190 or 212.

215B. Introductory Physics—Electromagnetism and Waves (4) I and II

Lecture, 3 hours; laboratory, 3 hours.

Introduction to vector analysis; electrostatics, quasistatic fields and currents, magnetostatics; electromagnetic induction, Maxwell's equations; electric and magnetic fields in matter; wave motion; acoustic and transverse waves; reflection, refraction, diffraction, and interference; geometrical optics.

Prerequisite: Physics 215A; concurrent enrollment in Mathematics 240 or 262.

215C. Introductory Physics—Quantum and Statistical Physics (4) I and II

Lecture, 3 hours; laboratory, 3 hours.

Empirical foundation of quantum theory; Bohr theory, de Broglie waves; Schrödinger's equation; elementary atomic theory; elementary scattering theory; introduction to equilibrium statistical mechanics; the partition function; Boltzmann, Bose, and Fermi statistics.

Prerequisite: Physics 215B; concurrent enrollment in Mathematics 290 or 312.

310. Atomic Physics (3)

This course will include the Bohr theory of the atom and its subsequent development, Stern-Gerlach and Lamb-Retherford experiments, Zeeman and Stark effects, fine and hyperfine atomic structure, and elementary molecular physics.

Prerequisite: Physics 215B or consent of instructor.

311. Elements of Electronics (3)

Lecture, 2 hours; laboratory, 3 hours.

Same as Chemistry 311. Basic circuit theory; operation of tube and transistor devices; analysis of typical circuits used in power supplies, amplifiers, and electronic instruments; and the uses of operational amplifiers.

Prerequisites: Completion of the general education requirements in mathematics and physical science.

313. Classical Studies (1-3)

An intensive study of a work or a closely-related group of works which has figured importantly in the development of physics or astronomy. This course counts toward the *elective* General Education requirement.

Prerequisite: Completion of the General Education requirement in physical science or consent of instructor.

320. Analytical Mechanics (3) I

Principles of Newtonian Mechanics. Relativistic dynamics. Introduction to Hamiltonian mechanics. Applications to central force problems and small vibrations.

Prerequisite: Physics 215A, Mathematics 330 (may be taken concurrently).

330AB. Electricity and Magnetism (3-3)

Electrostatics; magnetostatics; electric currents, electromagnetic induction; electric and magnetic fields in matter; Maxwell's equations, retarded potentials, radiation reaction, light emission, simple scattering and antenna theory, properties of waveguides, relativistic formulation of electrodynamics, Fourier decomposition of fields.

Prerequisite: Physics 215B, Mathematics 330 (may be taken concurrently).

332. Electronics and Physical Measurements (3)

Lecture, 2 hours; laboratory, 3 hours.

Fundamental DC and AC circuit theory; principles of vacuum tube and transistor amplifiers, oscillators, and measuring instruments; bridge and potentiometer methods in measurements; the realization of precision standards; selected techniques in optical, thermal, and nuclear studies; and error analysis.

Prerequisite: Physics 215C.

340. Theory of Light (3) II

The quantum theory of light; coherence, interference, diffraction and polarization; masers, lasers; geometrical optics; spectroscopy.

Prerequisite: Physics 215C.

355. Problems in Environmental Physics (4)

Lecture, 3 hours; laboratory, 3 hours.

Introduction to fluid mechanics with applications to the earth's atmosphere and liquid flows of environmental interest. Radiative, chemical, and thermal processes in the earth's atmosphere. The laboratory includes a study of techniques for investigating atmospheric pollution.

Prerequisites: Mathematics 190 or 212 or 311 and Physics 210B or 215B.

390. History of Physical Science (2) II

Lecture, 2 hours.

Same as Chemistry 390 and Geology 390.

Prerequisite: Major in the physical sciences or consent of the instructor.

425. Introduction to Mathematical Physics (3) I

Introduction to the theory of transformations in linear spaces, with special emphasis on invariance and extremum principles in physical theory. Topics in tensor analysis, functional analysis, transcendental functions, and calculus of variations.

Prerequisite: Physics 215C; Mathematics 330, or consent of instructor.

431. Advanced Electronic Methods Laboratory (3) II

Laboratory, 9 hours.

Analysis and construction of electronic instrument circuits, pulse and CW techniques, time and frequency domain analysis, precision standards, operational am-

Physics

plifiers, integrated circuit devices, phase-sensitive detection, and special projects in thermal, optical, and nuclear measurements.

Prerequisite: Physics 332.

450. Statistical Physics (3) I

The laws of thermodynamics; the partition function; Boltzmann, Bose, and Fermi statistics; elementary transport theory; applications to solid state physics, atmospheric physics, plasma physics, and low temperature physics.

Prerequisite: Physics 215C.

451. Plasma Physics (3)

Analysis of phenomena occurring in highly ionized gases using guiding center, fluid, and kinetic theory descriptions. Shielding, plasma oscillations, equilibria, stability, transport properties, and interaction with radiation. Selected applications to astrophysics, space physics, and controlled fusion.

Prerequisite: Physics 330A.

460AB. Quantum Physics (3-3)

The Schrödinger equation; atomic theory; scattering theory; the Dirac equation; axiomatic formulation of quantum mechanics; topics in nuclear physics, elementary particle physics, and field theory.

Prerequisite: Physics 320; Mathematics 330.

461. Quantum Physics Laboratory (3) II

Laboratory, 9 hours.

Selected experiments to illustrate the empirical foundations of the quantum theory, special project studies of thermal, optical, and nuclear phenomena and an introduction to computer techniques.

Prerequisite: Physics 332.

470AB. Solid State Physics (3-3)

Symmetry groups of crystals; wave propagation in crystal lattices; transport phenomena; theory of metals and semiconductors; cooperative phenomena.

Prerequisite: Physics 330A, 450.

480. Introduction to Nuclear Physics (3)

Nuclear forces; the deuteron; nuclear spectra and theories of nuclear structure; nuclear reactions; applications.

Prerequisite: Physics 460A.

490. Introduction to Field Theory and Elementary Particles (3) II

Second quantization; Fourier decomposition of operators; relativistic field equations; interaction Hamiltonians and Lagrangians; elementary particles and resonances and their interactions and decays.

Prerequisite: Physics 460AB; Mathematics 460 is recommended.

494. Physics Seminar (1) I

Group discussions of selected recent papers on experimental and theoretical physics. May be repeated for credit.

Prerequisite: Consent of instructor.

495. Independent Study for Majors or Minors (1-3) I and II

499. Special Problems (1-2) I and II

POLITICAL SCIENCE

(Division of Social Sciences)

Kenneth Marcus, Chairman

Stephen Fraser, William Nighswonger, Cecile Pace, Albert Palm, Cheryl Petersen, Robert Smith, Bruce Woelfel, William Young, David Ziblatt

BACHELOR OF ARTS IN POLITICAL SCIENCE

The undergraduate major in political science provides a foundation in the subdivisions of the discipline within a liberal arts context. It is also designed to meet the needs of students whose goals are: (1) graduate school, (2) government employment—federal, state or local and (3) careers in human ecology and the urban environment. It serves, in combination with other courses in the social sciences, as an academic major for those who contemplate a career in teaching.

POLITICAL SCIENCE MAJOR FOR THE B.A. DEGREE

General Education	40 units
Major	32 units
Electives	52 units
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Total	124 units

POLITICAL SCIENCE MAJOR COURSE REQUIREMENTS

Poli. Sci. 200—American Government	4 units
Poli. Sci. 205—Introduction to Political Science.....	4 units
Poli. Sci. 300—Seminar in Methodology.....	4 units
Four upper division courses chosen from four of the following seven fields:	
Political Theory	
American Government	
Public Administration	
International Relations	
Comparative Politics	
Urban Politics	
Political Dynamics and Behavior.....	16 units
Poli. Sci. (Electives).....	4 units
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Total	32 units

RELATED COURSES

Econ. 201—Introduction to Economics and	
History 112—Development of Modern World.....	8 units
or an approved upper division substitute.	
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Total	8 units

CODE REQUIREMENTS

Political Science 200 (American Government) meets the State Code requirements in U.S. Constitution and California State and Local Government. Upper division courses may also be used to satisfy these code requirements upon the approval of the Department Chairman. The State Code requirements must not be confused with the G. E. requirement in social science. These are different requirements.

Political Science

TEACHING CREDENTIAL

For students who wish to qualify for the standard teaching credential, 24 units of the major must be composed of upper division courses (300 and 400 level courses).

MINOR IN POLITICAL SCIENCE

The following minor is recommended for teacher credential candidates and others:

Political Science 200	4 units
Political Science 205	4 units
Three upper division courses	12 units
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	20 units

MASTER OF ARTS DEGREE IN POLITICAL SCIENCE (Political Involvement Emphasis)

The Master of Arts Degree in Political Science is guided by several principles. First, it is assumed that political action and political inquiry should be mutually related processes in an academic program. Effective action for social change has to have a basis in knowledge. Knowledge can be acquired in many ways. This program emphasizes field experience and evaluation. Second, it is assumed that when efforts are made to change an institution its underlying structure may be revealed. This may make it possible to develop new social science concepts that are useful in theory and practice. Third, the program is designed to provide students with an opportunity to work out their own answers to two closely connected questions: What am I going to do with my life? How can I make this a better world? The goal of the program is to help students to reconcile their personal life plans with their political concerns for social change. Admission to the program will be limited to 15 full-time students per year and will take place only in the fall semester. Part-time students will not be admitted.

ADMISSION REQUIREMENTS

A. A bachelor's degree with a major in a social science discipline from an accredited college or university.

B. Evidence of ability to successfully pursue the Field Work experience.

C. Recommendation by the faculty-student Admissions Committee.

In order to successfully complete the Degree Program a student must:

A. Maintain a grade point average of 3.0.

B. Satisfactorily complete the 34 units in the program including the Field Work and a master's thesis or Creative Project.

Required Courses

Poli. Sci. 586	6 units
Poli. Sci. 587	6 units
Poli. Sci. 588	3 units
Poli. Sci. 589	4 units
Poli. Sci. 590	4 units
Poli. Sci. 591	2 units
Social Science Elective	4 units

Total	34 units
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POLITICAL SCIENCE

Lower Division

200. American Government (4)

An examination of the theory and practice of American politics and government. Satisfies the Code requirements in the American Constitution and State and Local Government.

203. Political Life (4)

An introduction to the American political system emphasizing ideology, voting behavior and the means of exercising influence in the political process. One unit of field experience required.

Prerequisite: Satisfaction of the Code requirements in American Constitution and State and Local Government or consent of the instructor.

204. Introduction to Environmental Politics (4)

An examination of the political issues, strategies and approaches involved in the control of our environment. Emphasis will be placed upon such issues as transportation, air and water pollution, recreation and open space, wild life management and other aspects of conservation, urban and rural.

205. Introduction to Political Inquiry (4)

An examination of the relationship of the discipline of Political Science to the contemporary political scene. Political Science as a separate discipline in the study of man and his institutions will be emphasized. The relationship of Political Science to other fields of knowledge will be explored.

212. Basic Issues in Political Theory (4)

An introduction to the field of political theory and its role in the discipline of political science.

Upper Division

Prerequisites: Upper division standing or permission of the instructor is required for admission to the courses listed below. Completion of the Code requirements in American Constitution and State and Local Government is also required unless special permission for enrollment is granted by the student's advisor and the instructor in the course.

Methodology

300. Seminar in Methodology (4)

The techniques used in studying political behavior will be introduced. Survey research, legislative roll call analysis, and other quantitative techniques will be emphasized, with field application of these techniques when possible.

Political Theory

310. Ancient and Medieval Political Thought (4)

An examination of the classics in political thought from Socrates to Machiavelli.

311. Political Thought Since 1500 (4)

An examination of the classics in political thought from the early modern period to the twentieth century.

415. Seminar in Contemporary Political Theory (4)

An analysis of selected areas in modern political theory including American political theory, twentieth century theory and Socialist theory. A different area of emphasis will be offered each year.

Political Science

416. Seminar in Lippmann (4)

Examination of the major theoretical works of Walter Lippmann. A reflection of twentieth century American political theory.

418. Seminar in Revolutionary Theorists (4)

The seminar traces the idea of revolution as a concept in political philosophy by the study of selected political theorists of the nineteenth and twentieth centuries. Students will be expected to critically evaluate the views of these thinkers and to ascertain their contemporary relevance.

American Government

320. State, Municipal and County Government (4)

An analysis of political systems at the state, municipal and county levels in the United States. Satisfies the Code requirement in the State and Local Government. One unit of field experience required.

423. American Constitutional System (4)

Judicial interpretation of the Constitution with particular emphasis upon separation of powers, presidential powers, relationship between state and national government, control of interstate commerce, and jurisdiction of the courts.

424. Civil Liberties and the Constitution (4)

Judicial interpretation of the Constitution in the area of civil liberties, freedom of speech, freedom of religion, rights of persons accused of crimes, citizenship, and the government's responsibility to protect persons from discrimination.

426. The Legislative Process (4)

An examination of the organization and operation of the American Congress. For comparative purposes, legislatures in selected American states and Western European democracies will be briefly considered.

427. The American Presidency (4)

An examination of the place of the Presidency in the American governmental system. Emphasis will be placed upon the interplay between the President and other elements of the system, particularly the Congress and the Bureaucracy.

428. Seminar in California Politics and Government (4)

An analysis of the California political system. Some attention will be given to governmental institutions, but primary emphasis will be upon parties, interest groups, public opinion, ideologies, and leadership.

Public Administration

330. Elements of Administration (4)

The growth of administration as a science and art; the functions of administrative institutions in society and the role and responsibilities of public servants.

432. Public Personnel Administration (4)

The recruitment, training and professionalization of public employees with emphasis upon administrative behavior; the role of the civil servant in society.

Prerequisite: Poli. Sci. 330.

433. Public Financial Administration (4)

The role of budgeting, auditing, purchasing and other aspects of fiscal management in the development of public policy; the use of fiscal devices to secure administrative accountability and political responsibility.

Prerequisite: Poli. Sci. 330.

437. Seminar in Administration Overseas (4)

Problems of public administration in the context of modernization and social change. Administrative traditions in developing nations, foreign aid agencies, and international organizations.

Prerequisite: Consent of the instructor.

439. Government Intern Seminar (1-4)

Field experience in city, county, state and federal agencies. Enrollment by prior arrangement only. May be repeated once for credit.

International Relations

342. International Politics (4)

The dynamics of the international system, roles of supra-national organizations, and foreign policymaking. Simulations of international crises by teams of student decisionmakers playing roles of selected nations using the Simulation Laboratory.

345. Seminar in International Organization (2)

Model United Nations. Offered in the fall semester only. May be repeated once for credit.

346. Seminar in International Organization (3)

Model United Nations. A continuation of Political Science 345. May be repeated once for credit.

444. United States Foreign Policy (4)

An analysis of the forces, governmental and non-governmental, which influence the formulation of U.S. foreign policy. An examination of the organizational structure charged with the formulation and execution of that policy as well as the content of policy since World War II.

446. Seminar in Communist Foreign Policies (4)

Analysis of foreign policies of selected communist states, intra-bloc relations, and cross-national strategies in non-communist countries. Students will present papers for class discussion and participate in simulation during laboratory sessions.

447. Seminar in Contemporary Diplomatic Strategies (4)

An examination of the less formal programs and agencies in foreign policy: propaganda, foreign aid, cultural exchange, intelligence operations, the Peace Corps, and non-governmental organizations. Communist and non-communist strategies and national capabilities will be analyzed and compared.

Prerequisite: Political Science 342 or 444, or consent of the instructor.

448. Seminar on Causes of War (4)

An analysis and evaluation of various explanations concerning the origins of international conflict. Selected historical examples of international warfare will be utilized extensively to supplement the theoretical inquiry.

Comparative Politics

350. Parliamentary Democracies (4)

An analysis of the political systems of major parliamentary democracies.

351. Totalitarian Systems and Dictatorships (4)

An analysis of major twentieth century totalitarian political systems.

452. Asian Politics (4)

A comparative analysis of major Asian political systems, with emphasis on the ecology and cultures of the countries involved. Offered yearly, alternating the

Political Science

study of China and Japan one year with the study of India and Pakistan the next. May be taken twice for credit.

453. Latin American Politics (4)

A study of dominant forces, such as the military, aristocracy, church, labor and peasant movements, and political parties. Prospects for both revolutionary and evolutionary change. Particular emphasis on selected countries.

454. Politics of the Soviet Union (4)

An analysis of the political system of the Soviet Union. For comparative purposes material on other contemporary Communist regimes will be introduced.

455. Seminar in Political Development (4)

An analysis of the process of political development, drawing on the experience of selected developing nations.

457. Seminar in Comparative Politics (4)

General survey of the major facets of comparative theory. Particular attention to inter-country studies focusing on political leadership and elites, political culture, voting behavior, group participation, and developmental theories.

Prerequisite: One course in Comparative Politics.

Political Dynamics and Behavior

360. The American Party System (4)

An examination of the organization and role of American political parties, with emphasis on the processes by which parties influence the political system. One unit of field experience required.

460. Seminar in Public Opinion (4)

An examination of the nature and significance of public opinion in the American political system.

Prerequisite: Poli. Sci. 300.

462. Elections and Voting Behavior (4)

Examination of voting studies from the United States and from areas of the world where comparable data exists. The electoral process will be studied, as well as the relationship between social-economic variables and the public's voting behavior. Major emphasis will be on recent elections and their related campaigns in the United States.

Prerequisite: Poli. Sci. 300.

463. Seminar in the Revolutionary Process (4)

An analysis of various approaches used in determining the causes of violent revolution with emphasis placed upon the critical evaluation of relevant social science concepts. Case studies of actual revolutions as selected by the students will be used to help evaluate the theoretical approaches.

465. Seminar in Interest Groups and Political Influence (4)

An examination of the ways in which policy is influenced by interest groups and power structures. Includes discussion of the nature, strategy and resources of key economic, social and ideological groups.

Prerequisite: Poli. Sci. 300.

466. Seminar in Political Socialization (4)

The psychological and sociological variables related to the political socialization process. Direct and indirect aspects of the socialization process will be examined. The contribution of family, school, peer group, and societal groupings to political

socialization will receive extensive coverage. While the United States will be the major focus of attention, comparisons to other political systems will be made.

Prerequisite: Poli. Sci. 300.

Urban Politics

370. Urban Planning and the Changing Environment (4)

An exploration of public policy options and techniques from the field of city and regional planning. Major emphases will be on control of air pollution; preservation of San Francisco Bay; preservation of open space and public parks; and conservation of the Sonoma Valley agricultural region.

371. Public Policy Versus the Bulldozer (4)

A study of land subdivision and its impact on the environment. Destructive practices such as mass grading and elimination of the natural terrain and more enlightened techniques such as housing clusters and permanent green belts will be analyzed. Techniques to be used by citizen groups seeking environmental excellence will be emphasized.

372. Urban Transportation (4)

An inquiry into the political, social and economic issues of mass transportation in an urban setting. Transportation modes including subways, high speed trains, buses, ferries and new systems will be explored. Political ramifications of the freeway revolt will be examined.

475. The Metropolis (4)

An interdisciplinary survey of metropolitan areas, including topics in urban economics, urban sociology, metropolitan government and politics and urban planning.

476. Seminar in the Politics of Ecology (4)

This seminar seeks to provide a political action framework for environmental conservation. Students will be expected to participate actively in local conservation issues. Legal issues surrounding the debate over land use, control of automobile traffic, ownership of public lands, and related subjects will be explored.

Interdisciplinary Courses

380. Seminar in Contemporary Political Issues (2)

Each offering of this course focuses on a current issue in public policy. Themes may be drawn from local, state, national, and international areas. May be repeated for credit.

480. Seminar in Southeast Asia (4)

A multi-disciplinary approach to the Southeast Asian area, including the history, culture, economy, and politics of individual nation-states and their international behaviors in relation to each other and the major world powers.

Prerequisite: Consent of the instructor. Applicable to Comparative Politics or International Relations towards requirement for major.

482. The Political Novel (3)

Offered jointly with the Department of English. An analysis of selected American and European political novels from the nineteenth and twentieth centuries.

Research and Independent Study

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depend-

Political Science

ing on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

495. Independent Study for Majors or Minors (4)

499. Special Problems (2-4)

Graduate Courses

514. Seminar in American Democratic Theory (4)

A critical examination of representative American democratic theorists.

586. Inequality and Public Policy in Urban America (6)

An evaluation of several theories concerning the origins and political consequences of power, privilege and inequality in society. Examination of inequality in five institutional areas: schools, welfare, housing, police and employment. Evaluation of recent public policy efforts to reduce inequalities including the Guaranteed Annual Income, Model Cities Program, Tenants Unions, Coleman Report, and the Poverty Program. (Open only to Political Science Master's candidates.)

587. The Politics of the Environment (6)

Examination of the current policy making process and the alternatives for political action with regard to such problems as mass transportation, land subdivision, air and water pollution and preservation of open space and public parks. (Open only to Political Science Master's candidates.)

588. Graduate Internship (8)

Intensive field experience in a public or private agency. The student must define a current political problem, a strategy for dealing with the problem, and work toward implementing the strategy. (Open only to Political Science Master's candidates.)

589. Seminar in Political Reform (4)

Analysis and evaluation of field experience. (Open only to Political Science Master's candidates.)

590. Seminar in Theories of American Politics (4)

Examination of theories that purport to account for the way in which political life is conducted in the United States. Ruling class models, elite models, pluralist models and alternate models of an industrial society will be considered. (Open only to Political Science Master's candidates.)

591. Master's Thesis or Creative Project (2)

(Open only to Political Science Master's candidates.)

PSYCHOLOGY

(Division of Psychology and Education)

William E. McCreary, Chairman of Department

Eleanor Criswell, Victor Daniels, Joseph Fortier, Duncan Gillies, Barry Godolphin, Stanley Goertzen, Robert Greenway, Laurence Horowitz, Bernd Jager, Norma Lyman, George McCabe, Edith Menrath, Sheila Moon, Leonard Pearson, Gerald Redwine, Robert Rueping, Frank Siroky, Gordon Tappan, Hobart Thomas, Arthur Warmoth.

BACHELOR OF ARTS IN PSYCHOLOGY

The psychology major is built upon the college general education program. The number of hours required for such a major may vary from 24 to 32 upper division units. In the past, the following four courses were required as a core for the psychology major:

Psychology 240—General Experimental Psychology

Psychology 330—Basic Statistical Methods and Concepts

Psychology 440—Theoretical Systems of Psychology

Psychology 424—Seminar in Dynamics of Human Behavior

It is recommended that the student discuss with his advisor the desirability of taking this core. At the present time, however, there are no specifically required courses for a major in psychology. Therefore, it is important to the student in developing a major in psychology to give careful consideration to his educational goals. The student planning to go into graduate work in psychology will develop a different program from that of a student who is pursuing a liberal arts major and who does not plan to enter psychology as a profession. It is for this reason that programs of study in psychology are individualized and that the student and his advisor jointly plan the student's program for the major.

In the development of a program, there are some general guidelines which may be of assistance to the student and his advisor. For example, a student preparing for graduate work in psychology should explore with his advisor the need to develop proficiencies in foreign languages, statistics, experimental design, and physiology in order to meet the varying requirements of graduate schools. On the other hand, the student who does not intend to enter professional work in psychology is allowed by the minimum number of units required to pursue a broad liberal arts education through the use of electives in other departments.

MASTER OF ARTS IN PSYCHOLOGY

The Master of Arts program in Humanistic Psychology offers courses of graduate study which emphasize insight into human phenomena through an examination of man as he lives and experiences his world. The goal is learning which has relevance to basic human existence such as: "How does man live more in harmony with himself and others as he extends his knowledge of his world?"

In its short history the Masters Program in Humanistic Psychology at Sonoma State College has been described as in the process of "organic evolution." It is constantly changing and difficult to describe. Prospective students should not become fixed upon expectations engendered by past descriptions of the program. Both professional/applied and personal/experiential dimensions have existed in the program. The latter has tended to be emphasized. Thus the program has in general been more educational in focus than professional, more experiential than didactic and functioning existentially within the interests of a small number of faculty who seek to develop a community of shared educational experience with a limited number of students.

Psychology

The program will prepare students for doctoral study, particularly in institutions which offer emphases compatible with this program in Humanistic Psychology. Certain individuals upon the completion of a master's degree may wish to take additional course work or supervised experience in order to qualify for such credentials as Designated Services (School Counseling Specialization), Standard Teaching Credential (Junior College Specialization), or state certification as Marriage, Family and Child Counselor.

ADMISSION REQUIREMENTS

- A. B.A. degree with a major in Psychology at Sonoma State College or equivalent.
- B. Undergraduate grade point average of at least 3.0.
- C. Transfer students should be recipients of favorable recommendations by faculty members of other colleges who understand the purposes and content of the program.
- D. Admission will be limited to full-time students and will take place only in the fall semester.

Required Courses

Psych. 570AB, Directed Field Experience.....	12 units
Psych. 571AB, Psychology and Humanities Seminar.....	6 units
Psych. 572AB, Research Seminar	6 units
Psych. 573AB, Seminar: Current Trends in Psychology.....	2 units
Psych. 574AB, Theories and Practice of Group and Individual Counseling	6 units
Psych. 575AB, M.A. Thesis	2 units
Total	34 units

PSYCHOLOGY

Introductory Courses

200. Human Behavior (4)

Designed to assist the student to deepen his awareness of himself as a thinking, feeling individual. The relationship of the personality of the individual to his interpersonal relationships, his attitudes toward social groups and institutions, and his structure of values and beliefs.

240. Introduction to Psychological Research (4)

Lecture 3 hours, laboratory 3 hours.

Basic findings in development, individual differences, perception, learning, thinking, motivation, emotion, personality, and social psychology. Laboratory exercises demonstrating methods and techniques in the study of behavior as well as in typically human phenomena.

Experimental Psychology

301. Behavior Analysis (4)

3 hours lecture; 3 hours laboratory.

Basic processes of reinforcement, operant and classical conditioning, and social learning. Analysis and modification of behavior through methods based on these concepts. Each student will carry out a behavior modification project on himself or another person.

305. Learning (4) (Formerly Psychology 346)

3 hours lecture; 3 hours laboratory.

A study of the learning process, including a survey of major theories of learning and their application to an understanding of problem-solving behavior and developmental processes. Suggested background: Psych. 240.

310. Perception and Cognition (4) (Formerly Psychology 353)

2 hours lecture, 6 hours laboratory.

Laboratory methods and findings related to knowing and to uniquely human phenomena in these areas. Students will plan and conduct individual studies in this area.

Suggested background: Psych. 330.

Prerequisite: Consent of the instructor.

315. Physiological Psychology (4) (Formerly Psychology 336)

3 hours lecture; 3 hours laboratory.

A study of the relationship between physiological processes and behavior. Particular emphasis on the anatomy and physiology of the nervous system, the effects of metabolic processes, brain lesions and various drugs on behavior.

Suggested background: Psych. 240.

330. Basic Statistical Methods and Concepts (4)

Lecture 3 hours, laboratory 3 hours.

Introduction to descriptive and inferential statistics. Simple probability, introduction to scaling, measures of central tendency and dispersion, chi-square and other non-parametric tools, analysis of variance, and correlation.

Prerequisite: Psych. 240 or consent of instructor.

331. Advanced Statistics in the Behavioral Sciences (4) (Formerly Psychology 432)

3 hours lecture, 3 hours laboratory.

Advanced analysis of variance and co-variance; multiple regression. Introduction to factor analysis. Theory and methods of scaling.

Suggested background: Psych. 330

Prerequisite: Consent of the instructor.

341. Seminar in Experimental Methods (4) (Formerly Psychology 465)

Emphasis will be on individual research in an area of interest to the student which will enable him to develop a deeper insight into more advanced research techniques and methodologies. Advanced research design, specialized data gathering tools and techniques in the areas of psychology and education will be presented.

Suggested background: Psych. 330.

Prerequisite: Consent of the instructor.

342. Seminar in Behavior Modification (4)

Advanced topics in the analysis and modification of human behavior. Applications of reinforcement and desensitization techniques to such areas as neurotic and psychotic behavior, child-rearing, and education.

Prerequisite: Psych. 240 or 301 or 305.

344. Seminar in Contemporary Empirical Psychology (4) (Formerly Psychology 494)

Individual readings and reports, group discussions and directed study to examine in depth contemporary methodologies and empirical findings in learning, cognition,

Psychology

and perception. It will stress an empirical, but existential-phenomenological orientation to these areas. Designed to fit the needs of individual, advanced students.

Suggested background: Psych. 240, 330.

Prerequisite: Consent of instructor.

348. Research Seminar (4) (Formerly Psychology 450)

2 hours lecture, 6 hours laboratory.

Individual research in areas to fit the advanced student's need for advanced instruction and laboratory work. Students will design and carry out an original research project and will report in writing and in seminar format. (This course may be repeated under different instructors as new topics are presented each semester.)

Social Psychology

350. The Cultural Revolution (4)

Current changes in ways of thinking, acting, and living. Psychological effects of emerging patterns of behavior. Points of conflict between old and new life-styles and institutional forms.

355. The Psychology of the Family (4) (Formerly Psychology 340)

A study of the family as a social-psychological group. While problem areas will be considered, emphasis will be placed on discussions of normal heterosexual relationships in and out of the family structure.

Prerequisite: Consent of the instructor.

356. Poverty and Despair (4)

The effects of hopelessness and poverty on personality and social behavior; politico-economic factors that produce these conditions; prospects for change. These topics will be viewed from a global perspective.

363. Seminar in Interpersonal Behavior (4)

Explorations of the ways in which people interact with each other on a one-to-one basis. Draws on both experimental and phenomenological sources of information.

Prerequisite: Psych. 365.

365. Group Processes Seminar (4) (Formerly Psychology 324)

The use of the small group as a basis for understanding the individual, his relationship to others, and the dynamics of group behavior. Limited to 15.

366. Advanced Group Processes Seminar (4)

Advanced topics related to group dynamics and individual social behavior in the group context. Limited to 15.

Prerequisite: Psych. 365.

368. Seminar in Small Group Facilitation (4) (Formerly Psychology 492)

An advanced course with individually supervised experience in leadership and an individual research project.

Prerequisite: Psych. 365 and consent of the instructor.

370. Psychology of Political Processes (4)

The political socialization of the individual. Psychological determinants of political views. Public opinion and political polls and the psychological processes of the voter in the political campaign. Reexamination of the democratic experience in psychological terms.

374. Plans, Decisions, and Problem Solving. (4)

Theory and practice; practical and esoteric; academic and industrial and political approaches. Could be regarded as a course in cognitive operations, personal and institutional administration.

378. Personnel Psychology (4) (Formerly Psychology 345)

Introduction to application of psychology in personnel practices in industrial fields; includes interviewing, selection, training and counseling of employees. Job analysis, safety programs, and rating methods will be discussed.

380. Seminar on Man and Nature (4)

Psychological implications of evolutionary processes. Man's relation to the rest of the world of nature. The wilderness experience. World ecology and the issue of survival.

Prerequisite: Consent of instructor.

385. Seminar in Metaphors, Learning, and Social Change (4)

Seminar on cognitive processes, emphasizing the human capacity to form analogies, metaphors, similes, etc., which transcend objective reality and/or which seem instrumental in causing social change.

392. Experimental Social Psychology (4) (Formerly Psychology 352)

2 hours lecture, 6 hours laboratory.

Experimental investigations in areas related to social psychology.

Prerequisite: Consent of instructor.

394. Survey Research Seminar (4)

2 hours lecture; 6 hours laboratory.

Theory and practice of survey research. Critique of selected major survey research studies. Class will design and carry out a research study. Suggested background: Psych. 330.

Prerequisite: Consent of instructor.

395. Community Involvement Project (1-4)

C.I.P. involves students in basic community problems, performing such tasks as tutoring, coaching, reading for the blind, etc. Students receive 1 to 4 units depending on the specific tasks performed. A total of 6 units of C.I.P. credit may be applied toward a degree.

Developmental and Educational Psychology**402. Child Development (4) (Formerly Psychology 420)**

The growth and development of the child from birth to adolescence.

408. Behavior Problems of Children (4) (Formerly Psychology 423)

Study and observation of children with problems, and examination of the environments in which problem events occur.

412. Adolescent Psychology (4) (Formerly Psychology 421)

Principles of growth and development with emphasis on the behavior problems of the period between childhood and adulthood. An attempt to understand the world of the adolescent through an examination of theory, research and personal interaction with adolescents.

417. Seminar in Psychological Foundations of Education (4)

The teaching-learning process studied from both the teachers' and learners' points of view. Includes principles of growth and development, learning theory and evaluation of learning applicable to the classroom situation.

Psychology

419. Explorations in Instructional Theory (4)

A laboratory for the development of individual approaches to instruction. Emphasis is on dyads and very small groups, and on experimentation rather than development of esoteric abstract theory.

Individual Dynamics

424. Seminar in Dynamics of Human Behavior (4) (Formerly Psychology 470)

A study in depth of the person, his approaches to self-knowledge. A study of the creative process revealing potential meaning for the individual.

425. Advanced Seminar in Dynamics of Human Behavior (4) (Formerly Psychology 471)

A continuation in depth in selected areas of study begun in Psych. 424. Suggested background: Psych. 424.

430. Abnormal Behavior (4) (Formerly Psychology 375)

Personally and interpersonally troublesome methods of coping with the world. Characteristics and meaning of neurotic and psychotic patterns of behavior and examination of variables that produce them. Visits to nearby institutions and opportunities for field work are offered.

Prerequisite: At least 12 upper division units in psychology.

434. Psychology of Disability (4)

An examination of psychological aspects of "body-insult", trauma, and "defect". Stressful conditions to be explored include amputation, brain damage, heart disease, obesity, leprosy, surgery, etc. Field trips to hospitals and rehabilitation centers.

438. Introduction to Clinical Methods (4) (Formerly Psychology 460)

2 hours lecture; 6 hours laboratory.

An introductory course in clinical psychology. Techniques and procedures of diagnosis and treatment will be reviewed with a consideration of scope, aims, and problems inherent in the current practice of clinical work. Diagnostic methods, and various approaches to therapy will be studied in reference to the study of personality.

Prerequisite: Consent of instructor.

440. Theoretical Systems of Psychology (4) (Formerly Psychology 390)

An examination of major theoretical systems in psychology, such as Psychoanalytic, Behavioristic, Gestalt, and phenomenological.

444. Seminar in Theoretical Psychology (4)

Each semester the seminar will focus on a particular theorist (i.e. Freud, Jung, Piaget, etc.). The person whose work is studied will be listed in parentheses in the time schedule. Can be repeated for credit.

Prerequisite: Psych. 440 or consent of instructor.

448. Seminar in Personality (4)

Processes involved in the development and functioning of the normal human personality and conceptualization of the student's own behavior in terms of these processes.

Prerequisite: At least 12 upper division units in psychology.

451. Seminar in Creativity (4)

From the search into self the creative emerges and is the theme of this seminar. Creativity is primarily a point of view, a way of feeling about things, a way of responding to and exploring one's environment. The creative process will be

explored in a variety of media and an attempt made to define what the process, rather than the product, means.

Prerequisite: Psych. 424 and consent of instructor.

455. Seminar in Myths, Dreams, and Symbols (4)

An exploration of the inner world of man in relationship to the growth of the individual and change within a society.

459. Seminar in Death (4)

A psychological exploration of the meaning of death and the dying process for the individual, and critical examination of the ways that death and bereavement are viewed in our society.

461. Self-exploration through Cinema (4)

Each person will make one or more films exploring the meanings he finds in his inner world. Group discussions and selected film viewings. No film experience required. (Laboratory fee of up to \$25 may be required.)

Prerequisite: Consent of instructor.

472. Seminar in Humanistic Psychology (4)

A study of contemporary humanistic psychology as represented in the works of such psychologists as Rogers, Maslow, Jourard, and Bugental.

475. Seminar in Existential Psychology (4)

The existential tradition in philosophy and psychology. Meanings of such ideas as freedom, responsibility, action, and commitment in relation to an individual life.

480. Seminar in the Psychology of Asia (India) (4) (Formerly Psychology 404)

Psychological commentary on works such as the *Bhagavad-Gita*, Upanishads, and Dhammapada.

Prerequisite: Consent of instructor.

482. Seminar in the Psychology of Asia (Yoga) (4)

Unification of mind and body through the practice of Yoga. May be repeated for credit.

484. Seminar in the Psychology of Asia (The I Ching) (4)

Exploration of the meanings of the *I Ching* for the individual's own experience.

Prerequisite: Consent of instructor.

486. Seminar in the Psychology of Asia (Zen) (4)

An introduction to knowing and experiencing in the manner of Zen.

Prerequisite: Consent of instructor.

Other

490. Psychology Seminar (4)

Each semester one psychological topic will be selected for study in depth. Consult class schedule for topic to be studied. May be repeated for credit.

Prerequisite: Consent of instructor.

493. Field Experience (1-12)

1 hour seminar, 3 hours per unit field.

Course is designed to provide supervised field experiences to accompany other courses. Actual experience will coincide with another course such as Abnormal Psychology, Introduction to Clinical Methods or Adolescent Psychology. Concurrent enrollment in the basic course with the same instructor required. May be repeated for credit.

Psychology

495. Independent Study for Majors or Minors (1-4)

496. Psychology Tutorial (1-16)

Individualized instruction, emphasizing dialogue with faculty and other students, designed to integrate and expand the student's knowledge of psychological issues and problems. Individual consultations between faculty and students as well as seminars and other dialogic experiences.

497. Advanced Psychology Tutorial (1-16)

A continuation of the tutorial experience.

Prerequisite: Invitation of the instructor.

499. Special Problems (1-2)

Master of Arts

570AB. Directed Field Experience (6-6)

Internship two days a week arranged by the department at an approved college, school, hospital or clinic. Regularly scheduled individual and group meetings with Psychology Department faculty for consultation regarding field experiences. Limited to M.A. candidates.

571AB. Psychological and Humanities Seminar (3-3)

Exploration of basic human problems as reflected in art, literature and philosophy. Faculty members from art, literature, philosophy, drama, music and dance will participate as resource persons. Limited to M.A. candidates.

572AB. Research Seminar (3-3)

Exploration of various theoretical and research approaches to the variety of psychological problems. Emphasis on conceptualization of students' experiences. Emphasis on stimulation of students' individual research interests in second semester. Major emphasis on the actual design, conduct and completion of an individual research study. Limited to M.A. candidates.

573AB. Seminar: Current Trends in Psychology (1-1)

Weekly two-hour meeting of students with entire psychology staff. Critique of on-going experiences; reports on recent research and current developments in psychology; presentation of papers and studies of general interest. Limited to M.A. candidates.

574AB. Theories and Practice in Group and Individual Counseling (3-3)

Intensive supervised experience in group and individual counseling. Limited to M.A. candidates.

575AB. Master of Arts Thesis (1-1)

A research study developed by the student in consultation with the Psychology Department and approved by the department and his graduate study committee.

595. Independent Study for Graduate Students (1-4)

599. Special Problems for Graduate Students (1-2)

SOCIOLOGY

(Division of Social Sciences)

Marvin Scott, Acting Chairman of Department
John Irwin, Jonathan Kamin, John Lofland
Jerry Mandel, Robert Nicholson, John Steiner

The major in sociology is designed to provide the student with an understanding of contemporary society. It also provides a basic foundation for graduate work in the social sciences.

SOCIOLOGY MAJOR FOR THE B.A. DEGREE

General Education	40 units
Sociology Courses	40 units
Supporting Subjects	8 units
Foreign Language and/or Electives	36 units
Total	124 units

SOCIOLOGY MAJOR COURSE REQUIREMENTS

Sociology 201—Principles and Procedures in Sociology.....	4 units
(Sociology 201 or its equivalent is required for all majors in sociology. Students wishing to take upper division sociology courses without having completed Sociology 201 or its equivalent must obtain permission from the instructor.)	
Sociology 450—History of Sociological Thought	4 units
Fields of Sociology	16 units
A minimum of 4 units other than seminar units must be selected from the following four fields of sociology:	
1) Social Behavior (courses numbered 300–309);	
2) Sociology of Culture (courses numbered 330–339);	
3) Institutions (courses numbered 400–419);	
4) Comparative Society and Social Groupings (courses numbered 430–439);	
Seminars	8 units
Other approved sociology courses.....	8 units
Supporting Subjects	8 units
Upper division courses in Anthropology, Economics, Ethnic Studies, History, Political Science. * Foreign language and/or Electives	
	36 units

MINOR IN SOCIOLOGY

The following sociology minor is recommended for students who wish to satisfy the minor requirements for the Standard Teaching Credential in both elementary and secondary school specializations:

Sociology 201—Principles and Procedures in Sociology.....	4 units
Sociology 300–310	4 units
Sociology 330–340	4 units
Sociology 400–420	4 units
Sociology 430–440	4 units
Sociology 450–490	4 units

* Students interested in acquiring a competency in social behavior are advised to choose their electives from the course offerings in anthropology and psychology; in sociology of culture from course offerings in anthropology, literature, philosophy, music, and art; in sociology of institutions, comparative society, and sociological theory from course offerings in ethnic studies, history, political science, economics, anthropology, geography, and philosophy.

Sociology

201. Principles and Procedures in Sociology (4)

An introduction to and analysis of human group life. Concepts and theories concerning culture, community, institutions, the social role of the individual, and social planning.

Social Behavior

301. Social Contacts (4)

Analysis of human encounters in specific situations; primary and secondary relations; comparative analyses of behavior in selected settings. Special attention will be paid to the theoretical and empirical works of Simmel, Goffmann, Garfinkel, Schuetz.

Prerequisite: Sociology 201 or consent of the instructor.

302. Socialization (4)

Analysis of the social processes through which human beings are inducted into social groups. Emphasis upon socialization after childhood and upon the inculcation of major adult identities; particular attention given to educational institutions as socialization contexts.

Prerequisite: Sociology 201 or consent of the instructor.

305. Collective Behavior (4)

Sociological analyses of the characteristics, causes and consequences of extraordinary collective actions such as fads, panics, expressive crowds, riots, demonstrations, social and revolutionary movements.

Prerequisite: Sociology 201 or consent of the instructor.

307. Deviant Behavior (4)

Sociological study of deviance. The relation of deviance to order and change. Selected study of deviant groups. Special attention will be given to historical and sociological analyses of crime, delinquency, and suicide.

Prerequisite: Sociology 201 or consent of the instructor.

308. Sociology of Mental Illness (4)

Contributions of the sociological perspective toward our understanding of mental illness. Comparisons between psychological and sociological approaches.

Prerequisite: Sociology 201 or consent of the instructor.

*** 310. Seminar in Social Behavior (4)**

An intensive and advanced discussion of human encounters, the theory of roles, and the modes of behavior in selected situations.

Prerequisite: One course from among those numbered 300–309.

315. Seminar in Field Research (4)

Working seminar in which each participant observes and analyzes an ongoing social setting. Strategies of observation and of qualitative analysis considered in the context of each participant's project in process.

Prerequisite: One course from among those numbered 300–309 and consent of the instructor.

Sociology of Culture

330. Sociology of Religion (4)

The sociological study of religion. Religious factors in politics, society, and personal life. The role of religion as a factor in social change and social stability. Selected study of church, sects, and cults.

Prerequisite: Sociology 201 or consent of the instructor.

* Admission of non-majors by consent of instructor only.

332. Sociology of Science (4)

The interaction between science and society, stressing the social arrangements conducive to different style of scientific thought. Science viewed as an activity of fashion. The social organization of scientific productivity.

334. Sociology of Art, Literature, and Music (4)

Sociological analyses of the Intelligentsia in contemporary and historical settings. The status of art, literature, and music in social life. The relation of culture to aristocratic, democratic, and authoritarian systems of government. The role of the artist and writer in social change.

Prerequisite: Sociology 201 or consent of the instructor.

336. Sociology of Leisure (4)

An examination of the institutions, possibilities and structure of leisure in American society. Stress will be placed on such leisure activities as rock music, horse racing, surfing, and the new sex morality.

*** 340. Seminar in the Sociology of Culture (4)**

Advanced analyses of sociological aspects of art, music, literature, and the social role of the intelligentsia. The concept of culture in sociology and in social life.

Prerequisite: One course from among those numbered 330-339.

Institutions**400. Political and Industrial Sociology (4)**

The relationship between technology and the social order. Forms of social organization under different political and technological systems. Individuality and freedom in modern societies.

Prerequisite: Sociology 201 or consent of the instructor.

404. Kinship and Family Systems (4)

The family as a social institution. The American family. Comparative family systems. The relationship between family form and societal type. Subcultural family forms. Formation and disruption of family ties.

Prerequisite: Sociology 201 or consent of the instructor.

410. Comparative Perspectives on Social Stratification (4)

The origins and development of social differentiation and its sources in the technological bases of societies. Theories of stratification. Forms and functions of inequality. Comparative study of the stratification systems of several contemporary societies.

Prerequisite: Sociology 201 or consent of the instructor.

411. The American Class Structure (4)

An overview of the American class system. Analysis of the effects of this system on those who participate in it, through the medium of cross-sectional and ethnographic studies. Effects of social placement on power, privilege, prestige, opportunity, culture, and style of life. Forms and consequences of mobility.

Prerequisite: Sociology 410 or consent of the instructor.

412. Organizations and Institutions (4)

Political, economic, social, and psychological analyses of administrative structures. The role of formal and informal organization, ideology in bureaucracy, decision-making, morale, and conflict.

Prerequisite: Sociology 201 or consent of the instructor.

* Admission of non-majors by consent of instructor only.

Sociology

418. Social Foundations of Delinquency and Crime (4)

Historical and social analysis of crime. Crime as a social institution. Theories of the causes of crime and delinquency.

Prerequisite: Sociology 201 or consent of the instructor.

***420. Seminar in Institutions (4)**

Intensive analyses of social institutions, their functions, dysfunctions and forms. Students will choose one institutional type—family, work, religion, government, leisure—for a research paper and report.

Prerequisite: One course from among those numbered 400–419.

Comparative Society and Social Groupings

430. American Society (4)

The study of American society, its values, institutions, and social organization. The familial, technological, and social bases of American society. The social sources of change and stability in American society. American character studies and the theory of national character.

Prerequisite: Sociology 201 or consent of the instructor.

432. Social Organization of Western and non-Western Societies (4)

Comparative analyses of social institutions and values in the U.S.A., Canada, England, Western Europe, and the Soviet Union with those of China, Japan, Malaysia, and other Asian and African societies. The theory of comparative society.

Prerequisite: Sociology 201 or consent of the instructor.

434. Urban Sociology (4)

Comparative analyses of urban communities in various cultural settings. The origins and trends in urbanization. Social consequences of transition from rural to urban life.

Prerequisite: Sociology 201 or consent of the instructor.

435. Sociology of Ecology (4)

Survey and analysis of why and the ways in which humans have acted to change or to maintain the ecology of North America and the earth. Particular focus on analyzing social conflict over the eco-systemic effects of social organization, technology and human reproduction on other species, air, water, climate and natural resources.

Prerequisite: Sociology 201 or consent of the instructor.

436. Minorities and Inter-Ethnic Contacts (4)

The history and prevalence of minorities. Structure of multiracial and multi-ethnic societies. Race relations and race contacts. The sociology and social psychology of race prejudice and discrimination.

Prerequisite: Sociology 201 or consent of the instructor.

439. Personality and Social Structure (4)

Critical analysis of contemporary theory and research bearing on the relations between personality and various aspects of social structure.

Prerequisite: Sociology 450.

***440. Seminar in Comparative Society (4)**

Advanced examination of the theory of comparative society. Microcosmic and macrocosmic analyses of societal stability and change. Research reports on comparative society.

Prerequisite: One course from among those numbered 430–439.

* Admission of non-majors by consent of instructor only.

Sociological Theory and Method**450. History of Sociological Thought (4)**

Elements of sociological thought in the pre-modern western world; the circumstances of, and contributors to, the emergence of a distinctly sociological perspective in the modern world; main trends, cycles and revivals in the development of sociological thought to the present time.

Prerequisite: Sociology 201 or consent of the instructor.

452. Contemporary Sociological Thought (4)

An examination of the nature of sociological theory and the major theoretical approaches currently in use in sociology. Structural-functional, conflict, social action, symbolic interaction, and exchange theories of society and social behavior will be discussed. Special emphasis will be placed on convergences and contradictions among the various approaches.

Prerequisite: Sociology 201 or consent of the instructor.

453. Humanistic Sociology (4)

Survey of the history and current conceptual features of the humanistic perspective in sociology; major points of convergence with and divergence from other major trends in sociology and social science; intensive analysis of selected empirical studies performed by humanistic and other sociologists; critiques of the humanistic perspective.

Prerequisite: Two upper-division courses in sociology.

454. Theory of Social Dynamics (4)

Evolutionary and non-evolutionary theories of social change.

Prerequisite: Sociology 201 or consent of the instructor.

455. Research Design in Sociological Studies (4)

The logic and requirements of valid inference; elements of statistical reasoning; survey of the methodological and meta-methodological aspects of the experimental, historical, survey and field study approaches to sociological research; relations between basic conceptualization, theory, and methods of sociological investigation.

Prerequisite: Sociology 201 or consent of the instructor. (Formerly Sociology 300)

460. Seminar in Sociological Theory (4)

Intensive examination of the contributions of some of the leading figures in sociological theory—Weber, Durkheim, Simmel, Merton, Parsons. Each semester will focus on the total work of one theorist.

Prerequisite: Sociology 450 or consent of the instructor.

490. Senior Seminar (4)**495. Independent Study for Majors or Minors (1-4)****499. Special Problems (2-4)**

THEATRE ARTS

(Division of Humanities)

William Sherman, Chairman of Department

Lynn Clark, Sandra Dunwoody, David Lober

Theatre Arts Department offers courses in dance, drama and the Theatre Arts.

DANCE

* 100A. Modern Dance (Beginning) (1)

A beginning course in fundamentals of movement. Emphasis on the communicative aspects of the art.

* 100B. Modern Dance (Intermediate) (2)

A continuation of 100A. Emphasizing development of technical proficiency in a variety of styles.

Prerequisite: 100A or consent of instructor.

* 100C. Modern Dance (Advanced) (2)

A continuation of 100B.

Prerequisite: Dance 100B or consent of instructor.

241. Dance for Children (2)

Participation in rhythmic activities, with emphasis on the various types of dance included in the curriculum for the elementary school child. Performance and evaluation of the prospective teacher of elementary school physical education activities.

300A. Beginning Ballet (1)

Fundamentals of classical and romantic ballet; basic steps and arm positions, beginning barre and allegro.

300B. Intermediate—Advanced Ballet (2)

A continuation of 300A.

Prerequisite: Dance 300A or consent of instructor.

302A. Beginning Jazz (1)

Fundamentals of contemporary jazz techniques.

Prerequisite: Dance 100A or equivalent.

302B. Intermediate—Advanced Jazz (2)

A continuation of 302A.

Prerequisite: Dance 302A or consent of instructor.

350A. History of Dance: Prehistory to 1800 (3)

Development of dance from ritual to art form in Western cultures.

350B. History of Dance: 1800 to Present (3)

The Golden Age of ballet, through modern dance and contemporary innovative forms.

351. Choreography—Solo (2)

Prerequisite: Modern Dance.

351B. Choreography—Group 2

Prerequisite: Solo Choreography.

* This course may be applied toward fulfilling *Elective* requirements in General Education.

390. Ethnic Dance and Workshop (2)

An intensive study of one ethnic style of dance (western or non-western), depending upon the instructor.

392. Folkdance (1)**441. Pre-Classic Forms (2)**

17th and 18th Century music and dance forms studied with an emphasis on their use in contemporary dance.

442. Rhythmic Analysis for Dance (2)

Theory and practice in accompaniment for dance techniques and composition. Analysis of form, structure and style.

Prerequisite: Dance 100A, Music 105 or equivalent.

443. Labanotation (2)

Theory and practice of movement notation using the Laban system.

490. Dance Workshop (1)

Students may contribute choreography or dance. The culmination of the course is the presentation of a dance concert to a public audience. Students will also participate in all phases of staging the dance, costume, lighting, makeup and settings.

DRAMA

These courses may be repeated as desired. A student will receive credit under the 200 or 400 designation depending on his experience and level of skill.

210a. Research (3)**410a. Research (3)**

Investigation of literature, art and culture relating to the production of a play. May be taken separately.

210b. Rehearsal (2)**410b. Rehearsal (2)**

Development of techniques of actors, designers, and special skills in the production of the play being studied in Drama 210a. Concurrent enrollment with Drama 210a and Drama 210c required. Admission by consultation with instructor.

210c. Performance (1)**410c. Performance (1)**

Participation in coordinated techniques of production by the play studied in Drama 210a. May be taken separately.

220A. Acting (3)**420A. Acting (3)**

Experiences, improvisations and scenes.

220B. Acting (2)**420B. Acting (2)**

Exercises in speech, mime, and acting concentration varies from semester to semester.

230A. Directing (3)

Theatre Arts

430A. Directing (3)

Directing projects leading toward public performance.

230B. Directing (2)

430B. Directing (2)

Methods, techniques, and exercises.

240A. Playwriting-Criticism (3)

440A. Playwriting-Criticism (3)

Analysis and practice in the writing of dialogue and the construction of a play.

240B. Playwriting Seminar (2)

440B. Playwriting Seminar (2)

The student will be expected to write a play.

250A. Design Projects (3)

450A. Design Projects (3)

Projects in design (scenery, costume, lighting).

250B. Design Experiences (2)

450B. Design Experiences (2)

Relationship of design principles to the art and techniques of the theatre.

260. Student-initiated Independent and Course-related Projects (1-3)

460. Student-initiated Independent and Course-related Projects (1-3)

Encourages students to produce their own works of dramatic art. Some of the projects will grow out of related course work; others may have independent sources. Not all projects lead to production. Admission to course at any time by permission of student production board.

THEATRE ARTS *

370. History of Theatre (3)

General course intended for dancers, teachers, and students in other subject areas.

* Application has been made for a major in Theatre Arts for 1970-71. For complete information consult the chairman of the department.



FACULTY

FACULTY (1969-70)

- William H. Aberth (1969).....Associate Professor of Physics
B.S., 1954, City University of New York; M.A., 1957, Columbia University;
Ph.D., 1963, New York University.
- Harold G. Alderman (1969).....Assistant Professor of Philosophy
B.A., 1961, University of Florida; M.A., 1965; Ph.D., 1967, Tulane University.
- Gerald J. Alves (1965).....Test Officer-Counselor
B.A., 1959; M.A., 1960, Chico State College.
- Ellen I. Amsterdam (1969).....Assistant Professor of Music
B.A., 1957; M.A., 1959, Smith College; Ph.D., 1968, University of California,
Berkeley.
- * Mary S. Anderson (1969).....Instructor in Art
B.A., 1961, Smith College.
- Thomas B. Anderson (1968).....Assistant Professor of Geology
B.S., 1961, Yale University; M.S., 1965; Ph.D., 1969, University of Colorado.
- Kathryn Armstrong (1966).....Associate Professor of Art
B.F.A., 1955, University of Colorado; M.F.A., 1958, California College of Arts
and Crafts; M.A., 1965, University of California.
- John R. Arnold (1961).....Professor of Biology
B.A., 1932, Fresno State College; M.A., 1934, University of California; Ph.D.,
1938, Cornell University.
- Mary R. Arnold (1967).....Associate Professor of Russian
B.A., 1941, Moscow State Pedagogical Institute of Foreign Languages, USSR;
M.A., 1949; Ph.D., 1964, University of California, Berkeley.
- William J. Barnier (1969).....Assistant Professor of Mathematics
B.A., 1961; M.S., 1963, San Diego State College; Ph.D., 1967, University of
California, Los Angeles.
- Arthur Bauman (1966).....Assistant Professor of English
B.A., 1949; M.A., 1954, Brown University.
- * Susan D. Baumann (1968).....Assistant Professor of Physical Education
B.S., 1962, University of Cincinnati; M.S., 1964, University of California, Los
Angeles.
- Philip H. Beard (1969).....Assistant Professor of German
B.A., 1965; M.A., 1966, Stanford University.
- Richard M. Bell (1969).....Assistant Professor of Management
B.A., 1964, Bard College.
- Timothy A. Bell (1968).....Assistant Professor of Geography
B.A., 1958, Stanford University; M.A., 1964, University of Oregon.
- Richard Bellamy (1969).....Reference Librarian
B.S., 1947, Northwestern University; M.L.S., 1966, University of California,
Berkeley.
- Sterling Bennett (1967).....Associate Professor of German
B.A., 1961, Harvard University; M.A., 1964, University of California, Berkeley;
Ph.D., 1970, University of California, Berkeley.
- Barouch Ben-Zion (1969).....Assistant Professor of Economics
B.A., 1965, Sonoma State College; M.A., 1968, University of Oregon.
- S. Aaron Berman (1969).....Assistant Professor of Foreign Languages
B.Ed., 1961, University of Miami; M.A., 1964, University of Michigan.

Faculty

- Barbara A. Biebush (1962).....Reference Librarian
B.A., 1954, Stanford University; M.L.S., 1956, University of California.
- Frank L. Bills (1969).....Assistant Professor of Education
B.S., 1964, Brigham Young University; M.Ed., 1968, Utah State University.
- Martin S. Blaze (1968).....Assistant Professor of English
B.A., 1959, Queens College; M.A., 1960, Ph.D., 1970, New York University.
- Ruth R. Blitz (1965).....Associate Professor of Biology
B.A., 1957, Brandeis University; M.A., 1959; Ph.D., 1965, University of California, Berkeley.
- * Gerald Bol (1969).....Instructor in Art
B.F.A., 1962, San Francisco Art Institute; M.A., 1967, San Francisco State College.
- * Helen Breger (1969).....Assistant Professor of Art
San Francisco Art Institute; International Summer Academy, Salzburg, Austria; California College of Arts and Crafts.
- * Elizabeth S. Bright (1968).....Assistant Professor of English
B.A., 1933, New Mexico State University; M.A., 1959; Ph.D., 1967, University of California, Berkeley.
- Russell H. Broadhead (1969).....Associate Professor of Education
B.A., 1931, Otterbein College; M.A., 1937, Cornell University; Ph.D., 1946, Stanford University.
- F.Leslie Brooks (1968).....Associate Professor of Chemistry
B.S., 1957, University of California, Berkeley; Ph.D., 1961, University of Washington.
- Robert F. Brown (1967).....Assistant Professor of History
B.A., 1952, Johns Hopkins University; Certificat de francais usuel, 1959; D. de l'Université, 1963, University of Paris, France.
- Joe H. Brumbaugh (1964).....Associate Professor of Biology
B.S.Ed., 1952, Miami University; M.S., 1956, Purdue University; Ph.D., 1965, Stanford University.
- John S. Bullen (1966).....Professor of English
B.S., 1950, Utah State University; M.A., 1955; Ph.D., 1963, Stanford University.
- Wesley R. Burford (1961).....Executive Dean
B.A., B.S., 1938, Fort Hays Kansas State College; M.S., 1948, Oregon State College. Licensed General Building Contractor.
- Ralph J. Bushnell (1967).....Associate Professor of Biology
B.S., 1931; M.S., 1932; Ph.D., 1935, University of Wisconsin.
- Libby R. Byers (1969).....Project Manager for the Head Start
Supplementary Training Program
Lecturer in Education
B.A., 1943, Hunter College; M.A., 1968, San Francisco State College.
- * Ernest L. Caillat (1968).....Lecturer in Psychology
B.A., 1959, San Francisco State College.
- Thorsten R. Carlson (1961).....Professor of Education
B.E., 1939, St. Cloud State Teachers College; M.A., 1941; Ph.D., 1946, University of Minnesota.
- Thomas D. Caulfield (1969).....Assistant Professor of History
B.A., 1965; M.A., 1966, California State College, Los Angeles.

* Part time.

Faculty

- Patricia G. Chapman (1968).....Cataloger
B.A., 1944, Stanford University; M.L.S., 1968, University of California, Berkeley.
- R. M. D. Childs (1961).....Business Manager
B.S., 1948, University of Idaho.
- John L. Clark (1968).....Dean of the Faculty and Professor of English
B.A., 1941; M.A., 1946, University of Wisconsin; Ph.D., 1955, Stanford University.
- Lynn W. Clark (1967).....Assistant Professor of Speech-Drama
B.A., 1962, Maryville College; M.A., 1964, San Francisco State College.
- Robert B. Clayton (1963).....Associate Professor of English
B.A., 1948, Stanford University; M.A., 1956; Ph.D., 1960, University of California, Berkeley.
- Galen E. Clothier (1962).....Professor of Biology
B.A., 1955, Fresno State College; M.S., 1957; Ph.D., 1960, Oregon State University.
- * Albert J. Cognata (1968).....Assistant Professor of Music
B.A., 1953; M.A., 1959, San Francisco State College.
- Ronald F. Coles (1969).....Assistant Professor of Management
B.A., 1966; J.D., 1969, University of California, Berkeley. Member of the California Bar.
- † William O. Cord (1963).....Professor of Spanish
B.S., 1943, Southeast Missouri College; M.A., 1948, Washington University; Ph.D., 1958, University of Colorado.
- * Mary M. Covington (1969).....Assistant Professor of Physical Education
B.A., 1964, San Francisco State College.
- Hubert V. Crehan (1969).....Assistant Professor of Art
University of California, Los Angeles; California School of Fine Arts; M.A., 1952, Universidad de Guadalajara, Mexico.
- Eleanor C. Criswell (1969).....Assistant Professor of Psychology
B.A., 1961; M.A., 1962, University of Kentucky; Ed.D., University of Florida.
- William K. Crowley (1969).....Assistant Professor of Geography
B.A., 1964, University of California, Riverside; M.A., 1966, University of Cincinnati.
- Frank H. Cruz (1969).....Assistant Professor of Mexican-American Studies
B.A., 1966; M.A., 1969, University of Southern California.
- Victor Daniels (1968).....Assistant Professor of Psychology
B.A., 1962, San Francisco State College; M.A., 1964; Ph.D., 1966, University of California, Los Angeles.
- B. Jean Day (1968).....Periodical Librarian
B.A., 1950; B.S., 1951, University of Washington.
- * Isaias A. De la Rosa (1969).....Lecturer in Mexican-American Studies
B.A., 1969, Sonoma State College.
- John M. Dennis (1969).....Professor of English
B.A., 1942; M.A., University of the Pacific.
- Nirmal Singh Dhesi (1964).....Associate Professor of English
B.A., 1950; M.A., 1953, Punjab University, India; Ph.D., 1968, Michigan State University.

* Part time.

† On leave spring semester 1969-70.

Faculty

- Mildred Dickeman (1968).....Associate Professor of Anthropology
B.A., 1950, University of Michigan; Ph.D., 1958, University of California, Berkeley.
- Marvin N. Dillon (1962).....Counselor for Educational Exchange
B.A., 1949; M.A., 1950; Ph.D., 1955, University of Denver. Certified Psychologist.
- Robert E. Donlan (1966).....Assistant Professor of Physical Education
B.S., 1964; M.Ed., 1966, University of Nevada.
- Margaret A. Donovan-Jeffry (1964).....Associate Professor of Music
B.A., 1955; M.A., 1960, University of California; D.M.A., 1964, Stanford University.
- * Lynn C. Dowdey.....Lecturer in Music
B.A., 1953, San Francisco State College.
- * Stephen A. Dubov (1969).....Instructor in Art
B.F.A., 1965, Kansas City Art Institute; M.F.A., 1967, Stanford University.
- Raymond N. Duggan (1963).....Personnel Officer
B.A., 1947; M.A., 1956, San Francisco State College.
- Donald G. Duncan (1963).....Professor of Mathematics
B.A., 1942; M.A., 1944, University of British Columbia; Ph.D., 1951, University of Michigan.
- John R. Dunning, Jr. (1969).....Assistant Professor of Physics
B.S., 1960; M.S., 1961, Yale University; Ph.D., 1965, Harvard University.
- † Sandra R. Dunwoody (1963).....Associate Professor of Dance
B.S., 1957, University of California, Los Angeles; M.F.A., 1959, Womans College—University of North Carolina.
- C. Douglas Earl (1969).....Assistant Professor of Physical Education
B.A., 1961; M.A., 1963, Chapman College; Ph.D., University of New Mexico.
- Wesley W. Ebert (1964).....Associate Professor of Biology
B.S., 1961, University of Minnesota; M.S., 1963; Ph.D., 1964, University of California, Davis.
- Gerald V. Egerer (1965).....Associate Professor of Economics
B.Sc. (Econ.), 1952, University of London; D. en Droit, 1957, University of Lyons, France.
- Dorothy C. Egu (1969).....Assistant Professor of History
B.A., 1966, San Francisco College for Women.
- F. George Elliott (1968).....Assistant Professor of Education
B.A., 1948, University of British Columbia; M.A., 1961, California State College, Long Beach; Ed.D., 1966, University of California, Los Angeles.
- * Philip F. Elwood (1967).....Lecturer in Music
B.A., 1945, University of California, Berkeley.
- James B. Enochs (1963).....Vice President for Academic Affairs and Professor
of Education
B.A., 1934, Arizona State College; M.A., 1937, University of Colorado; Ph.D., 1948, University of Chicago.
- Rolfe C. Erickson (1966).....Associate Professor of Geology
B.S., 1959, Michigan Technological University; M.S., 1962; Ph.D., 1968, University of Arizona.

* Part time.

† On leave spring semester 1969–70.

- Sally L. Ewen (1964).....Assistant Professor of English
B.A., M.A., 1963, San Francisco State College.
- Clement E. Falbo (1964).....Professor of Mathematics
B.A., 1956; M.A., 1958; Ph.D., 1963, University of Texas.
- Yvette M. Fallandy (1964).....Professor of French
B.A., 1948, University of California, Los Angeles; M.A., 1949, University of Oregon; Ph.D., 1957, University of California, Los Angeles.
- Joann E. Feldman (1966).....Assistant Professor of Music
B.A., 1963, Queens College; M.A., 1966, University of California, Berkeley.
- Norman Feldman (1967).....Assistant Professor of Mathematics
B.Sc., 1959; M.Sc., 1961, McGill University, Canada.
- Robert F. Fletcher (1969).....Associate Professor of Education
B.A., 1939; M.A., 1960, San Diego State College; Ed.D., 1965, Stanford University.
- Kenneth W. Flynn (1968).....Assistant Professor of Physical Education
B.S., 1956, Springfield College; M.S., 1961, Ithaca College; Ed.D., 1967, University of Oregon.
- John M. Fogle (1968).....Activities Adviser
B.A., 1965, Sonoma State College.
- Joseph J. Fortier (1965).....Associate Professor of Psychology
B.A., 1950, Fresno State College; M.S., 1951, University of Oregon; Ph.D., 1953, Stanford University.
- Herbert Fougner (1961).....Professor of Education
B.S., 1943, State Teachers College, Bemidji, Minnesota; M.Ed., 1949; Ed.D., 1956, University of California, Los Angeles.
- Stephen A. Fraser (1969).....Assistant Professor of Political Science
B.A., 1961, University of Rochester; M.A., 1962, University of Michigan; Ph.D., 1966, Johns Hopkins University.
- William J. Frazer (1965).....Professor of Geography
B.S., 1952, University of Illinois; M.A., 1953; M.A., 1957; Ph.D., 1959, University of Michigan.
- David A. Fredrickson (1967).....Assistant Professor of Anthropology
B.A., 1948, University of California, Berkeley; M.A., 1967, University of California, Davis.
- William E. Frenaye (1969).....Director of Financial Aids
B.A., 1949, Kenyon college.
- Johanna E. Fritsche (1963).....Music Librarian
B.A., 1936 Hunter College; B.S. in L.S., 1939, Columbia University.
- Robert Y. Fuchigami (1968).....Associate Professor of Education
B.A., 1956; M.A., 1958, San Jose State College; Ed.D., 1964, University of Illinois.
- James B. Gale (1969).....Assistant Professor of Physical Education
B.S., 1962; M.Ed., 1964, University of Miami.
- Francisco Gaona (1964).....Associate Professor of Spanish
B.A., 1953, Yale University; Ph.D., 1963, Tübingen University, Germany
- * William L. Garrett (1969).....Lecturer in Afro-American Studies
B.S., 1950, Prairie View College.

* Part time.

Faculty

- Taro G. Gehani (1969).....Assistant Professor of History
B.A., 1957; M.A., 1960, University of Bombay; Ph.D., 1966, University of Strathclyde.
- Evangeline A. Geiger (1968).....Assistant Professor of Education
B.S.E., 1936, Lowell Teacher's College; M.A., 1954, San Francisco State College; Ed.D., 1967, University of California, Berkeley.
- Duncan V. Gillies (1963).....Professor of Education and Psychology
B.A., 1942, San Francisco State College; M.A., 1948; Ed.D., 1952, Stanford University. Certified Psychologist.
- Barry W. Godolphin (1969).....Assistant Professor of Psychology
B.A., 1960; M.A., 1966, University of California, Los Angeles.
- Stanley M. Goertzen (1963).....Professor of Psychology
B.S., 1948, Lewis and Clark College; M.Ed., 1950, Oregon State College; Ed.D., 1955, University of Oregon. Certified Psychologist.
- Bernice Goldmark (1966).....Associate Professor of Education
B.S.Ed., 1945, College of the City of New York; M.Ed., 1957; Ph.D., 1963, University of Arizona.
- Leland W. Gralapp (1964).....Professor of Art
B.S., 1943, University of Oregon; M.F.A., 1948; Ph.D., 1953, State University of Iowa.
- * William H. Gray (1968).....Assistant Professor of Physical Education
B.A., 1950, University of California, Berkeley.
- Samuel L. Greene, Jr. (1966).....Associate Professor of Physics
B.S., 1956, Polytechnic Institute of Brooklyn; Ph.D., 1962, Syracuse University.
- Robert G. Greenway (1969).....Assistant Professor of Psychology
B.S., 1955, University of Washington; M.A., 1963, Brandeis University.
- Theodore Grivas (1962).....Professor of History
B.A., 1952; M.A., 1953; Ph.D., 1958, University of Southern California.
- Robert K. Gronendyke (1968).....Assistant Professor of Art
B.A., 1955; M.A., 1956, California State College, Long Beach.
- * George Gunter (1969).....Instructor in Art
B.A., 1953, San Jose State College; M.A., 1962, Peabody College for Teachers.
- William H. Gynn (1968).....Assistant Professor of French
B.A., 1963, University of California, Berkeley; M.A., 1964, Middlebury College.
- Betty W. Halpern (1968).....Assistant Professor of Education
B.A., 1949; M.A., 1960; Ed.D., 1968, University of California, Berkeley.
- David F. Hanes (1969).....Assistant Professor of Biology
B.A., 1959, Wittenberg University; M.S., 1961, University of Michigan.
- † Dennis E. Harris (1965).....Associate Professor of History
B.A., 1960; M.A., 1962; Ph.D., 1969, University of California, Santa Barbara.
- Gerald W. Haslam (1967).....Associate Professor of English
B.A., 1963; M.A., 1965, San Francisco State College.
- Lloyd H. Helgeson (1967).....Associate Professor of Physical Education
B.S., 1949, University of Nebraska; M.S., 1959, University of Southern California.
- Colin O. Hermans (1969).....Assistant Professor of Biology
B.A., 1958, Pomona College; M.S., 1964; Ph.D., 1966, University of Washington.

* Part time.

† Special leave spring semester 1969-70.

- Wyman W. Hicks (1968).....Associate Professor of Management
B.A. 1947; M.A., 1948 University of California, Berkeley.
- * G. Arthur Hills (1969).....Lecturer in Music
B.A., 1953, Cascade College; M.A., 1955, University of Portland.
- * Charles R. Hoagland (1969).....Instructor in Chemistry
B.A., 1949, University of California; B.S., 1957, University of Colorado.
- Vincent D. Hoagland, Jr. (1969).....Assistant Professor of Chemistry
B.A., 1962, Wesleyan University; Ph.D., 1967, Florida State University.
- Edward S. Hochuli (1965).....Assistant to the Director of Institutional Research
B.S., 1940, University of California, Berkeley.
- LeVell Holmes (1969).....Associate Professor of History
B.A., 1957; M.A., 1961, San Francisco State College.
- Robert E. Holmes (1965).....Associate Professor of Chemistry
B.S., 1958, St. Mary's College; Ph.D., 1965, Oregon State University.
- George L. Hom (1969).....Assistant Professor of Education
B.A., 1962, Chico State College; M.S., 1965, Kansas State College; Ph.D., 1969, University of Oregon.
- John D. Hopkirk (1969).....Assistant Professor of Biology
B.A., 1957, Sacramento State College; M.A., 1962; Ph.D., 1967, University of California, Berkeley.
- Laurence J. Horowitz (1969).....Associate Professor of Psychology
B.S., 1949, Long Island University; B.A., 1949, University of California, Berkeley; M.A., 1954, San Francisco State College; Ph.D., 1958, Stanford University.
- * Leon M. Hunsaker (1969).....Lecturer in Geography
B.S., 1950, St. Louis University; M.S., 1955, Massachusetts Institute of Technology.
- * Kevin R. Illia (1969).....Lecturer in Health Sciences and Physical Education
- John K. Irwin (1969).....Assistant Professor of Sociology
B.A., 1962, University of California, Los Angeles; M.A., 1965; Ph.D., 1968, University of California, Berkeley.
- Donald E. Isaac (1963).....Associate Professor of Biology
B.A., 1949, Chico State College; M.A., 1953; Ph.D., 1967, University of California, Berkeley.
- John O. Iversen (1968).....Assistant Professor of Biology
B.S., 1958; D.V.M., 1960, University of California, Davis; M.P.H., 1961, University of California, Berkeley; Ph.D., 1968, University of Wisconsin.
- Bernd Jager (1969).....Associate Professor of Psychology
B.A., 1962; M.A., 1963, San Francisco State College; Ph.D., Duquesne University.
- Velesta Jenkins (1969).....Assistant Professor of Afro-American Studies
B.S., 1963, Central State College; M.A.T., 1967, San Francisco College for Women.
- Donald O. Johnson (1966).....Associate Professor of History
B.A., 1952, University of Minnesota; M.A., 1957; Ph.D., 1960, Columbia University.
- Robert H. Johnson (1966).....Assistant Professor of Mathematics
B.A., 1961; M.A., 1965, University of California, Berkeley.

* Part time.

Faculty

- Sheila J. Johnson (1968).....Cataloger
B.A., 1967, Sonoma State College; M.L.S., 1968, University of California, Berkeley.
- William T. Johnson (1969).....Assistant Professor of Music
B.A., 1964, Princeton University; M.A., 1966, University of California, Berkeley.
- George L. Johnston (1969).....Assistant Professor of Physics
B.S., 1954, California Institute of Technology; L.L.B., 1957, Harvard Law School; M.S., 1962; Ph.D., 1967, University of California, Los Angeles.
- Frederick H. Jorgensen (1968).....Registrar
A.B., 1961, California State College, Long Beach; M.A., 1967, University of New Mexico.
- ° Peter Juhasz (1969).....Lecturer in Chemistry
University of California, Berkeley.
- Janice H. Kalbaugh (1967).....Director of Student Activities
B.A., 1966; M.A., 1967, Sonoma State College.
- Ira J. Kalet (1969).....Assistant Professor of Physics
B.A., 1965, Cornell University; Ph.D., 1968, Princeton University.
- Jonathan L. Kamin (1968).....Assistant Professor of Sociology
B.A., 1963, Brandeis University; M.A., 1965, Wesleyan University.
- Bjorn Karlsen (1966).....Professor of Education
B.A., 1949, State Teachers College of Oslo, Norway; M.A., 1951, University of Nebraska, Ph.D., 1954, University of Minnesota.
- Alexander F. Karolyi (1962).....Acquisitions Librarian
B.A., 1926; S.J.D., 1930, University of Budapest; M.A.L.S., 1957, University of Michigan.
- Marvin L. Kientz (1967).....Associate Professor of Chemistry
B.A., 1958; M.A., 1959, Fresno State College; Ph.D., 1966, University of Western Ontario, Canada.
- Chris K. Kjeldsen (1966).....Associate Professor of Biology
B.A., 1960; M.S., 1962, University of Pacific; Ph.D., 1966, Oregon State University.
- James L. Kormier (1966).....Assistant Professor of English
B.A., 1951, University of California, Berkeley; M.A., 1962, San Francisco State College.
- Walter E. Kuhlman (1969).....Associate Professor of Art
B.A., 1941, University of Minnesota; Certificate, California School of Fine Arts; Certificate, Académie de la Grande Chaumière.
- Albert A. Laferriere (1967).....Assistant Professor of History
B.A., 1956; M.A., 1958, Fresno State College.
- John D. Lawrence (1966).....Professor of Education
B.A., 1939, University of California, Los Angeles; M.A., 1945, Ed.D., 1961, University of Southern California.
- † Hector H. Lee (1961).....Professor of English
B.A., 1936, University of Utah; M.A., 1938, University of California, Berkeley, Ph.D., 1947, University of New Mexico.
- William R. Lee (1969).....Assistant Professor of English
B.A., 1964; M.A., 1966, Wayne State University.

° Part time.

† On leave spring semester 1969-70.

Faculty

- Charlotte F. Lemley (1969).....Assistant Professor of Physical Education
B.A., 1964, University of California, Davis.
- Gerald S. Levin (1969).....Lecturer in English
B.A., 1956, University of California, Berkeley; M.A., 1964, San Francisco State
College.
- Howard Limoli (1966).....Assistant Professor of French
B.A., 1954, Rutgers University; M.A., 1963, University of California, Berkeley.
- Han-sheng Lin (1969).....Assistant Professor of History
B.A., 1954, National Taiwan University; M.A., 1958, University of South
Carolina; Ph.D., 1964, University of Pennsylvania.
- David M. Lober (1969).....Assistant Professor of Dance
Lester Horton School of Dance; Aubrey Hitchins; American Ballet Theatre
School, Valentina Pereyaslavic; Igor Swetsoff.
- Nancy A. Lober (1969).....Lecturer in Dance
Vincent Celli; Aubrey Hitchins; American Ballet Theater School, M. Perey-
aslaves-Swaboda; W. Griffith; L. Danielian.
- F. Russell Lockner (1969).....Assistant Professor of Biology
B.S., 1963, University of Redlands; M.A., 1965, California State College, Los
Angeles; Ph.D., 1968, University of Montana.
- John F. Lofland (1968).....Associate Professor of Sociology
B.A., 1958; Swathmore College; M.A., 1960, Columbia University; Ph.D., 1964,
University of California, Berkeley.
- Wallace M. Lowry (1969).....Assistant Professor of Management
B.A., 1955, Stanford University; M.B.A., 1969, University of California,
Berkeley.
- Norma J. Lyman (1968).....Assistant Professor of Psychology
B.A., 1965, Sonoma State College; M.S.W., 1967, University of California,
Berkeley.
- Robert E. Lynde (1969).....Assistant Professor of Health Sciences and
Physical Education
B.A., 1954; M.A., 1962, Sacramento State College; Ed.D., 1969, University of
Oregon.
- George E. McCabe (1961).....Professor of Education and Psychology
B.A., 1941, University of California, M.A., 1952; Ed.D., 1953, Teachers Col-
lege, Columbia University.
- Tolbert H. McCarroll (1969).....Lecturer in Psychology
B.S., 1953; L.L.D., 1955, University of Oregon.
- William E. McCreary (1966).....Professor of Psychology
B.A., 1951, Westminster College; M.A., 1955, Columbia University; Ph.D.,
1962, University of Wisconsin.
- Stanley V. McDaniel (1966).....Assistant Professor of Philosophy
B.A., 1953, University of California, Santa Barbara; M.A., 1964, University of
California, Los Angeles.
- Antoinette O. Maleady (1968).....Music Cataloger
B.S., 1940, West Virginia Wesleyan; M.L.S., 1968, University of California,
Berkeley.
- Jerry S. Mandel (1969).....Assistant Professor of Sociology
B.A., 1955, Columbia University; M.A., 1969, University of California, Berke-
ley; Ph.D., 1970, University of California, Berkeley.

◦ Part time.

Faculty

- Robert B. Marberry (1963).....Circulation Librarian
B.A., 1934; B.S. in L.S., 1940, University of Illinois.
- Kenneth K. Marcus (1967).....Associate Professor of Political Science
B.A., 1952; M.A., 1953, University of Michigan; Ph.D., 1955, University of Illinois.
- Donald D. Marshall (1966).....Associate Professor of Chemistry
B.A., 1957, University of California; M.S., 1958, University of Nevada; Ph.D., 1965, Washington State University.
- Ernest A. Martinez (1969).....Assistant Professor of Mexican-American Studies
B.A., 1963, New Mexico Highlands University.
- Edith P. Menrath (1964).....Assistant Professor of Psychology
Higher School Certificate, Cambridge University; License-ès-Lettres, University of Paris, France.
- Charles H. Merrill (1969).....Associate Dean of Students-Counseling and Testing; Assistant Professor of Psychology
B.S., 1961; M.S., 1962, East Texas State University; Ed.D., 1968, University of Florida.
- Claude R. Minard, Jr., (1968).....Assistant Professor of Geography
B.S., 1953; M.S., 1954, Stanford University.
- * Nathan B. Miron (1969).....Lecturer in Psychology
B.M., 1948; M.M., 1952, North Texas State University; M.A., 1959, New Mexico State University; Ph.D., 1963, University of Houston.
- Carroll V. Mjelde (1968).....Dean of Education Services and Summer Session and Associate Professor of Education
B.A., 1955; M.A., 1962; Ph.D., 1964, University of Washington.
- † James N. Montague (1969).....Assistant Professor of Art
B.A., 1962, University of California, Santa Barbara; M.A., 1964, Pennsylvania State University.
- * Sheila Moon (1966).....Lecturer in Psychology
B.A., 1940; M.A., 1942, University of California, Los Angeles; Ph.D., 1955, University of California, Berkeley.
- Edward F. Mooney (1968).....Assistant Professor of Philosophy
B.A., 1962, Oberlin College; M.A., 1966; Ph.D., 1968, University of California, Santa Barbara.
- Jeanne L. Moore (1969).....Assistant Coordinator of the Hidden Talent Program
Assistant Professor of Afro-American Studies
B.A., 1947, Roosevelt College.
- William P. Morehouse (1967).....Associate Professor of Art
B.F.A., 1955, San Francisco Art Institute; M.A., 1956, San Francisco State College.
- Thomas C. Nelson (1969).....Assistant Professor of Mathematics
B.S.E.E., 1961; M.S.E.E., 1963, Santa Clara University; Ph.D., 1969, Oregon State University.
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B.S., 1935, University of California; Ph.D., 1939, University of Wisconsin.
- Robert F. Nicholson (1967).....Assistant Professor of Sociology
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Faculty

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Licence ès Lettres, 1953, Faculté des Lettres, Université de Lyon; C.A.P.E.S.,
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- Warren E. Olson (1962).....Professor of Philosophy
B.A., 1948, University of Denver; M.A., 1950, University of Washington;
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- Dorothy Overly (1961).....Professor of English
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Psychologist.
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- Charles A. Pease (1967).....Lecturer in Physical Education
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B.A., 1966, University of Washington.
- David W. Peri (1969).....Assistant Professor of Anthropology
B.A., 1960, San Francisco State College.
- Cheryl J. Petersen (1961).....Professor of Political Science
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B.S., 1966; M.S., 1967; Ed.D., 1970, University of California, Los Angeles.

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Faculty

- Charles J. Phillips (1968).....Associate Professor of Mathematics
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B.A., 1949; B.L.S., 1954, University of California.
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- * Warren A. Roberts (1968).....Lecturer in Economics
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- Douglas S. Rustad (1969).....Assistant Professor of Chemistry
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- Nore F. Thiesfeld (1962).....Building and Planning Coordinator
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- Jerry L. Tucker (1966).....Assistant Professor of Political Science
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- G. Davidson Woodard (1962).....Professor of Geology
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- Gary M. Young (1969).....Lecturer in Humanities
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B.S., 1951, State Teachers College, Oswego, New York; M.A., 1957; Ed.D., 1968, University of California, Berkeley.
- William W. Young (1963).....Professor of Political Science
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- Caroline H. Zainer (1967).....Assistant Professor of English
B.E., 1943, Northern Illinois State Teachers College; M.A., 1948, Northwestern University.
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B.A., 1959, Reed College; M.A., 1961; Ph.D., 1965, University of Oregon.

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ASSISTANTS TO THE FACULTY

- * Diane M. Dehart (1969).....Mathematics
B.A., 1968, Sonoma State College.
- * Louise N. DeLonzor (1969).....Mathematics
B.A., 1969, Sonoma State College.
- * Stephen F. Donovan (1969).....Chemistry
- * Josiah W. Durney (1968).....Philosophy
B.A., 1969, Sonoma State College.
- * Edwin E. Flath (1969)Music
B.M., 1954; M.M., 1957, Syracuse University.
- * Kenneth C. Larson (1968).....Mathematics
B.A., 1969, Sonoma State College.
- * Gerald F. Morell (1969).....Mathematics
B.S., 1966, University of California, Berkeley.
- * Roger L. Spencer (1969).....Mathematics
B.A., 1967, Sonoma State College.
- * Dennie L. Wheeler (1969).....Mathematics
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- ° Sue C. Brown (1969).....English
B.A., 1969, Sonoma State College.
- ° David C. Carlson (1969).....Biology
- ° Harold E. Hallett, Jr. (1969).....Biology
B.A., 1967, Yale University.
- ° James R. Higgs (1968).....English
B.A., 1967, Sonoma State College.
- ° James A. Lopes (1969).....Biology
B.A., 1969, Sonoma State College.
- ° Keith R. LaQuey (1969).....English
B.A., 1963, Kansas State University.
- ° Marian K. Rotnicki (1969).....Biology
B.A., 1969, Sonoma State College.
- ° Larry E. Statan (1969).....English
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