# Correspondence Directory

**UNIVERSITY OF CALIFORNIA, BERKELEY, CALIFORNIA 94720**

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<td>1 California Hall</td>
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<td></td>
<td>President</td>
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**Telephone:** Area Code 415 642-6000

**Cable Address:** UNIVCAL

UNIVERSITY OF CALIFORNIA • BERKELEY VOLUME 68 NUMBER 9 JULY 15, 1974

A series of administrative publications of the University of California, Berkeley 94720. Second-class postage paid at Berkeley, California. Published eighteen times a year—one issue in June and September; two issues in April; three issues in March, May, and July; five issues in August.

Announcements herein are subject to revision. Changes in the list of Officers of Administration and Instruction may be made subsequent to the date of publication.
NOTE: The University offers a number of experimental courses. Information on these courses is contained in this Catalogue under the Collegiate Seminar Program (p. 163), the Residential Program (p. 497), some of the Interdepartmental Studies courses (pp. 352–358), and all courses numbered 91, 191, and 291 in various departmental course listings throughout this Catalogue.

PRICE: $1.00; $1.50 by mail
Admission to Undergraduate Status:
Application packets are available two weeks prior to the date shown for the beginning of the application filing period. California high school and community college students may obtain packets from their counselors; others, in person at or by writing any University of California Admissions Office. Written requests may be made as early as six weeks in advance of the filing date in order to meet the release date for application packets. All campuses observe these dates for the beginning of application filing. All applications filed during the first month of the filing period are accepted for consideration. After the first month the deadline will vary. Each college and school has enrollment quotas that limit the number of new freshmen and advanced standing students that may be admitted. Once quotas have been filled, additional applications cannot be accepted. At the request of the applicant, the application may be redirected to another University campus where enrollments are still open.

These dates apply to applicants for regular, limited, or special status; a second bachelor's degree; or intercampus transfer.

Admission and Readmission to Graduate Status:
Final date for filing credentials and applications with the Dean of the Graduate Division for admission or readmission to graduate standing.

Admission and Readmission to School of Law

Readmission to Undergraduate Status:
Final date for filing applications with the Office of Admissions and Registrar for re-admission to undergraduate status.

Registration of students, graduate and undergraduate, in departments at Berkeley.‡

School of Law, registration of students.

School of Law, term begins.

**Academic and Administrative Holiday.**

School of Law, instruction begins.

School of Law, study-list filing.

Examination in English for foreign students.

School of Law, final date to register.

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**Calendar, 1974-75**

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<td>July 1, '74</td>
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<th>Feb. 1, Friday</th>
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<td>June 15, Saturday</td>
<td>July 1– Aug. 23, Monday–Friday</td>
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<td>July 1– Aug. 23, Monday–Friday</td>
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<td>Aug. 23– Nov. 1, Monday–Friday</td>
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<td>Sept. 3, Tuesday</td>
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<td>Sept. 3, Tuesday</td>
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**Early Application.** In order to give time for necessary correspondence and for due notice to applicants who may be required to take examinations for admission, credentials should be forwarded to the Admissions Officer at the earliest possible date.

† Registration forms may be obtained beginning May 13 by students registered in the spring quarter who continue in the same status in the fall quarter. Students registered in the spring term in the School of Law who continue in the same status in the fall term may pick up registration forms beginning on May 9.

‡ Dates to be determined.

§ Except School of Law.
Quarter begins.§

Subject A Diagnostic Examination

Late Registration begins. Fee $25.

Pre-enrollment and assignment to sections.

School of Law, final date for students to file petitions to add or drop courses. Fee thereafter, $3. At the discretion of the Dean, grade F may be assigned in discontinued courses.

Final date for filing with the committees in charge the final form of dissertations for all doctoral degrees to be conferred in 1974–75.

Instruction begins.§

Final date for filing applications for financial aid and undergraduate scholarships for 1975–76 or any quarter thereof.

Study-list filing. See Instructions to Students received at time of registration for details. Fee for late filing, $10.§

Final date to register.§

Final date for filing applications in candidacy for all master's degrees to be conferred in 1974–75; Office of the Dean of the Graduate Division, 1 California Hall. All signatures required upon these applications must be obtained in advance.

Last date for filing without fee announcements of candidacy for any bachelor's degree or the doctor of optometry degree to be conferred 1974–75. Fee thereafter, $3.

Final date for filing announcements of candidacy for the bachelor's degree.

Final date for filing applications in candidacy for all doctoral degrees to be conferred in 1974–75: Office of the Dean of the Graduate Division, 1 California Hall. All signatures required upon these applications must be obtained in advance.

With the exception of undergraduate students enrolled in the College of Letters and Science, final date to file petitions to add or drop courses. Fee thereafter for all students, $3. At the discretion of the Dean, grade F may be assigned in discontinued courses. Also, except for undergraduate students in the College of Letters and Science, final date to make changes in option of enrolling in courses on passed/not passed basis or letter-graded basis.

Undergraduates:

Graduates:§

§ Except School of Law.

### Calendar

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<tr>
<th>Fall '74</th>
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<td>Oct. 7–11,</td>
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<td>Oct. 11,</td>
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<tr>
<td>Oct. 25,</td>
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§ Except School of Law.
Final date for undergraduate students in the College of Letters and Science to file petitions to add or drop courses and to make changes in the passed or not passed option.

Final date for filing dissertations with the Dean of the Graduate Division for all doctoral degrees to be conferred in 1974–75.

Final date for filing with committees in charge the final form of theses for master’s degrees to be conferred in 1974–75.

**Academic and Administrative Holiday**

Instruction ends.§

Final examinations in departments at Berkeley.§

Final date for filing applications for fellowships and graduate scholarships for 1975–76.

Final date for filing theses with the Dean of the Graduate Division for all master’s degrees to be conferred in 1974–75.

Quarter ends.§

School of Law, instruction ends.

**Academic and Administrative Holiday**

School of Law, final examinations.

School of Law, term ends.

§ Except School of Law.
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Introduction

History of the University of California

The promise of a University of California is contained in the State's constitution, drafted in Monterey in the gold rush year of 1849. California was admitted to the Union the following year, although almost twenty years were to pass before the hope for a public university was realized.

Impetus for the building of a university came from private citizens and the federal government as well as from the State. A forerunner of the University of California was the Contra Costa Academy, established in 1853 in downtown Oakland by a group of churchmen led by the Reverend Henry Durant. In 1855 that institution was incorporated as the College of California, and plans were made to purchase a new site north of Oakland. The community developing around this new site was given the name of Berkeley in 1866.

In 1853 Congress had bestowed upon the State 46,000 acres of public lands with the stipulation that proceeds of the sale of the land were to be used for a "seminary of learning." The Morrill Act of 1862 gave another grant of public lands to the State for the establishment of a college to teach agriculture and the mechanic arts.

The College of California offered its buildings and lands to the State in 1867 on condition that a "complete university" be created to teach the humanities as well as agriculture, mining, and mechanics. The legislature accepted, and on March 23, 1868—Charter Day—Governor Henry H. Haight signed the act that created the University of California.

The University, heir to the lands, buildings, library—and even alumni—of the old College of California, now came into being. The move to the new "College Site" in Berkeley came in 1873, when North Hall and South Hall (the latter still in service) were completed. These two Victorian-style buildings stood out prominently on an area that was barren except for a few farmhouses and barns. Students came to class from Oakland by horsecar, traveling up what is now Telegraph Avenue. Some traveled from San Francisco across the bay by ferry, then up to the campus by horsecar—about a two-hour trek. As enrollment increased at Berkeley, more buildings were added—first a mining and engineering building, a library, and a gymnasium; then mechanics, philosophy, agriculture, botany, and chemistry buildings—all before the turn of the century.

As the Berkeley campus grew, other campuses were added throughout California: San Francisco in 1873; Davis (initially the University Farm) in 1905; Riverside (initially the Citrus Experiment Station) in 1907; San Diego (initially the Scripps Institution of Oceanography at La Jolla) in 1912; Los Angeles (UCLA, initially the Los Angeles State Normal School) in 1919; Santa Barbara (initially Santa Barbara State College) in 1944; and Santa Cruz and Irvine in 1961. The nine-campus University of California is now one of the largest in the world. Each of its campuses has a separate administration, organization, and style of academic life.

The University also maintains research stations, field stations, Extension
centers, and other facilities of research and instruction in more than 80 locations throughout California. With such extensive resources, the University enjoys a foremost position among state universities, offering advancement of knowledge in virtually every field of human endeavor in modern life, and continuing to serve as an indispensable force in the growth and development of our society.

**Students** The inaugural enrollment of fewer than 200 students at the University of California has now grown to over 106,000 of the brightest young people of the college generation. Nearly 85% are residents of California, with the remainder from other states and from 100 foreign countries. Nearly one third are studying at the graduate level.

Admission to the University is limited to graduates of California high schools in the top 12½% of their classes; to graduates of out-of-state high schools in the top 6½% of their classes; to students transferring from other colleges and universities whose academic records meet University requirements; and to graduate students with distinguished records. Admission requirements are uniform for the nine general campuses, and students may transfer from one to another.

These students come to the University with a tremendous range and variety of educational goals. They seek bachelor's, master's, and doctor's degrees in more than 100 fields of study, spanning the physical and biological sciences, social sciences, humanities, and arts. Many seek intensive professional education in such fields as architecture, engineering, law, medicine, public health, and social welfare, to name a few. In all cases, the University seeks to provide them the broadest and most complete education consistent with the demands of their prospective careers.

**Faculty and Instruction** The faculty of the University of California is noted for its unusually high number of Nobel laureates, National Academy of Science members, and holders of other notable awards for distinguished academic achievement. The men and women who teach courses at the University of California are exceptionally able scholars in their fields. They add to their knowledge of their subject by continuing research. They bring to the classroom the excitement of discovery, whether the class is a seminar of nine students or a lecture hall of several hundred. The faculty places a strong emphasis on the relationship between teacher and student. While seeking to meet the growing demand which our society places upon the University for advanced research and other academic services, the faculty holds firmly to its traditional role as educators of the young. Classes are as small as possible—about 70% of instruction is carried on in groups of 25 or less—and students are encouraged to confer privately with instructors.

The quality of the University's programs was reaffirmed by the American Council of Education in its evaluation of graduate schools in the United States in a report released in January, 1971. The ACE ranked Berkeley as the top graduate school in the country. Twenty-six of the thirty-five graduate departments were ranked as the first, second, or third best in the nation. Eight departments were top-ranked.

The General Catalogue, together with those of the other campuses of the University, embodies about 10,000 courses, covering the spectrum of man's
knowledge. Students are given a considerable degree of freedom in choosing their courses, although their colleges and departments, or schools, provide a broad framework of minimum general requirements and major requirements. The student plans his program with the aid of an adviser and normally chooses a field of concentration by his junior year.

Research The distinction of the University's faculty has already been noted. The University is also known for the quality and scope of its research facilities. Each campus maintains research units, including laboratories, museums, centers, and institutes—covering most of the broad fields of study. There are also research stations, field stations, and other facilities of research in more than 80 locations throughout California. Continuing research is financed by University funds, private endowments, and grants from the federal and State governments. These funds provide research fellowships and assistantships for faculty and outstanding graduate students.

The libraries of the University are a valuable resource to research and instruction. The major collections are at the Los Angeles campus, with more than 2,500,000 volumes, and at the Berkeley campus, with more than 4,000,000. The other campuses also maintain extensive library collections. Altogether, the University libraries cover virtually every research need. To minimize duplication, each campus has developed a specialized concentration of volumes. Interlibrary loans are arranged with ease.

Administration Organization and government of the University is entrusted under the State Constitution, to a corporate body, The Regents of the University of California. The Board of Regents is composed of twenty-four members, sixteen appointed by the Governor of California for sixteen-year terms and eight who are members because of the public offices they hold. These ex officio members are: the Governor, the Lieutenant Governor, the Speaker of the Assembly, the President of the State Board of Agriculture, the President of the Mechanics Institute, the President of the Alumni Association, the State Superintendent of Public Instruction, and the President of the University. The Regents have "full powers of organization and government, subject only to such legislative controls as may be necessary to insure compliance with the terms of the endowments of the University and the security of its funds."

The President of the University is the executive head of the University in all its departments and on all its campuses. He is appointed by The Regents and is directly responsible to them. Each of the nine campuses of the University has a Chancellor as its chief administrative officer. The Chancellor is responsible for the organization and operation of the campus, including academic, student, and business affairs. The President has delegated additional authority to the Chancellors, including appointment of faculty, department chairmen, directors of local instructional or organized research units, and certain other personnel.

The Academic Senate, consisting of the faculty and certain administrative officers, participates in the administration of academic matters. The Senate determines conditions for admission of students and for granting of certificates and degrees. It authorizes and supervises all courses in the schools and colleges.
University Extension University Extension makes available a broad range of programs based on the following educational aims: (1) the intellectual and cultural development of adults; (2) the dissemination of new knowledge resulting from teaching and research activities within the University; (3) the continuing education of scientific, technical, and professional personnel; (4) the development of special educational programs for public and private organizations and agencies; and (5) public affairs education through programs designed to aid adults in meeting their responsibilities as citizens.

The Berkeley Campus

The Berkeley campus is surrounded by the business and residential districts of Berkeley (population, 121,000), at the foot of the wooded Berkeley hills. Despite its growth, the campus retains much natural beauty, with wooded glens, spacious plazas, and picturesque Strawberry Creek running westward through the length of the campus. The Berkeley Hills afford a panoramic view of the San Francisco Bay Area, a nine-county region widely acclaimed for its cultural activities.

One is impressed by the vitality of the campus. Political tables and noontime speeches that make news are, of course, part of the story. A host of other features—public lectures and concerts; campus-sponsored forums and seminars; clubs and workshops; dramatic presentations; international folk-dance festivals; art, photographic, design, architectural, anthropological, and archaeological exhibits and displays; recitals; lectures and more than twenty bookstores within one square mile—all of these make Berkeley what it is. In this environment, scholars of all ages gather to share ideas, information, and experience in a mood of exchange, toleration, and creativity.

Enrollment at Berkeley has reached its limit of 27,500, including 18,000 undergraduates. About 3,200 students live in University residence halls, and the remainder in privately owned or cooperative housing, or fraternities and sororities. There are more than eighty academic departments, and most offer instruction at both the undergraduate and graduate levels.

Many changes are taking place on the Berkeley campus: classic buildings share ground with modern steel and glass designs; the Venetian-style Campanile at the center of the campus, long a landmark of the West, now looks down upon a new landmark, the modern Student Center complex at the south entrance of the campus; the undergraduate lecture-hall session, long a part of the student's curriculum, now shares time with the seminar, preceptorial, and tutorial. Oldest of the nine campuses, the Berkeley campus is adapting to new needs and new trends, in an effort to make the experience of higher education one of the most exciting, meaningful, and thorough of human experiences.
Admission and registration carry the greatest number of problems for students. This chapter is a summary of admission and registration procedures for the University. Further information may be found in the Undergraduate Admissions Circular, the Circular for New Undergraduates, and the Registration Circular.

Admission

You may obtain application packets containing all necessary forms and instructions from California high school and community college counselors or from the Office of Admissions and Registrar, 127 Sproul Hall, University of California, Berkeley, California 94720. This office accepts completed applications on or after the opening dates for filing: Winter Quarter 1975—July 1, 1974; Spring Quarter 1975—October 1, 1974; Fall Quarter 1975—November 1, 1974.

You must include with your completed application forms a fee of $20 (not refundable).

If you have not registered in regular session in any college-level institution since graduation from high school, you will be applying for admission as a freshman student. You must meet these requirements for admission as a freshman:

(a) History 1 year. One year of United States history or one-half year of United States history and one-half year of civics or American government.

(b) English 3 years. Three years of English composition, literature, and oral expression.

(c) Mathematics 2 years. Two years of subjects such as elementary algebra, intermediate and advanced algebra, geometry, trigonometry, calculus, elementary functions, matrix algebra, probability, statistics, or courses combining these topics. Arithmetic and such nonacademic subjects as shop mathematics and business mathematics are excluded.

(d) Laboratory Science 1 year. A year course in one laboratory science, taken in the tenth, eleventh, or twelfth grade.

(e) Foreign Language 2 years. One language. Any foreign language with a written literature is acceptable.

(f) Advanced Courses 1 (or 2) years. This must be chosen from the following: Mathematics, a total of one year of second-year algebra, solid geometry, trigonometry, or other certified advanced courses. Foreign language, either one additional year in the same foreign language offered under e or two years of another foreign language. Science, a year course in any laboratory science completed subsequent to the laboratory science used for d above.

If you are a graduate of a California high school, these courses must appear on a list that your high school principal has certified meet the course descriptions above and that he has placed on file with the Director of Admissions. Additional elective units are also required to complete the minimum of 15 standard entrance units.
You must have at least a B (3.0) average in those courses taken after the ninth year which are used to meet the subject requirements. Subject requirements are satisfied only by courses in which a grade of C (2.0) or higher has been assigned.

If you are applying as a freshman or if you are an advanced standing applicant who has earned less than 12 units of college credit subsequent to high school graduation, you must submit scores from the following examinations of the College Entrance Examination Board: (1) The Scholastic Aptitude Test; and (2) three Achievement Tests, which must include (a) English composition, (b) social studies or foreign language, and (c) mathematics or science. If your scholarship average in the required high school subjects is 3.00 to 3.09 inclusive, you must score a minimum total of 2500 on the examinations.

For detailed information on these requirements, admission by examination alone, and the special scholarship requirements for nonresident applicants, consult the Undergraduate Admissions Circular.

If you do not meet the requirements for admission to freshman standing or if you cannot qualify by examination alone, you can only be admitted to advanced standing.

If you are registered in a community college, a four-year college, a university, extension classes of college level, or any comparable institution since graduation from high school, you are subject to regulations governing admission to advanced standing. You may not disregard your college record and apply for admission to freshman standing. You must present from the last accredited college or university attended a statement of good standing and an academic record with a grade-point average of C (2.0) or better.

Admission of Nonresident Applicants The admission requirements for nonresidents differ from those for residents in that the required grade-point average is higher. For freshmen, the average is 3.4 rather than 3.0 and for advanced standing, it is 2.8 rather than 2.0. Admissions procedures and all other requirements are the same as for California residents described above. Consult the Undergraduate Admissions Circular for complete details.

Admission in Advanced Standing

The requirements for admission to advanced standing vary in accordance with your high school record. Regulations applying to admission in advanced standing are as follows.

Those eligible for admission from high school, but who attended another collegiate institution, must present from that institution a statement of good standing and a grade-point average of 2.0.

Those ineligible for admission from high school because of subject deficiencies may establish eligibility by taking, at an accredited college, the required courses, and by maintaining an average of 2.0.

Those ineligible for admission from high school because of grade-point deficiency, may establish eligibility by taking, at an accredited college, a minimum

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* The advanced standing requirements for admission listed here are experimental and will be in effect for applicants applying through the Spring Quarter 1977.
Admission in Advanced Standing for Nonresidents  A nonresident applicant who met the admission requirements for freshman admission must have a grade-point average of 2.8 or higher in the college courses he has taken that are accepted by the University for transfer credit.

If a nonresident applicant was lacking any of the required subjects in high school, he must complete college courses in those subjects with a grade of C or higher. A nonresident applicant who graduated from high school with less than a 3.4 grade-point average in the subjects required for freshman admission must have completed at least 84 quarter units (56 semester units) of transferable work with a grade-point average of 2.8 or higher. Upon successful completion of that work, two units of the required high school subjects may be waived. Consult the Undergraduate Admissions Circular for complete details.

Admission to the College of Letters and Science in Advanced Standing  Students applying for admission in the fall quarter 1975 or later will not be considered if they have completed more than 120 quarter units. Only in unusual circumstances will exceptions to this policy be made by the Dean of the College. In computing the number of units which they have completed, students should be aware that the College of Letters and Science does not grant unit credit for courses completed in a two-year college after a total of 105 quarter units has been completed in all institutions attended. Subject credit toward completion of College requirements is granted for these courses, however.

Students who have completed 84 or more units are required to have satisfied the reading and composition requirement as well as the foreign language requirement of the College. If they plan to declare a major in a biological science, they must in addition have completed the minimum subject preparation in the major indicated below with a grade-point average of C or higher:

**Students Who Have Completed 84 to 105 Quarter Units**
1. General chemistry with laboratory (8 quarter or 5 semester units)
2. General biology with laboratory or a course in botany plus a course in zoology (12 quarter or 8 semester units)

**Students Who Have Completed 106 to 120 Quarter Units**
1. and 2. above plus
3. Introductory organic chemistry with laboratory (9 quarter or 6 semester units)

Special Admission Circumstances  Certain rules apply for special applicants not included above.

**Limited Status**  This includes applicants with a bachelor's degree or with a substantial amount of college work completed with a superior scholastic average, whose special attainment may lead them to take certain courses toward a definite and limited objective. Only applicants of unusual merit are considered.
Applicants for admission in limited status will normally have to complete a personal interview with an Admissions Officer, who will determine, from the applicant's record, his needs, and his plans, the conditions of his admission, subject to approval from the dean of the applicant's college or school.

Admission is for a specified time, determined beforehand, and the student must maintain a prescribed scholastic average. There are no "special courses": the student will be admitted only to those courses for which he is able to demonstrate, in the opinion of the instructor, satisfactory preparation.

The applicant must submit transcripts of records from all schools attended since the eighth grade.

Special Status  This includes students of mature years (minimum age 21) who have not had the opportunity to complete a satisfactory high school program or have not completed a substantial amount of college work, whose special attainments may lead them to take certain college courses toward a definite and limited objective. Similar rules apply as for students in limited status, discussed above. Applicants to special status directly from high school are not accepted. One may not be admitted to special status for the purpose of making up requirements for admission to regular status.

Work Toward a Second Bachelor's Degree  Ordinarily this is discouraged by the University, but complete changes in objective occasionally require the attainment of a second bachelor's degree. Applicants for admission to undergraduate study for a second bachelor's degree must indicate, by their previous scholastic record, a strong probability of academic success in such an undertaking. Admission is subject to approval of the Admissions Officer and Registrar, and of the dean of the college or school in which work is to be undertaken.

Students from Other Countries  
An applicant from another country should request the brochure, INFORMATION FOR PROSPECTIVE STUDENTS FROM OTHER COUNTRIES, designed to answer questions about admission to the University, visas, special examinations, fees and expenses, housing, and travel.

Registration  
Registration is the means by which you officially become a student at the University. It includes the payment of registration and other fees and the completion and filing of informational forms. It is accomplished by mail. New and re-entering students receive information and instructions for registering by mail some time in advance of the quarter for which they have been admitted. The instructions include a mailing deadline which should be carefully observed. Registration in person at the opening of the quarter may involve a late registration fee of $25. Late registration also increases your difficulties in obtaining a suitable program of classes. Your name is not entered on class rolls unless you have completed registration according to regulations. You may not register after the second week of classes. You may not plead lateness as an excuse for neglecting assigned classwork—for which you are held accountable from the first day of classes.
Nonresident Tuition Fee

Students who have not been legal residents of California for more than one year immediately prior to the residence determination date for each quarter in which they propose to attend the University are charged, along with other fees, a tuition fee of $500 for the quarter. The residence determination date is the opening day of the quarter at the first of the University of California campuses to open, and for schools on the semester system, the opening day of the semester.

Legal residence is established by an adult who is physically present in the state while, at the same time, intending to make California his permanent home. The prior legal residence must be relinquished, and steps must be taken at least one year prior to the quarter to evidence the intent to make California the permanent home. Some of the relevant indicia of an intention of California residence are: voting in elections in California and not in any other state; satisfying resident California state income tax obligations on total income; establishing an abode where one's permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining California vehicle plates and operator's license; maintaining active savings and checking accounts in California banks; maintaining permanent military, address or home of record in California if one is in the military service, etc. Conduct inconsistent with the claim of California residence would include, but not necessarily be limited to, the following: maintaining voter registration and voting in person or by absentee ballot in another state, if the basis of the franchise is legal residence; obtaining a divorce in another state; attending an out-of-state institution as a resident of the state in which the institution is located; obtaining a loan requiring legal residence in another state.

The student who is within the state for educational purposes only does not gain the status of resident regardless of the length of his stay in California. In general, the unmarried minor (a person under 18 years of age) derives legal residence from his father (or from his mother if the father is deceased), or, in the case of permanent separation of the parents, from the parent with whom the minor maintains his place of abode. A man or a woman may establish his or her residence.

A student who remains in this state after his parent, who was theretofore domiciled in California for at least one year prior to leaving and has, during the student's minority age and within one year immediately prior to the residence determination date, established residence elsewhere, shall be entitled to resident classification until he has attained the age of majority and has resided in the state the minimum time necessary to become a resident so long as, once enrolled, he maintains continuous attendance at an institution.

Nonresident students who are minors or 18 years of age and can evidence that they have been totally self-supporting through employment and actually present in California for the entire year immediately prior to the opening day of the quarter and have evidenced the intent to make the state their permanent home may be eligible for resident status.
A student shall be entitled to resident classification if immediately prior to enrolling at the University he has lived with and been under the continuous direct care and control of any adult or adults other than a parent for a period of not less than two years, provided that the adult or adults having such control have been California residents during the year immediately prior to the residence determination date. This exception continues until the student has attained the age of majority and has resided in the state the minimum time necessary to become a resident, so long as continuous attendance is maintained at the institution.

Exemption from payment of the nonresident tuition fee is available to the natural or adopted child, stepchild, or spouse who is a dependent of a member of the armed forces of the United States stationed in California on active duty; such residence classification may be maintained until the student has resided in the state the minimum time necessary to become a resident, so long as continuous attendance is maintained at the University. If the member of the armed forces is transferred on military orders to a place outside of the United States immediately after having been stationed on active duty in California, the student who is the natural or adopted child, stepchild, or spouse dependent on the member of the military, is entitled to retain residence classification under conditions set forth above.

A student who is a member of the armed forces of the United States stationed in California on active duty, except a member of the armed forces assigned for educational purposes to a state-supported institution of higher education, shall be entitled to residence classification until he has resided in the state the minimum time necessary to become a resident.

A student who is an adult alien is entitled to residence classification if the student has been lawfully admitted to the United States for permanent residence in accordance with all applicable provisions of the laws of the United States; provided, however, that the student has had residence in California for more than one year after such admission prior to the residence determination date. A student who is a minor alien shall be entitled to residence classification if the student and the parent from whom residence is derived have been lawfully admitted to the United States for permanent residence in accordance with all applicable laws of the United States; provided that the parent has had residence in California for more than one year after acquiring such permanent residence prior to the residence determination date of the term for which the student proposes to attend the University.

Children of deceased public law enforcement or fire suppression employees, who were California residents, and who who were killed in the course of law enforcement or fire suppression duties, may be entitled to residence classification.

A student in continuous full-time attendance at the University who had resident classification on May 1, 1973, shall not lose such classification as a result of the adoption of the uniform student residency law on which this catalogue statement is based, until the attainment of the degree for which he or she is currently enrolled.

New and returning students are required to complete a Statement of Legal
Residence, a form that is issued at the time of registration. Their status is determined by the Attorney in Residence Matters' Deputy who is located in the Registrar's Office.

The student is cautioned that this summation regarding residency determination is by no means a complete explanation of the law. The student should also note that changes may have been made in the rate of nonresident tuition and in the residence requirements between the time this catalogue statement is published and the relevant residence determination date. Regulations have been adopted which serve to implement the Uniform Residency Determination law as adopted by The Regents. A copy of The Regents' regulations is available for inspection upon request being made to the Attorney in Residence Matters' Deputy in the Registrar's Office.

Those classified incorrectly as residents are subject to reclassification as nonresidents and payment of all nonresident fees. If incorrect classification results from false or concealed facts, the student is subject to University discipline and is required to pay all back fees he would have been charged as a nonresident. Resident students who become nonresidents must immediately notify the Attorney in Residence Matters' Deputy.

Inquiries from prospective students regarding residence requirements for tuition purposes should be directed to the Attorney in Residence Matters, 590 University Hall, 2200 University Avenue, Berkeley, California 94720. No other University personnel are authorized to supply information relative to residence requirements for tuition purposes. Any student, following a final decision on residence classification by the Attorney in Residence Matters' Deputy on the campus attended by the student, may make written appeal to the Attorney in Residence Matters at the above address within 120 calendar days of notification of the final decision by said Residence Deputy.

Enrollment in Classes and Filing the Study List

You should purchase from the Office of Admissions and Registrar, for 25 cents, the Schedule of Classes, listing all courses given for the quarter, their credit values, instructors, hours, locations, and final examination groups. From this booklet, and with the aid of your adviser and this catalogue, which provides course descriptions and prerequisites, you may assemble your program. You may not choose two courses in the same examination group. Usually courses in the same group meet at the same hour, thus precluding such a problem.

In order to complete your enrollment and receive credit for the work of a quarter, you must file your study list at the time and place designated by the Office of Admissions and Registrar. Students should arrange for conferences with advisers, review the program of studies they wish to undertake, and make their final choice of courses well in advance of the assigned dates for filing of their study lists. Students who fail to do this may be forced to file their study lists late and may become subject to the $10 late filing fee. The study-list form is included in the packet issued to you when you register, along with instructions for completing it and filing it. There is a $10 fee for filing after the assigned date, and no study list is accepted after the third week of instruction. Unapproved withdrawal from, or neglect of, a course entered on the study list could result
in disciplinary action. If you wish to make any changes of program after filing the study list, you must do so by formal petition with the signed approval of the instructor involved and the dean of your college or school.

The Quarter System

The 1974-75 school year will consist of three ten-week quarters and one eight-week summer session. There will not be a summer quarter in 1975. A student making normal progress toward the bachelor's degree attends three quarters per school year.

A student proceeding to the bachelor's degree in four years (twelve quarters) will normally complete a total of 180 units, or 15 units per quarter. This number may be slightly higher in some professional colleges and schools. Students are normally considered to have upper division or junior standing after completion of 90 units.

Courses and Units

Most University courses are assigned a unit value. One unit represents three hours of work per week by the student, including both class attendance and preparation. Laboratory, discussion, quiz, or review sessions may or may not be given unit value.

Grades of Scholarship

The work of all students on the Berkeley campus is reported in terms of the following grades: A (excellent), B (good), C (fair), D (barely passed), F (failure), P (passed at a minimum level of C-), NP (not passed), S (satisfactory or passed at a minimum level of B-), U (unsatisfactory), I (work incomplete, due to circumstances beyond the student's control, but of passing quality), IP (work in progress; final grade to be assigned upon completion of entire course sequence). The grades A, B, C, and D may be modified by plus (+) or minus (−) suffixes.

A course in which the grade A, B, C, D, or P is received is counted toward degree requirements. A course receiving the grade S is similarly counted unless otherwise specified in the course description. A course in which the grade F, NP, and U is received is not counted toward degree requirements. A course in which the grade of I or IP is received is not counted toward degree requirements until such time as the I or IP is replaced by grade A, B, C, D, P, or S.

Grade Points

Grade points per unit are assigned as follows: A—4, B—3, C—2, D—1, and F—none. When attached to the grades A, B, C, or D, plus (+) grades carry three-tenths of a grade point more per unit, and minus (−) grades three-tenths of a grade point less per unit than unsuffixed grades, except for the A+, which carries 4.0 grade points per unit as does the A.

Grade-Point Average

The grade-point average is computed on courses undertaken in the University of California, with the exception of courses undertaken in University Extension. Grades A, B, C, D, and F are used in determining a student's grade-point average; grades IP, P, S, NP, and U carry no grade points and are excluded
from all grade point computations. Grade I, if assigned prior to fall 1973, is included and is computed as an F; an I grade assigned fall 1973 and later is excluded from the computations. For additional information, see "Repetition of Courses."

Examples:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5 (un) 20 (gd pts)</td>
</tr>
<tr>
<td>A</td>
<td>5 20</td>
</tr>
<tr>
<td>B+</td>
<td>5 16.5</td>
</tr>
<tr>
<td>B-</td>
<td>5 8.5</td>
</tr>
<tr>
<td>C</td>
<td>5 0 (assigned)</td>
</tr>
<tr>
<td>C</td>
<td>5 8.5</td>
</tr>
<tr>
<td>P</td>
<td>5 0</td>
</tr>
<tr>
<td>NP</td>
<td>5 0</td>
</tr>
<tr>
<td>I</td>
<td>5 0 (assigned fall 1973)</td>
</tr>
</tbody>
</table>

Repetition of Courses

A student may repeat only those courses in which he or she received a grade of D+, D, D-, F, NP, U, or I. Courses in which a grade of D+, D, D-, or F has been received, and courses undertaken for a letter grade in which a grade of I has been received, may not be repeated on a Passed or Not Passed basis. Repetition of a course more than once requires approval by the appropriate Dean in all instances. Without this approval, a course repeated more than once will not be included in the grade-point average, but a passing grade in the repeated course will be accepted in satisfaction of unit requirements for the degree. Degree credit for a repeated course will be given only once, but the grade assigned at each enrollment is permanently recorded. In computing the grade-point average of a student who repeats courses in which he received a D+, D, D-, or F, the units are counted only once and only the most recently earned grades and grade points are used for the first sixteen units repeated. In case of further repetitions, the grade-point average is based on all grades assigned and total units attempted.

Changes of Grade

All grades except I and IP (see below) are considered final when assigned by an instructor at the end of a term. An instructor may request a change of a grade when a computational or procedural error occurred in the original assignment of a grade; but a grade may not be changed as a result of reevaluation of a student’s work. No final grade except I may be revised as a result of reexamination or the submission of additional work after the close of the term. A final grade of F may be challenged by a student, but only if it reflects other than academic criteria. A student wishing to contest a grade of F on such grounds must file a petition with the Secretary of the Berkeley Division of the Academic Senate not later than the end of the term following that in which the grade was received. The Secretary will set in motion the required investigation and resolution of the challenge by the Committee on Courses.

Grade I (Incomplete)

The grade I may be assigned if the student’s work in a course has been of passing quality but is incomplete for reasons beyond his control. Prior arrange-
ments must be made with the instructor, because in assigning the I grade he is required to specify the reasons to the Department Chairman and to the Office of Admissions and Registrar.

For undergraduate students, an I grade assigned fall 1973 and later can be replaced by a final grade only within thirteen months from the date on which it was assigned, subject to the following provisions:

On completion of the required work or deferred examination, grade points will be assigned if the student receives a grade of A, B, C, or D. On repetition of the course, grade points will be granted only with the prior approval of the Dean of the College or School. The Dean may extend the period of time in which an I grade may be completed beyond the thirteen-month limitation. Except as noted below, any I grade which has not been replaced within thirteen months after it has been assigned will, at the end of that time, be converted to grade F (or NP or U if taken passed/not passed or satisfactory/unsatisfactory). After that time, but not retroactively, the grade is counted in computing the grade-point average.

Exceptions: Within thirteen months of receiving an I grade, a student may notify his Dean that he has not attempted completion and will not complete the work required for removal of the I grade, and may request that the grade not be replaced by an F (or NP or U). This procedure is limited to no more than two courses and the decision is irrevocable. Also, if a degree is conferred before the end of the thirteen months following the assignment of an I grade, the grade will not be converted to an F (or NP or U), the student in the meantime retaining the option of removing the I grade within the thirteen months.

Any undergraduate student with 16 or more units of I on his record may not register unless permission to do so is granted by his Dean. If he has registered by mail, the registration may be cancelled.

A student who received an I grade prior to fall 1973 must file a Petition for Grade Points in Incomplete Course, with appropriate endorsements; and all students who receive an I grade whenever assigned must file a Petition for Reversion of Grade Incomplete, available at the Office of Admissions and Registrar. The latter should be filed as soon as the date of completion of the course has been established by the student and the instructor. The filing fee is $5, payable at the Cashier's Office, regardless of the number of courses listed on the petition. The final grade cannot be requested, and will not be recorded, until this form is filed.

Grade IP (In Progress)

For a course extending over more than one term, where evaluation of the student's performance is deferred until the end of the final term, provisional grades of IP (In Progress) are assigned in the intervening term(s). The provisional grades are replaced by one final grade if the student completes the full sequence. The grade IP is not included in the grade-point average. Effective with an IP assigned fall 1973 and later, if the full sequence is not completed as scheduled, the IP will be replaced by grade I when the instructor has no basis for assigning a grade for the term(s) completed. Further changes in the student's record will be subject to the rules pertaining to I grades (see above).
Passed or Not Passed Grades

A student must be in good standing (i.e., not on academic probation or subject to academic disqualification) in order to enroll in courses on a passed or not passed basis. Credit for courses graded passed may be assigned for no more than one-third of the total units undertaken and passed on the Berkeley campus at the time the degree is awarded. This limitation applies to courses completed for credit after September 1970. Included in this one-third will be half-unit Physical Education and Music 400 series courses, as well as any units completed on another campus by a Berkeley student enrolled in an Intercampus Visitor Program, or in an Education Abroad Program.

A course which is required in the major or which is prerequisite to the major may be taken on a passed or not passed basis only upon the approval of the faculty of the student’s College or School.

A special student or limited-status student may take courses on a passed or not passed basis at the discretion of the Dean of the College or School.

A student enrolled in a Summer Session may take no more than one course on a passed or not passed basis per session. Half-unit courses in Physical Education and Music are excluded from this restriction.

A student’s level of performance must correspond to letter grade C- or better if a passed grade is to be assigned.

A student may not repeat on a passed or not passed basis a course in which he received a D or F, or an Incomplete unless the Incomplete was assigned in a course undertaken on a passed or not passed basis.

The option of being graded passed or not passed in a particular course may be withdrawn if the student is found to be ineligible to take the course on that basis. If the course is offered on a passed or not passed basis only, it may be deleted from the study list at the option of the Dean of the College or School.

These rules are subject to such other limitations as may be imposed by the faculties of the various Schools and Colleges.

Credit by Examination

A student may earn credit by examination by two methods:

1. On recommendation of the Board of Admissions, a new or re-entering student may be allowed credit by examination for knowledge he has acquired since graduation from high school, either by independent study or at another institution, and for which he has not been allowed advanced standing credit. Application for such credit should be made directly to the Office of Admissions and Registrar at Berkeley.

2. A student in good standing who is currently registered may qualify for course credit by examination. Application for such credit must be presented on a form, obtainable from the Office of Admissions and Registrar, to the dean of the college or school. Credit by examination may be applied for in any course listed in the current General Catalogue pertaining to the regular sessions at Berkeley, or in any other subject appropriate for inclusion in a University curriculum. However, the subject in which the student seeks to be examined should be one in which, in the opinion of the instructor in charge and of the department, the student’s knowledge may properly be tested by an examination. The fee for filing the petition is $5. In certain laboratory, field, or practice courses an examination either written or oral may not be a satisfactory test. Credit by examin-
ation is not available if such credit would duplicate credit presented by the student for admission to the University; in elementary courses in a foreign language which is the mother tongue of the applicant; or in subjects for which the University has no competent examiner. Further information concerning credit by examination may be obtained from the Office of Admissions and Registrar.

Midterm and Final Examinations

The number of midterm examinations varies at the discretion of the instructor. Final examinations, however, are mandatory in undergraduate courses, with the exception of courses listed in the Schedule of Classes as not requiring a final examination, and in the case of a student graduating at the end of the quarter who is being examined in his major by his department and may, at the department’s discretion, be excused from finals in all courses within the department.

Final examinations are normally in written form and may or may not cover the entire course. You may, if you wish, inspect a file of sample examinations, listed by course, in the Reserve Book Room of the Library. Examinations in non-laboratory courses may not exceed three hours. Any infringement of fair examination practice by a student is considered a serious offense subject to discipline.

You may be re-examined only to raise grade I or E to passing, not to raise any other grade.

Honors

Standards for honors status are set by the colleges and schools, and departments may, in addition, recommend students for inclusion on the Honors List. Honor students are usually accorded special privileges, including eligibility for honors programs. If you have an overall grade-point average of 3.5, you are accorded, through the Committee on Prizes, access to the Main Library loan stacks. For details on honors, please consult the college, school, or department.

Minimum Scholarship Requirements

Failure to maintain a minimum grade-point average prescribed by the college or school will normally result in probation or disqualification. Computation of the grade-point average includes courses graded incomplete. Since scholarship rules are applied only at the close of regular sessions, grade points earned in a University of California summer session or by removing grade I are not taken into consideration until the close of the student’s next quarter of attendance.

Academic Probation

Except in the Colleges of Chemistry and Engineering, a student is placed on academic probation if at the end of any term his cumulative grade-point average is less than 2.0 (C average) computed on the total of all courses undertaken in the University. In addition, a student in the College of Environmental Design will be placed on academic probation if during any term he fails to attain at least a C average in all courses for which he is enrolled.

Academic Disqualification

College of Chemistry and College of Engineering: A student shall be subject to disqualification from the university (a) if during any term he fails to attain
at least a C average in all courses for which he is enrolled; or (b) if at the end of any term he has failed to attain at least a C average in all courses undertaken in the University.

College of Agricultural Sciences, College of Letters and Science, and School of Business Administration: A student is subject to disqualification (a) if his grade-point average falls below 1.5 for any term; or (b) if after one term on probation he increases his grade-point deficit; or (c) if after two terms on probation he has not achieved a grade-point average of 2.0 (C average) computed on the total of all courses undertaken in the University.

All other Colleges and Schools: A student is subject to disqualification (a) if at the end of any term his grade-point average for that term is less than 1.5; or (b) if he has completed two consecutive terms on academic probation without achieving a cumulative grade-point average of 2.0 (C average) computed on the total of all courses undertaken in the University.

A disqualified student may appeal, by formal petition to the dean of his college or school, for a hearing, but the action of disqualification is normally considered final. A disqualified student who wishes to transfer to another college or school at Berkeley may petition the dean of the jurisdiction sought.

Student Conduct

As a student enrolling in the University, you assume an obligation to conduct yourself in a manner compatible with the University's function as an educational institution. Rules concerning student conduct, student organizations, use of University facilities, and related matters are set forth in both University policies and campus regulations, copies of which are available upon request at the Office of Student Activities, 201 Sproul Hall. Particular attention is called to the booklet University of California Policies Applying to Campus Activities, Organizations, and Students and to the standard of conduct set forth therein.

Cancellation of Registration, Absences, Withdrawal, and Re-Entry

A student who has registered by mail and who wishes to cancel his registration may do so provided he notifies the Office of Admissions and Registrar in writing prior to the first day of classes of the quarter. Cancellation of registration may not be accomplished by non-attendance of classes alone. A refund of all but $10 of the registration fees is made on cancellation if the registration card is returned, except for the $50 deposit paid by new undergraduates.

Responsibility for short absences during the quarter is left to the student. Permission to withdraw entirely from the session, without scholarship penalty, is generally not granted after the first few weeks of the quarter except under unusual circumstances. If you do find it necessary to discontinue your studies for the remainder of the quarter, you should obtain a Notice of Withdrawal from the Office of Admissions and Registrar and submit it, together with your registration card, for the first of several required endorsements at the earliest possible date. If the form is submitted prior to the first day of classes, you will be entitled to the same refund as would be made on cancellation of registration. The refund of fees is prorated thereafter. You should note that the amount of refund, if any, is determined not by the date on which you discontinue your studies, but on the
date on which the Notice of Withdrawal is first presented for endorsement. If you are eligible for further registration in the University, you will be entitled to a Statement of Honorable Withdrawal, whether you withdraw from a session in progress or at the close of a session. You must not discontinue the work of a quarter without formal notice. This may result in the assignment of F grades, academic disqualification, and loss of eligibility for readmission to a future quarter.

A student who has been disqualified for academic or disciplinary reasons is generally not eligible for readmission. If you have cancelled your registration, withdrawn, or have been absent for any quarter, you will be required to apply for readmission to any future quarter you wish to attend. The Application for Readmission, which may be obtained from the Office of Admissions and Registrar, must be accompanied by a nontransferable, nonrefundable Readmission Fee of $20 when first submitted. It will not be considered until the fee has been paid. The final filing dates are given in the Calendar in the front of this publication.

Progress Toward the Degree

Declaration and Change of Major Regulations and procedures for declaring the major vary for each college. You may, at any time up to the last quarter of residence, file a petition for a change of major. You must secure approval for this action from the dean or other authorized person in the college or department to which you are transferring.

Work Toward a Degree At the close of each quarter, the courses, units, grades, and grade points earned are added onto your cumulative University record. From this record, you may determine your progress toward a degree. Also at the end of each quarter, a Grade Report which indicates the grade you received for each course you took is issued to you at a time and place designated by the Registrar.

Transcripts of the records—useful and usually necessary in applying to graduate school and for certain types of employment—are available from the Office of Admissions and Registrar. After the last date for final examinations, transcripts of record for registered students must be held for the inclusion of grades for the quarter and, therefore, will not be available for approximately 25 working days. Partial transcripts will not be issued. At times other than the close of the quarter, the normal period required for the processing and issuance of transcripts for both registered and former students is four to five working days. The charge for each transcript of every undergraduate, graduate, or separate summer session record is $2, and $1 for each additional copy of any record requested at the same time. The total amount due must accompany the application.

In working for a degree, you should keep in mind the various levels on which you are to satisfy requirements—University, college or school, and department—as well as the types of requirements you must fulfill: course, unit, grade point, and amount of upper division work. You may receive additional counsel in these matters from your adviser.

College and School Requirements Every college and school has established a program of requirements for the degree, which may be in addition to those of a
field of concentration. These requirements may include: (1) preparatory subject requirements for admission; (2) preparatory college-level courses for your particular field of study—to be completed, if possible, during your early period of residency in the college or school, or in some cases before entrance; (3) breadth requirements, courses outside the field of study, considered essential to a well-rounded curriculum; (4) the credit requirement, which is a total number of units to be completed, with specifications of how these credits are to be distributed; and (5) a minimum scholarship requirement. For detailed information you should obtain a copy of the bulletin of your school or college.

The Major and the Department Every student must select a field of concentration, and pursue a major or curriculum, normally by taking a minimum number of units in one department or school. Occasionally—as, for example, with Business Administration, Optometry, Criminology, and others—the school and the department are synonymous. In some cases—as, for example, the humanities field major in the College of Letters and Science—a major may embrace more than one department.

Declaration of Candidacy You must file an announcement of candidacy for a degree with the study list at the beginning of the quarter in which you expect to complete the work for the degree. The announcement is accepted no earlier than this period. The period for filing announcements ends with the third week of classes. (Announcements filed late are subject to a $3 late fee.) If for any reason you do not meet the requirements for graduation after announcing your candidacy, you must file a new announcement of candidacy in the period for filing in the subsequent quarter when the degree will be awarded.

Residence Requirement for the Bachelor's Degree After 135 units toward the bachelor's degree have been completed, at least 36 of the remaining units must be completed in residence in not less than three quarters in the college or school of the University in which the degree is to be taken. These 36 units must be completed in the quarter in which 135 units are exceeded plus not fewer than two additional quarters. At least two of the final quarters must be consecutive. You should consult the announcement of your college or school for details concerning the senior residence requirement as it pertains to the summer sessions.

Preparation for Graduate Study If you are preparing for study toward higher degrees, you should learn, as early as possible, the entrance and degree requirements of your graduate field, in order to include all prerequisite steps in the undergraduate program.

Two General University Requirements

There are two requirements—beyond those set by the college, school, or department—which all undergraduates registered in the University must satisfy in order to graduate. Subject A and American History and Institutions are considered essential to your education, regardless of your academic or professional objectives.

Subject A All University departments assume that students are proficient in reading and writing English, and understand how to compose an essay on an
academic topic. For this reason, students are asked to present proof of their writing ability (by the means shown below) on entering the University.

Any student who cannot meet the requirement must enroll in the Subject A Department's course "Introduction to Language" during his or her first quarter of residence at the University. In this 2-unit course, which carries a fee of $45, students are required to study University-level texts and write essays based on them. Instruction is also given in grammar and essay organization.

The Undergraduate Admissions Office accepts the following proofs of competence in writing English:
1. A score of 550 or above on the English Composition Test of the College Entrance Examination Board—this test must have been taken before the student enters the University;
2. A score of 3, 4, or 5 on the College Board Advanced Placement Test in English;
3. Completion with a grade of C— or better of a college-level course in English composition taken at another institution and judged acceptable by the Undergraduate Admissions Office.

All entering freshmen and transfer students who are held for the Subject A requirement must pre-enroll in a Subject A course and take the department's diagnostic writing test at the time given in bulletins on pre-enrollment. This test is designed primarily to reveal the writing problems of each individual student. However, the Department also uses it to recommend release from the requirement of anyone who proves competence in writing.

Completion of the Subject A requirement (either by one of the ways listed above or by passing the Subject A course with a grade of C— or better) is a prerequisite to all freshman reading and composition sequences. Credit for taking these courses will not be granted unless the Subject A requirement has first been fulfilled.

American History and Institutions These requirements are based on the principle that an American student enrolled at an American university should have some acquaintance with (1) the history, and (2) the public institutions of his country. These requirements may be met in the following six ways:
1. By passing two examinations, one in each of these subjects. If you wish to take either or both examinations, you should obtain details at the American History and Institutions Office, Room 104, Bldg. T-4.
2. By presenting official evidence of completion of the same two requirements at another college-level institution in California.
3. By completing one quarter of a course in each of the two groups given below (or, on approval of the Supervisor of American History and Institutions and dean of the college or school at Berkeley, any comparable courses offered at another college-level institution, or University Extension):
City and Regional Planning 110; Journalism 140; Philosophy 181; Political Science 33A, 33B, 33C, 113A, 113B.


4. By mixing alternatives 1, 2, or 3 for either requirement. You may choose an examination in either one, or complete a course in either one, or submit evidence of equivalency for either one.

5. By completing the first two quarters of the Experimental College Program dealing with American Studies.

6. The American History part of the requirement can be fulfilled by passing the Advanced Placement Test in American History with a grade of 3, 4, or 5. No Advanced Placement Test exists at this time in American Institutions, so this part of the requirement cannot be fulfilled by this means.

The requirements will be waived for foreign students who, in the course of their registration, have submitted to the Registrar for inspection travel documents certifying that they hold student (F) or exchange visitor (J) visas. Those who wish to verify that the waiver has been granted may call at the Office of the Registrar, 120 Sproul Hall, for confirmation, preferably no earlier than the close of their second quarter of attendance.

All students are advised that fulfillment of these requirements is the responsibility of the individual student, and preferably should be completed by the end of the junior year.

Students wishing to complete the requirements by enrolling in courses should check the American History and Institutions Office prior to enrollment, since the list of acceptable courses (≠3 above) may undergo extensive revision for the 1974-75 academic year.
Graduate study embraces all study for degrees and certificates beyond the bachelor's degree—principally the master's and doctor's degrees—and is administered by the Graduate Division under the policies and regulations established by the Graduate Council of the Berkeley Division, a standing committee of the Academic Senate. Higher degrees fall into two broad categories: (1) *Professional*—degrees awarded by each of the professional colleges and schools on the Berkeley campus in recognition of a candidate's command of a comprehensive body of professional knowledge and his ability to organize and carry out investigation of significant problems in his field. (2) *Academic*—degrees awarded by the academic departments, and also some professional schools, in recognition of a candidate's command of a wide range of related subjects within an academic field, his preparation in one or more foreign languages, and his ability to pursue original research leading to a contribution of significant ideas to his field of study.

These graduate degree programs have been approved by the Graduate Council and the Coordinating Committee on Graduate Affairs. Others may be instituted only with the consent of these bodies. For a list of graduate degrees offered, see page 50.

**Admission to Graduate Study**

Completed applications for admission, as well as all additional documents specified on the application form (including transcripts from each college-level institution previously attended), and a fee of $20°, must be filed with the Graduate Admission/Fellowship Office by the established deadlines.

The final dates for acceptance of applications for admission for the 1975–76 academic year are: fall quarter, February 1; winter quarter, September 1; and spring quarter, December 1. The School of Law admits only for the fall term; the deadline is March 1.

Many departments have established *earlier* final application dates of their own, both with respect to admission and to financial assistance. When this is the case, materials must be in both the department and the Graduate Division by the *departmental* deadline date if the application is to be considered. Many departments also admit students only for the fall quarter of the year. Information on special departmental deadlines and requirements is contained in the application packets.

Under the Master Plan for Higher Education in California, there are limitations on enrollment at each public institution. Consequently each graduate program at Berkeley has a maximum enrollment that may not be exceeded. Almost invariably, this maximum is smaller than the number of persons who are at least *minimally* qualified to enter the program, and selection procedures are designed to admit applicants in accordance with their *relative* merit and promise,

° Fees are subject to change.
for the particular program, among those at least minimally qualified. Therefore the competition for admission is severe, and it is to the applicant’s advantage to make early inquiry about the possibility of study at Berkeley.

Admission Requirements The University requires of the applicant the following: (1) a valid degree from an accredited institution, comparable to the bachelor’s degree offered at Berkeley (occasional exceptions may be made for persons holding a professional baccalaureate and desiring entrance only into a corresponding graduate professional program); (2) sufficient undergraduate training to undertake graduate study in his chosen field; and (3) a satisfactory scholastic average. Since the methods of determining eligibility vary with each program, an extensive evaluation of the university record(s) and the supporting materials of each applicant is necessary.

A satisfactory score on the Graduate Record Examination (administered by the Educational Testing Service), though not required for admission to the Graduate Division in general, is required by some departments and schools on campus. If it is required, the score should be forwarded to the applicant’s proposed school or department and not to the Graduate Admission/Fellowship Office.

In addition to the general University requirements, certain schools or departments may require additional records, such as separate applications, reading lists, examples of original work, or qualifying examinations. Information on undergraduate requirements for a major field and on graduate programs and requirements is available in the school or departmental announcements and bulletins, and in the “Courses and Curricula” section of this catalogue.

Notification of Action on Admission Only a written notice from the Dean of the Graduate Division, not letters from departments or faculty, is valid proof of admission. Admission to graduate study is limited by the number of places available in the various schools, colleges, and departments of the University. Admission committees base recommendations for admission upon careful comparison of applications; thus, there is frequently a considerable but unavoidable delay before final action is taken. Applicants for admission and fellowship consideration will be notified on or about April 1 of the action on their applications. Applicants for admission only will be advised as soon as possible after a decision to admit or to deny admission has been reached. Normally, however, acceptance letters for applicants for admission only will not be issued until after March 1 for the fall quarter, July 1 for the winter quarter, and October 1 for the spring quarter.

Reactivation of Application* An applicant who changes plans and withdraws the application from consideration for a particular quarter will have all of the materials kept on file for a maximum of two years following the first application. One may reapply for any quarter within the two years by notifying the Graduate Admission/Fellowship Office to reactivate the file prior to the application deadline date for that quarter and by providing a current application, if required, together with records of any academic work completed since application was first made. It is not necessary to pay the $20 application fee a second time if reactiva-

* Not to be confused with readmission. Readmission applies to students who have been registered in graduate standing at Berkeley and are seeking to return after an absence. See page 33.
tion is made within the two-year period. For application after the two-year limit, a new application form must be filed (with the $20 fee) and a new set of records and supporting materials must be supplied.†

**Statement of Firm Intent to Register and Failure to Register**  The admission notices of new (includingreactivating) graduate students contain a "Statement of Firm Intent to Register" which must be filled out and returned to the Graduate Admission/Fellowship Office by the date indicated thereon. Only the return of this form to the Graduate Admission Office will reserve the allocated registration place for the successful applicant, not notification to the department, group, or other offices. Applicants wishing to retain a record of the return of their Statement should send it by certified or registered mail. Registration places will not be reserved for successful applicants who do not return the Statement. The Statement should also be returned by successful applicants who do not wish to accept admission, with this indicated so that their place can be reallocated. Students who fail to return the form and fail to register for the quarter in which they are admitted must file for reactivation, as previously described, if they wish to attend any subsequent quarter. They have no priority over other applicants for any subsequent quarter by virtue of their previous admission.

**Foreign Applicants**  In addition to the admission requirements set forth previously, foreign students are expected to have an excellent command of English before beginning studies at Berkeley, since no student is admitted to the University for the purpose of learning English. *Prior to arrival in Berkeley, and as a requirement for admission, applicants whose native language is not English must take the Test of English as a Foreign Language (TOEFL), administered by the Educational Testing Service.* Results must be forwarded to the Graduate Division Office. *After arrival in Berkeley, these students may be required to take the University Examination in English for Foreign Students.*

A special course in English for Foreign Students is normally offered each summer. Interested persons should write for information to the Office of English for Foreign Students, 2241 College Avenue, University of California, Berkeley, California 94720.

**Accommodation of Postdoctoral Fellows and Visiting Scholars.**  A prospective fellow or scholar should communicate with the chairman of the department, school, or research unit with which affiliation is desired to determine whether the facilities required are available and whether eligibility requirements can be met for an honorary appointment. With rare exceptions, visiting scholars must hold the doctoral degree or its equivalent. Visiting scholars may not be students enrolled at or on leave from another institution of higher education nor candidates for a graduate degree.

**Intercampus Exchange Program**  A graduate student registered on any campus of the University may go to another campus of the University as an Intercampus Exchange Graduate student with the approval of the adviser, the chairman of the department in which study is proposed, the Dean of the Graduate Division on the home campus, and the Dean of the Graduate Division on the campus

† Fees and conditions of reactivation are subject to change.
visited. This program will also include those students who take courses on more than one campus of the University in the same quarter.

Application forms for the Intercampus Exchange Program for Graduate Students may be obtained from the Office of the Dean of the Graduate Division on the student’s home campus. To avoid penalties for late filing of the study list, the application form should be completed and filed at least three weeks before the opening of the quarter of enrollment in the program.

It is anticipated that this privilege will be used by graduate students who seek the opportunity for association with certain scholars or with fields of study not available on their home campus, or who seek the use of special facilities and collections. Whenever possible, personal arrangements between faculty members on the two campuses should be made so as to insure that the courses, seminars, or facilities will be available to meet the student’s needs. This privilege will be granted where evidence of serious and high-quality scholarship is available.

Although the Intercampus Exchange Student registers and pays fees on the home campus, such a student has library, infirmary, and other student privileges on the host campus. The exchange student should make arrangements with the Registrar to follow the enrollment procedure of the host campus so that grades obtained in courses taken here will be transferred to the record on the home campus. An exchange student is considered a graduate student in residence on the home campus. The enrollment of the intercampus exchange student is not transferred to the host campus and formal admission to the host graduate school and department is not granted. Unless specifically restricted, holders of fellowships may participate in the Intercampus Exchange Program.

**General Regulations and Procedures**

**Graduate Advisers** Graduate advisers are appointed by the Dean of the Graduate Division from nominations sent to him by each academic department and group and by each professional school. Advisers’ names are announced before the opening of each quarter. The responsibilities of the graduate adviser include: (1) assisting graduate students in selecting a program of study toward a degree, (2) reporting to the Dean of the Graduate Division on the acceptability of upper division and graduate courses completed by a candidate at other institutions, (3) endorsing applications for candidacy for higher degrees and for qualifying examinations, (4) acting on petitions by graduate students, (5) maintaining records of all graduate students enrolled under his jurisdiction, (6) supplying information requested by the Dean of the Graduate Division regarding a student’s work and progress, and (7) assisting the Dean in the enforcement of all regulations applying to graduate study, particularly those relating to admission to graduate courses and maintenance of acceptable scholastic performance. The graduate adviser is the deputy of the Dean of the Graduate Division and the chief representative of the department or school in all matters related to graduate study, and the signature is recognized as expressing their official decisions.

Graduate students also have *individual advisers*, invariably after they have been advanced to candidacy for the doctorate and frequently even in the earlier
stages of their training. These individual advisers may or may not be the same as the official Graduate Adviser who is the Dean's deputy. All graduate students should keep in close touch with their individual advisers and must confer with the official Graduate Adviser at the beginning of each quarter to obtain approval of their program of study (by signature on the Study List).

**Foreign Student Adviser** Foreign students must consult with the Foreign Student Adviser at International House as soon as possible after arrival in Berkeley.

**Registration** Every graduate student in good standing, unless granted withdrawal by the Dean of the Graduate Division, will be required to register with the Registrar of the campus each quarter until the completion of all requirements for the degree. Failure to register or to obtain formal permission to leave the University will constitute presumptive evidence that a student has withdrawn from the Graduate Division. No graduate student may fail to register in any quarter without having first obtained a formal release in the form of a withdrawal, failure to register without such formal release constitutes voluntary withdrawal from the University and precludes readmission. The requirement of full-time continuous registration for graduate students is satisfied by attendance in the three quarters of an academic year. A student is required to be registered or pay the filing fee, whichever is applicable, for the quarter in which the degree is conferred. All holders of non-immigrant visas must be registered for fall, winter, and spring quarters of each academic year unless special permission has been obtained from the Immigration Service to do otherwise. Consult the Foreign Student Adviser for further information.

Consistent with these principles, graduate students must register in any quarter in which they are enrolled in formal courses of instruction, or making any use of University facilities, including access to the faculty, except those uses that are accorded the general public.

If a student's studies or research require absence from the State of California for the quarter, a petition must be filed for this, including a request for reduction of the University Registration Fee, with the Office of the Dean of the Graduate Division, Room 1, California Hall.

**Student Conduct and Discipline** A student enrolling in the University assumes an obligation for conduct compatible with the University's function as an educational institution. Rules concerning student conduct, student organizations, use of University facilities, and related matters are set forth in both University policies and campus regulations, copies of which are available upon request at the Office of Student Activities, 201 Sproul Hall. Particular attention is called to the booklet *University of California Policies Relating to Students and Student Organizations, Use of University Facilities, and Non-Discrimination* and to the Standard of Conduct set forth therein.

**Withdrawal** If a student wishes to withdraw from the University at the end of a quarter, or finds it necessary to discontinue studies before the close of a quarter, he must apply for formal withdrawal. Failure to obtain this release precludes readmission. Withdrawal petitions are available from the Petitions Desk,
Graduate Division, Room 1, California Hall, and are filed with the same office. During the period of absence a graduate student is exempt from all fees and is expected, in turn, to maintain no connections with the University. The student may not use University facilities (except those uses accorded the general public) or place demands on faculty time. Withdrawal requires the endorsement of the student's department, school, or group and the Dean of the Graduate Division.

**Standards of Scholarship and Dismissal for Academic Deficiencies.** Only courses graded A, B, C (with or without plus or minus signs) or P are accepted in satisfaction of degree requirements. Courses graded below C do not yield unit credit toward a higher degree, irrespective of the overall grade-point average. Graduate students must maintain a minimal grade-point average of 3.0 in all course work undertaken in graduate standing in the University of California or its exchange programs and must follow expeditiously the academic or professional program to which they were admitted or later officially transferred. Expeditious pursuit of the degree program implies full-time study unless a lesser program is approved by the Graduate Adviser, successful completion of all course work required by the departmental or group program, passage of the required examinations and other requirements as specified for the program, and advancement to candidacy as specified for the various degree programs.

For a course extending over more than one quarter, where evaluation of the student's performance is deferred until the end of the final quarter, provisional grades of *in progress* (IP) may be assigned in the intervening quarters. The provisional grades are replaced by the final grade if the student completes the full sequence. If the full sequence is not completed, the Berkeley Division of the Academic Senate is authorized to regulate the award of credit.

With the consent of the department involved, graduate students may enroll in courses in the “600-series.” Such courses are evaluated by means of the grades *satisfactory* and *unsatisfactory* (S and U). They prepare students for appropriate master’s or doctoral examinations and do not count toward academic residence or the unit requirements for a higher degree. No credit is allowed for work graded *unsatisfactory.*

Graduate students are subject to dismissal for academic deficiencies at the discretion of the Dean of the Graduate Division under the policies and practices established by the individual faculties of departments, graduate groups, and professional schools and colleges, and under the policies established by the Graduate Council of the Academic Senate. Dismissal for academic deficiencies is normally effected by the Dean on the recommendation of the Graduate Adviser, but the Dean may initiate dismissal after his own review of the record. Dismissal for academic reasons by the Dean may be appealed to the appropriate committee of the Graduate Council of the Academic Senate.

**Readmission.** A student who has withdrawn for one quarter or more must file an Application for Readmission, obtainable from the Office of the Registrar, and must pay a nontransferable, nonrefundable Readmission Fee of twenty dollars ($20). This fee must accompany the Application for Readmission when first

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* For further information on grades and grade points, see page 18.

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submitted or the application will not be reviewed. Approval of readmission is not automatic. A formal review of the student's petition and academic record is made by the Graduate Division and the appropriate college, school, group, or department, and the student is notified whether the petition has been approved or denied.

**California Legal Residence** Students who have not been legal residents of California for more than one year immediately prior to the residence determination date for each quarter in which they propose to attend the University are charged, along with other fees, a nonresident tuition fee for the quarter. The present fee is $500 per quarter. For information pertaining to the establishment of legal residence see page 15 under the heading “Nonresident Tuition Fee” in this catalogue. All inquiries regarding legal residence requirements for tuition purposes should be directed to the Attorney in Residence Matters, 590 University Hall, 2200 University Avenue, University of California, Berkeley, California 94720. Information on waiver of the nonresident tuition fee for graduate students who are nonresidents is given on page 48 of this catalogue.

**Academic Residence** In order to meet the academic residence requirement for higher degrees—not to be confused with state residence, previously defined—every graduate student must enroll in and complete a minimum of 4 units of upper division and/or graduate courses per required quarter of academic residence. Only courses in the 100 or 200 series satisfy this requirement. (Students should also familiarize themselves with the regulations on academic residence for the individual graduate degrees.)

**The Study List and Study-List Limits** Each quarter in which registered the student fills out a study list, entering on it all courses or any other graduate work, including thesis and/or research approved by the graduate adviser, to be undertaken for the quarter.

Courses are classified as lower division (numbered from 1 through 99); upper division (100–199); and graduate (200–299). Lower division courses are not counted as part of a full program of study leading to a higher degree. (For information on courses in the “600-series” see Standard of Scholarship on page 33.)

Teaching assistants and research assistants must normally carry a minimum of 6 units of upper division or graduate work. Fellowship holders, foreign students on nonimmigrant visas, and students subject to selective service regulations must carry a full program of study, the minimum range in such cases being from 8 to 12 units in upper division and/or graduate courses, although cognizance is taken of the amount of individual study being pursued in the form of language preparation, comprehensive and qualifying examination preparation, etc., for the Ph.D. degree. In these cases reduced unit loads are accepted as full programs with the consent of the Graduate Adviser and Dean of the Graduate Division. Formal classification of a student's program as full-time, three-quarter-time, half-time, or quarter-time is determined by the Graduate Adviser and entered on the study
list each quarter. For the convenience of advisers and students a suggested maximum schedule is given below.

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**Changes in the Study List**  Graduate students may file petitions to add, substitute, or drop courses entered on their study lists at any time through the twentieth day of instruction. Discontinuance of a course after this time will normally result in a grade of F. In unusual circumstances, and when approved upon petition to the Dean of the Graduate Division, the penalty of an F grade may not be assessed.

**The Nature of Graduate Instruction**  A graduate course is a highly advanced course in a field of study already intensively presented in the upper division. Graduate courses demand, on the part of both instructor and student, either a capacity for critical analysis or a specialization of research interests not normally appropriate to an undergraduate major. These courses may be conducted in a number of ways: (1) as advanced lecture courses, (2) as seminars in which faculty and students present critical studies of selected problems within the subject field, (3) as independent study or reading courses, or (4) as research projects conducted under faculty supervision. The main purpose of graduate study is to inspire independence and originality of thought in the pursuit of knowledge. The graduate student is expected to achieve mastery of the chosen field through advanced course work and—equally important—through independent study and research. Considerable liberty is accorded in the choice of courses, at the discretion of the Graduate Adviser, as long as minimum requirements for academic residence are met.

Possession of a bachelor's degree does not in itself entitle a student to enroll in a graduate course. These courses assume adequate preparation at the upper division level in the subject field (a minimum of 18 units of upper division work basic to the subject matter of the graduate course; this basic work may be pur-
sued in more than one department). Graduate students are encouraged, therefore, to take any upper division work that will provide them with the background needed for advanced work; they are not confined to graduate courses.

Graduate courses completed before attainment of the bachelor's degree are not acceptable for unit credit toward an advanced degree. Courses in the 300 and 400 series, which are professional in nature, are designed to meet the requirements for the various certificates and are not acceptable for unit credit as part of the program for an academic degree. They may, however, satisfy certain substantive requirements in particular academic programs, such as engagement in teaching activity or particular kinds of research or technical work.

Course Credit by Examination A graduate student in residence may petition to receive a limited amount of course credit toward the degree by passing examinations on material covered in certain courses in lieu of taking those courses. Laboratory courses or graduate seminar or research courses are excluded. The petition is obtainable from the Office of the Registrar. Approval to take such examinations must be given by the Dean of the Graduate Division and by the course instructor, or, where no instructor is designated, by the departmental chairman.

Duplication of Higher Degrees Normally duplication of degrees is not permitted. A student may petition the Dean of the Graduate Division for exception to this policy if the degree desired is in a field of study distinctly different from the field in which the original degree was attained. A professional degree is not regarded as a duplicate of an academic degree.

On the recommendation of the Graduate Adviser, and with the approval of the Dean of the Graduate Division, a student may, however, be permitted to earn a second master's degree in the same subject as that of the first master's (or in a closely allied subject), if enrolled in a doctoral program at Berkeley in that subject (or allied subject), and if that particular doctoral program requires that a master's degree be earned at Berkeley.

Degrees for Members of the Academic Senate A voting member of the Academic Senate may be recommended for a higher degree by a Senate Division of which the recommended person is not a member, provided that all the requirements of that Division have been fulfilled.

No voting member may be recommended for a higher degree by that person's own division unless, prior to the date of final action on the appointment to a rank carrying the voting privilege, the Dean of his Division has certified to the appropriate authority that all the requirements for the degree have been met. Such appointments may be retroactive.

University Extension

Upon recommendation of the Graduate Adviser and with special approval of the Dean of the Graduate Division, a student in a master's program may be permitted to transfer up to six units earned in University Extension concurrent courses toward the unit requirement for the degree. Concurrent courses are those courses taken on the Berkeley campus under the instruction of a regular member of the faculty.
Requirements for the Standard Teaching Credential may be met in part by courses offered in University Extension, as described in the Announcement of the School of Education.

The Master's Degree

Instruction is offered on the Berkeley campus leading to both academic and professional degrees as listed on page 50.

Specific regulations governing the professional master's degrees are set forth in the individual Announcements of the colleges and schools. The present section will deal primarily with the academic master's degree, though the rules and procedures described will be of interest to candidates in all fields.

Residence Requirement A minimum of three quarters of academic residence (as defined earlier under Academic Residence) is required for the master's degree. Specific subject requirements are set by the schools and departments.

Transfer of Credit from Other Institutions Up to 6 quarter units (or 4 semester units) of courses taken at other institutions may be applied toward the degree, upon approval of the Dean of the Graduate Division. These units are allowed if earned in graduate status at an institution of high standing, but they cannot be used to reduce the minimum residence requirement or minimum requirement of graduate-level units. Requests for degree credit for such courses are not considered until a student has completed at least one half of the program for the master's degree and is applying for advancement to candidacy. The student's entire record must indicate superior scholarship.

Pass Grades No more than one-third of the master's program may be fulfilled by courses graded Pass, and then only if approved by the department or group.

Amount and Distribution of Work Students working for academic master's degrees on the Berkeley campus will pursue one of two plans, as determined by the individual department (departments may adopt either or both plans, and will, in the latter case, designate which plan is to be followed by each student):

Plan I requires at least 30 quarter units and a thesis. At least 12 of these units must be in graduate courses (200 series) in the major subject. Course units are not granted for the thesis.

Plan II requires at least 36 quarter units of upper division and graduate courses, followed by a comprehensive final examination administered by the student's department or group. At least 18 of the units must be in graduate courses in the major subject.

Students under both plans are guided by their graduate advisers regarding distribution of course work among the departments. Further requirements are specified by the major department.

Advancement to Candidacy Admission to candidacy for a master's degree is not automatic upon completion of the degree requirements; it requires a formal application to the Dean of the Graduate Division that bears the approval of the student's major department or school and a precise statement of the studies on which the application is based. Application must be made not later than the end
of the second week of instruction of the quarter in which the degree is to be awarded. If a student is to submit a thesis, however, he should consult his adviser about advancement to candidacy as early as possible so that the appropriate committee can be formed.

**The Master's Thesis** Students under Plan I, described above, must submit a thesis in typewritten or printed form (or other form deemed acceptable by the Graduate Council). If typewritten, it must be double spaced on medium weight, 8½“ by 11” paper of good quality, with a minimum left-hand margin of 2”. It must be unbound and without perforations, and the type must be adequate for photographic reproduction. One copy (the original, if typewritten), following approval by the student’s thesis committee, is filed with the Dean of the Graduate Division. Further information regarding the organization and format of the thesis is available from that office.

The thesis constitutes a report, in as brief a form as possible, of results obtained in an original investigation of a problem. While it is understood that the problem in question need be one of only limited scope, the thesis should be comparable in style, organization, and depth of understanding to investigations of greater scope, such as the dissertations of doctoral candidates.

The thesis is submitted to a committee of three members of the faculty appointed by the Dean of the Graduate Division, with one member of the committee being chosen from a department other than that of the candidate’s major subject. The candidate is required to confer with all members of his committee before undertaking the work of a thesis. Since the committee is not appointed until a student is advanced to candidacy, the student, to avoid the possibility of having to make extensive revisions, should not begin his thesis work before advancement. Responsibility for placing the completed thesis in the hands of the committee members rests with the student.

If all three members of the committee approve the thesis, they sign the official title page prepared by the Office of the Dean of the Graduate Division, where a copy of the thesis is filed for later deposit in the University Library. If any member of the committee doubts the acceptability of the thesis, the chairman convenes the committee to discuss it. If the committee then reaches agreement on its acceptability, the thesis is signed and filed as previously indicated. If there is disagreement, the thesis is sent to the Dean of the Graduate Division together with a brief statement of each committee member’s opinion. If the thesis is rejected by all members of the committee, it is sent to the Dean with a statement to that effect by the committee chairman. In all cases of rejection or split vote, the Administrative Committee of the Graduate Council makes the final decision.

**The Doctor's Degree**

Instruction is offered on the Berkeley campus leading to both academic and professional degrees as listed on page 50. Professional degree programs are outlined in the individual Announcements of the colleges and schools offering them. The general procedures given in this section apply primarily to the aca-
ademic doctor's degree, though the information will be of interest to candidates in all fields.

The Doctor of Philosophy degree is not granted at the University of California solely for fulfilling technical requirements such as residence and completion of specified courses. The degree is awarded in recognition of a candidate's knowledge of a broad field of learning and his distinguished accomplishment in that field through an original contribution of significant knowledge and ideas. The candidate’s research must reveal high critical ability and powers of imagination and synthesis.

Residence Requirement  A minimum of two years or six quarters of academic residence (as defined earlier under Academic Residence) is required for the Ph.D. degree. For most students the actual period of time spent obtaining the degree, however, is close to six years.

Program of Study  Programs of study for doctoral degrees are more individualized than those for master's degrees, permitting more specialization within a field or the establishment of connections among fields. Nevertheless, each aspirant must have his program of study approved by the Graduate Adviser of the department or group to which he is admitted or later transferred. As noted earlier, University policy requires continuous residence from entrance until receipt of the degree, unless a formal withdrawal is granted by the Dean of the Graduate Division.

The field of study may be in a single department, except for essential related courses in other departments, in several departments, or in an interdisciplinary group. Once he has chosen his field of study the student should confer with his graduate adviser to select the sequence of courses that will best prepare him for his qualifying examinations and his research work.

Interdisciplinary Groups  The University has established graduate programs in a number of fields that cut across conventional departmental lines yet comprise definite cores of knowledge. These programs are administered by groups of faculty from several related departments and, in certain instances, from several campuses. Students enrolled in these programs can work with any faculty member in the group without having to pursue the particular discipline of the department with which the faculty member is associated. Moreover, this arrangement makes available to group students a range of facilities not ordinarily open to students enrolled in departmental programs. Since groups have no budgets or facilities of their own, however, most applicants, to be accepted by a particular group, must first obtain the sponsorship of one of its faculty members.

Following is a list of Graduate Groups on the Berkeley campus:*

Group in Agricultural Chemistry
Professor John Whitaker, Davis, Chairman
Professor David L. Brink, Graduate Adviser
478 Richmond Field Station, Campus

Group in Ancient History and Archaeology
Professor Erich Gruen, Chairman
3229 Dwinelle Hall

Group in Asian Studies
Professor John B. Starr, Chairman
% Department of Political Science
210 Barrows Hall, Campus

* This is the fall 1973 listing. Chairmen for 1974-75 will be chosen in June.
Group in Biophysics, Bioradiology, and Medical Physics  
Professor Robert M. Glaeser, Chairman Pro-Tem  
363 Donner Laboratory  

Group in Biostatistics  
Professors E. L. Scott and C. L. Chiang, Co-Chairmen  
19 Earl Warren Hall  

Group in Buddhist Studies  
Professor Lewis R. Lancaster, Chairman  
246 Dwinelle Hall  

Group in Comparative Biochemistry  
Professor J. A. Bassham, Chairman  
Laboratory of Chemical Biodynamics  

Group in Comparative Pathology  
Professor Stewart H. Madin, Chairman  
3510 Life Sciences Building  

Group in Endocrinology  
Professor Howard A. Bern, Chairman  
5094 Life Sciences Building  

Group in Environmental Health Sciences  
Professor R. C. Cooper, Chairman  
% School of Public Health  
108 Earl Warren Hall  

Group in Epidemiology  
Professor S. Leonard Syme, Chairman  
% School of Public Health  
19 Earl Warren Hall  

Group in Folklore  
Professor William Bascom, Chairman  
103 Kroeber Hall  

Group in Food Science  
Professor A. I. Morgan, Jr., Chairman  
119 Morgan Hall  

Group in Genetics  
Professor Seymour Fogel, Chairman  
345 Mulford Hall  

Group in Immunology  
Professor Phyllis B. Blair, Chairman  
3573 Life Sciences Building  

Sponsoring Committee for Latin American Studies  
Professor Woodrow W. Borah, Director  
% Department of History  
3229 Dwinelle Hall  

Committee on Medieval Studies  
Professor Thomas Bisson, Chairman  
% Department of History  
2411 Dwinelle Hall  

Group in Microbiology  
Professor H. J. Phaff, Davis, Chairman  
Professor Leon Wofsky, Graduate Adviser  
% Department of Bacteriology and Immunology  
5559 Life Sciences Building  

Group in Neurobiology  
Professor Gerald Westheimer, Graduate Adviser  
% Department of Molecular Biology  
529 Stanley Hall  

Group in Nutrition  
Professor Rosemarie Ostwald, Chairman  
% Department of Nutritional Sciences  
119 Morgan Hall  

Group in Parasitology  
Professor Deane P. Furman, Chairman  
414 Wellman Hall  

Group in Physiological Optics  
Professor Monroe J. Hirsch, Chairman  
109 Minor Hall  

Group in Plant Physiology  
Professor Louis Jacobson, Chairman  
108 Hilgard Hall  

Group in Range Management  
Professor H. F. Heady, Chairman  
% School of Forestry and Conservation  
27 Mulford Hall  

Group in Romance Languages and Literatures  
Professor Gustavo Costa, Chairman  
% Department of Italian  
5125 Dwinelle Hall  

Group in Romance Philology  
Professor Ruggero Stefanini, Chairman  
% Department of Italian  
5125 Dwinelle Hall  

Committee for Certificate in Russian and East European Studies  
Professor Andrew C. Janos, Chairman  
210 Barrows Hall  

Group in Science/Mathematics Education  
Professor Frederick Reif, Chairman  
347 Birge Hall  

Group in Soil Science  
Professor Lawrence Waldron, Chairman  
% Department of Soils and Plant Nutrition  
108 Hilgard Hall  

Group in Wood Science and Technology  
Professor Fred E. Dickinson, Chairman  
478 Richmond Field Station, Campus
To allow the student an approach to his field that, in its breadth, falls between that of the department and the interdisciplinary group, the Graduate Division has encouraged the informal establishment of ad hoc programs leading to the Ph.D. degree. In such programs, the student may prepare a proposal for a course of study under the sponsorship of three faculty members. Final approval of every individual graduate program and admission of each student into such a program must be granted by the Graduate Council. Degree requirements must be completed in accordance with Graduate Council policies and the degree is awarded in a field stipulated by the Council for the individual student when it admitted him. In some cases, e.g., Medieval Studies, a faculty committee is specifically appointed to advise both the student and the interested departments on setting up a program that will best meet both the student’s needs and the departments’ views of the proposed program’s intellectual quality. Advice on procedures for such ad hoc programs is available from the Dean and Associate Deans of the Graduate Division.

Foreign Language Requirement  The requirement serves (1) to make certain that a Ph.D. candidate has the ability to acquire wide knowledge in his field of study, and (2) to enable him to keep up with foreign developments in the field. Each student must fulfill the foreign language requirement for the Ph.D. before advancement to candidacy and preferably before admission to the Qualifying Examinations (see next page), according to the policies current in his department or group. Each graduate program may have somewhat different foreign language requirements, not only with respect to the particular languages required but also with respect to their number. Some graduate programs include the satisfaction of the foreign language requirement for the doctorate in their requirements for admission to doctoral programs. Prospective students are urged to inquire about the foreign language requirement as soon as possible and, if they can, to fulfill it while still in undergraduate status. Although the Graduate Council has granted variances to the general legislation of the Academic Senate for some programs, the overall requirement of knowledge of foreign languages may, in general, be satisfied by one of the following options in accordance with the Academic Senate Regulation 2001, June, 1971:

1. Demonstration of a reading knowledge of two languages by passing an examination in each, set by the department(s) concerned. The department(s) determine(s) whether a dictionary may be used; the length of the passage and the time allotted are subject to regulation by the Graduate Council. For one of these examinations, the student may, subject to the approval of the department(s) concerned, substitute a five-quarter (or equivalent) sequence of courses in that language, of University grade, passed with an average of C or better. The Graduate Council establishes general policies respecting such sequences, including time limits beyond which they no longer carry credit, and authorizes the Dean, upon recommendation of the department(s) concerned, to accept language courses taken at another institution.

2. Demonstration of an exceptionally thorough reading knowledge and an adequate knowledge of the grammatical structure of a single language. Such command is tested under the direction of the Graduate Council.

In the above options the terms “language” and “languages” refer to any language certified to the Graduate Council by the departments concerned.

Students who by virtue of background have a native speaker’s command of a certified language will be considered to have met the language requirement as specified in
2, above. Standards for evidence of background will be established by the Graduate Council.

Noncredit courses for graduate students are offered by the various language departments to prepare students for reading examinations.

**Notice of Intended Candidacy** Notice of his intention to proceed to candidacy for a doctoral degree should be given by the student to his department or group for review and decision by the Graduate Adviser as early as possible in his graduate career, preferably by the end of the second quarter of residence.

**Qualifying Examinations** Before admission to candidacy a student must pass a series of qualifying examinations administered by a committee appointed by the Graduate Council. He must have removed any deficiencies in his training, including satisfactory resolution of any incomplete grades in courses required by the Graduate Adviser for his individual program, must have maintained at least a B average in all course work undertaken in graduate status, and should have fulfilled the language requirement(s).

**Advancement to Candidacy** Application is made on a form furnished by the Graduate Division, no later than the quarter following the one in which the qualifying examinations were passed. The completed form, bearing the endorsement of the student’s department, is filed with the Dean of the Graduate Division, who determines whether all formal requirements have been met. A fee of $25 must be paid when the application is filed. All requirements for the doctoral degree except the dissertation must have been completed before the student may be advanced to candidacy.

**The Candidate’s Degree** A new degree, “Candidate in Philosophy,” which gives formal recognition to a definite stage of progress toward the doctorate, may be awarded to students when they are advanced to candidacy for the Ph.D. degree. The following departments and groups currently offer this degree:

<table>
<thead>
<tr>
<th>Applied Mathematics</th>
<th>English</th>
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<tbody>
<tr>
<td>Anthropology</td>
<td>French</td>
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<tr>
<td>Architecture</td>
<td>Genetics</td>
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<tr>
<td>Astronomy</td>
<td>Geography</td>
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<tr>
<td>Bacteriology</td>
<td>German</td>
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<tr>
<td>Biochemistry</td>
<td>History</td>
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<tr>
<td>Botany</td>
<td>Immunology</td>
</tr>
<tr>
<td>City and Regional Planning</td>
<td>Italian</td>
</tr>
<tr>
<td>Classics</td>
<td>Librarianship</td>
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<tr>
<td>Comparative Literature</td>
<td>Linguistics</td>
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<tr>
<td>Computer Science</td>
<td>Logic and the Methodology of Science</td>
</tr>
<tr>
<td>Economics</td>
<td>Mathematics</td>
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<tr>
<td>Education</td>
<td>Near Eastern Studies</td>
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<tr>
<td>Electrical Engineering</td>
<td>Nutrition</td>
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<tr>
<td>Endocrinology</td>
<td>Oriental Languages</td>
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</table>

**Doctoral Dissertation** The format of the doctoral dissertation is similar to that outlined in the last section for the master’s thesis. Further information is available from the Dean of the Graduate Division.

The dissertation, the product of independent investigation under faculty supervision, must be submitted to the committee in charge (see next page), and must receive both its approval and the approval of the Graduate Council. The dis-
sertation is the most important requirement for the doctoral program; the degree is in no case granted for completion of course work only, no matter how extensive.

The candidate is to work under one of two plans, as adopted by his department or group:

Under Plan A, the Administrative Committee of the Graduate Council appoints a five-man committee which determines whether the candidate has met the requirements for the degree. Three members of the committee, one of whom must be from a department other than that of the student’s major subject, guide the candidate in his research and pass judgment on the merits of his dissertation. The whole committee conducts a final oral examination dealing primarily with the relationship between the dissertation and the general field of study in which the subject of the dissertation lies. Admission to the final examinations may be restricted to the members of the committee, members of the Academic Senate, and guests of equivalent rank from other institutions.

Under Plan B, the Administrative Committee of the Graduate Council appoints a committee of three members, one of whom must be from a department other than that of the student’s major subject, to guide the candidate in his research and judge the merits of his dissertation. This committee may require any necessary conferences for elucidation of the subject treated in the dissertation. After presentation of the dissertation, but before final action is taken upon it, the committee may, if deemed necessary, require the candidate to defend the dissertation in a formal oral examination.

After the dissertation has been approved by the candidate’s committee, two copies (one an original) are filed with the Dean of the Graduate Division on a date specified by that office. Along with the dissertation, an abstract of it in triplicate not to exceed 600 words, with one copy signed by the dissertation chairman, is also filed with the Graduate Division.

All of the procedures and regulations described above, and in the preceding section on master’s degrees, constitute the minimum requirements for the higher degrees, as set by the Graduate Division. Each academic department may adopt additional requirements, as approved by the Dean of the Graduate Division and the Graduate Council, according to the demands of a candidate’s field of study. Programs using Plan A and Plan B are listed below.

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**PLAN A**

<table>
<thead>
<tr>
<th>Anatomy</th>
<th>Italian</th>
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<tr>
<td>Architecture</td>
<td>Logic and the Methodology</td>
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<td>Asian Studies</td>
<td>of Science</td>
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<td>Buddhist Studies</td>
<td>Near Eastern Studies</td>
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<tr>
<td>Comparative Literature</td>
<td>Romance Languages and</td>
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<tr>
<td>Environmental Health Sciences</td>
<td>Literatures</td>
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<td></td>
<td><strong>Emphases</strong>: French, Italian, Spanish</td>
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<tr>
<td></td>
<td>Romance Philology</td>
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<td></td>
<td>Scandinavian Languages and</td>
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<td></td>
<td>Literatures</td>
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**PLAN B**

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<tr>
<th>Agricultural Chemistry</th>
<th>Biochemistry</th>
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<tr>
<td>Agricultural Economics</td>
<td>Biophysics</td>
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<tr>
<td>Ancient History and Archaeology</td>
<td>Biostatistics</td>
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<tr>
<td>Anthropology</td>
<td>Botany</td>
</tr>
<tr>
<td>Applied Mathematics</td>
<td>Business Administration</td>
</tr>
<tr>
<td>Astronomy</td>
<td>Chemical Engineering</td>
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<td>Bacteriology</td>
<td>Chemistry</td>
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<td>City and Regional Planning</td>
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<td></td>
<td><strong>Emphases</strong>: Greek, Latin</td>
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<tr>
<td></td>
<td>Classical Archaeology</td>
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<td></td>
<td>Classics</td>
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<td></td>
<td><strong>Emphases</strong>: Comparative Biochemistry</td>
</tr>
<tr>
<td></td>
<td>Comparative Pathology</td>
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<td>Computer Science</td>
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<td></td>
<td>Demography</td>
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<td></td>
<td>Dramatic Art</td>
</tr>
</tbody>
</table>
Economics  Librarianship  Political Science
Education  Linguistics  Psychology
Endocrinology  Mathematics  Public Policy
Engineering  Medical Physics  Rhetoric
Engineering Science  Microbiology  Science/Mathematics
English  Molecular Biology  Education
Entomology  Music  Slavic Languages and Literatures
Epidemiology  Neurobiology  Sociology
French  Nutrition  South and Southeast Asian Languages and Literature
Genetics  Oriental Languages  Statistics
Geography  Paleontology  Wildland Resource Science
Geology  Parasitology  Wood Science and Technology
Geophysics  Philosophy
German
History
History of Art
Immunology  Physiology
Latin-American Studies  Plant Pathology
Liberal Studies  Plant Physiology

Facilities and Services

**Foreign Language Training**  When space is available, University graduate students and faculty may facilitate their research and overseas field work by enrolling in courses for oral proficiency training in any of the languages taught at the Defense Language Institute of the Presidio of Monterey. Application forms may be obtained from the Secretary, Language Training Advisory Committee, Merrill College, University of California, Santa Cruz, California 95064.

**Stanford-California Exchange Program**  Graduate students with superior academic records may participate in the Stanford-California Exchange program when it is deemed desirable for them to take a limited amount of work in courses offered at Stanford and not available at Berkeley. Participants in this program register and pay the applicable fees at Berkeley and are exempt from tuition and fees at Stanford. The same privilege is accorded to Stanford students who wish to take courses at Berkeley. Further information and application forms may be obtained from the Petitions Desk, Graduate Division, Room 1, California Hall.

**Graduate Theological Union**  The Graduate Theological Union in Berkeley offers graduate programs in religion that consist of Union courses as well as courses offered in the Graduate Division at Berkeley. Examinations, the dissertation, and the general scope of the program are under the direction of faculty members representing both the University and the Graduate Theological Union. All applicants to this program must be approved by the Dean of the Graduate Division. A formal application must be submitted by the established deadline along with the required supporting materials. Initial information about the program, a catalogue, and application forms should be obtained through the office of the Graduate Theological Union, 2465 LeConte Avenue, Berkeley, California 94709.

**Joint Doctoral Programs**  *Immunology*—An intercampus joint degree program has been established between the Berkeley and San Francisco campuses of the University of California leading to the Ph.D. degree in Immunology. This pro-
gram does not replace the existing independent program on the Berkeley campus but is in addition to it, and is arranged to allow students to pursue study, on either campus, representing varied interests in immunology. Admission to the program is obtained by application to the home campus participating in the joint program. The home campus is that on which the student expects to do research for the dissertation. Near Eastern Religions—a program leading to the Ph.D. degree has been established which will be conducted jointly by the Berkeley campus and the Graduate Theological Union. Applicants should make application both to the Graduate Admission/Fellowship Office on the Berkeley campus and to the Graduate Theological Union.

Joint Doctoral Programs Special Education—A joint doctoral program in special education leading to either the Ph.D. degree or the Ed.D. degree is offered by the University at Berkeley and California State University: San Francisco. The program is interdisciplinary, including clinical experience as well as preparation in depth in the behavioral sciences and in statistics and research methods. For application material and additional information, write to: Dean, School of Education, University of California, Berkeley, California 94720, or to the Department of Education, California State University: San Francisco, 1600 Holloway Avenue, San Francisco, California 94132. Genetics—A joint doctoral program in genetics leading to the Ph.D. degree is offered by the University at Berkeley and California State University: San Diego. For application material and additional information, write to: Professor James W. Fristrom, Department of Genetics, 345 Mulford Hall, University of California, Berkeley, California 94720.

Concurrent Degree Programs Concurrent degree programs have been established in the disciplines listed below. Concurrent programs have the advantage of allowing the student to acquire the two degrees in four years rather than the five years normally required if the courses of instruction are taken in sequence. The aim of these programs is to provide an integrated curriculum of greater breadth between the two disciplines. Inquiries should be directed to the departments or schools involved.

- Business Administration, M.B.A.—Law, J.D. (Berkeley)
- Business Administration, M.B.A.—Law, J.D. (Davis)
- City and Regional Planning, M.C.P.—Law, J.D.
- City and Regional Planning, M.C.P.—Public Health, M.P.H.
- Criminology, M.Crim.—Law, J.D.
- Economics, M.A.—Law, J.D.
- Librarianship, M.L.S.—Law, J.D.
- Public Health, M.P.H.—M.D. (San Francisco)
- Public Policy, M.P.P.—Law, J.D.
- Social Welfare, M.S.W.—Law, J.D.

Study Abroad for Graduate Students

Graduate students who have been admitted for study toward a higher degree may, under certain conditions, be granted permission to study abroad. Such study may consist of independent thesis study or participation in University-
sponsored programs. An applicant must have completed at least one year in residence before departure for study abroad, and must demonstrate language proficiency, where required.

Graduate students are eligible to apply to all of the study centers under the Education Abroad Program. A student must obtain the approval of both his department and the Dean of the Graduate Division.

A summer program in Ghana at the Institute of African Studies is also open to graduate students. Intensive language study is offered in Arabic at Cairo, in Japanese at Tokyo, and in Mandarin Chinese at Taipei.

*Internship/Study Opportunities in Professional Schools Program in India*

The Professional Schools at Berkeley conduct a program in New Delhi. Students earn credit for internship work in local government agencies appropriate to their professional interest, and enroll in an Indian University.

For additional information on all the above programs, write to: Office of International Education, 2538 Channing Way, Building D. Room 104-A, University of California, Berkeley, California 94720.

**Financial Aid and Employment Opportunities for Graduate Students**

Fellowships and graduate scholarships are offered on the Berkeley campus. Some are restricted to beginning graduate students, others to advanced graduate students; some are restricted to specific fields of study, others are open to all students by competition. Provision is made also for a number of traveling fellowships.

Some funds for these awards are made available from endowments held in trust by the University and given by interested friends and alumni; others are made available from annual donations from educational foundations, industry, government, and individual benefactors.

*Information* Information on awards available each year is issued early in the fall. Requests for information should be addressed to the Graduate Admission/Fellowship Office, Room 1, California Hall, University of California, Berkeley, California 94720.

*Application Procedure* The fellowship application deadline for the 1975–76 competition is December 1, 1974. Since the date is subject to change, a student should write for information in the late summer or early fall of the year preceding his proposed enrollment at Berkeley.

Students who will be enrolling as new graduate students in a fall quarter may apply for admission and for consideration for a fellowship or graduate scholarship by completing a combined application for Admission and Fellowship* and filing it by the deadline set for receipt of fellowship applications.

*Newly entering foreign students,* however, fill out a separate application for admission, not the combined form. Since the number of fellowship and graduate scholarship awards available to them is extremely limited, the following procedure has been adopted: as the applications for admission of new foreign grad-

*Applications are not sent by airmail unless the applicant forwards in advance sufficient postage for 4 ounces of airmail postage. International postal coupons may be used for this purpose.*
uate applicants are reviewed, departments may recommend to the Fellowship Committee that individuals of high academic distinction be considered for awards. This will be done entirely by departmental recommendation, not by the applicant's special request. Those who do receive fellowship awards will be notified by the Graduate Admission/Fellowship Office on or about April 1. Foreign students not receiving these awards will simply be notified of their admission or denial of admission when action has been taken on their applications, without reference to the April 1 date. They should not assume that admission carries any assurance of financial support or remission of fees.

Continuing or returning graduate students at Berkeley in a fall quarter may obtain necessary fellowship application material from the Graduate Admission/Fellowship Office, Room 1, California Hall. These applications and supporting materials must be filed with the department or Graduate Group by the date established for new student applications for the year in question.

All fellowship applicants are required to simultaneously file the Office of Financial Aid's application form, available from that office, located on the second floor of Sproul Hall, in addition to the fellowship application itself. Although the deadline for receipt of the Office of Financial Aid's application is January 15, 1975, fellowship applicants are urged to submit their applications to the Office of Financial Aid as close to the December 1 fellowship application deadline as possible.

Applications for all the fellowship and graduate scholarship award programs mentioned here and on the following page are considered only once a year, and are for the academic year beginning with the fall quarter and extending through the winter and spring quarters. None of the awards is made in mid-year.

**Announcement of Awards** Awards are announced on or about April 1, and must be accepted or refused, in writing, by April 15. The acceptance of a fellowship or graduate scholarship carries with it the presumption that the incumbent will devote full time to graduate study and research at the University of California. Institutions which are members of the Council of Graduate Schools in the United States or the Canadian Association of Graduate Schools require that anyone who resigns an accepted appointment after April 15 must, in order to become eligible to fill a vacancy in a member institution, receive consent to do so from the university that first appointed him.

**Criteria of Appointment** The purpose of graduate appointments is to provide able and productive scholars for the future. Awards are thus made as a mark of honor, primarily on the basis of outstanding scholastic achievement and promise and, secondly, on the individual student's financial need. The applicant's academic record, evidence of his ability in research or of some other creative accomplishment, his intellectual capacity, and his general promise, are all strongly considered.

Supplementation of a fellowship by employment or any other means is possible only by the express consent of the Dean of the Graduate Division, and the amount of supplementation is strictly limited. Persons supplementing fellowships without such approval may face loss of the fellowship and a requirement to repay the fellowship funds disbursed to them.
**Honorary Traveling Fellowships**  Honorary traveling fellowships may be awarded to distinguished graduate students in any department. Such awards do not carry any stipend, but entitle the holder to official credentials from the University which may be of assistance in pursuit of studies and special inquiries in other states and foreign lands. Applications for honorary traveling fellowships must be received by the same date as for other fellowships, December 1.

**National Defense Education Act Fellowships**  A number of National Defense Foreign Language Graduate Fellowships may be available under Title VI of the National Defense Education Act in certain designated modern foreign languages. Students who apply through the regular University fellowship competition will be considered for these awards without making further application.

**Waiver of the Nonresident Tuition Fee**  A very limited number of waivers of the nonresident tuition fee is available each academic year. These are awarded to graduate students with distinguished academic records or to teaching assistants, by departmental recommendation, until departmental waiver quotas are filled. Applicants must be enrolled full-time in a program of study leading to a higher degree and cannot be the recipients of a fellowship, scholarship, grant-in-aid, or other award from a foreign government, or from any other source that would make them ineligible for the waiver privilege. Applications can be obtained from the Graduate Admission/Fellowship Office and must be returned to that office on or before June 1. Awards are usually made in late summer, and applicants are then notified of the action on their requests. There is no waiver privilege for summer session registrants since the nonresident tuition fee is not assessed during the summer. For information regarding the establishment of legal residence in the state of California, see page 15 of this catalogue under the heading "Nonresident Tuition Fee."

There will also be a limited number of Earle C. Anthony Tuition Scholarships covering the nonresident tuition fee open to students who plan to study in the physical and biological sciences, in mathematics, or in engineering.

**Graduate Minority Program**  The primary purpose of this program is to provide financial assistance to minority students who are United States citizens, principally Blacks, Chicanos, and Native Americans (American Indians) who cannot finance their education by other means. The amount of assistance which can be provided is determined by evaluation of academic promise, financial need, and availability of funds. Applicants for aid from the Graduate Minority Program (GMP) are of course eligible to apply for financial assistance from other sources and are urged to do so.

Applications are available for new graduate students in the Graduate Division Admission/Fellowship packet; and in the Graduate Minority Program office for other students. The deadline for filing is December 1.

All Graduate Minority Program applicants are required to fill out a Financial Aid application form in addition to the Graduate Minority Program application. The Financial Aid application is available from: Office of Financial Aid, 211 Sproul Hall, and should be submitted to that office by the Graduate Minority Program deadline of December 1, if possible, and in any case no later than January 15, the deadline set by the Financial Aid Office.
Teaching and Research Positions Salary figures for all positions mentioned in the following sections are subject to United States income tax deductions. Figures given are gross, not net, and do not reflect deductions. Information about salary payment schedules should be obtained when an appointment is offered, since payment for work performed is later than dates when registration fees are due. Appointments carry no guarantee of waiver of the nonresident tuition fee or any other fees. Appointments are for a period of from one to three academic quarters. Reappointment may be recommended. Employment in the summer sessions may be additional and, in some titles, may be full-time. For teaching assistants and teaching fellows, payment is in nine equal installments (three installments per quarter). Registered graduate students may not be employed by the University in any capacity at more than half-time without the express consent of the Dean of the Graduate Division. Registered graduate students employed half-time by the University are nevertheless considered full-time students if they are taking a full academic load; i.e., registered for at least six units of upper division and/or graduate work.

Teaching Assistantships Many departments make teaching assistantships available to outstanding graduate students, providing them a salary of $444 per month. Appointments are for half-time service. The teaching assistant must be a registered full-time student. Chosen for scholarly achievement and promise as a teacher, he serves his apprenticeship under active supervision of the regular faculty. In some departments, students working for the Ph.D. degree are required to complete a specified minimum period of teaching as a part of their degree program. Application is made directly to the chairman of the department in which the student wishes to teach.

Research Assistantships Qualified registered full-time graduate students may seek positions as research assistants in the departments, centers, and institutes of the University. The stipend is $353 per month for a half-time appointment. The duration and extent of such employment is variable. Application is made directly to the department, center, or institute.

Teaching Fellowships An appointee must be a registered full-time student who has been advanced to candidacy for the doctorate, or who has otherwise achieved appropriate professional maturity. He is chosen for competence to conduct the entire instruction of a group of students in a lower division course, under general supervision of a regular faculty member. The stipend is $530 per month for a half-time annual appointment. Application is made to the individual departmental chairman.

Associateships The title "Associate" is assigned to teachers employed temporarily and not under consideration for appointment as Instructor or Professor. Services may be either full- or part-time. Associates are employed to give independent instruction in lower division courses. They may or may not be registered graduate students or candidates for degrees at this University. They must possess a master's degree or equivalent training and have had at least one year of teaching experience (including that of a teaching fellowship or assistantship) in or outside of the University. Registered students, who are limited to half-time ser-
vice, are in a monthly salary range of from $456 to $570. Application is made to the individual departmental chairman.

**GRADUATE DEGREES OFFERED ON THE BERKELEY CAMPUS**

Academic degrees are the M.A., M.S., M.F.A., and Ph.D. All others are professional degrees. The J.D. in Law is the basic law degree (formerly the LL.B.). It is a graduate degree and application must be made both to the Graduate Division and to the School of Law.

Applicants should specify both general field and emphasis, if any.

† Agricultural Chemistry, Ph.D.
Agricultural Economics, M.S., Ph.D.
Anatomy, M.A., Ph.D.
† Ancient History and Archaeology, M.A., Ph.D.
Anthropology, M.A., Ph.D.
Applied Mathematics, Ph.D.
Architecture, M.Arch., Ph.D.
Art, M.A., M.A.T., Ph.D.
† Asian Studies, M.A., Ph.D.
M.A. program emphases:
East Asian, Southeast Asian, South Asian
Astronomy, M.A., Ph.D.

† Bacteriology, M.A., Ph.D.
Biochemistry, M.A., Ph.D.
† Biophysics, M.A., Ph.D.
† Bioremediology, M.B., Ph.D.
† Biostatistics, M.A., Ph.D.
Botany, M.A., Ph.D.
† Buddhist Studies, Ph.D.
Business Administration, M.B.A., M.S., Ph.D.
Chemical Engineering, M.S., Ph.D.
Chemistry, M.S., Ph.D.
City and Regional Planning, M.C.P., Ph.D.
Classical Archaeology, M.A., Ph.D.
Classics, M.A., Ph.D.
Ph.D. program emphases:
Greek, Latin
† Comparative Biochemistry, M.A., Ph.D.
Comparative Literature, M.A., Ph.D.
† Comparative Pathology, M.S., Ph.D.
Computer Science, M.A., Ph.D.
Criminology, M.Crim., D.Crim.
Demography, M.A., Ph.D.
Design, M.A.
Dramatic Art, M.A., Ph.D.
Economics, M.A., Ph.D.
Education, M.A., M.A.T., Ph.D., Ed.D.
† Endocrinology, M.A., Ph.D.
Engineering Science, M.S., Ph.D.
Emphases for Engineering and Engineering Science
Civil Engineering
Electrical Engineering and Computer Sciences
Industrial Engineering and Operations Research
Materials Science and Engineering
Mechanical Engineering
Naval Architecture
Nuclear Engineering
English, M.A., Ph.D.
Entomology, M.S., Ph.D.
† Environmental Health Sciences, M.S., Ph.D.
Environmental Planning, Ph.D.
† Epidemiology, M.S., Ph.D.
† Folklore, M.A.
† Food Science, M.S.
Forestry, M.F.
French, M.A., Ph.D.
† Genetics, M.S., Ph.D.
Geography, M.A., Ph.D.
Geology, M.A., M.S., Ph.D.
Geophysics, M.A., Ph.D.
German, M.A., Ph.D.
Greek, M.A.
History, M.A., Ph.D.
History of Art, M.A., Ph.D.
† Immunology, M.A., Ph.D.
Italian, M.A., Ph.D.
Journalism, M.J.
Landscape Architecture, M.I.A.
Latin, M.A.
† Latin-American Studies, Ph.D.
Law, J.D., LL.M., J.S.D.
† Law and Society, M.A.
Librarianship, M.L.S., Ph.D., D.L.
Linguistics, M.A., Ph.D.
† Logic and the Methodology of Science, Ph.D.
Mathematics, M.A., Ph.D.
† Medical Physics, Ph.D.
† Microbiology, M.A., Ph.D.
Molecular Biology, M.A., Ph.D.
Music, M.A., Ph.D.
Near Eastern Studies, M.A., Ph.D.
Neurobiology, M.A., Ph.D.
† Nutrition, M.S., Ph.D.
Oriental Languages, M.A., Ph.D.
Paleontology, M.A., Ph.D.
† Parasitology, M.S., Ph.D.
Philosophy, M.A., Ph.D.
Physical Education, M.A.
Physics, M.A., Ph.D.
† Physiological Optics, M.S., Ph.D.
Physiology, M.A., Ph.D.
Plant Pathology, M.S., Ph.D.
† Plant Physiology, M.S., Ph.D.
Political Science, M.A., Ph.D.
Psychology, M.A., Ph.D.
Public Health, M.P.H., Dr.P.H.
Public Policy, M.P.P., Ph.D.
† Range Management, M.S.
Rhetoric, M.A., Ph.D.
† Romance Languages and Literatures, Ph.D.
Emphases:
French, Italian, Spanish
† Romance Philology, Ph.D.
Scandinavian Languages and Literatures, M.A., Ph.D.
† Science/Mathematics Education, Ph.D.
Slavic Languages and Literatures, M.A., Ph.D.
Social Welfare, M.S.W., D.S.W.
Sociology, M.A., Ph.D.
† Soil Science, M.S., Ph.D.
South and Southeast Asian Languages and Literatures, M.A., Ph.D.
M.A. program emphases:
Sanskrit, Modern Indo-Aryan: Hindi and Urdu
South Asian Civilization
Ph.D. program emphases:
Sanskrit, Modern Indo-Aryan: Hindi and Urdu
Spanish, M.A.
Statistics, M.A., Ph.D.
Wildland Resource Science, M.S., Ph.D.
† Wood Science and Technology, M.S., Ph.D.
Zoology, M.A., Ph.D.

† Indicates established interdisciplinary group or field.
† Students are not admitted to work for the M.A. degree, although it may be awarded to students pursuing work toward the Ph.D. degree after fulfillment of the appropriate requirements.
Certificate in Russian and East European Studies  Students who have had substantial training in the Russian and East European Area in at least two departments and have had 16 quarter units (or equivalent knowledge) of an East European language can, by taking a required number of additional courses in the area, obtain a Certificate in Russian and East European Studies. The certificate course requirements can be fulfilled either as part of a program leading to a higher degree in the social sciences or humanities or after receipt of such a degree.

Certificates of Completion of Graduate Curricula in the School of Librarianship  Three certificate programs have been established which are designed to meet the need for advanced studies beyond the first professional degree (M.L.S.) and short of the doctoral degrees (Ph.D., D.L.S.). The programs will be in the following fields: Bibliography; Library Automation and Information Science; and Library Management. Inquiries should be directed to the School of Librarianship.

Interdisciplinary Groups  See information on page 39.

Master of Arts in Teaching  The degree of Master of Arts in Teaching is offered by the School of Education jointly with the Departments of Comparative Literature, English, French, and German. At the present time, it is limited to the four academic fields of study named above. Candidates must satisfy all requirements to be certified to teach in the State of California in addition to completing academic training in one of the four subject fields. Inquiries should be directed to the appropriate academic department and to the School of Education.

Medieval Studies  Medieval Studies at Berkeley are currently undertaken in a joint-degree program designed to preserve the established standards of training in a major subject, while broadening the student's experience in other aspects of the field. The degree granted in recognition of this extra achievement is the Ph.D. with a joint designation, for example "Ph.D. in English and Medieval Studies." Each student is expected to fulfill the Ph.D. requirements of the major department, which administers the program of study. In addition, each student pursues seminar work in two outside departments, one of which is History (unless that is the department of the major). The program includes a special examination in Latin, consisting of representative passages from medieval authors. Interested students should apply to the individual department in which they would do their major work.

Tropical Biogeography  Registered graduate students interested in doing field research in the tropics may be assisted by the Associates in Tropical Biogeography who among other objectives have that of serving as an advisory committee to the Dean of the Graduate Division.

Teaching Credentials  Work leading to the Standard Teaching Credential is given on the Berkeley campus. For details, please consult the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION.
Services and Facilities

The Berkeley campus has a vast range of facilities and services for your use. This section of the catalogue offers a general outline of campus services, student organizations and activities, fees and expenses, financial aids, and housing. You may obtain more extensive information by writing directly to the appropriate office for the information desired. Instructions for obtaining information are also included with admissions materials you receive prior to your arrival on the Berkeley campus.

Services to Students

Student Health Service  Located in Cowell Memorial Hospital in the eastern area of the campus, the Student Health Service is financed by a portion of your registration fee. This service is offered to conserve your time for classwork and studies by preventing and treating acute illnesses.

When you pay the full registration fee, you are eligible for health service from the first day of the quarter in which you register to the last day of the quarter, or to the date of official withdrawal if you withdraw prior to the end of a quarter or semester. The non-registered student may be eligible for care at the Health Service during the summer months on a fee-for-service basis, provided he/she has been a fully registered student the previous quarter.

With certain exceptions, the Health Service does not provide continuing treatment or surgery for chronic physical defects or illnesses present at the time of entrance to the University; for injury or illness under treatment elsewhere; or for conditions where medical or surgical treatment is not immediately necessary and may be postponed to avoid interruption of classwork. A charge is made for all dental services.

Student Health Insurance may be provided for students not already insured. Since rates and benefits vary each year, we advise you to continue any insurance you have and to check with the Student Assistance office of the Student Health Service for the most recent information.

Students injured in the course of employment may be treated by the staff at Cowell Hospital or by a physician recommended under the terms of the employer's workmen's compensation insurance. The Student Health Service program does not cover the expenses resulting from injury in the course of employment or when it is the result of liability or negligence on the part of someone else.

Treatment at the Health Service for injuries sustained in which someone other than the student is determined to be responsible is not a Health Service benefit under the registration fees. Students obtaining such care will be required to assign financial remuneration for medical expenses to Cowell Hospital to cover the cost of care received at the Health Service.

Optometry Clinic  Complete emergency and routine vision services are provided in the Optometry Clinic of the School of Optometry for students, faculty,
University employees, and the general public to the extent possible. These services are a part of the teaching program in the School of Optometry and are not included as a part of the Health Service.

**Counseling Center** As a regularly enrolled student, you may make use of the services of a professionally qualified staff member to talk at length about your scholastic performance, choice of vocation, or personal adjustment. You may request help in assessing interests and aptitudes, deciding on a major, or exploring long-range career opportunities. Group counseling is also available. Psychological and aptitude testing are provided as part of the counseling process, as well as the use of an extensive library of reference materials on occupations, professions, and career opportunities. All communications between students and counselors are treated confidentially.

The Center offers special testing when required for admission to graduate or undergraduate programs. It also maintains directories and catalogues of colleges, professional and technical schools, as well as lists of scholarships, fellowships, and loans. You may use these reference materials even if not seeking counseling service.

Further inquiry or appointments may be made at the Counseling Center, Temporary Building 5, just north of the Campanile Esplanade.

**Student Learning Center** Located in Building T-8, the Student Learning Center has a variety of services coordinated to help students improve their academic skills. The Center is open to all UCB students on a first-come, first-served basis (M–Th, 8–6; F, 8–5; S, 10–4).

Learning specialists offer individual diagnosis and counseling in reading, writing, course exam preparation, and study skills. Group sessions are regularly scheduled on these topics as well as special lectures on how to prepare for the LSAT, GRE, and other professional school exams.

Our Library-Laboratory contains self-help materials in reading and study skills and various academic subjects. It is equipped with modern, electronic reading machines and tape-recorded tutoring devices.

The Tutorial Service provides individual tutoring and group seminars in most UCB course subjects—priority, however is given to E.O.P. students. Further inquiry or appointments may be made by calling 642-7332.

**Office of the Ombudsman** The Ombudsman assists students and academic personnel with problems which seem insoluble by the usual procedures and agencies. If you have reached a procedural impasse or feel you have been treated unfairly in a matter affecting your academic status, there are two ombudspersons to try to help you effect a satisfactory solution. They are tenured faculty members who investigate the circumstances of complaints and make recommendations for their resolution.

The Ombudsman Committee also makes general recommendations for changes of the policies that produce unworkable or unfair regulations. Located in 328 Stephens Hall, they may also be reached by telephone at 642-5754.

**Office of Student Activities** Located at 201 Sproul Hall, this office works closely with students and staff in their initiation, planning, and implementation
of activities, programs and events to meet the desires and needs of students and the University community. Participation in student activities can assist in the development of leadership ability, responsibility, and personal growth and can give opportunities to develop close friendships and to establish open communication on a large campus. Sponsored groups include honor societies, service organizations, sororities, fraternities, Campus Women's Forum, a health information program at Haste Street House, and Friendship International. Assistance is given in registering student groups for their use of facilities, in dissemination of information regarding campus rules and regulations, and in administering funding for musical activities (i.e. Marching Band, Jazz Ensembles, Choral division).

**Physically Disabled Students Program** Located at 2532 Durant, #2, Berkeley, telephone 642-0518, this office offers services to students with diverse disabilities, e.g., blind, quadriplegics, cerebral palsied, etc., either permanent or temporary. These services include assistance in locating housing, in pre-enrollment, orientation to campus and community, supplying keys to elevators and to study rooms, locating readers and tutorial help, and in hiring and training attendants.

**Fraternities and Sororities** Membership in a fraternity or sorority is by invitation after a period of “rushing.” If you are interested, apply through the Interfraternity Council for men, or the College Panhellenic Association for women, both located in the Office of Student Activities, 201 Sproul Hall. This office will supply general information regarding program and costs.

**Office of Student Advising and Assistance (SAA)** This office, located in 400 Eshleman Hall, has two basic functions. First, the staff provides specialized counseling for students who enter the Berkeley campus under the Educational Opportunity Program. Counselors are available to assist EOP students on a whole range of matters which might influence their success as students. The counselors also make referrals to specialized services and resources. Advising also is provided for EOP students who wish to enter a graduate or professional school.

Second, the staff provides advising for students hoping to enter various graduate and professional schools. Students in a pre-professional status such as the pre-dental, pre-legal, pre-medical, pre-nursing, or pre-pharmacy career fields, find the office equipped to give comprehensive counseling in these areas, as well as assistance in obtaining the important letters of recommendation to the schools of their choice.

Students wishing to enter a professional school on the Berkeley campus should consult the Announcement of the appropriate school. Students hoping to enter a number of professional schools not located on the Berkeley campus are encouraged to consult an adviser in SAA. SAA provides pre-professional advising for fields which do not require a specific major, e.g., law, medicine. Students hoping to enter one of these fields take the courses required by the professional
schools in addition to satisfying the requirements of the college or school in which they are enrolled at Berkeley.

The various advisers in these fields assist and advise the several undergraduate pre-professional organizations, such as the Pre-Medical, Pre-Legal, Pre-Dental Societies, in arranging programs and speakers.

**Student Resources and Information Center** Located in 102 Sproul Hall, this center provides easy and informal access for students seeking information related to their status as members of the University community. Broad, general counseling is also available, and referral for more specialized assistance is made when indicated. The Center is logically the first point of contact for a student unfamiliar with or having problems with the requirements and organization of the University. In addition to its full time staff, two attorneys are available to provide legal advice and referral for representation, as well as two students for general information counseling on a student-to-student basis.

Of particular interest to new students are the Center's orientations programs during the summer and at the start of each quarter. Every effort is made to provide on-the-spot information and orientation to those entering the University for the first time to insure a quick and easy adjustment. During the pre-enrollment period and the first few weeks of the quarter, both new and continuing students make heavy use of assistance provided by the Center at a table located at Sather Gate and in the Help Center located in the Student Union. These are staffed by students from the Orientations Program with assistance and support from the Center staff.

Among other services provided are: the Student Handbook, covering general information about student life at the University; Selective Service information and advice for those men still affected; emergency information concerning students; the handling of student complaints of a non-academic nature; and the maintenance of informal student records.

The Student Resources and Information Center is thus a focal point for student information, closely coordinated with the other units, departments, and colleges of the University. By utilizing both professional and student staff, the Center seeks to provide maximum service to students and the University community.

**Student Employment Services (A service for UCB students).** If you or your spouse seek part-time, temporary, odd-job or vacation employment, apply to Student Employment Services, 111 Wheeler Hall. You should arrange your class schedule before applying. To be served, you must identify yourself by current registration card or a letter of admission to the University. The Student Employment staff provides assistance in finding jobs to meet financial obligations and helps students determine those areas of work for which they are qualified. The University advises that you avoid part-time employment in your first quarter at Berkeley. Employment cannot be arranged by correspondence.

School-year and vacation jobs for students cover a wide range, skilled and unskilled. These include services, technical, clerical, sales, domestic, manual,
and many other kinds of employment. Some employers offer room and board in lieu of salaries. Work Study Program job opportunities, designed for needy students, include a variety of opportunities, both off and on campus. Before applying to the Student Employment Services for these Work-Study Program opportunities, certification of financial eligibility must be obtained from the Office of Financial Aid, 211 Sproul Hall.

**Office of Placement Services** Located in Building T-6, this office is composed of two units. The unit on the upper floor gives career planning and placement services to degree candidates and alumni seeking positions in business, industry, government, and social services. Seniors and graduate students should register with this unit no later than their final year of study. Annually, the office arranges on-campus interviews with employer representatives who visit the campus each fall and spring. A variety of other types of career employment information and assistance is available to prospective graduates and alumni, year round.

The Educational Careers unit, on the lower floor, serves eligible UCB students and alumni. This unit deals with teaching, administrative, supervisory, and education related research positions in universities, colleges, community colleges, high schools, and elementary schools, in this country and abroad. Candidates are registered and information assembled into placement files concerning background, training, and professional experience in order to match candidates with available positions. Placement advisers counsel candidates, communicate with employers, arrange interviews, and recommend qualified candidates to employers. The University reserves the right to recommend only those persons who are considered to be fully qualified.

The Placement Services Office supports and subscribes to all equal opportunity employment practices, both State and Federal.

**Living Accommodations** There is a wide selection of housing at the Berkeley campus. Admission to this campus does not guarantee housing reservations. You should acquaint yourself, well in advance of your enrollment, with the various living arrangements. Undergraduates check the appropriate section on the Application for Admission to receive descriptive material; graduates return the request card in the Admissions Packet to receive descriptive material. Housing Office also maintains rental listings, but you must visit the office after you arrive on campus to make use of files, which change daily.

More than 3,000 men and women live in University residence halls. An equal number live in fraternities, sororities, cooperatives, and boarding houses. There are apartments for 1,022 in University Married Student Housing. Early application to living groups is recommended. The remaining students live in rooms and apartments in the community. Students consider their individual wishes and needs and select their own accommodations.

**Financial Aid** The Office of Financial Aid is located at 211 Sproul Hall. By visiting or writing that office you may obtain information about the various types of student aid offered. Undergraduate students may apply to the Financial Aid Office for undergraduate scholarships (including Regents and Alumni Scholarships with or without stipend) and Supplemental Educational Oppor-
tunity Grants (SEOG). Both undergraduate and graduate students may apply for
University Grants-in-Aid, Improved Access Grants, Educational Fee Grants,
National Direct Student Loans, University Loans, Federally Insured Student
Loans, Educational Fee Deferment Loans, Work-Study Program, and other aid
programs. Prizes are also offered.

All of the foregoing forms of financial aid except honorary scholarships and
prizes are granted on the basis of financial need only. Prizes are awarded on the
basis of competition or outstanding ability in some area of creative or scholarly
achievement. Undergraduate scholarship awards are made on the basis of schol-
arship and financial need, except Regents and Alumni Honorary Scholarships
which are awarded in recognition of outstanding achievement and promise.
Complete information concerning all of these programs except prizes is con-
tained in the publication “Financial Aid Information” which may be obtained
from the Office of Financial Aid. A separate booklet describing the various prizes
offered is also supplied on request.

Application forms for these financial aids are available about October 1 for the
following year, and must be filed by January 15, except those for prizes, Uni-
versity loans, Federally Insured Student loans and one or two other minor pro-
grams. Information about application deadline dates for these latter is contained
in the “Financial Aid Information” or “Prizes” booklets.

Information about fellowships and graduate scholarships may be obtained
separately from the Graduate Division, 1 California Hall.

California State Scholarships are awarded by the State and are open for appli-
cation to undergraduates and, in some years, to graduates. They range in value
from $300 to $600 and apply toward the registration and educational fees.
Students may obtain application forms and further information from the Cali-
ifornia State Scholarship and Loan Commission, 1410 Fifth Street, Sacramento,
California 95814, beginning about October 1 for the following year. The filing
date is in mid-November.

Social Security Benefits If you have questions regarding Social Security bene-
fits, inquire at the Office of Financial Aid, 222 Sproul Hall.

Aid to Veterans and Dependents of Veterans If you are a veteran, or a vet-
eran’s dependent, you may secure the appropriate forms from the Veterans
Affairs Office, Office of Financial Aid, 222 Sproul Hall, or from the Veterans
Administration Regional Office, 211 Main Street, San Francisco, California
94105. Information about application deadline dates is contained in the Veterans
Affairs publication available upon request at 222 Sproul Hall.

Reserve Officers Training Corps The University of California, as a land-grant
institution established by the Morrill Act of 1862, offers courses and programs
in military training. This training is voluntary, and affords a young person the
opportunity to qualify for a commission as an officer in the Army, Marine Corps,
Navy, or Air Force while completing his college education. Reserve Officer
Training Corps (ROTC) courses are offered by three departments: Aerospace
Studies (Air Force), Military Science (Army), and Naval Science (Navy and
Marine Corps). The departments furnish all necessary textbooks, uniforms, and
supplies, and arrange draft deferment. The programs carry a monthly stipend in the junior and senior years, and additional financial aids are available to qualified students. Individual programs are summarized briefly as follows:

**Air Force** *Four-Year Program*—Open to qualified male and female freshmen. During the freshman and sophomore years students attend AFROTC classes as described on page 94. After the sophomore year students may compete for the Commissioning Program and if selected attend four weeks of field training at an Air Force base, and participate in AFROTC during their junior and senior years. All students participating in the Commissioning Program receive $100 per month tax free. Upon graduation and successful completion of AFROTC the student qualifies for a commission as a Second Lieutenant in the Air Force Reserve and is usually assigned to active duty in an officer specialty that will be related to his academic preparation. Officers will have the opportunity to compete for a commission in the Regular Air Force or Career Reserve Status in the Reserve while serving on active duty. For nonflying personnel the active duty commitment is four years, and for flying personnel it is five years after completing Air Force flying training. Four- and three-year scholarships are available to well-qualified cadets in the four-year program. These cover full tuition, laboratory expenses, registration fees, and an allowance for books, and $100 per month in non-taxable pay.

**Two-Year Program**—A two-year program is offered to undergraduate or graduate students. Selected applicants complete six weeks of field training during the summer preceding the Commissioning Program. Two academic years are required to complete the program as described on page 94. The commissioning and active duty procedures are as described above. Cadets are paid $100 per month during the two academic years. A limited number of two-year scholarships are available on a competitive basis.

**Flying Training**—Male applicants who are interested in flying training are particularly encouraged to apply. Those qualified receive free flight training during their last year in AFROTC and may qualify for an FAA private pilot’s license. For additional information on any phase of the AFROTC program, please consult the Department of Aerospace Studies, 10 Callaghan Hall, 642-3572.

**Army** Three programs:

1. **Four-Year Program**  Open to both male and female lower division (freshman and sophomore) students who will be in undergraduate study and academic residence for a time sufficient to complete the program. Veterans may receive "placement credit" for up to three years of the four-year program (freshman, sophomore, junior), and thus begin as juniors or seniors, as applicable, in the advanced course portion of the program. During the last two years of the program, students receive a $100 monthly tax-free stipend; admission to this phase of the program is competitive. The student completes a six-week summer camp normally between the third and fourth year; summer camp pay is approximately $300.00 per month plus travel expenses and room and board. Upon graduation the student accepts, if offered, a commission in the Army Reserve; outstanding students are eligible for a commission in the Regular Army. Active duty obligation for Reserve officers is two years. Entry on active duty may be delayed for graduate study.

2. **Two-year Program**  Is designed for students with no prior military or ROTC training, is open only to male students who will have upper division or graduate standing at the beginning of the 1974-75 school year, and who were unable to participate in the first two years of the lower division (freshman and sophomore) military classes. Admission is competitive. Female participation in the two-year program is anticipated beginning with the 1975-76 school year. Interested students must have applied at the Department of Military Science early in the previous winter quarter (January and February) for testing, medical qualification, etc., in order to attend a six-week basic summer camp which gives "placement credit" and substitutes for the first two years (freshman and sophomore) of military science classes. Successful completion of the six-
week basic summer camp qualifies the student for enrollment in the two-year, upper division Army ROTC advanced course program at any university or college, nation-wide, offering the two-year program. Other aspects of this program are identical to those of the four-year program.

3. Scholarship Program
a. Four-Year Awarded annually, by nationwide competition among high school seniors, to outstanding prospective college students. Those selected receive $100 monthly tax-free stipend, payment of tuition and incidental and laboratory fees, and reimbursement for textbook purchases. Upon graduation, the student accepts, if offered, a commission in the Army Reserve; outstanding students are commissioned in the Regular Army. Active duty obligation is four years. Interested prospective University students should consult their high school guidance counselor for details.

b. Three-Year Awarded annually to outstanding cadets who are completing their first year of the four-year program described above. Benefits and service obligations are identical to those described above for the four-year scholarships.

c. Two-Year Awarded annually to outstanding cadets who are completing their second year of the four-year program described above. Benefits and service obligations are identical to those described above for four-year scholarships.

d. One-Year Awarded annually to outstanding cadets who are completing their third year of the two- or four-year program. Benefits and service obligations are identical to those described for four-year scholarships.

For additional information on any of the programs and their benefits please consult the Department of Military Science, 74 Harmon Gymnasium.

Navy and Marine Corps
The Naval Science Department offers several programs for interested undergraduates. Any questions or inquiries should be directed to the Professor of Naval Science, 25 Callaghan Hall.

1. Naval ROTC College Program This is a four-year, non-scholarship program open to physically qualified men and women between the ages of 17 and 21. Freshmen, and sophomores in a five-year baccalaureate program, are the most likely candidates for this program. Students receive a $100 per month stipend in their junior and senior years, and complete one summer training cruise after their third year. Upon graduation, the student will be commissioned as Ensign, U. S. Naval Reserve or Second Lieutenant, U. S. Marine Corps Reserve. A three-year active duty obligation is incurred. Application should be made early in the fall quarter. Scholarships may be offered to highly qualified College Program students.

2. NROTC Two-Year Program This program is open to men and women who will be entering their junior year of undergraduate study. Applications are sought from U.C. Berkeley students as well as incoming junior college transfers. After a six-week summer training period at the Naval Science Institute, students enroll in the NROTC Unit as juniors, with the same obligations and privileges as in the College Program described above. U. S. citizenship is required, and the age limit is 25 years at the time of graduation. (Age waivers may be granted.) Applicants should contact the Department of Naval Science no later than April 1st of their sophomore year of study.

3. Two-Year Nuclear Power Scholarship This program is open to academically and physically qualified male students in their second year of undergraduate study, who have had some background in college physics and calculus. As with the Two-Year Program described above, candidates will attend a summer Naval Science Institute before their junior year. They will receive full tuition, fees, book expense, and $100 per month during their last two years. Upon graduation, they will receive Regular Navy commissions and enter nuclear power training as Ensigns. Applications should be made by April 1st, usually in the sophomore year.

4. NROTC Scholarship Program This is a nationwide competition open to physically qualified men and women between the ages of 17 and 21. U. S. citizenship is required. High school seniors and students enrolled in the NROTC College Program are eligible to apply. Successful applicants receive $100 per month for four years, plus full pay-
ment for tuition, fees, and book expenses. Three summer training cruises are required. Upon graduation, the student receives a commission in the Regular Navy or Marine Corps, with a four year active duty obligation. November 1st is the application deadline.

Facilities

Campus Libraries The University maintains a network of reading and research libraries located on or near the campus. The holdings of the Main Library, the Moffitt Undergraduate Library, the twenty branch libraries, and numerous special libraries total more than 4,300,000 volumes, 98,000 current serial publications, 19,000,000 manuscripts, 827,000 pamphlets, 717,000 microform items, 216,000 maps, and 31,000 sound recordings.

The University Library on the Berkeley campus consists of the Main Library, the Moffitt Undergraduate Library, twenty branch libraries, and numerous special libraries.

The Main Library houses most of the humanities and social sciences materials, and the central services for acquisition, cataloging, circulation, interlibrary loan, serial publications, and photography. In addition to the bibliographical aids to research offered by the General Reference Service, special service or specialized reference assistance is given by the Documents Department, Art History/Classics, Humanities Graduate Service, Morrison Library, Map Room, Newspaper and Microcopy Room, Periodical Room, and the Bancroft Library, which houses major collections in the history of California, western America, Mexico, and colonial Latin America, as well as rare books of all countries and periods.

The James K. Moffitt Undergraduate Library is an open stack core collection of 140,000 volumes and 650 serial titles, designed to provide a convenient point of entry into the complex library system for Berkeley's 19,000-plus undergraduate students. It provides reserve materials assigned for reading in most undergraduate courses as well as carefully selected materials in all subject fields.

Branch Libraries are located near the departments whose faculty and students use them most. They include the Biochemistry, Biology, Optometry, and Public Health libraries; the Agriculture, Entomology, Forestry and Forest Products libraries; the Astronomy-Mathematics-Statistics, Chemistry, Earth Sciences, Engineering, and Physics libraries; the Anthropology, Graduate Social Science, Library School, and Social Welfare libraries; and the East Asiatic, Education/Psychology, Environmental Design, and Music libraries.

Special Libraries are located on or near the campus. Among the most important are those of the Center for Chinese Studies, the Giannini Foundation of Agricultural Economics, the Institute of Governmental Studies, the Institute of Industrial Relations, the Institute of International Studies, the Institute of Transportation and Traffic Engineering, the School of Law, and the Water Resources Center.

A student is entitled to use these libraries, upon presentation of his registration card. However, borrowing privileges and access to the collection vary from unit to unit. For more information about the campus library system, please in-
quire at the General Reference Desk or Service Desk in the Main Library or the Reference Desk in the Moffitt Undergraduate Library.

Language Laboratory  The Language Laboratory is located in the basement of the southernmost wing of Dwinelle Hall. The Laboratory has listening positions for as many as 183 students at one time. The tape library has more than 7,000 reels in more than sixty languages. Most are language lessons, but there are foreign literature readings as well. Facilities are normally scheduled for languages with large enrollments, but random listening is encouraged to the extent that facilities permit. Some of the popular language lesson series are available in a lending collection for home study. You may also buy copies of certain of the Laboratory's materials at cost. Assistance to students wishing to study certain exotic languages is available by application at the laboratory office.

Sports and Recreation  Harmon Gymnasium and Hearst Gymnasium are equipped with swimming pools, as well as squash, handball, volleyball, and tennis courts, athletic fields, and a variety of indoor facilities. They are open throughout the year, free of charge, primarily to students of the University, who may obtain, upon showing a current student registration card, a locker and free use of gym clothing and equipment. Hours during which facilities are available for recreational use are posted in the gymnasium.

A wide variety of instructional, intramural, extramural, intercollegiate, and recreational athletic programs and sports clubs are offered by the Department of Physical Education, Department of Intercollegiate Athletics, and the ASUC. Strawberry Canyon Recreational Area serves the entire University community with swimming pools, lounging, play, and picnic-barbeque areas. Further information may be obtained by calling Haas Clubhouse.

Dining  The Dining Commons is just north of the Student Union. On Sproul Plaza level: The Terrace provides hot meals, breakfast and lunch; grilled or wrapped sandwiches; hot tasty soup and a selection of hot entrees in addition to fast snacks and hamburgers. The Golden Bear features luncheon, with waitress service; a menu selection of Salad Bar, Hof Brau Sandwiches, grilled items and two full-menu Hot Entree selections; plus a variety of desserts. The Fence provides carry-out snack service. On the lower plaza level: The Cafeteria serves a la carte hot lunch items, special low calorie plates, vegetable plates, and a great variety of snack foods. Also in the Cafeteria building, facing the lower plaza, there is full-line vending service with sandwiches, hot and cold beverages, and snacks. The Bear's Lair, in the Student Union building, has grill and fountain service. The Commons also operates a catering service for special functions and student activities on campus; a Mobile Unit—The Oskimobile—makes scheduled stops at various locations with snack and sandwich service; and there is an Office Coffee plan. A snack area specializing in expresso coffee is located in Wurster Hall. In addition coffee shop service is available at 4119 Dwinelle Hall and 24 University Hall. To arrange for Catering or Office Coffee Service call (64) 2-3761.

Student Union and Student Center  The Student Union, a six-level building located at the south entrance of the campus, is a focal point of student activities
and recreation. It contains lounges, a television room, meeting rooms, Pauley Ballroom, an art exhibit area, a game room, a meditation room, a check-cashing service, a ticket office, the ASUC Store (a comprehensive book, stationery, and supply store), an information center, a bowling alley, a barber shop, a garage, a creative arts studio, the Bear's Lair, and facilities for the ASUC musical organizations. Operating costs of the Student Union are largely financed by revenues from ASUC enterprises located within the facilities.

Eshleman Hall, the student office building, houses the student officers and senators as well as other student activities. An auditorium and theater completes the Student Center.

**Computer Center** The Computer Center serves the entire campus by (1) providing and operating a Control Data 6400 system to meet the instructional and research needs of the campus, and (2) the development of both hardware and software.

A program library and a consultation service are maintained to provide information about the operating and programming systems to assist users. In addition to programming consultation, the Center has an applications programming group who will undertake programming tasks for users. The Center also provides a keypunching service for users of the computer.

**Lawrence Hall of Science** The Lawrence Hall of Science, located in the hills of the Berkeley campus on Centennial Drive, is a center for research and development in science education. In this center, the resources of the University and the needs of the community interact to improve and stimulate science education at all levels of instruction. Science education research and curriculum development projects are an important aspect of its program. It provides in-service teacher training through workshops and summer institutes. A Discovery Van brings programs and instructional materials developed at the Hall to teachers and students within a 150-mile radius of Berkeley. The William K. Holt Planetarium is a unique combination of theater-in-the-round and audience participation. Several programs are offered alternately in which the audience becomes actively involved in the astronomer's discoveries. Courses and workshops are also offered in astronomy for adults and children. A school visitation program brings over 8,000 children to the Hall during the academic year, and after-school classes are offered in mathematics, physical and life sciences, and computer instruction. Instructional facilities include an auditorium, laboratories, shops, time-sharing computer systems, and a science education library.

The public activity areas encourage individual participation through exhibits and demonstrations. Computer terminals are available to the public for a modest fee. A public program featuring films, lectures, and audience participation demonstrations are offered every weekend and daily during the summer months. A Thursday Evening Lecture Series offers a variety of topics from art history and folklore to physical and life sciences. The Hall is open daily from 10 a.m. to 4:30 p.m., and Thursday evenings until 9 p.m.
Student Organizations and Activities

The ASUC  The Associated Students of the University of California is the official organization for student government. You automatically become a member upon payment of the ASUC fee along with other registration fees. This nonprofit organization, through its student-elected Senate, is responsible for directing a large variety of student activities and serves as official student spokesman in University affairs. You are urged to make use of your ASUC votes to secure the representatives you feel will serve you capably and articulately. Graduate students also elect departmental representatives to the Graduate Assembly, which concerns itself with graduate affairs. One of the many student activities is ushering: the ASUC Box Office offers opportunities to students to usher at most legitimate theatre, symphony, and opera performances in San Francisco and the East Bay, thus providing an extremely popular way for University students to enjoy first-class entertainment at practically no cost. Another activity of the ASUC is the operation of the campus radio station, KALX-FM. In addition to its facilities in the Student Union complex, the ASUC owns and operates Cal Ski Lodge at Norden, California and operates a bicycle parking lot at Moffitt Library on campus.

Graduate Assembly  The Graduate Assembly speaks for the ASUC on matters concerning graduate students. Graduate organizations elect department representatives (one per 100 students) to the Assembly meetings, and monthly meetings are held during the academic year. The Assembly elects four administrative officers, and one representative officer each to the ASUC Senate and the Graduate Council of the Academic Senate. The Assembly also sends graduate student members to Committees of the ASUC, Affirmative Action Assembly, Academic Senate and advisory to the Chancellor. The Assembly works with the university-wide organization, the Graduate Senate. The Assembly publishes a monthly newsletter, the GADFLY, and has a number of working committees on which graduate students are encouraged to participate. These committees have been concerned with such matters as affirmative action issues and reports, library facilities, job placement, housing, graduate student orientation, and the quality of M.S., M.A., and Ph.D. programs. The Assembly invites graduate students to use the Commons Lounge in 442 Stephens Hall; Assembly offices are located at 239 and 241 Campbell Hall, 642-2175 and 642-2307.

The Community Projects Office (CPO)  This office, located in Eshleman Hall, serves as the ASUC clearinghouse for existing volunteer opportunities in the Bay Area and as the resource agency for the development of new projects. If you are interested in doing volunteer work of any type, the CPO provides an orientation program; files and information on the various projects; a library of commentary books, texts, and tutoring aids; and also sponsors numerous workshops in areas such as co-operative buying and reading instruction. The CPO is also working directly with a large number of Bay Area organizations, developing resources and doing research on campus, and has the necessary information and contacts for those interested in starting new projects in any area. The CPO employs a
number of part-time student employees and a large number of student volunteers. For these students, the CPO provides a meaningful and relevant link to the community while at the same time allowing the students to work on the campus.

**SUPERB** The Student Union Program, Entertainment, and Recreation Board, located in 416 Student Union, is responsible for developing and supervising an activities program for the ASUC to satisfy the cultural, educational, recreational, and social needs of the campus. Programs and activities planned include speakers, dances, exhibits, coffee hours, recreational exhibitions, cabarets, drama, movies, music and art festivals, and special presentations, including a noon concert on the Student Union Plaza each week open free of charge to the general public.

**Student Publications** Four student publications provide opportunities for activities in all phases of publishing: writing, editing, reporting, art and design, advertising, sales, and general management. They are:

*The New Pelican*—the quarterly magazine; specializes in articles and features of current interest. Located in Pelican Building.

*California Engineer*—a magazine of engineering and scientific topics, for both technical and general interests. Located at 9 North Gate Hall.

*Occident*—one of the oldest campus publications, it is the literary magazine, featuring poetry, fiction, criticism, and commentary, by students, faculty, and distinguished guest writers. Located in Pelican Building.

**Lectures, Music, Drama, Dance, Debate** The University offers a broad variety of extracurricular activities in the humanities. These include:

Committee for Arts and Lectures (CAL)—a program of drama, music, dance, films, and lectures. Some events are open to students and to the University community without admission charge. For those events requiring tickets, a reduced fee is usually available for registered students. Brochures announcing committee events and weekly notices may be obtained at the CAL Box Office, 101 Zellerbach Hall, or the Information Desk of the Student Union. For information, or to make telephone reservations, call 642-2561.

Music—a large selection of groups, including the Men's Glee Club, the University Chorus, Repertory Chorus, Jazz Ensemble and Treble Clef, California Band, and others which students may join for academic credit. Each week, also, there is a noon concert, open free of charge to the general public. The Symphony Forum is a program sponsoring record concerts on campus and providing for students inexpensive San Francisco Symphony tickets.

Theater and Dance—The Department of Dramatic Art offers a workshop series of play productions to all registered students interested in acting, design, or stagecraft. In addition, there are concerts and choreographic workshops in modern dance techniques. An in-residence dance company gives concerts and demonstrations throughout the year in schools and community centers on the West Coast. Unit credit may be earned by work in play and dance production.

Debate—Varsity Debate and individual events, open to both veterans and novices, constitute the Forensics Program of the Berkeley campus.
For further information about these and many other campus events, please consult the Information Desk in the Student Union.

**Special Interest Clubs** Besides regular ASUC-sponsored activities, there are more than 250 registered student organizations on campus serving special interests and abilities. In the spring and fall of each year, an Activities Fair is held in Sproul Plaza to acquaint you with many of the organizations and to give you an opportunity to join.

Academic and professional societies, including clubs organized by many of the schools and departments, as well as national professional fraternities, provide students with an opportunity for seminars, discussions, lectures, tutoring services (both giving and receiving), and communication with members of an academic or professional field. Honorary academic societies are open to students of outstanding scholastic ability. These groups include: Honor Students’ Society; Phi Beta Kappa (a national society of historical renown, open by invitation to the top seniors in nonprofessional fields); Tau Beta Pi (a national society of upper division students in the College of Engineering and in Chemical Engineering); and various other groups within the several disciplines. Most of these groups offer tutoring services.

Hobby and recreational groups abound. And while the University, as a State-supported institution, does not offer chapel services or religious activity on campus, there are more than 35 churches and student religious clubs located within a few blocks of the campus.

**International House** International House is a coeducational residence and program center for American and foreign students, primarily at the graduate level. Cultural and social events, home hospitality, tours and visits around California are designed to promote better understanding and friendship among all nationalities. For application and further information, write or call International House, University of California, Berkeley, California 94720; telephone number (area code 415) 642-9470 or 642-9490.

**Women’s Center** The Center for Continuing Education of Women (known as the Women’s Center) is located in the north end of Building T-9. Hours are 9 a.m. to 5 p.m. (including the noon hour) Monday through Friday, and 10 a.m. to 1 p.m. on the first Saturday of each month. The Center provides individual and group counseling sessions and workshops in educational and vocational areas for students, non-academic staff, and community women.

**General**

**The University Press** The University of California Press is one of the largest university presses in the country. It publishes scholarly books, books of general interest, about forty monograph series, a line of quality paperbacks, and eleven scholarly journals. Books and paperbacks number about one hundred and fifty each year. The press serves all campuses of the University equally; its publishing program carries the work of the faculty beyond the campuses themselves.

**The Alumni Association** More than 56,000 former students of the University find the California Alumni Association a means of working for the continued
welfare of the University and its student body. The Association sponsors the Alumni Scholarship program, which annually gives some 500 awards to students totalling in excess of $100,000. It presents orientation programs for prospective and new students, and free tax and career counseling for Cal students. Association members have U.C. Library and language laboratory privileges, access to Lair of the Bear summer camps and year-round charter flights, discounts on University Press books, and membership discount for the Art Museum Council and Lawrence Hall of Science, California Monthly and a program of alumni meetings enable members to remain in close touch with the University and with one another. Information on all Association activities, including young alumni programs, alumni events on Charter Day and Commencement, alumni clubs, and special events may be found at the Association's campus headquarters, Alumni House, where students and alumni are always welcome.

Study Abroad for Undergraduate Students You have a number of opportunities to earn University of California credit while studying abroad. The statewide Education Abroad Program has study centers at the following universities:

- University of Ghana, Africa
- University of Nairobi, Kenya, Africa
- University of Bordeaux, France
- University of Paris, France
- University of Pau, France
- Georg August University, Germany
- Chinese University of Hong Kong
- University of Dublin, Trinity College, Ireland
- Hebrew University of Jerusalem, Israel
- University of Padua, Italy
- International Christian University, Japan
- American University of Beirut, Lebanon
- Universidad Iberoamericana, Mexico
- University of Bergen, Norway, Scandinavia
- University of Lund, Sweden, Scandinavia
- University of Barcelona, Spain
- University of Madrid, Spain
- University of Birmingham, United Kingdom
- University of Edinburgh, United Kingdom
- University of Kent, United Kingdom
- University of Leeds, United Kingdom
- University of Reading, United Kingdom
- University of St. Andrews, United Kingdom
- University of Stirling, United Kingdom
- University of Sussex, United Kingdom

Requirements for participation are a grade-point average of 3.0 and sufficient language preparation. The equivalent of six quarters of the host language is required for the centers in France, Germany, Italy, Mexico, and Spain. Three quarters of the host language or the equivalent are required for Tokyo and Italy (if the student agrees to attend a required summer session in Italy immediately prior to the academic year program at additional cost). Three quarters of language preparation are also strongly recommended for the centers in Scandinavia and Israel. The centers in Africa, Hong Kong, Lebanon, and the United Kingdom have no language requirements, but appropriate academic preparation is necessary.

Full credit is given for work taken overseas, but it is the student's responsibility to obtain the approval of his department or college for his study plans.
before departure. Undergraduate programs are intended primarily for juniors, but seniors may also participate. However, seniors should inform themselves of residency requirements and unit limits of their college. University scholarships, loans, and grants may be used to finance the year abroad.

Both graduates and undergraduates may participate in Berkeley's summer program at the Institute of African Studies, University of Ghana. Berkeley also participates in several intercollegiate consortia for advanced language studies: Rome Classics Program (requiring Latin fluency), Japanese language study in Tokyo, Mandarin Chinese study in Taipei, and Arabic study in Cairo.

Graduate students may study in most of the programs subject to the approval of their adviser and the Graduate Division. One year of graduate study must have been completed prior to the year abroad.

If you are interested, consult your academic advisers and the study abroad counselor in the International Education Office, 2538 Channing Way, Building D, Room 104-A.

University Police  Police service is available twenty-four hours a day at the University Police Office, Room 2, Sproul Hall, or by telephoning: Emergency (64) 2-3333; Business (64) 2-6760. The University of California Police Department was established by the State Legislature to perform primary and general police service functions on the campuses, the properties, and dormitories of the University of California. Section 830.2 of the Penal Code extends to the University Police full peace officer powers and affords them primary law enforcement responsibility including the investigation of criminal offenses committed within the jurisdiction of the Department. The University Police also operate a lost-and-found service, open from 10:00 a.m. to 4:00 p.m., Monday through Friday, telephone (64) 2-4936. For all emergency services including police, fire, or ambulance, call (64) 2-3333.

Fees* and Expenses

It is extremely important that a student carefully consider the total financing of his education, from his entering quarter to the completion of his degree objective. If financial help will be needed, beyond those funds which the student or his family are able to provide, the student should make the necessary applications for financial assistance well in advance of his enrollment. He should pay particular attention to early deadline dates of application for grants, scholarships, Work-Study and National Direct Student Loans. While the needs and resources of each student differ, the University can provide a general list of fees and expenses normally encountered.

Part of the fees may be refunded to students who cancel their registration prior to the first day of classes or who withdraw before the beginning of the sixth week of classes of any quarter. A separate circular, Student Fees and Deposits, gives information on refunds. This circular is available from the Office of Admissions and Registrar.

* Fees are subject to change without notice.
TABLE OF FEES AND EXPENSES (Fees are subject to change without notice)

Certain fees are paid at the time of registration by each student. These fees are listed and described below.

<table>
<thead>
<tr>
<th>Student Category</th>
<th>Fall, Winter, or Spring Term</th>
<th>Fall or Spring Term</th>
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<tr>
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<td>1974-75</td>
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<tr>
<td>Foreign Graduate, School of Law</td>
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</tr>
</tbody>
</table>

EXPLANATION OF FEES AND EXPENSES

Required Fees

University Registration Fee—$100 per quarter; $150 per term for students in the School of Law. Paid by all students. Covers normal expected usage of such facilities as laboratories, gymnasium, counseling and placement services, health service, etc.

Educational Fee—Paid by all undergraduates at $100 per quarter, by students in the School of Law at $180 per term, and by all other graduate students at $120 per quarter. Used to support a portion of the cost for the educational program.

Berkeley Campus Fee—Paid by all students in the amount of $12.50 per quarter and by students in the School of Law in the amount of $18.75 per term. Provides support for a wide range of activities sponsored by the ASUC, covers use of the Student Union, helps pay costs of construction of the Union building, and assists with the provision of ethnic studies on the Berkeley campus.

Nonresident Tuition—$500 per quarter; $750 per term, School of Law. See rules on page 15 to determine whether this fee is applicable.

Foreign Student Health Insurance—$13 per quarter; $19.50 per term, School of Law. Required of all students on nonimmigrant visas. Payment of the fee for three consecutive quarters (two terms in the School of Law) covers the student for the full academic year, including summer.

Additional Fees and Expenses

Subject A Fee—$45
Applies to those who are required to enroll in the Subject A course.

Athletic Privilege Card—$12
Optional. Permits free admission or reduced rates to most University athletic events.

Student Health and Life Insurance
Optional, available through ASUC. Provides coverage, beyond normal service
of the Student Health Service, in any of several standard health and hospitalization plans; has additional advantage of including student’s spouse. Rates lower than normal adult rates.

Books and Supplies
Normally about $200–$250 a year on the average.

Living Expenses
Room and board in living groups will range from $1,200 to $2,000, for the academic year, with an average of around $1,600. Apartment housing (rent, utilities, and food) if shared with others for nine months, would have the same range. If leased for twelve months the cost, of course, would be higher.

Entertainment and Miscellaneous Costs
A student will need to take into account laundry, cleaning, transportation, and other personal expenses which will average from $500 to $700 per academic year.

Total Estimated Expenses Per School Year
The following approximates the total budget for three quarters. This estimate is based on fees and expenses for single undergraduate students:
- Resident Students .................. $3,500.00
- Nonresident Students ................. 5,000.00

Research at Berkeley
The Berkeley campus is renowned for its programs of faculty and graduate student research, which are conducted within teaching departments and organized research units. In some instances, special departmental laboratories have been established to provide essential services to instruction and research projects.

Organized research units are established and administered separately from the teaching departments. These units are designed to be interdisciplinary in nature and organized around the work of a group of faculty and graduate students whose research interests are more general in nature than can easily be encompassed in a single discipline. While the organized research unit aims primarily to support the research of faculty and to assist in graduate student training, public service and in some instances a degree of mission orientation may be appropriate.

Organized research units may bear the designation of Institute, Center, Laboratory, Museum, or Station, depending on the nature of the activity supported and the organization visualized when a particular unit was established. These units are grouped administratively according to the breadth of interest they represent. The grouping may be within the Graduate Division, a School, or a College. Specific administrative groupings are as follows:

**College of Agricultural Sciences**
- Agricultural Experiment Station
- International Center for Biological Control
- Giannini Foundation

**School of Business Administration**
- Center for Research in Management Science

**College of Engineering**
- Earthquake Engineering Research Center
In addition to the officially established organized research units, there are numerous special facilities for the support of faculty and student programs.
Colleges and Schools

For purposes of administration and instruction, the University is divided into a number of academic and administrative subdivisions, ranging from departments, colleges, and schools to a variety of research centers and institutes. At Berkeley, there are eighteen major academic subdivisions—the Graduate Division, five colleges, and twelve schools:

**Colleges**
- Agricultural Sciences
- Chemistry
- Engineering
- Environmental Design
- Letters and Science

**Schools**
- Business Administration
- Business Administration, Graduate
- Criminology
- Education
- Forestry and Conservation
- Journalism
- Law
- Librarianship
- Optometry
- Public Health
- Public Policy, Graduate
- Social Welfare

A college accepts students directly from high school or as transfers from another institution and offers undergraduate instruction, normally as a four-year program, leading to the bachelor’s degree; however, departments in all the colleges offer programs of study beyond the bachelor’s degree, in conjunction with the Graduate Division. The colleges are designed to provide the student with a thorough background in one or more fields of study, and to give him some acquaintance both with allied fields and with general fields of knowledge. Although a student may take some courses in another college or school, his degree requirements are determined by the deans and faculty of the college in which he is enrolled. The College of Letters and Science emphasizes the study of the general academic areas for their own sake, whereas the other colleges emphasize the study of these areas in relation to applied arts and sciences.

A school normally begins instruction at the upper division or graduate level and is designed to provide a student with training preparatory to a specific profession. The school presumes its students to have acquired before entrance some background in general academic areas. The degrees offered by the schools are accredited by statewide and national boards and associations for the various professions, and normally allow the graduating student a direct entry into his field.

Each of the colleges and schools has its own administrative officials and its own regulations for earning degrees, and since each undergraduate student at the University belongs either to a college or a school he is expected to satisfy requirements for the degree on three levels: University, college or school, and field of concentration. This section provides a broad survey of the colleges and schools and their degree programs. For further information, see the individual school or college announcements.

**COLLEGE OF AGRICULTURAL SCIENCES**

The College of Agricultural Sciences offers undergraduate instruction leading to the Bachelor of Science degree. Opportunities for employment exist in most fields for those with the degree.
Three curricula are offered—Agricultural Sciences (with seven majors), Pest Management, and Conservation of Natural Resources. Related curricula in the College are also available in preforestry and preveterinary.

Majors in Agricultural Sciences are: agricultural economics; agricultural science; dietetics; entomology; food and nutritional sciences; genetics; and soils and plant nutrition. Preparation for graduate work in plant pathology is offered under the agricultural science major. The Pest Management Curriculum is jointly sponsored by the Departments of Entomological Sciences and Plant Pathology. The curriculum in Conservation of Natural Resources is an experimental field major offered in cooperation with the School of Forestry and Conservation. The preforestry program, although administered by the College of Agricultural Sciences, is described under the Forestry and Conservation section.

The College also administers a preveterinary curriculum for those students preparing for subsequent work in the School of Veterinary Medicine at Davis. The Dean’s Office, 101 Giannini Hall, will provide the name of an adviser and general information about the program. For details concerning the complete program, consult the Dean of the School of Veterinary Medicine, University of California, Davis.

New emphases in the undergraduate curricula and major programs are being developed. Up-to-date information relating to your area of interest may be obtained from the Dean’s Office, 101 Giannini Hall.

NOTE: Effective July 1, 1974, the College of Agricultural Sciences and the School of Forestry and Conservation will merge into a new College of Natural Resources. While new academic programs will be offered by the College of Natural Resources in the 1974–1975 academic year, most of the courses presently listed in the College of Agricultural Sciences will continue. Students already enrolled in existing College majors will have the option of changing to one of the new majors or completing the major already chosen.

Detailed information concerning the new programs will be available in catalogue supplements and in the offices of the Dean of the College and its present departments.

Graduate Programs

Graduate instruction leading to a higher degree is available in the following fields: agricultural economics; biophysics (see Cell Physiology and Soils and Plant Nutrition); comparative biochemistry (see Cell Physiology, Nutritional Sciences, and Soils and Plant Nutrition); entomology; food science; genetics; microbiology (see Nutritional Sciences and Soils and Plant Nutrition); nutrition; parasitology (see Entomology and Parasitology); plant pathology; plant physiology (see Cell Physiology and Soils and Plant Nutrition); and soil science.

For further information, consult the ANNOUNCEMENT OF THE COLLEGE OF AGRICULTURAL SCIENCES, available free of charge from the Dean’s Office, 101 Giannini Hall.
**COLLEGE OF CHEMISTRY**

The College of Chemistry comprises two departments, the Department of Chemistry and the Department of Chemical Engineering. The College offers programs leading to the B.S., M.S., and Ph.D. degrees in chemistry or chemical engineering. The College of Letters and Science offers a chemistry major leading to an A.B. degree through a curriculum with a greater proportion of courses in the humanities and social sciences than is included in the B.S. chemistry program.

For information on recommended high school preparation for admission, as well as specific requirements for degrees, see the **ANNOUNCEMENT OF THE COLLEGE OF CHEMISTRY**.

**COLLEGE OF ENGINEERING**

The College of Engineering offers programs in a wide variety of engineering fields, based on the concept that the engineer must be well grounded in the sciences and in social and humanistic studies, with a full command of the principles and practices of his profession.

Four-year undergraduate curricula are offered in the following professional fields: civil engineering, electrical engineering and computer sciences, industrial engineering and operations research, mechanical engineering, and materials science and engineering (ceramic engineering and metallurgy). Each of these curricula is administered by a separate department within the College and each emphasizes a core program of science and engineering subjects related to the particular field. In addition, there is a curriculum in Engineering Science with programs in bioengineering, engineering geoscience, engineering mathematics or mathematical statistics, and engineering physics. Double Major programs leading to a B.S. degree in two fields are offered through most departments in conjunction with either Materials Science and Engineering or Nuclear Engineering.

High school preparation for study in engineering includes the following: algebra (2 units); plane geometry (1 unit); trigonometry (½ unit); physics or chemistry, preferably both (1 or 2 units). Advanced mathematics courses are acceptable if they include the mathematics topics listed above. It is suggested that an engineering student also include a minimum of 1 unit of high school mechanical drawing as part of his preparation since graphic communication is an essential part of engineering.

Students may refer to the **ANNOUNCEMENT OF THE COLLEGE OF ENGINEERING** for a detailed presentation of the curricula available. Specific courses are listed in the **ANNOUNCEMENT** and in the course section of this catalogue.

Graduate programs are offered leading to the Master of Science and Doctor of Philosophy degrees for study emphasizing engineering applied sciences, and Master of Engineering and Doctor of Engineering degrees for advanced professional studies of design and development. Fields of study include civil engineering, electrical engineering and computer sciences, industrial engineering and operations research, mechanical engineering, nuclear engineering, materials
science, engineering geoscience, fluid mechanics, applied mechanics, and naval architecture. Also, interdisciplinary graduate programs are available in air pollution engineering, bioengineering, energy, ocean engineering, and urban and public systems. Specific graduate programs may also be found in the Announcement of the College of Engineering.

**COLLEGE OF ENVIRONMENTAL DESIGN**

The College of Environmental Design is composed of the departments of Architecture, City and Regional Planning, and Landscape Architecture.

Undergraduates entering the College will enroll in a four-year curriculum leading to the academic degree of Bachelor of Arts with a major in either architecture or landscape architecture. Individual majors and a limited program in visual design are available for continuing students. On the graduate level the College presently offers curricula leading to the Master of Architecture, Master of Landscape Architecture, Master of City Planning, and Master of Arts in Design; and the Doctor of Philosophy in Architecture, Landscape Architecture, and in City and Regional Planning. The Master of Architecture degree will be the first professional degree applicable to requirements for state registration in architecture. The Master of Landscape Architecture degree is similarly applicable to the registration of landscape architects.

It is recommended that high school preparation for the College include mathematics through trigonometry, one year of freehand drawing, and one year each in two of the physical or natural sciences.

The A.B. degree programs in the College require the completion of 180 units. A minimum of 40 units in the major must be completed at Berkeley as well as 24 units of environmental studies in the College. Breadth requirements consist of completing 60 units in course work offered in colleges other than Environmental Design. The remaining 56 units are elective. No more than 60 units may be completed in any one department for degree credit.

Procedures for undergraduate admission, registration, and enrollment are identical to those of the University in general. However, a student who has credit for more than 105 quarter units of university-level work is encouraged to complete the A.B. degree in his current major and apply for admission to the professional programs at the graduate level. An undergraduate major in architecture or landscape architecture is not prerequisite for admission to graduate study in these fields. Enrollment in the College beyond 195 quarter units is subject to approval of the Dean. Consequently, a transfer student who has credit for more than 130 quarter units, is not normally admitted to the undergraduate program. Students who are interested in graduate study should obtain from the Dean of the Graduate Division the circular Admission to Graduate Study, which outlines general University requirements for admission. Application is made directly to the Graduate Division of the University.

For specific undergraduate and graduate programs and degree requirements in the environmental design fields, refer to the course section of this catalogue and the Announcement of the College of Environmental Design.
COLLEGE OF LETTERS AND SCIENCE

The College of Letters and Science offers the undergraduate student a variety of programs leading to the Bachelor of Arts degree in four academic years of full-time study. The basic concern of the College is with the wholeness of knowledge, a theme which is present in all of our various programs. Although no single program can by itself introduce the undergraduate student to the entire range of human knowledge, each of the many programs is designed to aid the student in establishing a structured awareness of the present condition of knowledge and how it has developed. Each program endeavors to cultivate an appreciation for past and present ideas and a capacity for generating new ones. Each strives to foster keen observation, critical analysis, and an awareness of the relation between perceived reality and theoretical abstractions derived from it.

For the student, the first two years are a time of exploration, experimentation, and decision. The last two years are a period of confirmation and of the acquisition and refinement of special knowledge, usually in connection with a department. The College’s departments are devoted to instruction and research in the several academic subjects. Each department represents a style of study and communication and a refined development of a set of structured ideas. The subjects of the departments overlap and complement each other.

Requirements for the Bachelor of Arts Degree

The student must complete a minimum of 180 units, distributed according to regulations which appear in the Announcement of the College of Letters and Science. There are also scholarship, residence, breadth, and major requirements; these are described in the Announcement as well. Brief descriptions of the breadth and major requirements appear below, and major programs appear in this publication under the department or group heading. In addition, the student must satisfy the University requirements in Subject A, in American History, and in American Institutions; these are described on page 26.

Breadth Requirements Each student in the College is required to include in his or her program a study of the use and appreciation of the English language. This requirement is to be completed in the freshman or sophomore year in order that the student may develop skill in the communication of ideas and a sensibility for language which will facilitate and enrich further studies. There is also a minimal foreign language requirement, which almost all of the students admitted to the College will have satisfied in high school. If not satisfied at the time of admission, the requirement must be completed without delay. The third breadth requirement involves exploration in several broad areas of knowledge, the humanities, the natural sciences, and the social sciences. This exploration by the student is intended to deepen appreciation for language, literature, and the arts, to develop comprehension of the structure of living and nonliving matter and the environment of man, and to facilitate understanding of the individual and social behavior of human beings. Completion of this requirement may be spread over the four years of college attendance.
Major Programs

Each student must pursue and complete a major program, the object of which is to provide him or her with a limited experience in specialization. There are forty-six departmental major programs, ranging from art to zoology. In addition, there are group majors in communication and public policy, environmental studies, genetics, neurobiology, religious studies, and social welfare. There are also field majors in humanities, biological sciences, physical sciences, and social sciences. Moreover, a student in good academic standing may, with permission of the Dean and support and supervision of a College faculty member, pursue an individual major designed to satisfy special academic goals.

Special Programs

The Division of Interdisciplinary and General Studies (DIGS) and the Resident Program in History and Literature are included in the College and are described in the Announcement of the College of Letters and Science. Both of these programs permit the student to spend a considerable portion of time in the exploration of a unified area of study. Both of the programs also allow for free electives and are designed to qualify the student, on completion, for entrance into any one of a range of major programs. The student in the College of Letters and Science normally constructs his or her own program for the freshman and sophomore years by making a choice of individual courses. Selection is guided by the adviser, within limits set by College requirements and by the demands of the student's anticipated subject. These special integrated programs are offered as optional alternatives to this procedure. The present program in DIGS will not be accepting freshman students in Fall, 1974.

Letters and Science List of Courses

The regulations governing the List are to be found in the Announcement of the College of Letters and Science.

SCHOOLS OF BUSINESS ADMINISTRATION

School of Business Administration

The School of Business Administration admits students at the junior level and offers a curriculum leading to the undergraduate degree of Bachelor of Science in Business Administration. The primary function of the School is to prepare students for eventual responsible administrative and executive positions in business, non-profit and governmental organizations, and for business ownership. You may specialize in such fields as accounting, applied economics, finance, marketing, management science, organizational behavior, and real estate and urban land economics.

Prior to admission to the School, you should obtain an Announcement of the School of Business Administration, available in 310 Barrows Hall. This contains complete information concerning admission and degree requirements, as well as important prerequisites to admission. Because there are many more applications than spaces available, completion of the prerequisites does not guarantee admission to the School. As a professional school, we expect students
to come to us with strong academic records in their lower division work either at Berkeley or elsewhere, particularly in the courses specified as prerequisites. Requests for advice on programs of study and general information should be addressed to the Office of the Associate Dean, 310 Barrows Hall.

**Graduate School of Business Administration**

The Graduate School offers curricula leading to the Master of Business Administration degree and to the more specialized Master of Science degree. These curricula afford opportunity for advanced and specialized training based either upon the fundamental undergraduate curriculum in Business Administration or upon undergraduate study in other fields.

The core courses for the master's degree include basic work in economic analysis, quantitative decision models and techniques, accounting, political, social, and legal environment of business, finance, marketing, production, and organizational behavior. All graduate students must maintain a B average in all courses and must pass a comprehensive examination.

You may pursue a program leading to the Ph.D. in Business Administration if you wish to prepare for university and college teaching and research or for high-level research positions in business or government.

For detailed information, consult the Announcement of the Graduate School of Business Administration.

As part of the Extended University, the Graduate School also offers an evening program in San Francisco leading to the Master of Business Administration degree. For further details, write to the Director, San Francisco Evening MBA Program, 350 Barrows Hall, University of California, Berkeley, California 94720.

[SCHOOL OF CRIMINOLOGY](#)

Two distinct curricula are offered by the School of Criminology. A student should apply for admission to one or the other program, for which different sets of prerequisites and recommendations exist, and for which there are different courses.

The General Criminology program is intended to provide students with a broad knowledge of the causes, prevention, control, and treatment of criminality. Special attention is given to historical development and to contexts of crime and efforts to cope with crime, as well as to the social problems associated with each. On the graduate level the program is designed to prepare students for careers in college and university teaching and for administrative and research positions in agencies of criminal justice and social policy planning.

The Criminalistics-Forensic Science program emphasizes the role of the natural and physical sciences in the administration of justice; its underlying concern is the utilization of science to improve the quality of justice. The curriculum is designed to prepare students for careers in professional service, education, and research.

The first program leads to the Bachelor of Arts degree and the second to the Bachelor of Science degree. Both lead to the Master of Criminology and Doctor of Criminology.
Undergraduate students are admitted to the School at the beginning of their junior year, after completion of a 90-unit lower division curriculum. A 2.0 or better grade-point average is required for admission. Prerequisite courses for undergraduate admission are listed on page 11. Specific requirements for all degrees may be found in the Announcement of the School of Criminology.

Students are generally admitted during the fall quarter only for study leading to the B.A., B.S., M.Crim., or D.Crim. Completion of the requirements for the M.Crim. degree ordinarily takes four to five quarters after the bachelor's degree. The D.Crim. requirements ordinarily take an additional six quarters.

School of Education

The School of Education offers three principal areas of study: a teaching credential program for those preparing for teaching positions in public schools; programs leading toward credentials for administrative, and pupil personnel services in the public schools; and degree programs, both academic (M.A. and Ph.D.) and professional (M.A.T. and Ed.D.). The M.A.T. (Master of Arts in Teaching) program is available in Comparative Literature, English, French, and German. This program combines a major emphasis in an academic field with professional training in education.

As an applicant to any degree program in the School of Education, you must be admitted to the Graduate Division. If you plan to enter teacher education programs, you should confer with an adviser in the Student Personnel Office, 1615 Tolman Hall, early in your university career. Although most of the students in the teacher education professional preparation program will be graduate students, it is possible for students to complete this program as undergraduates.

As a holder of a State teaching credential, you are qualified for service in the public schools of California. To qualify for this credential you must complete a bachelor’s degree with a major in a teaching field (not education), and the professional preparation program in your area of specialization. Programs are now being developed to comply with the new licensing law (Ryan Act of 1970) which becomes effective in September 1974. Students applying for teaching credential programs for the academic year 1974–1975 may obtain information concerning the new Ryan Act programs from the Student Personnel Office, 1615 Tolman Hall.

For details concerning the requirements and areas of specialization for all credential and degree programs in education, consult the Announcement of the School of Education.

School of Forestry and Conservation

Undergraduate programs are offered in forestry, in wood science and technology, and in the conservation of natural resources. The major in forestry is designed to educate professional resource managers and scientists oriented to forests and wildlands. In contrast, the conservation major provides a broad education oriented to environmental issues. The program in wood science prepares students for managerial and scientific careers in the wood-using industries.
Students are admitted to the School in the junior year. The preparatory lower division program may be taken at any accredited college or through the College of Agricultural Sciences at Berkeley. A program of summer field courses is prerequisite to the balance of the upper division program in the major in forestry. This ten-week program includes 15 units of course work offered at the U.C. Forestry Camp, Meadow Valley, Plumas County.

Graduate programs are offered in wildland resource science, in forestry, in range management, and in wood science and technology. The Master of Forestry is the advanced professional degree in this field and is based on an additional year of study designed to widen the student's grasp of forestry principles and to increase his ability to apply the principles to resource management problems. The Master of Science in wildland resource science provides a program for students interested in specialization in some field of forestry such as forest influences, silviculture, forest economics, wildlife habitat management, or remote sensing. The M.S. in range management, which is administered by an interdepartmental group, provides for specialization in the scientific basis of managing range lands and related wildland areas. The M.S. in wood science and technology, also administered by an interdepartmental group, provides for graduate specialization in wood mechanics, wood physics, wood chemistry, wood anatomy, or wood processing.

Programs leading to the Ph.D. are offered in wildland resource science; in wood science and technology; and in sciences related to wildland resources, forestry, and range management such as agricultural economics, botany, entomology, genetics, plant pathology, plant physiology, soils, and zoology.

For further information concerning course requirements and areas of specialization, consult the ANNOUNCEMENT OF THE SCHOOL OF FORESTRY AND CONSERVATION or a faculty adviser at 145 Mulford Hall.

Major organizational changes designed to strengthen the coverage of renewable natural resources are now under development. Interested students should obtain information on the current status of these changes from the School Office, 145 Mulford Hall.

☐ SCHOOL OF JOURNALISM

The School of Journalism offers a program leading to the degree of Master of Journalism (M.J.). The program seeks to provide training in the skills and techniques of journalism and a knowledge of the traditions and principles of the profession, combined with the study of other academic disciplines that constitute the subject matter of journalism.

A candidate for the M.J. degree shall have completed four to six quarters in graduate study in journalism and related disciplines. He shall have completed 42 units of approved upper division or graduate courses, including not less than 21 units in graduate courses in journalism, and shall have presented an acceptable thesis or reporting project. A student generally will take about two-thirds of his courses in journalism and one-third in a related field of specialization.

An applicant for graduate study should hold a bachelor's degree comparable to that given by the University of California. Requirements and procedures are outlined in the circular ADMISSION TO GRADUATE STUDY, available at the office
of the Dean of the Graduate Division, and in the Announcement of the School of Journalism.

The School also offers upper division courses for undergraduates and an undergraduate major in journalism leading to an A.B. degree. The undergraduate program is described in the Announcement of the School of Journalism: Undergraduate Program, available at the School office, 607 Evans Hall.

SCHOOL OF LAW

The School of Law (Boalt Hall) has a broad three-year curriculum leading to the Juris Doctor (J.D.) degree and a postgraduate program for students working toward the Master of Laws and Doctor of the Science of Law degrees. In addition to preparing its students to practice law, the School attempts to develop the study of law and to foster legal research. The School is a member of the Association of American Law Schools and is approved by the American Bar Association. Its graduates are qualified to become applicants for admission to practice in any state of the United States.

No single "pre-law" major is required or even recommended. However, these suggestions are made: a student should learn to write by taking courses in which his work is vigorously edited; enroll in courses demanding analytical skills; obtain some breadth in humanities and social sciences that will help in understanding the social context within which legal problems arise; and acquire a general understanding of the business world, since a significant portion of legal problems are related to the business community. But one should not be deterred from pursuing the study of law merely because his undergraduate education has not emphasized these areas. Diversity of undergraduate education enhances and enriches the legal experiences of all the students.

The School does not offer a part-time or evening program. The work of the first year is prescribed; the second and third years' courses are elective.

The School also offers programs leading to the degree of Master of Laws (LL.M.) or the degree of Doctor of the Science of Law (Juris Scientiae Doctor, J.S.D.).

For further information and admission requirements, consult the Announcement of the School of Law, a copy of which may be obtained by writing to the Admissions Office, 220 Boalt Hall, Berkeley, California 94720.

SCHOOL OF LIBRARIANSHIP

The School of Librarianship offers a one-year basic curriculum at the graduate level leading to the Master of Library Science degree, which qualifies the holder for professional service in libraries and other information agencies. It offers a post-master's program leading to one of three Certificates for specialized study. It offers a program leading to the Ph.D. degree for students interested in advanced research and teaching in librarianship and the information sciences, and a design-oriented program, aimed at giving preparation for administrative and planning positions, leading to the professional doctorate, the Doctor of Library Science. Admission to the degree programs is contingent upon admission to
graduate standing. The School also offers undergraduate courses in Bibliography for non-majors in Librarianship.

For further details on the School's programs, consult the Announcement of the School of Librarianship.

**SCHOOL OF OPTOMETRY**

The School of Optometry provides training in the practice of optometry, drawing upon the principles of anatomy, optics, physiology, and psychology, and includes the study of both environmental and personal factors influencing visual performance.

The four-year program qualifies you for the degree of Doctor of Optometry, which qualifies you to take the state board examinations in all states. The first year is devoted to more advanced study of basic sciences which form the background for optometry; the second and third years are devoted to the science of optometry and the acquisition of technical skills; the fourth year is devoted to the practice of optometry and the detailed study of specialized areas.

The School of Optometry also offers an undergraduate program in physiological optics leading to the B.S. degree. The primary purpose of this curriculum is to prepare students for the graduate program in physiological optics.

The graduate program in physiological optics leads to the Master of Science degree and the Doctor of Philosophy degree. Offered in cooperation with other departments of the University, this program is designed to prepare students for a career in teaching and research in the sciences of vision.

For admission and degree requirements, consult the Announcement of the School of Optometry.

**SCHOOL OF PUBLIC HEALTH**

Graduate curricula in the School of Public Health provide preparation for positions of leadership in health agencies, and for research and teaching in the health sciences.

The professional degrees Master of Public Health (M.P.H.) and Doctor of Public Health (Dr.P.H.) are offered in the area encompassing biomedical laboratory sciences, biostatistics, environmental health sciences, and epidemiology; and in the area encompassing behavioral sciences, health administration and planning, hospital administration, maternal and child health, public health education, public health nutrition, and public health social work. Particular attention may also be given to special fields, e.g., community mental health, comprehensive health planning, family planning, health of the school age child, medical care administration, and population problems.

Programs of study leading to the following academic degrees are administered by groups of faculty from the School of Public Health and other departments:

- Biostatistics, M.A., Ph.D.
- Comparative Pathology, M.S., Ph.D.
- Environmental Health Sciences, M.S., Ph.D.
- Epidemiology, M.S., Ph.D.
- Immunology, M.A., Ph.D.
- Microbiology, M.A., Ph.D.
- Nutrition, Ph.D.
- Parasitology, M.S., Ph.D.

Students are encouraged, and in most programs are required, to begin studies in the fall quarter because of the order in which courses are scheduled. Separate
applications for admission must be submitted to the Graduate Division of the University and to the School of Public Health no later than January 7 for admission the following fall quarter.

For further information consult the ANNOUNCEMENT, School of Public Health, University of California, Berkeley, California 94720.

GRADUATE SCHOOL OF PUBLIC POLICY

The School offers two programs of graduate study. The professional degree, the Master of Public Policy, is designed to provide students with the knowledge, skills, and sensitivities required to conduct policy studies. The Ph.D. program is oriented toward the generation of new knowledge, theories, and methodologies for the analysis of public policy.

The two-year Master's degree program consists of a first-year core curriculum, a summer internship, and a second year devoted largely to elective courses. The first-year core includes courses in political and organizational analysis, applications of economic analysis, decision analysis, modeling and quantitative approaches, and a workshop which provides opportunities to perform policy studies on selected issues. The primary focus is on analysis of American domestic policy.

Students from diverse disciplinary backgrounds are accepted into this program so long as they wish to prepare themselves to perform systematic work in public policy. Graduates from the Master's degree program will be qualified to take positions with government agencies, foundations, and research corporations. Many will become analysts while others may take administrative and political positions in which they will initiate and utilize policy studies.

The Ph.D. program is primarily designed to prepare students for careers in policy research in academic institutions, research institutes, or with government agencies. The program is small and admission into it is highly selective. The educational program will include advanced methodological training, extensive research experience in one or more substantive policy areas chosen by the students, and theoretical work in the disciplines most directly related to the individual's central policy concerns.

Brochures and information on admission procedures and program content are available at the Graduate School of Public Policy, 2607 Hearst Avenue, Berkeley, California 94720.

SCHOOL OF SOCIAL WELFARE

The School of Social Welfare is a graduate professional school which offers:

1. A program of studies which leads to the degree of Doctor of Social Welfare and which prepares students for careers in teaching, research, policy development and administration in the field of social welfare and in the profession of social work. It is open to applicants who already have completed the master's degree in an accredited school of social work and who give evidence of intellectual and other qualifications essential to successful doctoral study.

   Also offered is a combined program of master's-doctoral studies which begins in the first graduate year, leads to both Master of Social Welfare and Doctor of Social Welfare degrees, and prepares for the same careers. Applicants must
evidence ability to successfully complete doctoral study and must have undergraduate preparation as outlined below.

2. A two-year program of studies for the Master of Social Welfare degree in preparation for the professional practice of social work. Applicants must have completed the group major in social welfare in the College of Letters and Science, or an equivalent major, or undergraduate study in other social and behavioral sciences judged by the faculty as adequate preparation for graduate study in the School.

3. An advanced post-master’s School Social Work Internship program which allows graduate social workers to qualify for the California Standard Designated Services Credential. This program may be completed in two quarters of full-time attendance or in three quarters of part-time attendance by special arrangement.

A program offered jointly by the School of Public Health and the School of Social Welfare provides persons with a master’s degree in social work with a base for practice in staff, consultative, and administrative positions in health programs. Additional information about this program may be obtained by writing to the Public Health Social Work Program, School of Public Health.

Applications for admission to any of these programs should be submitted as early as possible beginning in September and no later than February 1, for admission in the following academic year. Admission to the School is contingent on admission to graduate standing; for details see the booklet Admission to Graduate Study.

Since there will be a decided effort to make a majority of the decisions for the Master of Social Welfare program by February 1, early application is distinctly advisable. Those who apply after February 1 will obviously have less chance for admission.

The Department of Social Welfare administers an undergraduate group major in social welfare in the College of Letters and Science. For further information, consult the Announcement of the School of Social Welfare.

SPECIAL SUMMER PROGRAM FOR TEACHERS
(June 24–July 26, 1974)

The Summer Program, an in-service education program in several fields of specialization, is planned and administered by the School of Education in cooperation with other departments of the University. Each course offered carries nine quarter units, the equivalent of six semester units, and one course constitutes a full academic load. Credit earned may be applied toward California teaching credentials. Admission to the program is a separate and different procedure from admission to a regular quarter or to a summer session at the University. Fees for the five-week session in 1974 include a $10 application fee, a $158 tuition fee, and a $2 student union fee—a total of $170. Auditors or visitors are not allowed in the Summer Program classes. You may obtain information about courses offered and an application form by writing to Education
FIELD STUDIES PROGRAM

Field Studies courses involve students in a coordinate program of work in community agencies and weekly seminars directly related to their field work areas.

Courses currently offered are: Child Care; Community Mental Health; Consumer Protection; Juvenile Justice; Legislative Process; Public Advocacy; and Work for Women.

Students are placed as staff members in such service-oriented environments as ASUC Child Care Centers; Alameda County Legal Aid; Bay Area Guardian; Contra Costa Social Services; etc.

Generally, Field Studies courses are 5 unit offerings, requiring a two-quarter commitment of 10 hours' work plus a 2 hour seminar weekly. Emphasis in both class and field is on individualizing the educational experience in ways which will help students make more realistic career choices, test their aptitudes in practice situations, and give relevance to their academic learning.

PREPARATION FOR PROFESSIONAL SCHOOLS

If you plan to enter a professional school or college, you may receive your required preprofessional training on the Berkeley campus.

For information concerning admission requirements for certain health professions including dental hygiene, dentistry, medicine, medical technology, nursing, pharmacy, and physical therapy and the legal profession, contact the Office of Student Advising and Assistance, 8 North Gate Hall, University of California, Berkeley, California 94720. Information on other professional school or colleges may be obtained by writing to the appropriate Dean.

Affiliated with the University is the San Francisco Art Institute with undergraduate programs leading to the degree of Bachelor of Fine Arts. A program of study at the graduate level leads to the degree of Master of Fine Arts. Prospective entrants or transfers may obtain further information from the Dean of Admissions, San Francisco Art Institute, 800 Chestnut Street, San Francisco, California 94133.