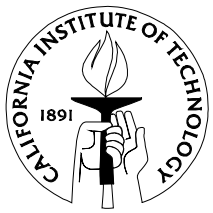
Faculty Handbook



California Institute of Technology

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1.

The California Institute of Technology

The California Institute of Technology is a privately endowed, nonprofit educational institution of university rank devoted to undergraduate and graduate instruction and research in science, engineering, and the humanities and social sciences. For financial support, the Institute depends on income from endowment funds, tuition fees, gifts, and contracts or grants involving federal, state, and local agencies. Research performed under such contracts or grants is chosen to be appropriate to the Institute's general program of advancing basic knowledge or else in response to an urgent public need.

As a private institution, the Institute is free to pioneer in education and research. It selects its own students and thus can concentrate on quality. It is able to conserve its resources for the most effective development of its students and for those programs of instruction and research that will make the greatest contribution to the acquisition of knowledge.

The History of the Institute

The Institute traces its origin to Throop University, which the Honorable Amos G. Throop founded in Pasadena in 1891 to supply instruction in manual training, domestic science, and kindred subjects, and to prepare its students for teaching positions in these fields. Throop Polytechnic Institute (as it was known after 1892) offered college-level work leading to the bachelor's degree and, to round out its educational program, also maintained an academy and an elementary school.

Thus it continued for nearly two decades, housed in three buildings on a campus in the current business section of Pasadena. In 1907, under the influence of Dr. George Ellery Hale, then the Director of the Mount Wilson Observatory, the aim of the institution was redefined. It was to concentrate on engineering training, with the possibility that it might in time, with the friendly association of the Mount Wilson Observatory, develop into a center for instruction and research in both pure and applied science.

In 1910 the Institute moved into Pasadena Hall (later Throop Hall), the first building on the present campus. For the next decade it continued primarily as an engineering college (known after 1913 as Throop College of Technology). The direction in which it was to develop, however, was broadened by the completion of the Gates Chemistry Laboratory in 1917 and the inauguration of instruction and research in chemistry and chemical engineering in the same year under the direction of Dr. Arthur Amos Noyes, Professor of Physical Chemistry and former Acting President of the Massachusetts Institute of Technology. Also in 1917, Dr. Robert A. Millikan, Professor of Physics at the University of Chicago, agreed to spend a part of each year at Throop, developing a program of graduate instruction and research in physics.

World War I necessitated a temporary diversion of energies, but after its close, plans for reorganization and development were taken up again. In 1920, the name Throop College of Technology was changed to California Institute of Technology. The following year, with the assurance of a permanent endowment fund and a physics laboratory, Dr. Millikan came to the Institute as Chair of the Executive Council.

In the same year, Noyes, Hale, and Millikan formulated the basic educational policy of the Institute. This policy, adopted by the Board of Trustees on November 29, 1921, has been largely responsible for the present character of the Institute and resulted in a graduate school that is recognized as one of the country's outstanding centers for advanced study and research. Similarly, an undergraduate school of distinctive quality developed, which merits recognition as making a contribution to collegiate education in science and engineering fully comparable to that which the graduate school makes to more advanced professional training.

For the five years beginning with the summer of 1940, the major part of the Institute's personnel and facilities were devoted to national defense for World War II. A part of the war effort involved research in rockets and jet propulsion, and the laboratories set up for these studies continue as the Jet Propulsion Laboratory in the upper Arroyo Seco. At the end of the war, the Institute returned rapidly to its primary objectives of undergraduate and graduate instruction and fundamental research.

In 1945, Dr. Millikan retired from the chairmanship of the Executive Council to become Vice President of the Board of Trustees. The following year, Dr. Lee A DuBridge was elected President of the Institute and served in that position until 1969. He was succeeded first by Dr. Robert F. Bacher as Acting President and then by Dr. Harold Brown. In January 1977, Dr. Brown became the Secretary of Defense and Dr. Robert Christy, Caltech's Vice President and Provost, became Acting President. On July 1, 1978, Dr. Marvin L. Goldberger became President. Dr. Goldberger retired from the Presidency in 1987. He was succeeded by Dr. Thomas E. Everhart, who became President on September 1, 1987, and served in that position for 10 years. From October 15, 1997 through August 31, 2006, Dr. David Baltimore served as President. He was followed by Dr. Jean-Lou Chameau who took office on September 1, 2006 and served until June 30, 2013. He was succeeded by Caltech's Provost, Dr. Edward M. Stolper who served as Interim President until June 30, 2014. On July 1, 2014, Dr. Thomas F. Rosenbaum became President.

The Institute has moved rapidly ahead in improving the quality of its education and research in all fields. A complete account of these developments can be found in the annual *Caltech Catalog*.

Educational Policies and Objectives

The educational policy of the Institute has not changed from that formulated by Caltech's three founders. It is a wise and still pertinent statement of education philosophy. Its substance is stated here.

"The four-year undergraduate engineering courses of the Institute shall include an unusually thorough training in the basic sciences of physics, chemistry, and mathematics, and a large proportion of cultural studies; the time for this being secured by eliminating some of the more specialized engineering subjects, which may be pursued in graduate courses by students desiring further professional training. It is hoped in this way to make the undergraduate courses of the Institute a combination of a fundamental scientific training with a broad cultural outlook, which will afford students with scientific interests a type of collegiate education which avoids the narrowness common with students in technical schools and the superficiality and the lack of purpose of many of those taking academic college courses. The instruction in the basic engineering subjects will, however, be maintained at the highest efficiency so that the graduates of the engineering courses may be prepared for positions as constructing, designing, operating, and managing engineers. Provision will also continue to be made, especially in the four-year courses of Physics and Engineering, Chemistry and Chemical Engineering, for the training of students for positions in the research and development departments of manufacturing industries.

"Every effort shall be made to develop the ideals, breadth of view, general culture, and physical well-being of the students of the Institute. To this end the literary, historical, economic, and general scientific subjects shall continue to be taught by a permanent staff…of mature judgment and broad experience; the regular work in these subjects shall be supplemented by courses of lectures given each year by people of distinction from other institutions, the …assemblies addressed by leading people in the fields of education, literature, art, science, engineering, public service, commerce and industry shall be maintained as effectively as possible; moderate participation of all students in student activities of a social, literary, or artistic character, as in the student publications, debating and dramatic clubs, musical clubs, etc., shall be encouraged; and students shall be required or encouraged to take regular exercise, preferably in the form of games or contests affording recreation….Great importance is also attached to making the campus attractive in its architectural and landscape features, because of the influence of such surroundings on the students and on the public.

"In all the scientific and engineering departments of the Institute, research shall be made a large part of the work, not only because of the importance of contributing to the advancement of science and thus to the intellectual and material welfare of mankind, but also because without research the educational work of a higher institution of learning lacks vitality and fails to develop originality and creativeness in its students. To insure the development of research the Trustees will provide for it financially, not as is so often the case out of the residue that may be left after meeting the demands of the undergraduate work, but duly limiting the extent of this work and by setting apart in advance funds for research and graduate study.

"In order that the policies already stated may be made fully effective as quickly as possible and in order that the available funds may not be consumed merely by increase in the student body, it is the intention of the Trustees, as previously announced, to limit the registration of students at any period to that number which can be satisfactorily provided for with the facilities and funds available. As students are not admitted on the basis of priority of application, but of a careful study of the merits of the individual applicants, the limitation has the highly important result of giving a select body of students of more than ordinary ability. A standard of scholarship is also maintained which rapidly eliminates from the Institute those who from lack of ability or industry are not fitted to pursue its work to the best advantage.

"For the same reasons it is the intention of the Trustees not to allow the work of the Institute to be extended into new branches of science or engineering until all the existing departments are brought to the highest efficiency and until the needs of student life are more fully provided for. This is in accordance with the policy pursued from the beginning of the Institute of undertaking only a few lines of work and doing these well…The Trustees consider that it is of more immediate importance to increase the salary scale, the staffs of instruction, and the laboratory facilities…already established…so that the undergraduate instruction may be improved, graduate courses offered, and research actively prosecuted…"

Organization

The President of the Institute is elected by the Board of Trustees and is charged with the responsibility of administering the affairs of the Institute. The following officers are also approved by the Board of Trustees and are responsible to the President: Provost, Vice President and Chief Operating Officer, Vice President for Advancement and Alumni Relations, Vice President for Student Affairs, General Counsel, Treasurer, Controller, Secretary of the Board of Trustees, and various other officers.

The Provost is the principal academic officer of the Institute. The Provost, aided by the Vice Provosts, is responsible for the academic budget, faculty appointments, and promotions; acts as Dean of Faculty; serves as coordinator for curriculum development; acts for the President in his absence; and carries out such other academic duties as are assigned by the President.

The Vice President and Chief Operating Officer is responsible for recommending and implementing policies concerning the Institute's business and financial operations.

The Vice President for Advancement and Alumni Relations is responsible for the staff functions involved in fundraising, establishing and maintaining relations with the Alumni Association and the Associates, and related matters. The Vice President for Student Affairs is responsible for the various student administrative services and oversees the operation and organization of the student activities of the Institute. The Secretary of the Board of Trustees maintains the records of the Board of Trustees and performs such other duties as are directed by the Board.

Further information regarding the Board of Trustees and its committees and officers will be found in the Bylaws of the Corporation, available from the Secretary of the Board of Trustees.

For the work of instruction and research, the Institute is organized in six divisions, each under its own chair—the Division of Biology; the Division of Chemistry and Chemical Engineering; the Division of Engineering and Applied Science; the Division of Geological and Planetary Sciences; the Division of the Humanities and Social Sciences; and the Division of Physics, Mathematics and Astronomy.

The Institute Administrative Council is composed of the principal academic and administrative officers of the Institute—the President, the Provost, the Vice President and Chief Operating Officer, the Vice President for Advancement and Alumni Relations, the Vice President for Student Affairs, the Vice President and Director of the Jet Propulsion Laboratory, the Division Chairs, the General Counsel, the Vice Provosts, the Chair of the Faculty, the Associate Vice President for Human Resources, the Director of Government Relations, and others at the request of the President. The Institute Academic Council (IACC) is composed of the principal academic officers of the Institute—the President, the Provost, and the Division Chairs. The IACC is the Institute body charged with reviewing and approving academic appointments, as well as the policies that guide the Institute's academic affairs.

Off-Campus Facilities

The Jet Propulsion Laboratory is a federally funded research and development center (FFRDC) owned by the National Aeronautics and Space Administration, and operated as a division of Caltech through a contract between NASA and Caltech, sometimes referred to as the Prime Contract. JPL's primary mission is to conduct challenging robotic space missions to explore our solar system, to increase knowledge of our planet and the universe, and to pave the way for human space exploration. JPL is headed by a Director who is a Caltech Vice President and responsible to the President of the Institute for the management of the Laboratory.

Astronomical observatories are operated by the Division of Physics, Mathematics and Astronomy: Palomar Observatory, San Diego County; Owens Valley Radio Observatory, Big Pine; Submillimeter Observatory, Mauna Kea, Hawaii; W. M. Keck Observatories, Mauna Kea, Hawaii (operated in cooperation with the University of California) and the Laser Interferometer Gravitational-Wave Observatory (LIGO) at Livingston, Louisiana and Richland, Washington (operated jointly with M.I.T.). The Biology Division operates the William G. Kerckhoff Marine Laboratory in Corona del Mar.

2.

The Faculty

Responsibility of the Faculty

The corporate bylaws of the California Institute of Technology provide that

> The President shall be the chief executive officer of the Institute and preside over and administer the affairs of the Institute under the authority of the Board.

Under these powers and in accordance with the normal practice at institutions of higher education in the United States, the President of the Institute delegates to the faculty the primary responsibility of carrying forward the educational and research programs of the Institute. Specifically, this delegation of responsibility to the faculty includes, but is not necessarily limited to, the following functions:

1. The admission of students and the establishment of academic standards to be met by the students;
2. The establishment of curricula and the approval of all courses of instruction;
3. The setting of requirements for all degrees to be conferred;
4. The certification of students who have completed requirements for degrees and the recommendation of those students to the Board of Trustees for the awarding of appropriate degrees;
5. The setting of general standards to be met by the educational and research programs carried on within the Institute.

All actions of the faculty undertaken under the above or other provisions are subject to the cognizance of the President and the Board of Trustees, and must be in conformity with the general policies established by the President and the Board. Such faculty actions, however, do not require specific approval of the President or the Board. Also, the faculty may at any time recommend changes in general academic policies.

In order to undertake and carry out the above responsibilities, the faculty may establish its own organization with such officers and committees as are deemed necessary to administer these responsibilities. The Board of Trustees and the President look to the faculty—both individually and through this organization—to provide effective operation of the educational and research programs of the Institute.

Bylaws of the Faculty *(Amended April 2026)*

Article I
NAME

SEC. 1. The name of this organization will be the Faculty of the California Institute of Technology.

Article II
RESPONSIBILITIES AND AUTHORITY

SEC. 1. Subject to the cognizance of the President and the Board of Trustees, the faculty is responsible for carrying out the academic and research programs of the California Institute of Technology and for setting standards to be met by these programs. Acting within the authority conferred upon it by the President and the Board of Trustees, and in conformity with the general policies established by them, the Faculty's duties include, but are not limited to: formulating policies regarding academic and extra-curricular non-fiscal matters; establishing and implementing academic standards such as requirements for admission, curricula, and courses of study; certifying degree candidates

and making recommendations to the Board of Trustees for the awarding of degrees; handling problems associated with the Institute's educational program.

Article III
MEMBERS

SEC 1. MEMBERS. The faculty will be composed of all individuals appointed by the Board of Trustees to the staffs of instruction and research of the Institute, the President, the Provost, the Vice Presidents, and the University Librarian; and such other academically qualified persons as approved upon recommendation of the Committee on Membership and Bylaws and concurrence of the Faculty Board.

SEC 2. VOTING MEMBERS. Members of the faculty who hold the following ranks on a full-time basis will be entitled to vote:

President Emeritus
Professor
Professor Emeritus
Associate Professor
Assistant Professor
Research Professor
Research Assistant Professor
Teaching Professor
Teaching Assistant Professor
University Librarian

A member of the faculty who holds one of the above ranks on a full-time basis and who, upon approaching retirement, is placed on a part-time basis will retain voting rights. Individuals having voting rights at the time these bylaws are adopted will retain those rights for the duration of their current appointment. A nonvoting member of the faculty with regularly assigned teaching responsibilities may be approved a voting member of the faculty upon recommendation of the Committee on Membership and Bylaws and concurrence of the Faculty Board.

Article IV
OFFICERS

SEC. 1. OFFICERS. The officers of the faculty will consist of a Chair, a Vice Chair, and a Secretary. The Chair, Vice Chair, and Secretary will be elected biennially in a manner prescribed in Section 3 of this Article of the Bylaws, to serve a term of two (2) years. The Chair may serve not more than two consecutive terms in that office.

SEC. 2. DUTIES. The Chair will be the executive officer of the faculty with the responsibility of looking after its interests, bringing to its attention matters that may affect it, acting in accordance with its instructions, carrying out the duties usually associated with such an office, and representing it in its dealings with the President and the Trustees. The Chair will preside at all meetings of the faculty. The Vice Chair will function as the Chair in the absence of the Chair, and will perform such other duties as the Chair may designate. The Secretary will record the minutes of all meetings of the faculty, and cause to be distributed to the entire faculty the agenda for each meeting and the minutes or a digest thereof, and perform such other duties as may be prescribed by the faculty or in these bylaws.

SEC. 3. NOMINATION AND ELECTION. The Nominating Committee, appointed in the manner prescribed in Article VII, Section 6, will nominate a member of the faculty who holds the rank of professor for each of the offices of Chair and Vice Chair of the faculty, and a voting member of the faculty for the office of Secretary of the faculty. Nominees may not concurrently serve as *ex officio* members of the Board or as Vice Provost. The Nominating Committee will secure the consent of all nominees to serve if elected. The names of the nominees will be distributed to each voting member of the faculty not later than the first full week in April, together with a statement that any ten (10) voting members of the faculty may nominate a full professor of the faculty for the offices of Chair and Vice Chair, and a voting member of the faculty for the office of Secretary. The nomination will be presented to the Secretary of the faculty not later than the last day of April. The incumbent Secretary of the faculty will secure

the consent of all candidates nominated by voting members to serve if elected. The names of the nominators of such candidates will be made a part of the permanent record of the Secretary. The Secretary of the faculty will distribute a ballot to all voting members of the faculty in the first full week in May. Such ballot will carry the names of all individuals who have consented to serve if elected, and who have been nominated by the Nominating Committee and by voting members of the faculty, and will indicate the manner in which each was nominated. The ballots will be returned to the Secretary in a timely manner. The Secretary will certify the ballots and notify the entire faculty of the names of the nominees that have been elected. In the event of a tie vote, the election will be determined by lot. The officers will assume their respective duties on July 1 following their election, and will serve in that office for the term of two (2) years or until their successors are chosen and qualified.

SEC. 4. VACANCIES. If for any reason the Chair is unable to continue in office, the Vice Chair will automatically become the Chair, to serve the unexpired term vacated by the Chair. The Vice Chair may serve an additional two consecutive terms as Chair if the unexpired term is one year or less and one additional consecutive term if the unexpired term is more than one year. If the Vice Chair is unable to continue in office or becomes the Chair, the Faculty Board will elect a Vice Chair from nominees recommended by the Nominating Committee to serve the unexpired term. If the Secretary is unable to continue in office, the Chair of the faculty will appoint a replacement to serve the unexpired term.

Article V
FACULTY MEETINGS

SEC. 1. The faculty will meet at least once each term of the academic year to receive reports and to transact all such business as may properly come before it, especially the formulation of policies. The Chair of the faculty may call a special meeting of the faculty. Such a meeting will be called to consider a particular issue at the written request of fifteen (15) voting members of the faculty.

SEC. 2. NOTICES OF MEETINGS. Notices of all meetings of the faculty will be given to each member of the faculty at least one week in advance of the meeting.

SEC. 3. AGENDA. In general, matters coming before the faculty for action will be placed on the agenda before being voted upon. Any matter may be placed before the faculty and acted upon without being placed on the agenda, unless any two (2) voting members of the faculty will request a delay. Under such circumstances, the presiding officer will delay the vote until the next meeting of the faculty.

SEC. 4. TRANSACTING BUSINESS. For purposes of transacting business, save as otherwise set forth herein, those voting members of the faculty present, but no fewer than twenty-five (25), will constitute a quorum, and voting will be by a simple majority of those present, except on procedural matters, which will be governed by *Robert's Rules of Order Revised*, and on amendments to these bylaws, which will be voted upon in the manner prescribed in Article IX of these bylaws. Voting by proxy will not be permitted. At the discretion of the Chair of the faculty, a written ballot may be required. Any action may be referred to letter ballot upon the affirmative vote of forty percent (40%) of the voting members present at any meeting, and such letter ballot will be accompanied by statements of pros and cons of the question drafted by appropriate interested representatives of the two sides.

SEC. 5. RECOMMENDING CANDIDATES FOR DEGREES. Candidates may be recommended for degrees at any regular or special meeting of the faculty upon affirmative vote of two-thirds (2/3) of the voting members present.

Article VI
FACULTY BOARD

SEC. 1. RESPONSIBILITY. The responsibility for the conduct of the business of the faculty, except the recommendation of candidates for degrees and the formulation of faculty policies, will be delegated to a Faculty Board which will administer the educational operations of the Institute within the policies set up by the faculty, the President, and the Board of Trustees. It will act on all matters brought to it by the committees of the faculty. It will initiate and recommend changes in policies and procedures to the faculty. It may appoint committees for the purpose of making special studies, reporting directly to the Faculty Board. Any person may be invited to present

matters to the Faculty Board at its discretion. The Faculty Board will report all of its actions in writing to the members of the faculty in a timely manner, except for matters whose general dissemination is not in the best interest of the Institute; such actions may be held confidential within the Faculty Board at the discretion of the Chair.

QUORUM (Faculty Board): A quorum is a majority of the elected members of the Board. The Officers of the faculty are regarded as elected members of the Board for the purpose of establishing a quorum.

SEC. 2. COMPOSITION OF THE FACULTY BOARD. The Faculty Board will be composed of its officers and the following members:

Eighteen (18) Faculty Representatives
The President of the Institute (*ex officio*)
The Provost (*ex officio*)
The Vice President for Student Affairs (*ex officio*)
The Chair of each of the Divisions of the Institute (*ex officio*)
The Dean of Graduate Studies (*ex officio*)
The Dean of Undergraduate Studies (*ex officio*)

The faculty representatives will be faculty members of the rank of Professor, Associate Professor, or Assistant Professor. One-third (1/3) of the Faculty Representatives will be elected each year for a term of three (3) years, and will assume their duties on July 1 following their election and will continue until their successors are chosen and qualified.

SEC. 3. OFFICERS. The Chair, Vice Chair, and Secretary of the faculty will serve in the same respective offices on the Faculty Board. All members of the Faculty Board will be entitled to vote except for the presiding officer, who may vote in the event of a tie. If the presiding officer abstains, the motion does not carry. The Chair of the Faculty Board will preside at meetings of the Faculty Board, and the Vice Chair will preside at those meetings at which the Chair is absent or chooses to be disqualified. If neither is present, the Board will elect a Chair *pro tempore*. The Secretary will keep accurate minutes of the actions of the Faculty Board, and cause to be distributed to each member of the Faculty Board the agenda for each meeting at least one week in advance, and provide a copy of the minutes or a digest thereof to each member of the Faculty Board and to each member of the faculty in a timely manner, except for matters whose general dissemination is not in the best interest of the Institute, which may be held confidential within the Faculty Board at the discretion of the Chair.

SEC. 4. STEERING COMMITTEE OF THE FACULTY BOARD. The Steering Committee of the Faculty Board will consist of the three Officers of the Faculty, the Provost, and five of the elected faculty Representatives appointed by the Chair of the faculty. The purposes of the committee are to assist the Chair of the faculty in preparing the agenda for Faculty Board meetings, to promote informed discussion of the topics before the Board, and to provide the Chair with advice and assistance. It is also intended as another means for informal communication between the faculty and the administration. The Steering Committee may not act on behalf of the Faculty Board, nor is its approval required for a topic to be included on the agenda of a Faculty Board meeting.

SEC. 5. MEETINGS. The Faculty Board will meet at least once each month of the academic year. The Chair of the faculty may call a special meeting of the Faculty Board. In addition, such a meeting will be called to consider particular issues at the written request of any five (5) members of the Faculty Board. Any matters may be placed before the Faculty Board and acted upon without being placed on the agenda, unless any member of the Faculty Board requests a delay. Under such circumstances, the presiding officer will delay the vote until the next meeting of the Faculty Board. Anyone, upon invitation of the Faculty Board or its Chair, may attend a meeting of the Board. The Vice Provost(s), Vice President and Chief Operating Officer, Chief Financial Officer, Vice President for Advancement and Alumni Relations, University Librarian, and General Counsel will be invited guests at every meeting.

SEC. 6. NOMINATION AND ELECTION OF REPRESENTATIVES. The Nominating Committee, appointed in the manner prescribed in Article VII, Section 6, will nominate twice as many voting members of the faculty of the rank of Professor, Associate Professor, or Assistant Professor as there are vacancies to be filled on the Faculty Board. The Nominating Committee will give consideration to the proportional distribution of members of the

Faculty Board from the several Divisions. The Nominating Committee will secure the consent of all nominees to serve if elected. A list of nominees will be distributed to each voting member of the faculty not later than the first full week in April, together with a statement that any five (5) voting members of the faculty may nominate a voting member of the faculty of the rank of Professor, Associate Professor, or Assistant Professor for one of the vacancies on the Faculty Board. Such nominations will be presented to the Secretary of the faculty not later than the last day of April. The Secretary of the faculty will secure the consent of all candidates nominated by voting members to serve if elected. The Secretary of the faculty will distribute a ballot to all voting members of the faculty in the first full week in May. Such ballot will carry the names of all individuals who have consented to serve if elected, and who have been nominated by the Nominating Committee and by voting members of the faculty, and will indicate the manner in which each was nominated. Each voting member of the faculty will be entitled to vote for three (3) candidates. The ballots will be returned to the Secretary not later than the end of the third full week in May. The Secretary will certify the ballots and notify the entire faculty of the names of the nominees that have been elected. In the event of a tie vote, the election will be determined by lot.

SEC. 7. REPLACEMENT OF REPRESENTATIVES. If any Faculty Representative ceases to be a member of the faculty, or becomes an *ex officio* member of the Board, or is disqualified by a change of rank, or resigns as a Faculty Representative, or is unable to serve because of being granted a leave of absence, or is unable to attend meetings for several months and so notifies the Secretary of the faculty, a committee consisting of the Chair of the faculty, the Vice Chair of the faculty, and the Chair of the Nominating Committee will appoint a replacement to serve the unexpired term vacated by the Faculty Representative.

Article VII
COMMITTEES

SEC. 1. NAMES. The Committees of the faculty will consist of the following:

Academic Freedom and Tenure Committee
Faculty Hearing Committee
Membership and Bylaws Committee
Nominating Committee
Standing Committees:

a. Academic Policies
b. Athletics, Recreation, and Instruction (ARI)
c. Committee on Exchange Programs and Study Abroad (CEPSA)
d. Convocations and Institute Programs
e. Core Curriculum Steering Committee (CCSC)
f. Curriculum
g. Foreign Students and Scholars
h. First-Year Admissions and Financial Aid
i. Graduate Studies
j. Health
k. Library
l. Patents and Relations with Industry
m. Postdoctoral Scholars
n. Student Life and Housing
o. Undergraduate Academic Standards and Honors
p. Undergraduate Honor Code Steering
q. Upperclass Admissions

SEC. 2. RESPONSIBILITIES. Each committee, with the exceptions of the Academic Freedom and Tenure Committee and a Faculty Hearing Committee defined in Section 4 of this Article, will be directly responsible to the Faculty Board, and will report its actions and recommendations to that body. For the purposes of transacting business, at least half the committee members will constitute a quorum.

The Academic Freedom and Tenure Committee or a Faculty Hearing Committee will keep the Chair and Vice Chair informed of cases brought before it, and will submit its final report in writing to the Chair and Vice Chair of the faculty, the complainant, and the person or persons against whom the complaint is primarily directed. The

Chair or Vice Chair of the faculty may transmit such recommendations to the Provost, President, or Chair of the Board of Trustees, as deemed appropriate to the case.

SEC. 3. ACADEMIC FREEDOM AND TENURE COMMITTEE. The interests of the faculty, senior postdoctoral scholars, and postdoctoral scholars in matters pertaining to academic freedom and tenure will be represented by the Academic Freedom and Tenure Committee. However, in such matters, the final faculty authority rests with the voting members of the faculty.

This committee will keep the Chair and Vice Chair of the faculty informed of cases brought before it, and will submit its report in writing to the Chair and Vice Chair of the faculty and to the complainant as well as to the person or persons against whom the complaint is primarily directed. A written report need not be given if the complaint is withdrawn by the complainant or if the issue is resolved informally prior to the submission of a written final report.

The Committee will consist of six (6) voting members of the faculty, none of whom may be members of the Institute Administrative Council or hold an administrative position of division chair, Vice Provost, Provost, or President. Each is elected to serve a term of two (2) years with three (3) members being elected each year. Before the end of March each year, the Secretary will send to each voting member of the faculty a form upon which the member may make nominations for membership on the committee. The nominations will be returned to the Secretary not later than the third full week of April. The three members of the committee whose terms are ending will automatically become nominees for reelection, except that no person will serve more than two terms continuously. Seven (7) nominees will be presented for balloting, they being those automatically nominated and those receiving the largest number of nominations as provided above but excluding any who, on being informed by the Secretary of the faculty of their impending nomination, state that they cannot or will not serve if elected. In case of a tie for the last place or places on the list of nominees, the Chair of the faculty will draw by lot, from among those so tied, the number required to yield seven nominees. Not later than the first full week in May, the Secretary of the faculty will submit a ballot to the voting members of the faculty The ballot will list the seven or more nominees with space for writing three additional names. The ballot will be returned to the Secretary of the faculty, either electronically or in a self-addressed envelope that will be signed on the outside by the voter, not later than the end of the third full week in May.

The Secretary will certify the results. The three individuals receiving the greatest number of votes will be declared elected as members of the committee. In case of a tie vote for the third place, the individual to be elected will be determined by lot. The Secretary will notify the entire faculty of the names of those elected.

At the first meeting, the committee will elect a new Chair and a new Vice Chair to serve in the absence of the Chair.

In the event of a vacancy, including a vacancy resulting when a member becomes ineligible to serve on the committee, the unexpired term will be filled by a special election which will be held according to procedures similar to those laid down in the section of nomination and election.

If a committee member is absent at a time when important business is to be undertaken or if a committee member chooses to be disqualified in some instance, a temporary substitute may be appointed by a committee made up of the Chair of the faculty, the Chair of the Nominating Committee, and the Chair of the Committee on Academic Freedom and Tenure, Vice Chair acting for any absent Chair.

SEC. 4. FACULTY HEARING COMMITTEE. When a Faculty Hearing Committee is convened to deal with an appeal contesting termination of a continuous professorial appointment, termination of a term faculty appointment prior to its expiration, or other appeals deemed by the Chair of the faculty to be within the purview of such a committee, the Faculty Hearing Committee will be composed of the five current faculty members who are the most recent past members of the Academic Freedom and Tenure Committee, excluding those who are disqualified either through their own judgment or because they are currently members of the Institute administration. In case a selection must be made among two or more faculty members whose past membership is equally remote, the choice will be made by lot. In the event that a committee of five cannot be constituted according to this procedure, the vacant positions are to be filled by a drawing of lots among the eighteen Faculty Representatives of the Faculty Board with the proviso that members of the Board may disqualify themselves on the basis of their own judgment. The mechanics of this selection procedure will be carried out by the Secretary of the faculty. The Faculty Hearing Committee will elect a chair from among its members.

The committee will keep the Chair and Vice Chair of the faculty informed of cases brought before it, and will submit its report in writing to the Chair and Vice Chair of the faculty, the complainant, and the person or

persons against whom the complaint is primarily directed. A written report need not be given if the appeal is withdrawn by the complainant or if the issue is resolved informally prior to the submission of a written final report.

SEC. 5. MEMBERSHIP AND BYLAWS COMMITTEE. The Membership and Bylaws Committee will consider all suggestions of individuals for election to membership in the faculty, and report its recommendations to the Faculty Board. The committee will also consider all proposed changes in the bylaws, and may initiate any changes it believes to be in the best interest of the faculty, and will report its recommendations to the Faculty Board or the faculty. The Membership and Bylaws Committee will consist of: Vice Chair of the faculty (Chair, *ex officio*), Secretary of the faculty (*ex officio*), and five (5) elected members of the faculty chosen as prescribed in Section 8 of this Article. The members of the committee will take office on July 1 following their election and will serve for two (2) years until their successors are chosen and qualified.

SEC. 6. NOMINATING COMMITTEE. The Chair of the faculty will, not later than the last full week of January of each year, appoint a Nominating Committee to be composed of six (6) members of the faculty and the Secretary of the Faculty *ex officio*. The Chair of the faculty will designate one member of the Nominating Committee to be the Chair. The Chair of the committee and at least two other members of the committee must be selected from among the Faculty Representatives on the Faculty Board, preferably appointing those whose terms of office on the Board will continue beyond the current year. The Nominating Committee will make nominations for Officers of the Faculty in accordance with Article IV, Section 3; for Faculty Representatives on the Faculty Board in accordance with Article VI, Section 6; and for Chairs and members of standing committees and elected members of the Membership and Bylaws Committee in accordance with Section 8 of this Article. The Nominating Committee will remain in office until the next year's Nominating Committee has been appointed, for the purpose of making recommendations to the Faculty Board on replacement and additions to faculty committees.

SEC. 7. STANDING COMMITTEES. The Standing Committees and their functions are listed below. All standing committees should meet at least twice per year and report the outcomes of these meetings to the Faculty Board. *Ex officio* members of committees are full voting members. Except where indicated, the chairs of committees will be nominated by the Nominating Committee.

a. The *Academic Policies Committee* will make a continuous study of the Institute's academic policies and seek data to assess the performance and academic success of the student body to inform the educational policies of the faculty. It will not be limited in any way concerning the subjects that it may take under consideration for discussion and recommendation to the Faculty Board. Among its considerations will be policy issues suggested to it by the Faculty Board and/or Chair of the Faculty. The Assistant Vice President for Diversity, Equity, Inclusion, and Assessment and Chief Institutional Research Officer, as well as the Registrar, will be ex officio members of this committee.
b. The *Athletics, Recreation, and Instruction (ARI) Committee* will be concerned with the Institute's program of physical education, athletics, and recreation. It will seek to ensure that the programs, services, and facility access remain aligned with the ARI mission to serve the entire Caltech community. The Chair of the committee will be the Chair of the three-person delegation to the faculty committee of the Southern California Intercollegiate Athletics Conference, and the other two members of that delegation will be the Athletic Director and a member of the Athletic Council as selected by the President. The Athletic Director will be an *ex officio* member of this committee.
c. The *Committee on Exchange Programs and Study Abroad* charter is to oversee Caltech's existing programs with several universities in other countries. The Committee proposes and explores new opportunities with suitable universities outside the USA. The Director of Fellowships and Study Abroad will be an *ex officio* member of this committee, and the Registrar will be a non-voting member.
d. The *Convocations and Institute Programs Committee* will be concerned with the planning and support of formal convocations, such as Commencement, and of key Institute events, upon request of the President of the Institute or of the Chair of the faculty. They will seek to uphold academic traditions that are central to Institute culture and the external presentation and representation of Caltech through events and programs. They may initiate, assist with, and/or produce campus or student programs and cultural events as the need arises. The Dean of Graduate Studies, Dean of Undergraduate Studies, and Chief Communications and External Relations Officer will be *ex officio* members of this committee.
e. The *Core Curriculum Steering Committee* coordinates and supervises content and teaching of the Core Curriculum. The Committee also devises improvements in the core. Any proposed change in Core

Curriculum courses must be reviewed and approved by the Core Curriculum Steering Committee before it is considered by the Curriculum Committee and the Faculty Board. The Committee consists of at least one member from each Division. The Dean of Undergraduate Studies will be an *ex officio* member of this committee, and the Registrar, the Director of the Center for Teaching, Learning, and Outreach, and the Assistant Vice President for Diversity, Equity, Inclusion, and Assessment and Chief Institutional Research Officer will be non-voting members.

f. The *Curriculum Committee* will exercise general supervision over the undergraduate curriculum. All proposed changes in the undergraduate program and all proposed changes in courses, including the presentation of new courses that undergraduate students will normally take, will be considered by this committee for recommendation to the Faculty Board. Changes in program or courses will be initiated by the Divisions and will be submitted to the committee, or the committee may recommend changes to the appropriate Division. The committee will determine which students, including those in the Independent Studies Program, have met the requirements for the Bachelor of Science degree and certify these candidates to the faculty for recommendation to the Board of Trustees. It will render final decisions on student petitions for substitutions of courses or departures from prescribed course schedules. The membership of this committee will include at least one representative from each Division. The Dean of Undergraduate Studies will be an *ex officio* member of this committee, and the Registrar will be a non-voting member.

g. The *Foreign Students and Scholars Committee* will be concerned with assisting foreign students and scholars on the nonacademic matters pertaining to their attendance or stay at the Institute. The Director of International Offices and the Chair of the Caltech Postdoctoral Association will be *ex officio* members of this committee.

h. The *First-Year Admissions and Financial Aid Committee* will act with power on the admission of all students to the first year of undergraduate study, and will monitor and advise on the granting of financial aid to undergraduate students in attendance at the Institute. The membership of this committee will be constituted from the names of faculty who have agreed to serve on it. All Division Chairs will provide the Chair of the Nominating Committee four candidates who have agreed to serve, except that the Chair of the Division of Engineering and Applied Science will provide at least six candidates. The Executive Director of Undergraduate Admissions, the Director of Student Financial Aid, and the Assistant Vice President for Student Affairs, Enrollment & Career Services will be *ex officio* members of this committee. Student members of this committee will not read applications nor vote on admissions decisions.

i. The *Graduate Studies Committee* will exercise supervision over the scholastic requirements established by the faculty for all advanced degrees. All proposed changes in programs and courses for which graduate credit is granted and requirements for graduate degrees will be referred to this committee for recommendation to the Faculty Board. Changes in programs and courses will be initiated by the Divisions and will be submitted to the committee, or the committee may recommend changes to the appropriate Division. The committee will determine which students have met the requirements for the Master of Science, Engineer's, and Doctor's degrees and certify these candidates to the faculty for recommendation to the Board of Trustees. The membership of the committee will consist of the Dean of Graduate Studies and all Option Representatives *ex officio*. This committee will nominate its own Chair.

j. The *Health Committee* will have oversight over the Institute health programs, insofar as they are related to the undergraduate students, graduate students, postdoctoral scholars, and faculty. The Dean of Undergraduate Studies, the Dean of Graduate Studies, and the Director of Health and Counseling Services will be *ex officio* members of this committee.

k. The *Library Committee* will advise the University Librarian concerning the operation of the Institute library facilities, and will formulate policies on the administration of the libraries of the Institute. The University Librarian will be an *ex officio* member of this committee.

l. The *Patents and Relations with Industry Committee* will administer the patent policy of the Institute, and may recommend to the Faculty Board any changes in patent policy. It will also be concerned with all non-fiscal matters of faculty interest pertaining to relations with industry and the Industrial Associates Program of the Institute.

m. The *Postdoctoral Scholars Committee* shall be concerned with matters relating to postdoctoral training and mentoring at Caltech, as well as non-fiscal issues related to postdoctoral scholar support and life. The membership of the committee will consist of the Provost or delegated Vice Provost, Faculty Representatives for Postdoctoral Affairs from each Division as well as a Postdoctoral Scholar to be appointed by the Chair of the Faculty in consultation with the Caltech Postdoctoral Association (all *ex officio*). To assist the committee in their deliberations, the Director of Human Resources Systems and

Services and the Postdoctoral Scholars Office Administrator from the Office of the Provost will be non-voting members. The committee will elect its own Chair each academic year.

n. The *Student Life and Housing Committee* will be concerned with matters relating to housing and the residential experience for undergraduate and graduate students. It will be concerned with the operations of all student houses and residences and provide a forum for students and faculty to share information and concerns. The Director of Athletics, Physical Education, and Recreation, the Dean of Undergraduate Studies, and the Dean of Graduate Studies, and the Assistant Vice President for Student Affairs and Student Experience will be *ex officio* members of this committee. Members of the Student Affairs staff, as determined by the Nominating Committee, can be non-voting members.

o. The *Undergraduate Academic Standards and Honors Committee* will render final decisions on petitions for reinstatement, for excess units, and for leaves of absence. The Registrar and the Dean of Undergraduate Studies (or an Associate Dean designated by the Dean of Undergraduate Studies) will be *ex officio* members of this committee. The Assistant Vice President for Student Affairs and Wellness will be a non-voting member of this committee.

p. The *Undergraduate Honor Code Steering Committee* will oversee and make recommendations about the enforcement of the Institute's policy on academic misconduct as stated in the *Honor Code Handbook*. It will assess the Board of Control (BoC) process for adjudicating cases of academic misconduct and meet once per term, providing a forum for students, faculty, and staff to share information and concerns. The committee's membership will be entirely *ex officio* and comprised of one faculty Honor Code liaison per division, as recommended by the division chair and approved by the Chair of the faculty. An additional faculty Honor Code liaison may be appointed from particular divisions in the aforesaid manner as deemed necessary by the Faculty Board. The Dean of Undergraduate Studies and the Director of Conduct and Community Standards will also be *ex-officio* members, as will the BoC chair and the BoC secretaries. The BoC chair may appoint additional undergraduate members to the committee, to be chosen from the current BoC representatives. The total student membership may reach parity with, although not exceed, the faculty Honor Code liaison membership. The Chair of the faculty will designate one faculty Honor Code liaison to be the chair.

q. The *Upperclass Admissions Committee* will act with power on the admission of students from other institutions to the second, third, and fourth years of undergraduate study, and will make recommendations on financial aid awards to them. The Executive Director of Undergraduate Admissions will be an *ex officio* member of this committee. In determining composition of this committee, the Nominating Committee will take into account the options of transfer students matriculating in recent years. Student members of this committee will not read applications nor vote on admissions.

SEC. 8. NOMINATION AND ELECTION. The Nominating Committee, appointed in the manner prescribed in Section 6 of this Article, will nominate voting members of the faculty for all chairs and elected members of Standing Committees and elected members of the Membership and Bylaws Committee in accordance with the requirements contained in Sections 5 and 7 of this Article, prior to the last full week in April, and will secure the consent of each nominee to serve if elected. In addition, the Chair of the Faculty, in consultation with the Nominating Committee, may nominate as a member, *ex officio*, but not as chair, any administrative officer concerned with the operations or the subjects pertaining to a committee. At the time nominations are made, the Nominating Committee will determine, in consultation with the committee chair then serving, the number of members for each Standing Committee and will secure suggestions of the names of individuals for membership on committees. The Faculty Board may change the number of members of any Standing Committee at its discretion. The Secretary of the faculty will distribute a ballot on all voting members of the faculty in the first full week in May. The ballot will make provision for write-in votes. The ballots will be returned to the Secretary not later than the end of the third full week in May. The Secretary will certify the results and notify the entire faculty of the names of those elected. a) A faculty committee member is elected for a three (3) year term, which can be renewed for another three (3) year term. An exception can be made at the discretion of the Chair of the Faculty. b) A committee chair is nominated for a term of three (3) years from the pool of experienced committee members. The committee chair must be a tenured, non-emeritus faculty at the time of nomination. The term of service can be extended as deemed appropriate by the Nominating Committee.

SEC. 9. STUDENT AND POSTDOCTORAL SCHOLAR REPRESENTATION ON STANDING COMMITTEES OF THE FACULTY. The faculty may permit full-time registered students and postdoctoral scholars at the California

Institute of Technology to serve as members of Standing Committees of the faculty, with the same membership rights as faculty members, subject to the following conditions:

(1) Each Standing Committee may accept a number of student members not to exceed one-third of the elected faculty membership of that committee, except that up to two student members may be permitted on a committee having five faculty members and that on the Undergraduate Honor Code Steering Committee the student membership may reach parity with, although not exceed, the faculty Honor Code liaison membership.
(2) Each Standing Committee may accept one Postdoctoral Scholar.
(3) Student membership on Standing Committees normally will be divided between undergraduate and graduate students, except that in the case of a committee whose primary function concerns only one of these two student groups, all of the student members may be from that group. Before the beginning of the spring quarter, the chair of each Standing Committee will, in consultation with the Chair of the faculty, decide upon the distribution of student and/or postdoctoral representatives appropriate for the duration of their term.
(4) Student and postdoctoral scholar membership is conditional upon the Faculty Board's acceptance of provisions in the bylaws of the Associated Students of the California Institute of Technology, Inc., the bylaws of the Graduate Student Council, and the bylaws of the Caltech Postdoctoral Association as ensuring a choice of students or postdoctoral scholars who are acceptable to their constituencies. Any changes adopted by ASCIT, the GSC, or the CPA to procedures for selecting representatives must be presented to the Faculty Board for approval before any students or postdoctoral scholars may be seated on committees.

SEC. 10. VACANCIES AND ADDITIONS. Vacancies in any Standing Committee may be filled, and additional committee members may be appointed between elections, by the Chair of the faculty on the recommendation of the Nominating Committee. Such members will be regarded as elected members.

SEC. 11. OTHER COMMITTEES. Other committees may be appointed from time to time by the Chair of the faculty or at the request of the faculty or the Faculty Board.

Article VIII
PARLIAMENTARY AUTHORITY

SEC. 1. PARLIAMENTARY AUTHORITY. The procedure of meetings of the faculty and the Faculty Board will be governed by the rules contained in *Robert's Rules of Order Revised* in all cases to which they are applicable, and in which they are not inconsistent with these bylaws.

Article IX
AMENDMENTS TO THE BYLAWS

SEC. 1. AMENDMENTS. These bylaws may be amended by the affirmative vote on a letter ballot of two-thirds (2/3) of the voting members of the faculty who submit a ballot in the prescribed manner. An amendment may be initiated by a majority vote of the Faculty Board or of the Committee on Membership and Bylaws, or by a motion made and carried at any properly called meeting of the faculty. In addition, an amendment may be suggested by a voting member of the faculty to the Faculty Board for its consideration, either through a member of the Board or by letter to the Board. Any proposed amendment will be referred to the Committee on Membership and Bylaws for review and recommendation. After the initiation of an amendment, the amendment must be submitted to each voting member of the faculty at least one month prior to the submission of a ballot. One month after the amendment has been presented in writing to the voting members of the faculty, the Secretary will send to each voting member of the faculty a ballot to be returned to the Secretary within ten (10) days. The Secretary will certify the results and announce the results of the vote to the faculty.

When the bylaws have been amended, the complete record of original and amended forms will be kept in the minutes of the faculty. Subsequent copies of the bylaws for use will be modified to carry only the amended wording.

SEC. 2. CHANGES OF TITLE. The provisions of Section 1 notwithstanding, when the title of any administrator named in these Bylaws is changed by the Institute, the Secretary, with the concurrence of the Faculty Board, may change these bylaws to reflect that change.

3.

Obligations and Tenure of Faculty Members

(Note: As used in this chapter, the term "faculty" shall be interpreted to refer only to such professors, associate professors, and assistant professors as are on full-time appointment. This definition of faculty, commonly referred to as "tenure-track" faculty, is more restrictive than the general definition of "Member of the faculty" given in the Faculty Bylaws, Article III.)

All appointments of faculty members of the Institute are approved either by the Board of Trustees or by the President under powers delegated by the Board. The President of the Institute acts as an agent for the Board in carrying out its policies and administering faculty matters. The following policies governing obligations and tenure of the members of the faculty were approved by the faculty on March 9, 1981, and adopted by the Board of Trustees on January 11, 1982.

It is evident that all aspects of the relations between the Institute and its faculty cannot be reduced to written rules. The duties and reciprocal obligations involved are inherent in the common desire to serve the public interest and to promote the welfare of the Institute. In attaining these ends, certain guiding principles of procedure are desirable, and this statement outlines these principles.

Obligations

The Institute is prepared to defend freedom of speech, of teaching, and of research. Faculty members, in accepting appointments, undertake to uphold and promote the aims of the Institute. If they are on full-time appointments, their professional efforts should be directed primarily to teaching, research, and administrative work. As teachers, they should be effective in transmitting a knowledge of and interest in their disciplines and should keep abreast of current professional developments. Research should be of such caliber as to contribute to the advancement of their particular field. Faculty members should expect to carry their share of administrative and committee work. They should recognize that promotion will be based upon the extent to which these obligations are fulfilled, and that failure to meet these obligations may result in termination of appointment.

Faculty Members have special responsibilities as representatives of the Institute, especially when serving on Academic Tenure evaluation committees. These obligations include, but are not limited to, fairness and integrity, lack of bias or prejudice, respect for the opinions of others, support for academic freedom, and concern for the welfare and reputation of the Institute as a whole.

College or university teachers are citizens, members of learned professions, and officers of an educational institution. When they speak or write as citizens, they should be free from institutional censorship or discipline, but their special position in the community imposes special obligations. As men and women of learning and educational officers, they should remember that the public may judge their professions and institutions by their utterances. Hence, they should be accurate at all times, should exercise appropriate restraint, should show respect for the opinions of others, and should make every effort to indicate they are not institutional spokesmen.

Academic Tenure

Academic freedom and economic security are vital to the success of the faculty of the California Institute of Technology in fulfilling its obligations to its students and to society.

A faculty member having "academic tenure" will have a continuous appointment that may be terminated only for adequate cause, or through voluntary retirement, or because of financial exigencies.

The Institute accepts in general the statement of principles on tenure as endorsed by the Association of American Colleges and the American Association of University Professors as described in the AAUP 1990 Edition, *Policy Documents and Reports*, pages 3-10. The following statement has been formulated to apply these basic principles and to provide a basis for mutual understanding when appointments are made to the faculty of the Institute. It should be noted that the Institute's policy differs from that of the statement of principles referred to

above with respect to definition of appointments that may lead to tenure after an initial probationary period. Furthermore, the Institute's policy as stated herein may differ in important details from recommendations (subsequent to 1941) by the American Association of University Professors in regard to academic tenure.

Statement on Tenure

Approved by the Faculty Board on November 13, 1989

Introduction
This policy outlines the standards and procedures used by the Institute to decide on the granting of academic tenure. Some further elaboration is necessary to describe particular additional details of the procedures followed in individual Divisions, but all Divisions adhere to the principles laid out below.

Purpose
The purpose of academic tenure is to foster: (1) Freedom of teaching and research and of extramural activities, and (2) a sufficient degree of economic security to make the profession attractive to men and women of ability. The Institute's goal in making the tenure decision in each individual case is to secure for the Institute the best possible permanent faculty. To serve that goal, tenure decisions are based on the candidate's excellence in research, scholarship, and teaching. Excellence in the candidate's contributions to other Institute activities may also be taken into consideration. Characteristics unrelated to professional achievement, such as sex, race, color, age, national origin, disability, religion or sexual orientation are to be rigorously excluded.

Standards
The decision to grant academic tenure at Caltech should represent a confident judgment that the candidate will spend an entire professional lifetime of outstanding research and national leadership in significant areas of scholarly study, and will contribute substantially to the education of Caltech students. A decision not to grant tenure may be based on a judgment that this high standard is not met, or it may be a consequence of a decision not to emphasize further the candidate's field of study at Caltech, or it may be a consequence of financial exigency.

Procedures
The decision to award academic tenure must be made, and the candidate must be informed, no less than one year before the end of the tenure probationary period, normally seven years.

During the probationary period, the Division Chair (DC) is responsible for keeping the candidate informed as to whether satisfactory progress toward tenure is being made. Tenured members of the faculty of the Division are responsible for keeping the DC well informed of the candidate's progress, either informally, or through the mechanism of a committee assigned to the purpose.

Approximately two years before the end of the tenure probationary period of each candidate, the DC appoints an *ad hoc* tenure review committee comprised of tenured faculty members, not including the DC. (In place of an *ad hoc* committee, a standing committee for professional staffing may be used.) The committee should include members with sufficient expertise to evaluate the candidate's work, but it should also be representative of the broad scope of the Division.

The tenure review committee is responsible for conducting and documenting a rigorous inquiry leading to a judgment of whether the candidate has met the Institute's standards for tenure. To help accomplish this task, letters of reference are sought from experts outside of Caltech. These experts are persons able to give a balanced and knowledgeable view of the candidate's accomplishments and stature. Additional information may be sought from the candidate and from members of the Caltech community.

The written report and recommendation of the committee, together with the letters of reference and other relevant information, are presented to the tenured faculty of the Division or a substantial subset of that faculty, including the DC. At one or more meetings of this body the recommendation is debated and, after careful consideration, a vote is taken.

The DC presents the written documentation and the vote or consensus of the divisional faculty, together with the DC's own conclusion and recommendation, to the Institute Academic Council (the IACC, consisting of the President, Provost, and six DC's). This group considers the case in light of the standards and interests of the entire Institute, and votes upon it. The vote constitutes a recommendation to the Provost and President, who make the final decision.

Additional Tenure Matters

The terms and conditions of every appointment to the faculty shall be stated in writing, and copies of the letter of appointment shall be in the possession of both the Institute and the appointee. The appointment becomes effective when the appointee signs and returns to the Provost an acceptance copy of the letter of appointment.

New full-time faculty appointments at ranks of Assistant Professor, Associate Professor, or Professor are normally considered to be probationary and therefore without academic tenure, although initial appointments at the rank of Professor may carry immediate academic tenure. The maximum length of the probationary period shall not exceed seven years except in the case of child-bearing leave as described below. No more than three years service in full-time teaching and research in other institutions of higher education in teaching faculty status (at the ranks already listed), shall be deducted from the seven-year maximum probationary period. For each new teaching faculty appointment, the proposed duration of the probationary period shall be stated in the initial letter of appointment. Because titles and ranks used at other universities may differ from those at Caltech, the equivalence for purposes of allowing deductions from the seven-year probationary period will be negotiated and agreed upon at the time of the appointment. A faculty member continued in service with professorial rank after the expiration of the probationary period for tenure shall have academic tenure.

Time served by a member of the Institute staff of instruction and research other than a Professor, Associate Professor, or Assistant Professor on full-time appointment will not be considered as part of the probationary period, unless otherwise specified in the letter of appointment. Tenure granted through appointments in one Division or one discipline of a Division of the Institute is not to be regarded as valid in all other Divisions or disciplines thereof. Formal transfers of affiliation will only be made through recommendations of the Division(s) involved and with approval of the Provost and President.

A professorial faculty member will automatically be granted an extension of the probationary period of one year for the birth or adoption of a child, up to a maximum of two years for two children, unless he or she elects to forego the extension in writing. A one-year extension is granted for birth or adoption of twins, and for birth or adoption in the one year prior to the start of an initial Caltech faculty appointment. The extension can be, but is not required to be, associated with a leave of absence related to the birth or adoption (please see Chapter 5 for matters related to child-bearing and child-care leave). In most cases, the one-year extension of the probationary period does not delay the reappointment review that is conducted during the first four years of a tenure-track appointment. The Division Chair must be informed of the birth or adoption in time to avoid interference with the tenure review process.

Appointments to professorial ranks may occasionally be made on a full- or part-time basis for a fixed term of years without tenure or expectation of gaining it. Such appointments are available to faculty members who have lost eligibility for the early-retirement program and under other circumstances in which a non-tenured professorial appointment is of extraordinary value to the Institute.

The Standards for Notice

Notice to a faculty member of nonreappointment or of intention not to recommend reappointment to the Board of Trustees is to be given in writing in accordance with the following standards:

1. Not later than March 1 of the first academic year (the academic year at Caltech is regarded as beginning on September 15) of service, if the appointment expires at the end of that academic year, or, if a one-year appointment terminates during an academic year, at least three months in advance of its termination.
2. Not later than December 14 of the second academic year of service, if the appointment expires at the end of that year, or, if an initial two-year appointment terminates during an academic year, at least six months in advance of its termination.
3. At least twelve months before the expiration of an appointment after two or more years at the Institute.

In cases involving termination of a continuous professorial appointment or a term appointment of a faculty member or postdoctoral scholar prior to its expiration date, the faculty member shall receive notice of such termination at least one year in advance of its effective date (for faculty members who have been employed by the Institute for at least two years), unless such termination is for reasons of moral turpitude. For faculty members or postdoctoral scholars who have been employed by the Institute for between one and two years, the advance notice shall be six months, and for those employed less than one year the advance notice shall be three months.

Salary and Residence of Faculty Members

The Board of Trustees of the Institute on April 7, 1947, approved a faculty salary plan effective on July 1, 1947, by which full-time appointments are normally made on a twelve-month basis. Those who accept twelve-month appointments agree to recognize the year-round nature of the Institute activities and to carry forward during the summer months such research, study, preparation of course material, teaching, supervision of students, revamping of student laboratories, or administrative activities as may be appropriate or requested in each individual case. The stated salary of an individual is intended to cover all services to the Institute and will only be affected by devoting time to special contract or project work under unusual circumstances (see Chapter 7).

Professorial faculty members who wish to undertake study or research away from the Institute campus should apply for a leave of absence, which may be granted with or without salary as appropriate to carry on such study.

4.

Faculty, Postdoctoral Scholar, and Staff Appointments

The appointment or promotion of a faculty member will, in general, be initiated by a recommendation from the appropriate Division Chair to the Institute Academic Council (IACC). After careful consideration, which for senior faculty will usually include external letters of recommendation and, if necessary or desirable, appropriate interviews, the Provost will make a formal recommendation to the President. Appointments and promotions acceptable to the President will be submitted to the Board of Trustees or its Executive Committee for approval, except for those faculty for whom the Board has delegated the power of approval to the President.

Appointments and promotions approved by the Board of Trustees or its Executive Committee shall be communicated to each individual concerned by means of an official letter of appointment prepared by the Provost and signed by the President, Provost, or Vice Provost. The recipient must sign and return to the Provost's Office an acceptance copy before the appointment or promotion can be effective.

Employment Policies and Affirmative Action

The quality of instruction and research at the Institute depends first and foremost on the quality of its employees whether professors, administrators, staff, researchers, engineers, or artisans. To maintain its stature, the Institute must give its highest priority to searching for and promoting employees of exceptional qualifications at all levels. Within this context, the California Institute of Technology is an equal opportunity employer and, in every respect, is committed to an active Affirmative Action Program.

It is the stated policy of the Institute that all faculty and staff employees and applicants shall receive equal consideration and treatment. All recruitment, hiring, placements, transfers, and promotions will be on the basis of qualifications of the individual for the position being filled regardless of sex, race, creed, color, religion, national origin, ancestry, age, marital status, pregnancy, gender, gender expression, gender identity, sexual orientation, genetic information, status as a disabled veteran, or other eligible veteran, otherwise qualified disability, or any other condition protected by the state and federal law. All other personnel actions such as compensation, benefits, layoffs, returns from layoff, termination, training (including apprenticeship and tuition assistance), and social and recreational programs are also governed by this policy.

In addition, the many federal and state laws, and regulations issued thereunder, which bar discrimination in employment and related activities, are also applicable.

The objective of the Institute's Affirmative Action Program is wherever possible to recruit actively and include for consideration for employment members of minority groups, women, veterans, and the handicapped. All decisions on employment and promotions must be made solely on the individual's qualifications (merit), bona fide occupational qualifications for the job in question, and the reasonableness of any necessary job accommodations.

Any person needing additional information or assistance concerning the application of federal and state laws and regulations should contact the Provost's Office.

Administrative Appointments of Faculty Members

Faculty members in administrative positions serve in those positions at the pleasure of the President or Provost. The duration of such appointments is usually for a period of three or five years with the understanding that a review at that time may lead to a renewal of the appointment for a further three or five-year period. A three or five-year commitment is long enough for the appointee to grow to the position and to achieve significant results but short enough so that return to full-time teaching and research is possible. A second appointment would normally allow completion of a comprehensive set of objectives in an administrative position. A third such appointment would therefore be unusual, but is not excluded. In recognition of administrative service, a salary increment, specified in the letter of appointment, may be added to the base salary of the faculty member for the duration of the

administrative appointment only. Individuals appointed to administrative positions from outside the Institute are subject to a similar set of considerations.

Administrative Committees

The Administrative Committees of the Institute are appointed by the President or Provost. A list of the current committees and their members may be found in the *Caltech Catalog*.

Emeritus Faculty Members

It has been the tradition at Caltech that many retired professorial faculty members continue to maintain close contacts with the Institute. The continuation of this association can be enjoyable and beneficial to the retired faculty members and it can be of substantial advantage to the Institute. It reduces the abruptness of retirement; it maintains academic relationships; it fosters useful work; and it provides the younger faculty members with invaluable sources of experience and wisdom.

Any professorial members of the faculty of age 62 or greater who have served on a full-time basis for ten years or more prior to their retirement may be considered for appointment to appropriate emeritus status. Recommendations, based upon distinguished academic accomplishments at the Institute, will be made by the appropriate Division Chair to the Provost for the approval of the Board of Trustees. Privileges of emeritus professors are in Chapter 5.

Research Faculty

Research faculty members have traditionally played an important role in keeping the research activities of the Institute at the forefront. Because of changes that occur in research support, directions, resources, and professorial personnel, it is necessary that research appointments be made on quite specific terms. Any exceptions to the following guidelines for appointment of research faculty members must be specifically stated in each letter of appointment or reappointment.

Research faculty appointments are non-tenure-track and require the association of the appointee with a specific professorial faculty member. Appointments are contingent on continuation of the appointee's research area and its level of funding. In case of discontinuation of the appointee's research area or significant diminution of fiscal support for the appointee's work in it, the Institute, at its discretion, may give notice of termination. Such termination will be effective twelve months after the date of notice or at the previously specified appointment expiration date, whichever comes first. Notice of nonreappointment or of intention not to reappoint senior research faculty made for other reasons shall conform to "The Standards for Notice," Chapter 3 (1, 2, and 3).

A senior research faculty member may be a principal investigator on a grant or contract only with the approval of the cognizant Division Chair, and only for projects for which a member of the professorial faculty is either co-investigator, or assumes formal responsibility for the validity and importance of the research and management of the budget. If the Division Chair has a close collaboration with the principal investigator (e.g., the Division Chair has collaborated extensively with the principal investigator, they are co-founders of a company, the Division Chair serves as advisor of record to the principal investigator's graduate students), then Vice Provost approval will also be required. Within the scope of the general guidelines, senior research faculty (research professors and research assistant professors) may be cooperative or independent in research.

Nonresearch-related activities, including any occasional or voluntary teaching or service on administrative or faculty committees by the members of the research faculty, should be consistent with the purpose of the source of salary support, which is most often wholly from outside grants or contracts. Institute teaching assignments for research faculty members are to be undertaken only on an occasional and strictly voluntary basis. Temporary appointment to the rank of Lecturer is required, and compensation is normally paid to the research budget rather than to the individual. Supervision of thesis research undertaken by graduate students is permitted provided the responsible thesis advisor is a member of the professorial faculty. In such cases, responsibilities of the advisor of record include general advising, monitoring student progress, meeting with the student at least twice a year, and in most cases, being a member of the thesis advising committee.

Evaluation of the performance of research faculty is made only on the basis of their contributions to research. Senior research faculty appointments and reappointments are recommended and approved according to

administrative procedures for faculty status as described in the first section of this chapter. Please see Chapter 8 for further discussion of policies regarding research faculty.

Research Professors
Research professor appointments are made to individuals who have achieved national and international recognition for research and scholarly achievement. The appointment is normally for three years. Performance as research professor, and the desirability of continuation of the association of the appointee with the Institute, will be reviewed by a committee appointed by the cognizant Division Chair at regular intervals, not to exceed five years.

Research Assistant Professors
Appointments as research assistant professor are made for terms up to three years, but the rank of research assistant professor may only be held for a total of six years. In no instance may the amount of time spent in the combined ranks of postdoctoral scholar, senior postdoctoral scholar and research assistant professor exceed nine years. Renewal after the first two or three years as research assistant professor will be made on the basis of recommendations by a review committee appointed by the cognizant Division Chair.

Faculty Associates and Senior Faculty Associates
The titles of faculty associate or senior faculty associate may be conferred on rare occasions to a few individuals who have high professional attainments and who would be expected to make a substantial contribution to the Institute's research program. These appointments are not nor should they be viewed as part of a routine sequence of ranks available to Caltech campus or JPL employees. All appointments with these titles will be without additional stipend from the Institute, will be for a definite term not to exceed three years, and carry no implication of tenure. These appointments will not be extended beyond a total of five years without review by the faculty of the Division concerned. All appointments of faculty associates will be recommended and approved by the procedures used for research professors. Persons with these titles may hold research grants only with the approval of the Division Chair and Vice Provost, and if the grant proposals are cosponsored by a member of the professorial faculty. Senior faculty associates may use resources from such grants to offset their normal JPL salary only. Faculty associates and senior faculty associates (in some graduate options only) may supervise thesis research; however, the thesis advisor of record must be a tenured or tenure-track Caltech faculty member. Responsibilities of the advisor of record include general advising, monitoring student progress, meeting with the student at least twice a year, and in most cases, being a member of the thesis advising committee.

Teaching Faculty

Teaching faculty members are an integral part of the Institute's teaching program and serve as an important resource for our undergraduate and graduate students. Any exceptions to the following guidelines for appointment of teaching faculty members must be specifically stated in each letter of appointment or reappointment.

Teaching faculty appointments are non-tenure-track and require sponsorship from a Division Chair. Appointments are contingent on continuation of the instructional needs of each Division. In case of discontinuation of a teaching faculty appointment, the Institute, at its discretion, may give notice of termination. Such termination shall conform to "The Standards for Notice," Chapter 3 (1, 2, and 3).

Teaching faculty members may serve as members of thesis committees and may supervise undergraduate research, but may not supervise graduate research. Proposals for teaching grants require professorial faculty sponsorship and approval by the Division Chair and Vice Provost for Research. Teaching faculty members may participate in research activities, but may not apply for research grants. Evaluation of the performance of teaching faculty is made on the basis of their contributions to the teaching program.

Teaching Professors
Teaching Professor appointments are made to individuals who have achieved a high level of distinction in teaching. The appointment is normally for three years. Performance as teaching professor and the desirability of continuation of the association of the appointee with the Institute will be reviewed by a committee appointed by the cognizant Division Chair at regular intervals, not to exceed five years.

Teaching Assistant Professors
Teaching assistant professor appointments are made to individuals who show promise to achieve a high level of distinction in teaching. The appointment is made for terms up to three years, but the rank of teaching assistant

professor may be held for only a total of six years. Renewal after the first two or three years as teaching assistant professor will be made on the basis of recommendations by a review committee appointed by the cognizant Division Chair.

Instructors

An appointment as instructor at the Institute is normally for full-time teaching and research. Appointments may be made for one or two years, but the rank of instructor may be held for no more than a total of three years. Appointment as instructor is not tenure-track and time served as instructor, whether at the Institute or elsewhere, does not count toward academic tenure.

Lecturers

Lecturer appointments are not tenure-track and are primarily for specific teaching assignments customarily on a part-time basis. In rare instances and on an individual basis, lecturers with substantial teaching loads and long service will be given multi-year term appointments that also make them eligible for participation in the faculty retirement plan. Time served as lecturer at the Institute or elsewhere does not count toward the probationary period of academic tenure. Lecturer appointments will be extended on the basis of review no less frequently than every fifth year, unless it is clear that the sixth year will be the last year. Standards of notice for Lecturers are governed by their individual contracts.

Visiting Members of the Faculty

Visiting Professors

Visiting professors (of the different ranks) must teach at least one course while in residence at the Institute.

Visiting Associates

Visiting associates are appointed for study or research. Teachers or investigators associated with other institutions who expect to stay at the Institute more than one month, or who will spend the equivalent of one day per week or more on campus over an extended period of time, should receive this appointment. The Division Chair concerned recommends the visitor's appointment to the Provost, and an official notice of appointment is sent by the President. Appointments of visiting faculty members will be extended beyond a cumulative total of five years only on the basis of recommendations resulting from a review process set up by the cognizant Division Chair.

Faculty Records Office

Faculty members must provide the Faculty Records Office with the following information and promptly make notifications of any changes therein.

1. Changes in name and/or marital status.
2. Correct addresses and telephone numbers.
3. Forwarding addresses.
4. Honors and awards received.
5. Any change in visa status (inform the Faculty Records Office and the Office for International Scholar Services).

Other Members of Staff of Research, Instruction, and Professional Service

Postdoctoral and Senior Postdoctoral Scholars

The principles, policies, and administrative procedures concerning Postdoctoral Scholars and Senior Postdoctoral Scholars are published in the Postdoctoral Scholars Handbook which is available from the Postdoctoral Scholars Office.

Visitors

Visitors are appointed for terms of no more than one year, and may be reappointed for a total of up to three years. A division may request exceptions as to the term of an appointment or as to the overall length of time a visitor stays at Caltech. Such requests should be in the form of a strong, well-documented recommendation and require approval by the Provost. Visitors are not considered members of the Caltech faculty nor may such appointments be

considered a pathway to regular employment. They may be full-time or part-time, paid or unpaid. The criteria for appointment are as follows:

1. A visitor must be nominated by an active professorial faculty member who is a colleague and is responsible for making her or his stay at Caltech mutually beneficial.

2. A visitor must have an established position or relationship (e.g., registered student, on sabbatical, leave, on loan, etc.) with another academic or research institution or other approved organization/entity.

Insurance Coverage for Visitors
Required insurance coverage will vary depending on each visitor's circumstances. Caltech will determine what coverage(s), if any, are needed in each case, what individual or entity is to pay for its cost, and through what process such transactions are to be executed.

Foreign National Visitors
Foreign national appointees must show evidence of an appropriate visa that is current and will remain valid for the duration of the proposed period of appointment. Foreign national appointees for whom Caltech sponsors a visa must be able to demonstrate financial support sufficient to provide for a stipend equal to or exceeding the minimum rate set for graduate research assistantships paid by Caltech plus appropriate insurance coverage fee(s).

Visitor Entitlements and Restrictions
1. A 'visitor' identification card.
2. Listing in the campus directory.
3. Participation in Caltech's benefit plans, consistent with eligibility criteria for each program.
4. May not serve as principal investigators or co-investigators on sponsored or non-sponsored research grants or contracts.

Graduate Student Assistants
Graduate assistantships require services related to teaching or research for which no academic credit is given. Graduate fellowships and scholarships require study and research for which academic credit is given. Some fellowships involve teaching duties as well. In general, graduate scholarships provide only tuition grants.

All official appointments or terminations of registered graduate students to fellowships, scholarships, and graduate assistantships are made through the Office of the Dean of Graduate Studies on the basis of recommendations made by the appropriate Divisions. Appointees are members of the staff of research and instruction but are not members of the faculty.

Members of the Professional Staff, Members of the Beckman Institute, and Librarians
Members of the professional staff have educational backgrounds, daily activities, and contributions to the scientific and technical operation and planning of the Institute that are in many ways comparable to those of the staff of research and instruction. Members of the Beckman Institute are scientists or engineers who, on the basis of their experience and abilities, are expected to make major contributions to the activities of one of the Resource Centers of the Beckman Institute. Their designation as members of the professional staff or members of the Beckman Institute conveys special recognition and appreciation by their colleagues and the Institute. The librarians are individuals who have a high level of knowledge and expertise in the field of library science, and who have demonstrated outstanding leadership, initiative, and ability to anticipate and implement changes to improve library operations.

Nonresearch-related activities, including any occasional or voluntary teaching or service on administrative or faculty committees, by members of the professional staff and members of the Beckman Institute should be consistent with the purpose of the source of salary support. Institute teaching assignments are to be undertaken only on an occasional and strictly voluntary basis. Temporary appointment to the rank of Lecturer is required, and compensation is normally paid to the original funding source rather than to the individual.

Staff Employees

Complete information on appointment, promotion, and termination of staff employees (support, professional, and managerial) is given in Institute policies and personnel memoranda, which are provided to supervisors and are available on the Caltech web site.

Nonresearch-related activities, including any occasional or voluntary teaching or service on administrative or faculty committees, by staff members should be consistent with the purpose of the source of salary support. Institute teaching assignments are to be undertaken only on an occasional and strictly voluntary basis. Temporary appointment to the rank of Lecturer is required, and compensation is normally paid to the original funding source rather than to the individual.

Grievance Procedures

It is the policy of the Institute to establish and maintain the necessary atmosphere for a sound faculty/administration relationship. To this end, individual faculty members must have the opportunity to submit complaints or grievances arising from their service at the Institute. The Institute has provided the following procedures to give such cases careful consideration and to try to bring them to a fair and speedy solution.

Consultation
Faculty members may consult with the Provost's Office, the Human Resources Office, and/or the Staff and Faculty Consultation Center prior to or during the processing of any grievance.

Informal Procedures
If a faculty member or a group of faculty members has a complaint or grievance it may be useful to discuss the matter informally with the appropriate Division Chair, the Provost, or the Chair of the faculty. There is also a faculty ombudsperson appointed by the Chair of the faculty to hear the complaints and grievances of faculty members and to help, through conciliation, with their resolution. The faculty ombudsperson can often serve a useful intermediary role, particularly in circumstances that involve misunderstandings or lack of proper information. The Chair of the Faculty Committee on Academic Freedom and Tenure may be able to provide useful guidance in matters within the purview of the committee.

Formal Requests for Consideration of a Grievance
If informal procedures fail to resolve a grievance satisfactorily, the faculty member may file a report of the grievance with the Provost. This should be a clear, concise statement including the faculty member's understanding of the decisions already rendered by the Division Chair or other administrative personnel, and the faculty member's desired remedy or correction. The Provost will then obtain from the faculty member's Division Chair a written statement of the Division Chair's view of the grievance stated by the faculty member and will take such steps as would be useful or effective in response to the faculty member's grievance. The Provost will subsequently answer the faculty member in writing with a suggested resolution of the grievance.

Appeals
Three types of grievances are recognized, and each type is handled differently. (1) Appeals to decisions by the Provost involving issues of academic freedom or tenure, including a decision not to reappoint a tenure-track professorial faculty member, are heard by the Academic Freedom and Tenure Committee. An appeal contesting termination of a continuous professorial appointment or a term faculty appointment prior to its expiration may, if requested by the faculty member, be considered by the Academic Freedom and Tenure Committee. (2) If the Academic Freedom and Tenure Committee declines to consider the case on jurisdictional grounds, the appeal will be heard by a faculty Hearing Committee. A faculty Hearing Committee may also consider appeals deemed by the Chair of the faculty to be appropriate for such a committee. (3) All other appeals are heard by an Ad Hoc Appeals Committee. Each of these cases is presented in more detail below.

If the concern of a faculty member involves issues dealing with either academic freedom or tenure, including a decision not to reappoint a tenure-track professorial faculty member, appeals from decisions of the Provost will be heard by the Academic Freedom and Tenure Committee. The chair of the committee should be given a written complaint detailing what is to be investigated. The committee will conduct its deliberations and investigations, and transmit its findings and recommendations in the manner prescribed by the Academic Freedom and Tenure Committee guidelines (this chapter). A written report need not be given if the complaint is withdrawn by the complainant or if the issue is resolved informally prior to the submission of a written final report. A faculty member considering filing an appeal should review the Academic Freedom and Tenure Committee guidelines in this chapter. If the case involves termination of a continuous professorial appointment, or of a term faculty appointment prior to its expiration, the Board of Trustees will take final action after reviewing the recommendations of the President, the report of the faculty Academic Freedom and Tenure committee, comments, if any, by the Chair of the

faculty, and comments, if any, by the complainant and the person or persons against whom the complaint is primarily directed.

Where termination of a continuous professorial appointment, or of a term faculty appointment prior to its expiration, is involved, and the Academic Freedom and Tenure Committee has either not been requested to hear the appeal, or has declined to do so, the appeal will be heard by a faculty Hearing Committee. The faculty Hearing Committee will conduct interviews, take evidence, and provide an opportunity for the complainant to be heard and challenge its findings. A record of the proceedings will be maintained by a designated member of the committee. The complainant shall have the right to bring a non-participating faculty colleague to any meeting of the faculty Hearing Committee that the complainant attends. The faculty Hearing Committee shall be constituted and shall make its recommendation as prescribed by the faculty bylaws. A written report need not be given if the appeal is withdrawn by the complainant or if the issue is resolved informally prior to the submission of a written final report. The Board of Trustees will take final action after reviewing the recommendation of the President, the report of the faculty Hearing Committee, comments, if any, by the Chair of the faculty, and comments, if any, by the complainants and the person or persons against whom the complaint is primarily directed.

If the subject of the faculty member's complaint does not fall within the purview of the Academic Freedom and Tenure Committee or a faculty Hearing Committee, or if both of those committees decline to make recommendations on all of the substantive issues, within one month of receipt of the Provost's suggested resolution of the grievance, the faculty member may submit to the Chair of the faculty a written request for consideration of an appeal. The Chair of the faculty will then appoint a five faculty-member Appeals Committee to review the matter. This committee will begin its deliberations within fifteen working days of receipt of the notice of its appointment and proceed with all deliberate speed. The faculty Appeals Committee will conduct interviews, take evidence, and provide an opportunity for the complainant to be heard and to challenge its findings. The complainant shall have the right to bring a non-participating faculty colleague to any meeting of the faculty Appeals Committee that the complainant attends. A written report need not be given if the appeal is withdrawn by the complainant or if the issue is resolved informally prior to the submission of a written final report. The recommendations of the faculty Appeals Committee shall be submitted in writing to the Chair and Vice Chair of the faculty, to the complainant, to the Provost, to the person or persons against whom the complaint is primarily directed, and to the President. The President's decision will be final, and all parties will be so notified.

Academic Freedom and Tenure Committee Guidelines

The Academic Freedom and Tenure Committee (henceforth AFTC) deals with matters pertaining to infringement of academic freedom and appeals against non-reappointment of faculty or a decision not to grant tenure to a professor.

Faculty who wish to appeal nonappointment or professors who wish to appeal a decision not to grant tenure must notify the Chair of the AFTC in writing within 30 days of being informed by the Provost of this decision. A member of the Caltech faculty or postdoctoral scholar who wishes the AFTC to investigate a possible infringement of academic freedom, must likewise contact the Chair in a timely manner, typically within a year of the alleged infringement.

If, after discussion with the Chair of the AFTC, the complainant still wishes the AFTC to consider the case, the hearing shall be conducted according to the following principles:

i. Any member of the AFTC who has a prior involvement with the case or other conflict of interest, will be replaced by a former member of the AFTC chosen by the AFTC Chair in consultation with the Chair of the faculty.
ii. To facilitate its considerations, the AFTC may delegate individual members or establish subcommittees to gather evidence and prepare recommendations for the full committee's consideration.
iii. One member of the AFTC will be designated to maintain a record of the proceedings.
iv. All committee members are expected to be present whenever the full committee discusses a case. A quorum for committee meetings comprises four of the six members in attendance.
v. In hearing a case, the committee shall review the entire record and may seek additional written or oral testimony related to the complaint, as is necessary. The committee's deliberations shall remain confidential to the committee until a final report is submitted.
vi. The complainant and the person or persons against whom the complaint is primarily directed (for example, the President or Provost or Division Chair in the case of denials of reappointment or tenure) shall each be afforded the opportunity to meet with the committee before it completes its review, to present their views

on the issues underlying the complaint. The complainant is entitled to be accompanied by another member of the Caltech faculty or postdoctoral scholar as a non-participating observer during meetings with the committee.

vii. At any stage of these proceedings, the complainant has the right to withdraw the complaint, at which point the AFTC's investigation will cease and any draft reports that may have been written will be destroyed. This provision is intended to facilitate informal resolution of the dispute.

viii. If and when the committee completes its investigation and is ready to recommend upon the facts of the case, it will prepare a final written report. Copies of this report will be sent to the Chair and Vice Chair of the faculty, the grievant and any additional person or persons against whom the complaint is primarily directed.

5.

Retirement, Leaves, Vacations, and Holidays

Professorial Faculty Retirement Options

Federal law eliminated mandatory retirement of university professors on the basis of age after January 1, 1994. The early retirement and half-time options described below are available to all tenured professorial faculty.

All emeritus professors are eligible for the privileges described below.

Any deviations from the procedures specified below require the approval of the Division Chair and the President or Provost.

Privileges of Emeritus Professors

The Divisions are authorized to make the following privileges available to emeritus professors:

1. Provide office space, as space needs and priorities of the Division permit, and provide office support, appropriate to the level of activity of each individual.
2. Provide opportunities for teaching, with or without compensation, by mutual agreement.
3. Provide an emeritus professor who remains active in research on campus and does not receive outside support, annual research support for incidental expenses for telephone, travel, etc., up to $3,000, for use if needed.
4. Allow emeritus professors to be principal investigators on research grants with the approval of the Division Chair. In this role they will be able to supervise non-academic staff and postdoctoral scholars in their groups. They can be research supervisors of graduate students, as long as an active professorial faculty member ensures the Institute's responsibility to the student by being the advisor of record. In such cases, responsibilities of the advisor of record include general advising, monitoring student progress, meeting with the student at least twice a year, and in most cases, being a member of the thesis advising committee. The research operation, the size of the research group, and the laboratory space made available should be consistent with the aims of the Institute, the priorities of the Division, and the ability of the faculty member.
5. Allow emeritus professors to make reasonable and appropriate charges of their own salary to grants and to receive the funds charged. The effort and associated salary charges for emeritus professors cannot exceed 49% of the most recent full-time equivalent annual base salary earned prior to retirement. Emeritus professors cannot charge their own salary to grants within the first six months of retirement.

In addition to these specific actions, the administration tries to provide significant opportunities for emeritus faculty to be active in Institute and community service.

Overview of Retirement Transition Options

The Institute encourages its professors to retire at an appropriate age. To smooth the path from full duties to retirement, the Institute offers three special transition options to professors who are at least age 62 and who have been full-time faculty members for at least 10 years.

1. A bonus payment of two years' pay, which is reduced if the professor continues to work after age 68, or the time of qualifying for this benefit, whichever is later.
2. A reduction of duties and pay by one half for a period of up to four years. This period is reduced if the professor continues to work full-time after turning age 68, or the time of qualifying for this arrangement, whichever is later.
3. Relief from teaching and committee duties for a period of two years prior to retirement. This option, known as Scholarly Leave, may be taken after age 62, and before turning age 69.

This is just a summary of these transition options, full details may be obtained from the Provost's Office.

Other Information
In addition, the Institute is pledged to help in the following ways:

1. Provide information for faculty approaching retirement age so they can, if they choose, purchase insurance for nursing-home care or for in-home care for themselves and their spouses.
2. Provide information so they can, if they choose, purchase more extensive health insurance to complement what they and their spouses have with the Institute and with Medicare.
3. Provide information about professional services that are available so individuals can seek advice on tax situations faced by faculty considering retirement.

Non-Tenured Faculty

Consideration of age in the retirement of non-tenured faculty members is forbidden by law. A non-tenured faculty member may be terminated upon failure to perform the normal functions of the position or upon failure to conform to the bona fide requirements of the position. However, standards for performance must not be based on, or related to, age.

In light of the above requirements, full-scale reviews at specified periods (as outlined in Chapter 4) will be made of the performance and need for the services of non-tenured faculty with regard to continuation of appointment. The conditions of each review must be age-independent and will include, to the degree appropriate to the category of the appointment, evaluation of competence, productivity, status in the field, continued association with a professorial faculty member, and the Institute's need for and financial support for services in the area.

Resignation

Faculty members who wish to terminate their appointments should address their letters of resignation to the President with copies to the Chair of their Division and to the Provost. Division Chairs should also notify the Provost of any such termination. It will then be the responsibility of the Provost to see that the proper termination forms are prepared. Notification of resignation by faculty with important teaching or research responsibilities should be made before May 15 if the effective date is to be before or at the start of the new academic year.

Scholarly Leave of Absence for Professorial Faculty Members

Active tenured or tenure-track professorial faculty members may request a leave of absence to take advantage of opportunities for continued professional growth and new, or renewed, intellectual achievement through study, research, writing, and travel. Although the Institute has no formal program of sabbatical leaves, it encourages professorial faculty to plan leaves for scholarly purposes at reasonable intervals. Where the Institute approves the plan and purposes of the proposed leave, and if resources are available, the Institute may provide financial assistance up to a maximum of six months of the academic year at full salary. If external funds are available in support of a leave, these are to be considered in determining the Institute's financial assistance.

Proposed scholarly leaves of absence by professorial faculty members must be approved both by the Division Chair and by the Provost. Precise terms for the leave must be specified in writing prior to its approval. Where professorial faculty members receive Institute support during a leave, they assume an obligation to return to the Institute for at least one year after completion of the leave.

For non-tenured assistant and associate professors (i.e., untenured professorial faculty) on scholarly leave for one year or less, the period of leave will count as a part of the probationary period toward tenure as if it were prior service at another institution. Any exceptions to this policy must be mutually agreed to in writing before the leave.

Ordinarily, leaves of absence, whatever the source of funding, may not be for more than one year in length, but exceptions to this rule may be possible in cases involving health, public service, or other special circumstances. Leaves of absences will not be extended beyond two years absent extraordinary circumstances and approval of the Provost.

Tenured or tenure-track professorial faculty members who wish to take leave should apply well ahead of time and through established procedures, in order that they, their Division, and the Institute can make suitable arrangements to take care of their teaching and research duties. Professorial faculty members should also request

leave for an absence of more than three weeks or for an absence of more than three weeks plus one month (if annual vacation is included). It is necessary for faculty members to receive approved leaves of absence to maintain eligibility for coverage under some group insurance plans.

Under certain circumstances, tenured professors who accept permanent positions at other institutions may, at the sole discretion of the Institute, be granted unpaid leaves of absence for one year, potentially renewable for an additional year. Unless otherwise specified in writing, professors on such leaves will have none of the duties or privileges associated with being a Caltech professor other than the opportunity to return to a tenured position at the Institute if they resign their position at the other institution and return to full-time employment at Caltech before their leave ends. The Institute's decision as to whether to grant such a leave will consider factors such as the opportunity costs to Caltech associated with granting a leave (e.g., restrictions on potential searches and the possible tying up of resources while the professor is on leave); the likelihood of the professor returning to Caltech; and the best interests of the Institute. Professors who request such leaves must inform the Institute if their new employer requires that they resign their Caltech faculty position; if so, Caltech will not consider a leave of absence.

As stated in Chapter 7 of this handbook, "Membership in the Caltech faculty involves a commitment that is full time in the most inclusive sense. Each faculty member is expected to accord complete professional loyalty to the Institute, and to arrange outside obligations, financial interests, and activities in such a way that they do not interfere with this primary, overriding commitment." One of the consequences of this statement is that a full-time Caltech professor or research faculty member cannot simultaneously hold a professorial, administrative, or research faculty position, paid or unpaid, at another institution, unless: (1) the conditions described in the previous paragraph hold; (2) the professor has a one-year (or less) appointment at the other institution as a *visiting* professor (or the equivalent; also, see "Off-Campus Teaching" in Chapter 7) or *visiting* researcher; or (3) an exception has been specifically granted by the Provost based on a recommendation by the Division Chair. For any and all exceptions covered by the previous sentence, specific permission to hold such a concurrent appointment at another institution must be requested and approved annually by the relevant Division Chair and the Provost for each such appointment. If the faculty member is given a leave of absence to pursue such a concurrent position, the principles and practices for evaluation and approval of such requests as described earlier in this section will apply (including whether their Caltech salaries will continue in part or in full while they hold such appointments).

Sick Leave

Professorial faculty members on appointments of two or more years duration may take up to six months of paid sick leave in any twelve-month period. At the end of six months of continuous sick leave, the long-term disability plan for those enrolled in it becomes effective. Other members of the faculty may take up to one month paid sick leave in any twelve-month period.

Disability; Child-bearing Leave; Child-Care Leave; Paid Parental Leave

The Institute offers a long-term disability plan, in which members of the faculty may enroll voluntarily. Details are available from the Provost's Office.

Child-bearing leave of up to 4 months with pay is available to female voting faculty members. This leave is intended to cover normal pregnancy and childbirth. If a longer leave is needed because of medical complications, a 6-month extension of leave beyond 4 months can be taken as sick leave (see above).

A tenured or tenure-track professorial faculty member of either sex is entitled to full relief, with pay, from classroom teaching and administrative duties from the beginning of the academic term in which childbirth or adoption occurs until the end of the first full academic term thereafter. A tenured or tenure-track professorial faculty member of either sex may request a complete release from professorial duties as a leave of absence without pay for the purpose of caring for a newborn or newly adopted infant for up to a period of one year (not counting child-bearing leave) following childbirth or adoption. In addition, all Caltech employees are eligible for family care and medical leave as provided under federal and state law.

Please see Chapter 3 if the birth or adoption of a child occurs during the tenure probationary period.

Non-professorial faculty members are entitled to up to eight (8) weeks of paid parental leave following the birth of an employee's child or the placement of a child with an employee in connection with adoption or foster care. The purpose of paid parental leave is to enable the employee to care for and bond with a newborn or a newly adopted or newly placed child. Paid parental leave may be used during a pregnancy disability leave, but not to exceed a total of 8 weeks. This policy will run concurrently with federal or state mandated leave as applicable.

Vacations and Holidays

Faculty members appointed on a twelve-month basis are entitled to a vacation of one month each calendar year. The Institute encourages its faculty to take a real vacation every year.

New faculty members appointed on an annual basis are entitled to three weeks of vacation after nine months of service; after eleven months of service they are entitled to one month.

Vacation accrual will not exceed a maximum of twenty-one days (one month). Any unexpended vacation will be addressed at the time of resignation, retirement, transfer, or termination consistent with accrual limits.

The following holidays are recognized by the Institute: New Year's Day, Martin Luther King Day, Presidents' Day, Memorial Day, Juneteenth, Independence Day, Labor Day, Thanksgiving and the following day, and Christmas. Additional floating holidays and special release days may be designated each year by the President (see the Academic Calendar in the *Caltech Catalog* for these dates). One additional day is allowed as a "personal holiday."

6.

Insurance and Related Matters

All group insurance programs, except the retirement program and a survivor's insurance benefit, are the same for both faculty and benefit-based staff employees. Because the eligibility and benefits associated with these programs change frequently, details of the insurance programs and some of the optional benefits are supplied by the Faculty Records Office.

Retirement Annuity Plan

The Board of Trustees has adopted the contractual annuity plan of the Teachers Insurance and Annuity Association (TIAA) and the College Retirement Equities Fund (CREF). The Institute contributes a percentage of the participant's gross salary less a part of the Institute's contribution to the participant's Social Security account. A participant whose annual salary is in excess of the Social Security Taxable Wage Base is required to contribute a percentage of salary, based on the excess amount. The Booklet *Caltech TIAA-CREF Retirement Plan* details Institute and participant contributions as well as other provisions of the plan.

Immediate participation in the plan is a condition of employment for all new appointees of the rank of assistant professor or research assistant professor or higher, except for those in the first two years of a temporary visa. For all new appointees of the rank of instructor or long-term lecturer, participation is compulsory after two years of service at the Institute. Full-time instructors and lecturers may, if they choose, begin their participation immediately upon appointment.

TIAA - CREF Investments

"Monies paid into TIAA-CREF annuity contracts may be invested in any or all of the funds made available by that organization. There are several investment options ranging from the TIAA Traditional Fund that provides guaranteed income at no risk, to a growth fund, that offers an opportunity for greater returns, but with far higher risk and likelihood of price fluctuation. Participants can secure information about these investment options either from the Caltech Human Resources Office, or directly from TIAA-CREF. Retirement plan participants should take into consideration their tolerance for risk and their expectations for retirement income as they elect the fund(s) into which Institute and personal contributions are to be invested. And since these factors commonly change over one's career, participants should periodically review their premium allocation and retirement account accumulations, and shift them as personal needs and market conditions change."

Voluntary Tax-Deferred Retirement Plans

Employees of certain nonprofit organizations like Caltech can, within limits, elect to take a reduction in salary, pay current taxes only on the remaining after-reduction amount of salary, and have the amount of the reduction invested in any of several tax-deferred annuity/investment plans offered by Caltech. The earnings on such investments are also excluded from current taxation. These plans offer a wide variety of investment options: Fixed-interest accounts, money market funds, and different variable stock and bond funds. Additional information may be obtained in the Benefits Office.

Additional Information

Individuals holding faculty appointments without stipend are on a nonbenefit basis. Evidence of health insurance will be required of all faculty appointments without stipend and, in its absence, appointees will be required to enroll in one of the Institute health plans, with either the individual or the sponsoring agency bearing the full cost.

Individuals holding faculty appointments as recipients of Caltech fellowships will be offered health insurance on the same basis as salaried employees.

Individuals who are on leave from other institutions should maintain their full benefit package at their home institutions. In some instances, it may be reasonable for the Institute to reimburse the other institution for a fair portion of the cost of those benefits. In other cases, it may prove necessary or desirable for the visitor who receives only partial salary from the Institute to receive some Institute benefits. In such instances, it may be reasonable for the visitor's home institute to pay Caltech a portion of the cost. In other instances, the individual may be required to bear the cost. Whatever the arrangement, it should be specified in writing as one of the terms of the appointment to a research or visiting faculty position at the Institute.

Individuals with part-time faculty appointments with stipend are eligible for the same benefits as full-time faculty members of equivalent rank or title. However, these benefits will be on a prorated basis as a function of the time period specified in the appointment or on salary actually earned. The major exception is health and dental insurance, which will be made available on the same full-coverage basis extended to full-time faculty.

Survivor Benefit Policy

The Survivor Benefit Policy provides a benefit to your beneficiary(ies) in the event of your death. Participants eligible for this benefit are the active President, Vice Presidents, and voting faculty. This benefit is equivalent to six months salary paid to the beneficiary(ies). This policy is fully paid by the Institute and benefits will be paid to your beneficiary(ies) in one lump sum.

7.

Administrative Policies and Procedures

Caltech Policy on Research Misconduct

General
Caltech's mission is to expand human knowledge and benefit society through bold, innovative, and impactful research integrated with education. In pursuing this mission, Caltech strives for the highest levels of integrity, public trust, and responsible conduct of research and promotes the Eleven Principles comprising its code of conduct. Misconduct in research harms the credibility and reputation of all of the members of the Caltech community, erodes the public trust, and hinders scientific inquiry. Caltech is committed and obligated to handle allegations or evidence of research misconduct fairly, competently, and objectively in accordance with Caltech Policy on Research Misconduct, which is reproduced here, and with applicable federal regulations.

Scope
The policy applies to all members of the Caltech community, including faculty, post-doctoral scholars, staff, and students, as well as anyone who at the time of the alleged misconduct, was employed by, a student at, an agent of, an appointee of, was otherwise affiliated by contract or agreement, or who was a volunteer or guest performing the alleged misconduct at Caltech. Thus, the policy applies to members of the Caltech community who are proposing, designing, conducting or reporting research at all Caltech facilities, both on and off campus, including those at the Jet Propulsion Laboratory or elsewhere as part of their Caltech related duties or activities.

The policy applies to research proposed, conducted, or reported on the Caltech campus or at its off-campus facilities, as well as research proposed, conducted, or reported elsewhere by members of the Caltech community as part of their Caltech-related duties or activities. Caltech may apply the policy to research proposed, conducted, or reported elsewhere where it is claimed or implied to have been done at Caltech or by a member of the Caltech community. The policy does not apply to allegations or research misconduct occurring six years before Caltech is notified of the allegation, with certain exceptions, for example, if the alleged misconduct could have a substantial adverse effect on public health or safety.

Definitions
Research misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. Fabrication is making up data or results and recording or reporting them. Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record. Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

Research misconduct does not include honest error or differences of opinion, nor does it encompass authorship or collaboration disputes, or violations of Caltech policies or federal regulations not relating to research misconduct.

A finding of research misconduct requires that there be a significant departure from accepted practices of the relevant research community and that the misconduct be committed intentionally, knowingly, or recklessly. In addition, any allegations must be proven by the standard of a preponderance of the evidence.

Rights and Responsibilities
All members of the Caltech community, including those based at off-campus facilities, have a responsibility to cooperate in the review of allegations of research misconduct during an inquiry or investigation. This responsibility includes providing all relevant evidence and maintaining confidentiality when appropriate.

No person may participate in the assessment, inquiry, or investigation (other than the complainant, respondent, and witnesses) if they have an actual or potential conflict of interest in the proceedings in accordance with the Caltech Conflicts of Interest Policy.

While Caltech has the primary responsibility for prevention and detection of research misconduct, and for the inquiry, investigation, and adjudication of research misconduct alleged to have occurred at Caltech or by the members of the Caltech community, government agencies have ultimate oversight authority for research supported by their funding.

Research Integrity Officer
Caltech's Research Integrity Officers are Caltech's Vice Provost for Research and JPL's Chief Scientist. The Research Integrity Officers have primary responsibility for implementing Caltech's policy and procedures relating to research misconduct. These responsibilities include:

- meeting with people in confidence who are unsure if they should bring an allegation;
- receiving allegations of research misconduct;
- assessing allegations of research misconduct to determine whether an inquiry is warranted;
- sequestering and maintaining relevant data and other evidence;
- communicating with respondents, complainants, and witnesses regarding the process, allegation, evidence, and reports as described herein;
- appointing a chair and other members of the inquiry and investigation committees;
- ensuring that no person with an unresolved potential or actual conflict of interest is involved in the process;
- protecting from retaliation or restoring the positions or reputations of complainants and witnesses acting in good faith;
- informing the Provost and, if the alleged misconduct occurred at JPL, the JPL Director, and others who need to know of progress;
- notifying and providing reports to federal agencies and other sponsors;
- ensuring that Caltech's administrative actions are enforced and notifying other relevant parties of those actions; and
- maintaining the records of the research misconduct process.

The Research Integrity Officers may delegate some or all of their responsibilities as they deem appropriate and must not participate if they have an actual or potential conflict of interest. The Research Integrity Officers typically delegate their responsibilities during the assessment and inquiry stages to the appropriate Division Chair or JPL Associate Chief Scientist, who may work with the Director of Research Compliance in consultation with the Office of the General Counsel to ensure the responsibilities are fulfilled. In the investigation stage, the Research Integrity Officers typically delegate their responsibilities to the Director of Research Compliance on campus and the JPL Associate Chief Scientist. The Director of Research Compliance and the JPL Associate Chief Scientist will work together as appropriate.

Complainant
The complainant means a person who in good faith makes an allegation of research misconduct. Complainants are not limited to members of the Caltech community. The complainant's responsibilities include maintaining confidentiality, and unless the complainant chooses to remain anonymous, cooperating with the inquiry and investigation. In certain circumstances, such as when an allegation is brought anonymously, there is no complainant.

Respondent
The respondent means a person against whom an allegation of research misconduct is directed, or who is the subject of a research misconduct proceeding. Additional respondents may be identified during an inquiry or investigation. The respondent's responsibilities include maintaining confidentiality and cooperating with the inquiry and investigation.

Witness
A witness is any available person who has been reasonably identified as having information regarding any relevant aspect of an investigation. To the extent available, witnesses shall be interviewed during the investigation, provided with a transcript of their own interviews, and given a reasonable period of time to make corrections to the transcript to be included in the record.

Responsibility to Report Misconduct
All members of the Caltech community, including those at all off campus facilities, have a responsibility to report observed, suspected, or apparent research misconduct. It may be reported to the Vice Provost for Research, the Office of Research Compliance, a Division Chair, the JPL Chief Scientist, the JPL Associate Chief Scientist, the JPL "Directors For" ("D4s"), the JPL Ethics Office, the Office of the General Counsel, Audit Services and Institute Compliance , the Caltech Hotline, or the JPL Ethics Help Line. Allegations of research misconduct may be reported anonymously.

When a person is unsure whether a particular incident may be research misconduct or not, they may contact or meet with the Director of Research Compliance or the JPL Associate Chief Scientist to discuss the incident informally in order to help the individual decide whether an allegation is appropriate. This discussion may be anonymous or based on hypothetical facts. If the incident, could not meet the definition of research misconduct, but should otherwise be handled, the Research Integrity Officer may refer the individual or allegation to the appropriate office with responsibility for handling such an incident.

Confidentiality, Retaliation, and Damage to Reputation
Throughout a research misconduct proceeding, disclosure of the identity of the complainant and respondent will be limited, to the extent possible, to those with a need to know to carry out a fair, thorough, competent, and objective proceeding, and as allowed by law. The identity of witnesses may be similarly limited when the circumstances indicate that the witnesses may be harassed or otherwise need protection. However, Caltech must disclose the identity of complainants and respondents, and witnesses when required by applicable federal regulations, such as when a federal agency reviews a proceeding.

Unless otherwise required by applicable law, any records or evidence from which human research subjects might be identified must be kept confidential, and disclosure is limited to those who have a need to know during the research misconduct proceeding.

If a complainant makes an allegation that is not in good faith, the Research Integrity Officer will inform the Provost (on campus) or the JPL Director who will refer the matter for possible disciplinary action. However, Caltech prohibits retaliation against anyone who makes a good faith allegation of suspected research misconduct, in accordance with its Whistleblower Policy. Any potential or actual retaliation against a complainant, respondent, witness, or research misconduct inquiry or investigation committee member should be reported to the Research Integrity Officer or reported as described in the Whistleblower Policy. The Research Integrity Officer will review the alleged retaliation and, when warranted, take steps to protect or restore the position and reputation of the person against whom the retaliation was directed.

When requested and as appropriate, Caltech will make all reasonable and practical efforts to protect or restore the reputation of respondents alleged to have committed research misconduct, but against whom no finding of research misconduct was made.

The Assessment of the Allegation
When an allegation of research misconduct is received by an official other than a Research Integrity Officer, it should be immediately brought to the Research Integrity Officer's attention. The Research Integrity Officer will

typically delegate their responsibility to the appropriate Division Chair or to the JPL Associate Chief Scientist to assess, in a reasonable period of time, any allegation of research misconduct to determine whether the conduct falls within the scope of the policy, whether the allegation, if true, would include conduct that meets the definition of research misconduct, and whether the allegation is sufficiently specific such that potential evidence of research misconduct could be identified. When all of these criteria are met, an inquiry is warranted. If the Research Integrity Officer becomes aware of a possible impropriety and determines that an inquiry is warranted, he or she may initiate an inquiry without a specific allegation or complaint. If it is determined that an inquiry is warranted, the research misconduct proceeding must go forward, even if the complainant or respondent resigns or otherwise leaves or has left Caltech.

In assessing the allegation, the Division Chair or JPL Associate Chief Scientist need not interview the complainant, respondent, or any witnesses, or gather any additional information or data than what was provided with the allegation. However, he or she may do so when it is necessary to determine whether the allegation is sufficiently credible and specific.

If the allegation is true but does not meet the definition of research misconduct, the Division Chair or JPL Associate Chief Scientist will provide counsel to the complainant, try to resolve the issue through a satisfactory means other than the policy, and notify the appropriate Research Integrity Officer.

The Inquiry
Initiating an Inquiry: When the Research Integrity Officer's, Division Chair's, or JPL Associate Chief Scientist's assessment of an allegation of research misconduct leads to the determination that an inquiry is necessary, the Division Chair, Associate Chief Scientist or the Research Integrity Officer (as applicable) will initiate an inquiry, in a reasonable amount of time. In some circumstances, it may be more appropriate for the Research Integrity Officer to appoint another individual or a committee to conduct the inquiry, for example, when there is an actual or potential conflict of interest, more than one Division is involved, or where specific scientific expertise is sought.

The purpose of the inquiry is to conduct an initial review of the evidence to determine whether an investigation is warranted. An investigation is warranted when preliminary information-gathering and fact-finding indicate that there is a reasonable possibility that research misconduct may have occurred. The inquiry does not require a full review of all of the evidence related to the allegation.

The Research Integrity Officer may also wish to notify the Provost, JPL Director, and/or President at this stage, and may involve the Office of Research Compliance or JPL Ethics Office for administrative support and the Office of General Counsel for legal support for the research misconduct proceeding.

Conducting an Inquiry: The inquiry begins when the Division Chair or JPL Associate Chief Scientist notifies the respondent in writing of the allegation and of the research misconduct proceeding to follow, or when this is not possible, makes a good faith effort to do so. The respondent is entitled to receive a copy of the policy. Any additional respondents identified during the inquiry must also be notified as soon as reasonably possible. When it would be helpful to the inquiry, the complainant may be notified that an inquiry was warranted based on his or her allegation.

On or before the date the respondent is notified of the inquiry, all practical and reasonable steps must be taken to obtain custody of all the research records and evidence necessary to conduct the research misconduct proceeding. The records and evidence must be inventoried and sequestered in a secure manner, except when the research records or evidence encompass scientific instruments shared by several users, in which case custody may be limited to copies of the data or evidence, as long as the copies are substantially equivalent.

The cognizant Division Chair, the JPL Associate Chief Scientist, and/or committee conducting the inquiry will examine relevant research records and materials and will normally interview the complainant, the respondent, and key witnesses. Then the preliminary evidence, including the testimony obtained during the inquiry, will be evaluated. Based on this evaluation and after consultation with the Research Integrity Officer, the Division Chair or JPL Associate Chief Scientist will recommend whether an investigation is warranted based on the criteria in the policy, any applicable federal regulations, and any sponsor agreements.

Note that the scope of the inquiry at this stage is not required to and does not normally include a determination of whether misconduct definitely occurred, determining definitely who committed any research misconduct that may have occurred, or conducting exhaustive interviews and analyses. However, if an admission of research misconduct is made by the respondent, misconduct may be found at the inquiry stage.

The inquiry, including preparation of the final inquiry report and the decision of the Division Chair, JPL Associate Chief Scientist, or committee conducting the inquiry on whether an investigation is warranted, should be completed in a reasonable time period (normally within 60 calendar days, unless the Research Integrity Officer determines that circumstances warrant a longer period. If the Research Integrity Officer approves a longer than 60 day interval to completion of the inquiry, the inquiry record must include documentation of the reasons for this).

The Inquiry Report: The Division Chair, JPL Associate Chief Scientist, or committee conducting the inquiry must prepare a draft inquiry report and provide the respondent with a clearly specified time period (not less than three calendar days) in which to review and comment. When it would be helpful to the inquiry, the complainant may also be given an opportunity to comment on parts of or the entire report as well. The draft inquiry report must include:

a. the name and position of the respondent
b. a description of the allegations of research misconduct
c. the funding source (including, for example, grant numbers, grant applications, contracts and publications listing the support), and
d. the basis for the decision that the allegations warrant or do not warrant an investigation.

When appropriate, the final inquiry report may be revised in response to comments on the draft report received from the respondent and complainant, if any, and will also include, in an attachment, any comments on the draft inquiry report by the respondent and/or complainant.

Conclusion of the Inquiry: The inquiry is concluded when the Research Integrity Officer receives the final inquiry report (including revisions as described at the end of the previous section) and states in writing (to be kept with the record) their determination as to whether an investigation is warranted.

The Division Chair, JPL Associate Chief Scientist, or committee conducting the inquiry shall provide the respondent with the final report, a copy of the policy, a reference to any applicable regulations, and will inform the respondent of the Research Integrity Officer's decision as to whether the proceedings will continue onto an investigation. The complainant will be notified whether or not the inquiry found that an investigation is warranted.

If it is determined that an investigation is not warranted, the research misconduct proceeding ends.

If a complainant is not satisfied with the conclusion that an investigation is not warranted, the result may be appealed in writing to the Provost or the JPL Director within 10 calendar days of the date notice was given.

The Investigation
Initiating an Investigation: The investigation must begin within 30 calendar days after the decision by the Research Integrity Officer that an investigation is warranted. The purpose of the investigation is to develop a factual record by exploring the allegations in detail and examining the evidence in depth, leading to recommended findings on whether research misconduct has been committed, by whom, and to what extent. The investigation will also determine whether there are additional instances of possible research misconduct that would justify broadening the scope beyond the initial allegations.

If it is determined that an investigation is warranted, relevant federal agencies and other sponsors should be informed in a timely manner. The time scale for informing agencies and sponsors is sometimes specified by them: For example, in the case of research funded by Public Health Service, the Office of Research Integrity must be provided with the final inquiry report (including the determination to proceed to an investigation and the policy) within 30 days. In the case of research funded by the National Aeronautics and Space Administration, the Office of the Inspector General must be notified as soon as possible once it has been determined that the inquiry supports a formal investigation.

When an investigation is initiated, interim administrative action may be required to protect the interests of complainants, respondents, students, faculty, staff, colleagues, human subjects, sponsors, or Caltech while the investigation proceeds. Possible actions include temporary suspension of the research.

Conducting an Investigation: On or before the date on which the investigation begins, the Vice Provost for Research on campus or the JPL Chief Scientist (i.e., the relevant Research Integrity Officer) must notify the respondent in writing of the allegations to be investigated.[1] The Research Integrity Officer must also give the respondent written notice of any new allegations of research misconduct within a reasonable amount of time of deciding to pursue any allegations unrelated to those addressed during the inquiry or in the initial notice of the investigation. If the Research Integrity Officer has not yet notified the relevant federal agencies or other sponsors of the decision to begin an investigation, he or she must provide the sponsor with a copy of the final inquiry report and the policy, on or before the date on which the investigation begins as well.

The Research Integrity Officer will, prior to notifying respondent of the allegations, take all reasonable and practical steps to obtain custody of and sequester in a secure manner all research records and evidence needed to conduct the research misconduct proceeding that were not previously sequestered during the inquiry (as well as whenever additional items become known or relevant to the investigation). The need for additional sequestration of records for the investigation may occur for any number of reasons, including a decision to investigate additional allegations not considered during the inquiry stage or the identification of records during the inquiry process that had not been previously secured. The procedures to be followed for sequestration during the investigation are the same procedures that apply during the inquiry.

As soon as practically possible after the investigation begins, the Research Integrity Officer, in consultation with the Division Chair or JPL Associate Chief Scientist and other institutional officials as appropriate, will propose an investigation committee and a committee chair. The investigation committee must consist of individuals who do not have unresolved personal, professional, or financial conflicts of interest with the individuals involved in the investigation. The committee should include individuals with the appropriate scientific expertise to evaluate the evidence and issues related to the allegation, interview the respondent and complainant, and conduct the investigation. Members of an inquiry committee may also be appointed to the investigation committee, and the investigation committee may include people outside of the Caltech community.

The respondent, and when appropriate, the complainant, shall be provided in writing the names of the people on the investigation committee and given an opportunity to comment on the suitability of the proposed members before the committee is finalized. Comments should be in writing and received within 5 calendar days of receipt for consideration by the Research Integrity Officer.

Once the investigation committee is finalized, the Research Integrity Officer will provide the committee with a formal written charge. The charge will:

a. describe the allegations and related issues identified during the inquiry;
b. identify the respondent;
c. provide the inquiry report;
d. inform the committee that it must conduct the investigation as prescribed by the policy;
e. define research misconduct;
f. identify any applicable federal regulations;
g. inform the committee that it must evaluate the evidence and testimony to determine whether, based on a preponderance of the evidence, research misconduct occurred and, if so, the type and extent of it and who was responsible;
h. inform the committee that in order to determine that the respondent committed research misconduct it must find that a preponderance of the evidence establishes that:

[1] The JPL Chief Scientist may delegate any or all of these responsibilities to the Associate Chief Scientist.

   i. research misconduct, as defined in the policy, occurred (respondent has the burden of proving by a preponderance of the evidence any affirmative defenses raised, including honest error or a difference of opinion);
   ii. the research misconduct is a significant departure from accepted practices of the relevant research community;
   iii. the respondent committed the research misconduct intentionally, knowingly, or recklessly; and

i. inform the committee that it must prepare or direct the preparation of a written investigation report.

The investigation committee must ensure that the investigation is thorough and sufficiently documented and that it includes examination of all research records and evidence relevant to reaching a decision on the merits of each allegation. The investigation committee must take reasonable steps to ensure an impartial and unbiased investigation to the maximum extent practical. During the investigation, each respondent, complainant, and any other available person who has been reasonably identified as having information regarding any relevant aspects of the investigation, including witnesses identified by the respondent, shall be interviewed. Each interview must be recorded or transcribed, and each witness must be provided with a recording or transcript of his or her interview for correction, for inclusion in the record of the investigation. The investigation committee must pursue all relevant, significant issues and leads discovered, including any evidence of any additional instances of possible research misconduct, and continue the investigation to completion.

The investigation should normally be completed within 120 calendar days, including conducting the investigation, preparing the report of findings, providing the draft report for comment and sending the final report to applicable federal agencies and other sponsors. However, if the investigation committee determines that additional time is required, it should immediately notify the Research Integrity Officer. If the Research Integrity Officer determines that the investigation should be allowed to continue beyond 120 days, a written request for more time, setting forth the reasons for the request, should be submitted to the appropriate funding agency or agencies. If an extension is granted, Caltech may be required to file periodic progress reports. In all cases, the reasons for the delay should be documented.

The Investigation Report: Once it has reached its conclusion, the investigation committee must prepare a draft investigation report. The respondent must be provided with (1) an opportunity to review and comment on the draft report; (2) concurrently be given a copy of or supervised access to the evidence upon which the report is based; and (3) be given 30 calendar days to make written comments. When it would be helpful to the investigation, the complainant may also be given an opportunity to comment on relevant portions of or the entire report within 30 calendar days as well. In some instances, the respondent and complainant may be asked to sign a confidentiality agreement before receiving the draft report. The respondent and complainant comments will be included in the record, considered, and when appropriate, addressed in the final report.

The draft investigation report must include:

a. a description of the allegations of research misconduct;
b. the name and position of the respondent(s);
c. the current and former funding sources, including, for example, grant numbers, grant applications, contracts and publications listing the support, as well as any pending proposals;
d. the institutional charge (the specific allegations of research misconduct considered in the investigation);
e. the policy;
f. an identification and summary of the research records and evidence reviewed;
g. an identification and summary of any evidence taken into custody but not reviewed, and
h. a statement of findings for each allegation of research misconduct identified during the investigation. Each statement of findings must:
   i. indicate whether research misconduct occurred, and if so, also identify
      - the person(s) responsible for the misconduct;
      - whether the research misconduct was falsification, fabrication, or plagiarism; and
      - whether it was committed intentionally, knowingly, or recklessly;
   ii. summarize the facts and the analysis that support the conclusion and consider the merits of any reasonable explanation by the respondent;

iii. identify the specific funding sources; and
iv. state whether any publications need correction or retraction.

Before drafting the final report, the committee must consider any comments received from the complainant or respondent, and revise the report if appropriate. The final report must also include: comments on the draft investigation report by the respondent and complainant, if any, in an attachment.

Adjudication

The investigation committee will transmit the final investigation report to the Provost on campus or to the JPL Director, and will also consult with them regarding the recommended institutional action(s). The Provost or the JPL Director will determine and then state, in writing, whether Caltech accepts the investigation report, its findings, and the recommended institutional actions. The JPL Director or JPL Chief Scientist will consult with the Provost regarding the recommended institutional action. When a finding of research misconduct is accepted, the proposed institutional actions to be taken in response shall also be stated in writing.

If the Provost or JPL Director's determination varies from the findings of the investigation committee, the Provost or JPL Director will, as part of their written determination, explain the basis for rendering a different decision from the findings of the investigation committee. Alternatively, the Provost or JPL Director may return the report to the investigation committee with a request for further fact-finding or analysis.

When it is determined that there is no finding of research misconduct by the Provost or JPL Director, the Provost and Division Chair or JPL Chief Scientist and appropriate Director "for" should decide what steps need to be taken to correct the record and protect or restore the reputation of all parties involved. In addition, when the allegation was made in good faith, the Provost or JPL Chief Scientist should determine what steps might be necessary to prevent retaliatory action against the complainant, as stated above in the section entitled "Confidentiality, Retaliation, and Damage to Reputation."

When it is determined that there is a finding of research misconduct by the Provost or JPL Director, the Provost and Division Chair on campus or Chief Scientist and appropriate Director "for" at JPL should determine the course of action for dealing with the misconduct, notifying appropriate federal agencies and other sponsors, and correcting the scientific record. The Provost and Division Chair will forward the investigation report to the President, along with the full record of the inquiry and investigation, and recommend sanctions and other actions to be taken. Possible sanctions against the respondent include, but are not limited to, removal from the project, a letter of reprimand, additional oversight, probation, suspension, demotion, salary reduction, termination, and revocation of a degree conferred based on the research misconduct. The JPL Director shall brief the President on any investigation or actions taken at JPL and provide a copy of the final report.

Other institutional actions that may be appropriate include, but are not limited to, withdrawal or correction of all pending or published abstracts and papers emanating from the research where research misconduct was found, retraction or correction of submitted grant applications with data emanating from the research where research misconduct was found, and restitution of funds to the grantor federal agencies or other sponsors as appropriate.

After the President or JPL Director has reviewed the investigation report, the full record of the inquiry and investigation, the recommendations for administrative action, and any recommendations for sanctions, they shall decide what actions are appropriate. The President or JPL Director should consider the seriousness of the misconduct, including whether the misconduct was intentional or reckless, was an isolated event or part of a pattern, had significant impact on the research record, and had significant impact on other researchers or institutions.

When a final determination by the President or JPL Director has been reached, the Research Integrity Officer will notify the respondent in writing and provide them with the final investigation report. When appropriate, the Research Integrity Officer will notify the complainant in writing as well. All federal agencies and other sponsors initially informed of the research misconduct proceeding must be promptly notified of the finding. The Research Integrity Officer will ensure that the investigation report, his or her findings, and a description of any pending or completed administrative actions are reported to government agencies or sponsors with applicable terms or regulations within 30 days of the determination.

Interim Administrative Action and Reporting
At any point during a research misconduct proceeding, applicable federal regulations may require Caltech to notify government agencies immediately if there is reason to believe that public health or safety is at risk, there is an immediate need to protect human or animal subjects, government resources or interests are threatened, research activities should be suspended, there is a violation of civil or criminal law, federal action is required to protect the interests of people involved in the proceeding, or the research community or public should be informed. If there is a reasonable indication of possible criminal violations, relevant authorities must be informed. In addition, Caltech may take appropriate institutional action to protect the public health, federal funds and equipment, and the integrity of the research process.

Caltech is required to report to government agencies with applicable regulations when it appears a research misconduct proceeding has been made public prematurely so that the agency may take appropriate steps to safeguard evidence and protect the rights of those involved. Agencies may take interim actions, such as suspending an existing award; suspending eligibility for federal awards; proscribing or restricting particular research activities, for example, to protect human or animal subjects; requiring special certifications, assurances, or other, administrative arrangements to ensure compliance with applicable regulations or terms of an award; requiring more prior approvals; deferring funding action on continuing grant increments; deferring a pending award; and restricting or suspending participation as an reviewer, advisor, or consultant.

Completion of Cases
Generally, all inquiries and investigations will be carried through to completion and all significant issues should be pursued diligently. However, in some instances, a case may be closed during the inquiry or investigation for reasons such as the respondent has admitted guilt, or a resolution with the respondent has been made.

Obligations to and Actions by Sponsors
Reporting to Funding Agencies: For research funded by sponsors with requirements or regulations to be informed of research misconduct, at or before the conclusion of the research misconduct investigation, the Research Integrity Officer will submit the investigation report, the final institutional action, the findings, and any pending or completed institutional actions against the respondent.

Actions by Funding Agencies: Federal agencies and other sponsors may take action against an individual or against Caltech after a finding of research misconduct has been reported. Such actions include sending a letter of reprimand; requiring that the individual or Caltech obtain special prior approval of particular activities; requiring that an institutional official other than those guilty of misconduct certify the accuracy of reports generated under an award or provide assurance of compliance with particular policies, regulations, guidelines, or special terms and conditions; suspending, restricting, or terminating an active award; requiring special reviews of all requests for funding to ensure that steps have been taken to prevent repetition of the misconduct; requiring a correction to the research record; prohibiting participation of an individual as a reviewer, advisor, or consultant, debarring or suspending an individual or institution from participation in federal programs for a specified period after further proceedings under applicable regulations.

Reporting to Other Parties: After a finding of research misconduct has been made it may be appropriate for Caltech to notify professional societies, professional licensing boards, or editors of journals in which falsified reports were or will be published, the respondent's research collaborators, and other relevant parties. The Research Integrity Officer will be responsible for insuring that those actions take place.

Recordkeeping
If after an inquiry, a determination is made that an investigation is not warranted, the records must be kept in a secure manner for at least seven years after the inquiry and be in sufficient detail such that a later assessment of why an investigation was not conducted can be made. When a research misconduct investigation proceeds to an investigation, the records of the research misconduct proceeding must be kept in a secure manner for at least seven years after completion of the investigation, or any related government proceeding, or any related litigation proceeding, whichever comes last.

Records include all relevant research records, records of the research misconduct proceeding, and the results of all interviews, including the transcripts or recordings. The records of the research misconduct proceeding include records that were secured except to the extent they were subsequently determined to be irrelevant or duplicative, the documentation of the determination of the records being irrelevant or duplicative, the inquiry report and final documents (i.e., not drafts) produced during the course of its preparation, including documentation of any decision not to investigate; and the investigation report and final documents (i.e., not drafts) produced during the course of its preparation. In addition, any information, documentation, evidence or clarification that would be helpful for an appropriate government agency to review Caltech's handling of an allegation of research misconduct must be retained as well.

Caltech may be required to transfer custody of or provide copies of records to a government agency when regulations permit a sponsor to make such a request.

Candidacy for Public Office

Caltech recognizes that from time to time faculty members may choose to run for elective offices at the local, state, or national level. As long as this kind of activity can be carried out without seriously impairing the discharge of his or her duties, leave of absence will not be necessary; but when serious impairment is involved, a leave of absence without pay should be requested for the period of such involvement. The faculty member's supervisor should be kept informed as to the degree of involvement in this activity.

If a faculty member chooses to run for elective office, it is most important not to involve Caltech as an institution in the campaign. Caltech's status as a nonprofit, tax-exempt organization, as a corporation, and as a federal contractor is at stake. The faculty member should make certain that Caltech's name or seal is not used for political purposes and that Caltech's equipment, services, or supplies are not used in the campaign (except, for example, at Graphic Resources, where there are established procedures for paying for these services). This limitation includes, among other things, reproduction machines, stationery, telephones, computers, mail service, and the like. Caltech's name may be used in the body (but not on the head) of written material intended for political purposes, where necessary to identify an individual or a group, e.g., the name of a Caltech club, but it should be clearly indicated that the people involved speak only as individuals and not for Caltech.

Classified Work on Campus

The Institute's policy is that no government contracts or grants are accepted if they require classified research to be carried out on campus. The Institute firmly intends to continue this policy.

However, in the past the Institute has undertaken classified studies at urgent government request in times of national emergency or critical need and would consider doing so if such circumstances arise in the future.

On several occasions, and on urgent government request, some campus facilities have been made available for limited periods for classified work by an off-campus group. This has been done when the facilities have not been available elsewhere, and the work could be done in a few days or at most a few weeks, and it was judged by the President of the Institute to be an emergency warranting an exception. Such work should be undertaken only after approval by the President upon recommendation of the responsible Division Chair for the specific instance.

Controlled Unclassified Information

The Institute's policy is that no government contracts, grants, or subawards are accepted if they require either receiving or producing Controlled Unclassified Information (CUI) in order to carry out the project. Exceptions to this policy can be granted by the Provost's Office in limited circumstances if so doing is in the best interests of the Institute.

Conflict of Interest, Conflict of Commitment, and Technology Transfer

Education and research in science and technology are central to the mission of Caltech. The Institute also wishes to serve society by encouraging businesses to transform results of research into products, processes, and services that will become available in the marketplace. Moreover, in many areas of research, contact with industry and entrepreneurship are essential for success, and need to be encouraged and rewarded. These legitimate interests of the Institute can sometimes come into conflict. For example, experience shows that research and teaching are

best carried out in an environment that encourages the free exchange of ideas between all participants. On the other hand, private research sponsors may have good reasons for wanting to keep certain results confidential, at least temporarily. To cite another example, the most effective means of transferring technology sometimes requires active participation by a Caltech researcher in a private enterprise, as an advisor or consultant. Researchers deserve to be compensated for their work and ideas in this process. However, activities of this kind may pose real or apparent conflicts with the integrity and objectivity of research at the Institute, and with the employee's primary professional commitment, which is to the Institute.

To help the faculty and all other investigators understand their duties and responsibilities in resolving these potential conflicts, the following principles and rules have been adopted by the Institute:

General Principles

Membership in the Caltech faculty involves a commitment that is full time in the most inclusive sense. Each faculty member is expected to accord complete professional loyalty to the Institute, and to arrange outside obligations, financial interests, and activities in such a way that they do not interfere with this primary, overriding commitment. This commitment applies as well to postdoctoral scholars. In addition, the Institute charges its faculty with a particularly heavy burden of responsibilities to safeguard the basic principles of research integrity, academic freedom, and public interest. When performing research sponsored by private interests, or negotiating with companies or entrepreneurs, or forming a company for commercial purposes, or engaging in any activity in which a conflict of interest may arise, it is the responsibility of the professorial faculty member[2] to protect:

1. The integrity of all research done at the Institute.
2. The good name of the Institute.
3. The academic freedom and economic rights of fellow faculty, students, postdoctoral scholars, and staff. Students, postdoctoral scholars and research faculty must be able to discuss their work freely, present results at conferences and seminars, and so on. A faculty member must never exploit the work of students, staff, or researchers for personal or professional gain.
4. The public interest. When government funds are involved in the support of research, the Institute's accountability to the government and the public requires that the investigators take particular care to obey all rules and regulations of the government and the sponsoring agencies. Details are to be found in the document *Managing Conflict of Interest Requirements Under Federal Sponsored Awards*, which is available in the Provost's Office, the Divisional Offices, and the Office of Sponsored Research.

Principles and Rules Concerning Investigator Responsibilities

1. A faculty member or postdoctoral scholar may not hold a position of line responsibility in an outside enterprise for pay or profit.[2]
2. A Caltech researcher may not spend more than an average of one day per calendar week consulting. See Consulting Activities (this chapter) for details.
3. Investigators are required to inform the appropriate Division Chair, immediately and in writing, through the Caltech disclosure system, of any consulting for, or financial interest[3] in, a firm with which their research at the Institute becomes involved.

Rules Concerning Patent Rights and Research Support

The Institute permits professors to seek research support from companies wishing to have the right to commercialize possible results of their research. To this end, it is willing to negotiate appropriate licenses to future patents in exchange for research support. In all dealings with private companies, however, the following principles and rules apply.

1. Neither the direction of Caltech research nor the interpretation of research results should be altered or appear to be altered by the commercial interests of a company. To help ensure this result, a professor must disclose all financial and business interests[3] in a company that supports the professor's research, the

[2] The principles and rules also apply to emeritus faculty members who are active in research.

[2] A person who makes decisions and to whom others report has line responsibility. A member of the Board of Directors, or a person who only gives advice, does not.

[3] Financial interests do not include interests in mutual funds or in blind trusts. Business interests include consulting for, holding any position of line responsibility in, board membership in, or holding any salaried position at, the company supporting the research.

company must enter into an Institute-approved sponsored research agreement, and the professor must develop and receive Institute approval of an appropriate Research Management Plan. Unrestricted gifts are welcomed from companies in which a professor has a financial or managerial interest; however, such gifts must be made to the professor's Division, or if the professor is a Division Chair, to the Institute *and* such gift funds shall not be used to support the research of the professor.

2. Any contract granting to a company rights to license future patents arising from research sponsored by the company must clearly delineate the scope of that work in order to distinguish it from research supported by other funds, especially public funds for which the Institute has a special responsibility.
3. The Institute may, in some circumstances, consider accepting financial interest in a company in exchange for licenses to patents, present or future. The Institute must then be sensitive to potential institutional conflicts of interest. It cannot, for example, permit a faculty member, postdoctoral scholar, or graduate student to work on behalf of the company as part of that person's Institute duties. It cannot accept research funds from the company except in the form of a sponsored research agreement where an Institute approved research management plan is in place to ensure that the research cannot be influenced by the financial interests of the Institute.
4. Circumstances may arise in which the most effective way to develop new technology is to award a subcontract, or to license a patent or copyright to a company in which either the Institute or a member of its research community has substantial financial interest. In such cases, it may appear to outside agencies or to competing companies that Caltech has acted unfairly. When a company in which the Institute or a member of its research community has substantial financial interest is chosen as a subcontractor to sponsored research, or as a licensee to a Caltech patent or copyright, care must be taken that the nature of the financial interest is fully disclosed to all relevant parties (including written disclosure to the Division Chair and to Caltech Procurement), and that sound, objective business reasons for choosing the company as subcontractor or licensee are fully documented.
5. The university may support the commercial sector, but it should not compete with it or be a member of it. Hence, Caltech laboratories should not perform specific commercially available tasks for the primary purpose of gaining income, nor should Caltech facilities be used to develop and commercialize a product. Caltech may enter into Facility Use or Technical Service Agreements with companies, in furtherance of Caltech's mission and to provide unique research facilities or capabilities not commonly available to the public. (See paragraphs 6 and 7 under "Consulting Activities," Item 4 under "Policies Governing Sponsored Research," and Item 5 under "Procedures for Submitting Proposals and for Accepting Awards," this chapter.)
6. Caltech is willing to keep sponsors fully informed about the research they support, but the Institute does not grant to outside organizations the right to delay submission or to refuse publication of research papers. Where appropriate, however, publications can be deferred for a limited period of time in order to protect patent rights, or to protect proprietary information that has been provided by a sponsor, and that inadvertently may have been included in a publication. Any such deferral will require concurrence from the Principal Investigator and the Vice Provost.
7. Royalty payments, consulting, or other forms of financial dealings with a commercial firm should be disclosed in accordance with Caltech Policy. Disclosures may need to be supplemented with additional information when applying for research support from a federal agency (see *Managing Conflict of Interest Requirements Under Federal Sponsored Awards* for details).

These principles and rules are designed to protect the essential interests of the Institute and its faculty, postdoctoral scholars and students while encouraging creative relationships between research and commerce by establishing guidelines within which investigators can safely operate. When a specific instance arises where interpretation of these principles and rules is required, investigators are encouraged to discuss the matter with the Division Chair, the Vice Provost for Research, or the Provost so that a sensible and legal resolution may be achieved.

Consulting Activities

The Institute encourages internal consultation and exchange of information among all members of the faculty and among and within all Divisions of the Institute. Such collegial consultation and interchange is expected of all faculty members. However, in exceptional cases, where an unusual or prolonged consulting project is involved requiring the attention and time of an individual to an extent that impinges on normal academic duties, the

President or Provost may authorize a stipend for such services to be paid to the individual and charged against the project that is served, whether or not the project is operating under a sponsor. Such arrangements are subject to the approval of the sponsoring agency.

It is recognized that a faculty member may undertake outside consulting work, provided it does not interfere with Institute duties. Consulting work is limited as follows: an average of one day per week for those on a twelve-month basis for the calendar year or one day a week for the academic year for those on a nine-month basis. Consulting should not exceed a continuous period of more than one week during the fall, winter, or spring quarters. For those on twelve-month appointments, consulting should not involve more than a single period of two weeks during the summer quarter. Accumulation of consulting time beyond these limits is not consistent with the year-round nature of faculty appointments.

Consulting privileges impose obligations on the faculty member that must be clearly understood, and in cases of doubt, the appropriate Division Chair should refer the case to the Provost.

There is a possibility of conflict of interest between outside activities and work at the Institute. In such a conflict, obligations to the Institute take priority. The federal government may become involved in questions of conflict of interest either through support of a faculty member's research or because a faculty member participates in an advisory capacity or serves on a government committee. The statement on the subject of conflict of interest issued by the American Council on Education and the American Association of University Professors, to which the Institute subscribes in principle, is available in the Provost's Office. The current Institute policy on Conflicts of Interest may be found under Institute Policies on the Human Resources web site. It is the responsibility of any faculty member who accepts outside obligations that might generate a conflict of interest, either with obligations to the Institute or obligations under federally financed research, to consult the Division Chair, the Vice Provost for Research, or the Office of Research Compliance for advice on these problems.

Consulting work represents the personal effort of the faculty member and will not be the subject of a contract involving the Institute. Scrupulous care must be taken to ensure that the name of the Institute and its letterhead are not used directly in any correspondence between the faculty member and the client, or in any reports that the faculty member may submit. It is important that the name of the Institute not appear in any publicity or commercial presentation either in promotion of future consulting services and activities or in the results of such consulting work.

To protect the Institute, the faculty member should notify the client in writing that the work is being done by an individual, that no position of line responsibility for the work can be accepted, that the Institute assumes no responsibility for the work, and that the name of the Institute may not be used in reports or publicity resulting from the work. The faculty member should also state that the faculty member has assigned rights in inventions to the Institute for inventions related to Institute work. The client should acknowledge this statement as evidence of the understanding upon which the work is to be done.

In a consulting activity, the faculty member may need to use Institute equipment. Such equipment may not be used except to a limited extent and only if it can be used without interfering with normal Institute activities. Its use must be approved by the appropriate Division Chair and the Vice President and Chief Operating Officer who may decide that a charge for the use of the equipment may be made. Charges for the use of equipment or facilities and arrangements regarding stipends and insurance coverage for assistants other than Institute faculty or students are to be established in consultation with the Vice President and Chief Operating Officer. If government or sponsor-owned equipment is to be used for consulting purposes, prior permission of the owner should be obtained through the Office of Sponsored Research. All unusual cases of the use of Institute facilities outside a faculty member's line of duty should be referred for approval to the Provost.

In connection with the use of Institute facilities or equipment, it should be noted that the Institute Patent Policy (later in this chapter) contains the statement: "Inventions made by employees in line of Institute duty or with the use of Institute facilities may be patented in order to protect and benefit the Institute and the public." Such patent properties are to be assigned in accordance with the Institute Patent Policy. Consulting work done by a staff member often involves developments for which the client may wish to obtain patent protection. "Consulting" will be interpreted by definition as being outside the staff member's "line of duty." Interpretation of "use of Institute facilities" is more difficult because in the literal sense an Institute facility could mean a trivial detail. There, as in the actual conduct of the consulting work itself, a considerable amount of discretion and judgment on the part of the staff member and the Division Chair must be used. Obviously, the use of Institute facilities must be kept to a minimum, but to permit no use whatever of Institute equipment in consulting work is both unrealistic and inconsistent with the Institute's expressed desire to be of service to the community, particularly when unique facilities are available. In the event that the faculty member and the Division Chair are in doubt concerning possible

Institute patent rights in a particular consulting arrangement, a recommendation should be obtained from the Provost.

On-Campus Activities Outside the Line of Duty

The appropriateness of a faculty member's conducting significant personal business on Institute premises is to be reviewed by the cognizant Division Chair and to be approved by the Provost.

The non-trivial use of Institute facilities outside a faculty member's line of duty is to be referred for approval to the Provost.

Off-Campus Teaching

Institute policy allows members of the professorial faculty to engage in consulting activities up to one day a week (see "Consulting Activities," this chapter). Teaching or participation in classes or seminars at other colleges or universities is permissible under these guidelines. Such teaching arrangements are to be short-term only, one-time commitments. Faculty may receive compensation for these efforts and, if listed in the catalog of another institution, should be listed with the "visiting" prefix before their title.

Even though these off-campus teaching activities fall under the general guidelines of consulting, they present some unique problems. Fixed time commitments, if the course is taught as a regular part of the curriculum of another institution, and the high visibility of such teaching arrangements, create a potential for misunderstanding. Therefore, all such arrangements must be approved by the Division Chair in advance. Note that the total commitment of time for all consulting and outside teaching activities must not exceed the one day a week limit.

Environmental, Health and Safety

The Caltech Environment, Health and Safety (EHS) Office is responsible for maintaining an environment for its faculty, staff, students, and visitors that will not adversely affect their health and safety, insofar as it is reasonably within the control of the Institute to do so. The Institute will comply with federal, state, and local health and safety regulations, or in their absence will use the standards of nationally recognized advisory bodies.

The EHS Office has technical expertise in the fields of Laboratory Safety, Fire and Life Safety, Emergency Preparedness, Environmental Health, Waste Management, Occupational Health, and Radiation Safety. The EHS office provides consultative services on hazard identification, analysis, and control and assists in developing safe handling techniques for hazardous materials and hazardous waste.

The EHS Office offers a full array of training opportunities that provide technical and administrative guidance relevant to campus operations and in compliance with the law. Continuing attention to and education in safe practices cannot be assumed to be optional.

The Administrative Committee on Radiation Safety and the Institute Biosafety Committee perform initial and continuing review of all research projects and activities that involve the use of radioactive material and radiation producing machines, and biohazardous material.

All functions of the EHS Office are supportive in nature. They in no way relieve individual faculty, supervisors, and employees of their direct responsibilities for safety. The EHS Office maintains an informational website with expanded coverage on pertinent environment, health and safety issues at www.safety.caltech.edu. For further assistance contact the EHS Office at (626) 395-6727 or by e-mail at safety@caltech.edu.

Gifts to the Institute

In order to ensure that the conditions involved conform to Institute policy and in the interests of good long-range relations with donors of private funds, members of the faculty are expected to inform the Office of the Vice President for Advancement and Alumni Relations of intentions to negotiate for gifts from individuals, corporations, or foundations. Such notice is to be given and approval granted prior to the actual negotiations with prospective donors to minimize possible misunderstandings that could result from multiple and uncoordinated approaches to the same donors.

In addition, those faculty members who wish to solicit prospective donors on their own or wish to enlist the help of the Development Office in soliciting private funds for their own particular projects are to first obtain approval from their Division Chair and the Provost. The Development Office then will assist faculty members in their solicitations with the understanding that the time allotted to any particular project must be a function of Institute priorities. To be regarded as a gift, the terms should not include specific deliverables nor any intellectual property rights for the donor.

When negotiations result in a favorable response, the faculty member should request or draft a letter to be sent by the donor outlining the terms of the gift to the Institute.

The President's Office, after consultation with the Provost, the Vice President and Chief Operating Officer, and the Vice President for Advancement and Alumni Relations concerning approval of any special financial conditions or other conditions involved, will write a letter accepting the gift under the terms agreed to, a copy of this letter going to the appropriate Division Chair and to the Provost, the Vice President and Chief Operating Officer, and the Vice President for Advancement and Alumni Relations.

The Vice President for Advancement and Alumni Relations may seek the help of faculty members in making suitable presentations and proposals to potential donors.

Lobbying and Political Endorsements

Because Caltech is a tax-exempt, nonprofit organization, no substantial part of its activities may be involved in attempts to influence federal, state, or local legislation. Therefore, any lobbying that might involve, in any way, Caltech as an institution must be coordinated with the Director of Government Relations, or the President's Office, so that Caltech's tax-exempt status is not jeopardized. This includes contacts by faculty members, on behalf of or using the name of Caltech, with members of Congress, state legislatures, boards of supervisors, and other law or rule-making bodies, or their staffs, for the purpose of influencing the passage or defeat of proposed legislation.

Faculty members endorsing a political candidate or a political position may use their titles and place of employment only for purposes of identification.

Nepotism

When a close relative of a faculty member is being considered for employment, appointment, reappointment, promotion, salary increase, or tenure in the same Division, the responsible Division Chair should seek advice from sources other than the faculty member in question. The Provost and, if appropriate, the Vice President and Chief Operating Officer will review all cases.

It is the policy of the Institute to discourage situations where Institute employees act as supervisors of close relatives or spouses, or others with whom they have a close relationship outside the Institute that might influence their judgment in a supervisory role.

Patent Policy

Adopted by the Executive Committee of the Board of Trustees on March 13, 2007

Inventions made by employees in the line of Institute duty or with the use of Institute facilities may be patented in order to protect and benefit the Institute and the public. Title to such patents is to be assigned to the Institute or, if appropriate, the sponsor. The cost of acquisition of such patents shall in no instance be borne by the employee.

It is the policy of the Institute that such patents be used for the public benefit. If there are innovations or discoveries that result in the filing of patent applications and the acquisition of patents, the Institute intends to serve the public interest by prudent and appropriate efforts to transfer the technology to those who will facilitate public use. When this result is achieved by the licensing of an invention or patent, income and/or equity may accrue to the Institute under terms negotiated at the Institute's discretion.

Where income is derived from such licensing, the inventor or inventors, collectively, will receive 25% of the income received by the Institute after the deduction of 1) unreimbursed external expenses associated with obtaining, maintaining, licensing and/or enforcing the patent or rights associated with the invention; and 2) the share of the income owed by Caltech to a third party pursuant to an income-sharing agreement between Caltech and the third party. In the event of multiple inventions in a license agreement, each inventor shall receive a proportion of that income according to Caltech internal procedures.

Where equity is derived from such licensing, the Institute will make no distribution of equity to inventors, but will make the distribution set forth in the previous sentence from the proceeds of the orderly sale of the securities at such times and in such amounts as determined in the sole discretion of the Institute in accordance with Institute policy, after the further deduction of brokerage and related expenses incident to the sale of the securities.

Inventors may opt, by means of a charitable donation to the Institute, to have all or any part of their share of the net income to be applied to support research of their choosing within the Institute. The Institute will then match

the amount contributed by the inventor for the research, on a dollar-for-dollar basis, so as to provide total research support from such income up to 50% of the net income received by the Institute. Inventors who elect to contribute may subsequently elect instead to retain their share of the net income from future royalties.

The remainder of the income derived by the Institute from the licensing of patents, after payment of the inventor(s)' shares will be applied to the furtherance of instruction and research. The Institute retains the right not to pursue the filing of any patent application, and not to pursue commercialization of any invention. In that event, the Institute may choose to assign the patent rights to the inventor(s) if that is consistent with its legal obligations.

All Institute employees shall sign a Patent and Copyright Agreement assigning their rights to patents or inventions that they may make in the line of their duties, or with any use of Institute facilities, to the Institute or, if appropriate, its sponsor.

Individuals who work on governmental or industrial projects undertaken by the Institute are required to sign such supplemental agreements as are necessary to enable the Institute to fulfill its contractual obligations in regard to patents.

All employees shall report to the Institute immediately any innovation or discovery that might reasonably be considered to be of a patentable nature and that arises in the line of their duties, or as the result of any use of Institute facilities. This obligation is not intended to interfere with the prompt publication of research results.

Inventions made by employees or students outside the line of Institute duties on the inventor's own time without any use of Institute facilities are not the property of the Institute. Patents from such inventions should be administered so as not to involve the Institute name.

It is important that inventors disclose to the Institute any funding from an agency of the United States Government that may relate to inventions. The Federal Bayh-Dole Act and implementing regulations (37 C.F.R. 401) grants patent rights to the Institute for inventions made under most federally funded research. In return, the Institute has reporting obligations regarding such inventions to the funding agency, and must grant a license to the government for its own use.

Any dispute concerning this policy or the distribution of royalties shall be resolved by appeal to the Provost.

The Institute places no restrictions on the rights or activities of Postdoctoral Scholars and Research Faculty in their subsequent careers after they leave Caltech. If departing Research Faculty or Postdoctoral Scholars require access to research data, computer programs, material samples, biological specimens or other research materials that they helped develop while at Caltech, the Institute will negotiate with them to provide continuing reasonable access to such materials, appropriate to the circumstances and consistent with its legal requirement to maintain originals of data and other results arising from sponsored research.

Procedure for Acquiring New Facilities

Policy and procedure on new facilities are guided by the Board of Trustees through its Committee on Buildings and Grounds.

Requests and justification for new facilities will be presented to the Provost and the Vice President and Chief Operating Officer. Subsequent major steps include further definition of fund sources, description, location, and costs. Additional major steps in the process include retention of architect, facility program, schematic design, working documents, contractor selection, construction, and activation. Authorization to proceed from one major step to another is usually contingent upon review and approval by the President and the Trustees' Committee on Buildings and Grounds.

Protection of Human Subjects

The Committee for Protection of Human Subjects performs initial and continuing review of all research projects and activities in which the California Institute of Technology is concerned that involve any use of human subjects or of tissues directly obtained from human subjects. The committee is particularly concerned that

1. The rights and welfare of subjects are adequately protected.
2. The risks to subjects are outweighed by potential benefits.
3. Appropriate informed consent of subjects is obtained.

Committee reviews are conducted in a manner to ensure the exercise of independent judgment of the members. Members will be excluded from judgment on projects or activities in which they have an active role or a conflict of interest.

No research project involving the use of human subjects shall be undertaken and no application for funds for the support of a research project involving human subjects shall be submitted from the Institute without the knowledge and approval of this committee.

Publications

Costs of Publications

Insofar as possible, when contract or grant support is not available, it is the Institute's policy to bear reasonable expenses involved in the publication of the results of research in the various professional journals. Staff members should consult the Chairs of their Divisions for the procedures to be followed.

Depositing Publications

All members of the faculty are encouraged to deposit reprints of their publications in their Division offices for the benefit of their colleagues and graduate students.

Research Involving Vertebrate Animals

The Administrative Committee on Animal Care and Use serves as the Institute's Institutional Animal Care and Use Committee (IACUC) and performs initial and continuing review of all research projects and activities in which the California Institute of Technology is concerned that involve the use of vertebrate animals or of tissues directly obtained from vertebrate animals. The committee is particularly concerned with procedures for the care, housing, use, and treatment of such animals.

Committee reviews are conducted in a manner to ensure the exercise of independent judgment of the members. Members will be excluded from judgment on projects or activities in which they have an active role or a conflict of interest.

No research project involving the use of vertebrate animals shall be undertaken and no application for funds for support of a research project involving vertebrate animals shall be submitted from the Institute without the knowledge and approval of this committee.

Royalties and Copyrights

Copyrights to and royalties from textbooks, reference works, submissions to scientific journals, and other copyrightable materials (except for computer software, which is treated below) produced by faculty members as a part of their normal teaching and scholarly activities at the Institute and that do not result from projects specifically funded in whole or in part by the Institute or by a sponsor of the Institute, shall belong to the author or authors and may be retained by them. If, on the other hand, the Institute provides funds, or a sponsor's funds, to finance (in whole or in part) a specific research or educational project and copyrightable materials are produced by employees as a result of the project, copyrights and royalty rights shall be owned by the Institute.

All rights to computer software, including computer programs, computer databases, and associated documentation ("computer software"), whether copyrightable or patentable, produced by employees or students in the line of Institute duty or with the use of Institute facilities, shall be owned by or assigned to the Institute, regardless of the source of funds used to produce the computer software. Computer software produced outside the line of Institute duty and on the author's own time, and without the use of Institute facilities, is not the property of the Institute.

Where the Institute receives income from the licensing or use of computer software or other copyrightable material belonging to the Institute, the author or authors, collectively, will receive 25% of the income received by the Institute after the deduction of unreimbursed legal expenses associated with obtaining and maintaining protection for the copyrightable material. If an author chooses to return any part of the royalty income to Caltech as a charitable donation, the Institute will match the donated amount in a fund to be applied to research of the author's choosing. The remainder of income derived by the Institute from the licensing or use of copyrights or computer software, after payment of the author's shares, will be applied to the furtherance of instruction and research. The Institute retains the right not to pursue the registration or commercialization of any copyrightable material, including

computer software. In that event, the Institute may choose to assign the copyrightable material to the author(s) if that is consistent with its legal obligations.

All Institute employees shall sign a Patent and Copyright Agreement assigning their rights in copyrightable materials authored in the manner set forth above. A copy of the agreement may be obtained from the Faculty Records Office.

All employees shall report to the Institute immediately any matter that might reasonably be considered to be of a copyrightable nature and that arises in the line of their duties, or as the result of the use of Institute facilities. This obligation is not intended to interfere with the prompt publication of research results.

Any dispute concerning this policy or the distribution of royalties shall be resolved by appeal to the Provost.

The Institute places no restrictions on the rights or activities of postdoctoral scholars and research faculty in their subsequent careers after they leave Caltech. If departing research faculty or postdoctoral scholars require access to research data, computer programs, material samples, or other research materials that they helped develop while at Caltech, the Institute will negotiate to provide continuing reasonable access to such materials, appropriate to the circumstances and consistent with its legal requirement to maintain originals of data and other results arising from sponsored research.

Authorship Disputes

The faculty and students of the California Institute of Technology are committed to disseminating the results of their research. Therefore, it is common practice to publish the results in professional journals, conference proceedings, and monographs. The authorship of these publications reflects the contributions of all participants in the research, following the accepted practices of the field of study and the Caltech honor code. Authorship requires a significant contribution to the conceptualization, design, execution, evaluation of the data and/or interpretation of the research and a willingness to assume responsibility for one's specific contributions to the research. In addition to authors, it is normal to acknowledge the contributions of people who assisted in the research but did not significantly contribute to the research reported in the publication.

While the broad principles regarding who is listed as an author are universal across fields, practices including the order of authors in multi-authored publications vary by discipline. It is long-standing practice at Caltech that the supervising member of the professorial faculty (the lead member of the professorial faculty in the case of collaborative research) makes the final decisions regarding the authorship of publications because the principal investigator is in the best position to understand the practices of the field and relative contributions of all authors.

On rare occasions, there are disputes regarding authorship. These may result from, but are not limited to, co-authors believing that their place in the list of authors does not fairly reflect their contributions, acknowledged individuals believing that their contributions are significant enough to merit authorship, and collaborative projects across different fields of study that have different practices. It is the policy of Caltech that authorship disputes do not constitute research misconduct.

Avoiding Authorship Disputes

Many of these disputes arise from mismatched expectations. Therefore, early, ongoing and open dialog is the most effective means of avoiding an authorship dispute. It is recommended that

1. members of the faculty have ongoing conversations with their students, postdoctoral scholars, and collaborators about their authorship expectations and practices;
2. authorship be discussed at the beginning of any collaboration and the discussion continue on an ongoing basis as the research evolves; and
3. authorship be discussed as soon as a publication is conceived and that discussion continue through the preparation and finalization of the publication;
4. members of the faculty consult authorship guidelines provided by agencies such as the National Science Foundation and National Institutes of Health, as well as various technical journals and professional societies in framing their decisions about authorship issues.

Resolving Authorship Disputes

A. If the publication is a result of *research in a single research group*, any disputant who wishes to dispute a decision by the professorial faculty member should follow the following process:
   1. Work with the faculty member to try to resolve the dispute;
   2. If this does not lead to a resolution, appeal to the Division Chair. The Division Chair will work informally with the faculty member and the disputant to try to resolve the dispute;
   3. If this fails, the disputant asks the Division Chair to launch a formal authorship dispute process. The Division Chair, either in person or with the assistance of another uninvolved member of the professorial faculty, will study the matter in detail and make a recommendation in writing to the faculty member. The faculty member may either accept the recommendation or reject it. The rejection has to be in writing, and must explain in the detail the rationale for the rejection of the recommendation. The decision of the supervising faculty member stands. The Division Chair will inform the Office of the Provost of the outcome of the process. The report will include the parties involved, the process, the written recommendation and response. This ends the process.

B. If the publication is the *result of a collaboration between two research groups* at Caltech, any disputant who wishes to dispute a decision by any of the collaborating professorial faculty members should follow the following process:
   1. Work with the collaborating faculty members to try to resolve the dispute;
   2. If this does not lead to a resolution, appeal to the Division Chair (or Division Chairs if people from more than one division are involved). The Division Chair(s) will work with the collaborating faculty members and the disputant to try to resolve the dispute;
   3. If this fails, the disputant asks the Division Chair to launch a formal authorship dispute process.
      a. If all the collaborating faculty members are in agreement on the course of action, the Division Chair(s) will follow the process described in A3 above.
      b. If the collaborating faculty members are not in agreement on the course of action, the Division Chair(s) will appoint a three-member committee of uninvolved members of the professorial faculty to study the matter in detail and make a recommendation in writing. The collaborating faculty members may either accept the recommendation or reject it. The rejection has to be in writing, and must explain in the detail the rationale for the rejection of the recommendation. If all collaborating faculty reject the recommendation, their decision is final and the Division Chair(s) will follow the process described in A3 above. If one collaborating faculty member accepts while another rejects this recommendation, the Division Chair(s) will inform the Office of the Provost of the outcome of the process. The report will include the parties involved, the process, the written recommendation and response. The Provost will convey the fact that there is an authorship dispute and the recommendation of the faculty committee to the publisher of the publication. This ends the process.

Sponsored Research and Other Sponsored Activities

This section outlines the policies and procedures involved in soliciting and accepting financial support from external sponsors for research and other types of externally supported activities.

The Office of Sponsored Research is the Institute administrative office responsible for providing information and administrative guidance to faculty and staff in the preparation and submission of proposals as well as the negotiation and acceptance of awards for the external support of sponsored research and other activities. The office is the official Institute contact point for sponsored activities when a formal agreement, grant, contract, or cooperative agreement with the Institute is contemplated that includes terms and conditions such as ownership of intellectual property and/or data; rights to publish; specification of deliverable items (e.g., periodic research reports, hardware, software, etc.); limitations on the use of funds; specification of milestones, objectives, or spending plans that are required for collecting funds; or specified time periods over which the activity is to be conducted in order for the Institute to receive payment. The sponsors include federal agencies, state and local government agencies, corporations, other universities, independent or government supported research laboratories, voluntary health organizations, or other organizations that customarily support research at colleges and universities.

The Offices of Corporate or Foundation Partnerships within the Development Office provide assistance and guidance in approaching philanthropic foundations and corporations for obtaining gifts and grants that can be used

for the support of research where the contemplated award to the Institute does not impose conditions on reporting, deliverables, and accountability that are generally found in sponsored projects.

Policies Governing Sponsored Research

The extent of the Institute's research program and its ability to be a leader in performing world-class research has been facilitated by the extensive external support obtained from grants and contracts awarded by federal and non-federal sponsors. While it may be considered desirable to have such external support in order to maintain the magnitude of the Institute's research programs, it is essential that the Institute retain control of its research program and undertake research activities that contribute to its educational and scholarly objectives. To these ends the following policies have been established:

1. Faculty members of professorial rank and senior research faculty, under conditions described in Chapter 4, may serve as principal investigators on sponsored research projects. Other faculty, members of the Beckman Institute, postdoctoral scholars, members of the professional staff, or, on rare occasions, other staff members, with the approval of their Division Chair and the Vice Provost, may serve as principal investigator under special circumstances and with the understanding that a supervising professorial faculty member assumes responsibility for the validity and importance of the research and management of the budget. The Institute discourages the use of the term co-principal investigator. In instances where multiple co-principal investigators are listed in the proposal, the proposal should identify a single Principal Investigator who will assume primary responsibility for the project.
2. Principal investigators and other key members of the sponsored project research team are expected to comply with Institute policies regarding performance of research at the Institute. In addition, they must pay particular attention to those policies and procedures of the sponsor covering certain types of compliances and associated assurances that the Institute must submit when seeking support from the sponsor. The principal investigator will assume the responsibility for seeing that all key members of the research team are familiar with these regulations and policies and that all required assurances and compliances are filed in a manner consistent with good project management and/or required deadlines. Typical federal statutory requirements include assurance of freedom from federal debt; assurance that notification will be given of debarment, suspension, or other personal legal action involvement with a unit of local, state, or federal government; agreement to disclose any type of lobbying activities; familiarity and compliance with procurement integrity and anti-kickback requirements; compliance with policies on ownership of intellectual property, data, and other forms of products resulting from research; adherence to government-approved Institute policies and assurances governing the use of human subjects and animals, the use of radioactive materials or radiation-producing sources, the use of techniques involving recombinant DNA molecules, and the use, transportation, or disposal of hazardous materials; and compliance with policies governing conflict of interest or misconduct in science, to name a few. Information on or copies of these regulations and associated assurance documents can be obtained from the Office of Sponsored Research or the Office of Research Compliance.
3. The Institute accepts awards, in the form of a grant, contract, or other type of legal agreement, from an external sponsor for the support of a faculty member's research project if the terms and conditions are consistent with the following principles:
    a. The scope of the work shall involve research falling clearly within the Institute's educational and research program, supplementing or making a positive addition to that program, and being of such nature that the Institute would undertake the research if its own funds were adequate.
    b. The Institute shall be free to publish and otherwise disseminate the results of sponsored research performed by faculty, staff, or students.
    c. To comply with the sponsor's requirements on distribution and other uses of research results, the Institute will normally own the technical data and other products generated from a sponsored project, with the principal investigator and other key members of the research team being permitted to retain copies of such data and information for their own use.
    d. Ownership of intellectual property generated from the research shall be governed by the Institute's current policies. Generally, the Institute will retain title to all inventions and possible resulting patents arising from externally sponsored research (see "Patent Policy," this chapter). The sponsor will be given a nonexclusive, royalty-free license, without the right to sublicense, to use or practice a patented invention made solely by Institute employees and resulting from work supported by that sponsor at the Institute. Under some circumstances, the Institute may negotiate to grant the sponsor the option of securing an

exclusive royalty-bearing license on such inventions and resulting patents (see "Rules Concerning Patent Rights and Research Support," under "Conflict of Interest, Conflict of Commitment, and Technology Transfer," this chapter). Inventions and resulting patents made jointly by Institute and sponsor employees shall be jointly owned. Copyrights shall be owned by the Institute when the copyrighted work is considered to be a work made in the line of Institute duty or with the use of Institute facilities (see "Royalties and Copyrights," this chapter). Licensing of Institute-owned copyrights will generally follow the same policies as for licensing of inventions and patents. Other rights may be granted to the sponsor only with the approval of the Patents and Relations with Industry Committee and, in some cases, the Board of Trustees.

e. The Institute will not undertake classified or proprietary research. Further, the Institute normally does not desire to receive information that the sponsor considers proprietary or confidential.

f. Arrangements with the sponsor shall not impose restrictions on the Institute that are in conflict with its established policies and practices, and should permit performance of the research in the same manner as research financed with the Institute's own funds.

g. Any deviation from the policies set forth under (a) through (f) above requires specific approval of the committee(s) concerned, the President, and if deemed by the President to be desirable, the Board of Trustees. In particular, with suitable approval, awards for work falling outside the Institute's normal program may be undertaken for the government in times of emergency, or if it in other ways qualified as a unique service to the community or the nation's security or well-being.

h. Results of sponsored research or testing shall not be used for advertising, publicity, or other commercial purposes, nor shall the name of the Institute be used in any way, whether in the form of written or verbal statements, that could constitute or imply an endorsement by the Institute of any commercial product or service, without the prior written approval of the Institute.

4. The Institute has certain unusual, or even unique, items of equipment or facilities for conducting tests and investigations of various kinds. When mutually advantageous arrangements can be agreed upon, and when the work cannot be conducted as well in the sponsor's own laboratories or in a commercial laboratory, such equipment or facilities may be used for conducting tests or investigations for outside agencies, or the Institute may undertake to design, build, and operate special facilities on a sponsored basis. All such arrangements require the use of a Facilities Use or Technical Services Agreement, negotiated by the Office of Sponsored Research.

5. An individual serving as a principal investigator on, or assigned to participate in, sponsored research (whether or not any portion of the individual's salary is charged to the sponsored research funds) shall not by virtue of such an arrangement receive extra compensation unless there is clear and compelling evidence that such duties constitute added responsibilities above and beyond the individual's normal work assignment. When in the judgment of the President or a designee, the direction of important Institute affairs (whether sponsored or not) warrants an adjustment in salary, the individual may be awarded an increase in recognition of the increased responsibilities. Such an increase should be clearly designated as contingent upon the continuation of the additional responsibilities or activities, and the individual will be informed as to what portions, if any, of the salary are on a contingent basis.

Procedures for Submitting Proposals and for Accepting Awards

1. Before making any commitment to a potential sponsor, or submitting a written proposal or application for a contract, grant, cooperative agreement, or restricted gift, the faculty member who is to serve as principal investigator or otherwise assume responsibility for the performance of the research program shall make sure that:

a. the project is consistent with the mission and objectives of the Institute and, where appropriate, the Division;

b. the personnel, space, and other necessary physical resources are available or have been provided for in the budget;

c. commitments for Institute cost sharing or matching funds have been secured;

d. commitments by proposed participating individuals and/or organizations have been secured; and

e. required Institute and sponsor clearances, approvals, and where necessary, permissions to deviate from Institute policies, have been identified and steps are under way to have these obtained in a timely manner.

2. The following offices or individuals can be contacted for guidance and assistance in dealing with a potential sponsor and submitting a proposal or application:

a. The Division Office—to resolve issues about the content of the planned program; the level of effort of principal investigator and other key individuals; potential possible conflict of interest situations; availability of required resources such as required matching funds, space, and undergraduate and graduate students; and any other matters that would impact the Division or the faculty member's functioning within the Division.

b. The Office of Sponsored Research—for application forms, information on sponsoring agency and Institute policies on sponsored research, budget preparation assistance, and required certifications and/or assurance documents. Sponsored Research can supply sample agreements for use with non-federal sponsors and will normally negotiate the sponsored award terms and conditions on behalf of the Institute.

c. The Offices of Foundation Relations or Corporate Relations—to obtain information and assistance in pursuing restricted or unrestricted gift support or grants from corporations or philanthropic organizations.

d. The Office of the Vice President and Chief Operating Officer—for unusual financial requirements or deviations from the Institute's normal policies on costs to be included in research proposal budgets.

e. The Office of Technology Transfer or the Office of General Counsel—for advice and assistance on matters pertaining to disclosure, ownership, and/or licensing of intellectual property.

f. The Vice Provost—for matters pertaining to the Institute's policies governing research and for approval to serve as a principal investigator for individuals who do not hold a professorial faculty appointment.

g. The Office of Research Compliance—for information regarding compliance with federal and state research regulations and Institute policies governing research.

h. The Provost—for matters pertaining to academic policy.

i. The President—for matters of general policy.

3. Formal proposals or applications requesting external funding for research and other sponsored activities must be submitted either by the Office of Sponsored Research or the Offices of Foundation Relations or Corporate Relations. All applications for new, noncompeting continuation, renewal, or supplemental awards or revisions to proposals or program budgets requested by the sponsor must be accompanied by a completed Division Approval Form (DAF) that will have the signatures of the appropriate Institute officials who are required to approve certain aspects of the application and contemplated research program. In addition, new proposals that have proposed budgets of $1,000,000 per year or more and renewal proposals having budgets in excess of $2,000,000 per year, or any proposals that the President designates, must receive approval from the Executive Committee of the Board of Trustees prior to acceptance of an award. In cases where an agreement is negotiated between a potential sponsor and the Institute prior to submission of a formal proposal, or funds are awarded by a sponsor with the submission of a proposal through normal Institute channels, a statement of work, a budget, and a completed DAF must be processed through the Office of Sponsored Research. The Office of Sponsored Research will arrange for these reviews and for the necessary Institute signatures on the proposal or application and will negotiate any requirements contained in the award document offered by the sponsor that impact compliance with Institute policies on sponsored research.
4. Proposals for testing programs require approval from the Division Chair or other official responsible for oversight of the laboratory or facility to be used in the testing program, and the Office of Sponsored Research.
5. Proposals requesting funding for research from external companies in which Caltech employees may have an interest shall be handled by the Office of Sponsored Research, but such requests for funding must be cleared by the Division Chair, and an approved Research Management Plan must be in place prior to the start of negotiations with the company for sponsoring research.
6. Requests for restricted and unrestricted gifts to the Institute shall be reviewed by the office of the Vice President for Advancement and Alumni Relations and the Provost before approval by the President.
7. Proposals for awards to support graduate student fellowships, individual graduate student financial support applications, and institutional graduate student traineeship applications, require the approval of the Dean of Graduate Studies on the DAF, in addition to the normal Division approval, prior to submitting the application to the Office of Sponsored Research for processing and signature.
8. Requests for support of educational projects, summer institutes, and similar activities, as well as proposals for support for the purchase of equipment or renovation of facilities shall be handled by the same procedures as described above.
9. Requests for use of Caltech Facilities or Technical Services provided by Caltech shall be handled by the Office of Sponsored Research who will consult with all appropriate administrative offices.

Taping of Public Speeches

It is the practice of the Institute to tape public campus speeches of topical or historical interest. (Public speeches are defined as those given outside normal academic channels in settings easily accessible to public attendance.) However, no taping will be undertaken by the Institute, and no Institute tapes will be made available to the public, without the speaker's permission.

Travel

All travel will be in accordance with the "Caltech Travel Policy" issued by the Office of Financial Services, or as they may be amended, together with any special instructions enumerated below. Information regarding coverage under the Institute's blanket trip-insurance policy may be obtained from the Human Resources office.

Method of Transportation
The Board of Trustees has ruled that Institute employees are not permitted to use privately owned aircraft while traveling on Institute business.

Travel to Meetings
Within the limits of their budgets, and in the absence of contract or grant support, the Divisions may provide financial assistance to faculty members who are presenting papers at meetings of national professional societies or are attending important committee meetings in this country.

The Institute is required for income tax purposes to report payments for travel unless an accounting has been filed showing that the travel expense was equal to or in excess of the travel grant.

Travel on Institute Business
Faculty members and other employees who travel on authorized Institute business will be reimbursed for necessary expenses incurred in connection with such travel. Upon return, the individual is required to submit a travel expense report to the Travel Department, itemizing expenses of the trip within 30 days after completion of the trip.

Travel Chargeable to Special Funds and Government Agreements
Reimbursement of travel expenses from special appropriations or funds requires the approval of the person responsible for administering the fund. Travel performed in connection with a government agreement will, in addition, be regulated by the provisions of that agreement.

Tuition Exemption

Children of employees may attend the Institute as undergraduate students without payment of the tuition fee, subject to the following provisions:

1. The parent must be a full-time, benefit basis employee who has fulfilled the probationary period of employment with the Institute.
2. The children must satisfy the regular entrance requirements of the Institute, whether for admission to the freshman class or to one of the upper classes by transfer from another institution of college rank;
3. The children must maintain standards of scholarship and conduct considered satisfactory by the deans;
4. The children of eligible parents will continue to be eligible if the parent remains at the Institute, retires under an established Institute retirement plan, is on an approved leave of absence, or dies;
5. If a parent, whose children are receiving tuition benefits, ceases to be eligible for reasons other than retirement, disability, or death, such tuition benefits shall cease; and
6. Children of employees may complete the term they are currently enrolled in if their eligible parent is on leave of absence without salary.

Children are defined as natural born, legally adopted, stepchildren who live at the same address as the employee, and foster children who live in the home of an employee or have been supported primarily by the employee for at least three (3) years immediately prior to enrollment at the Institute.

Eligibility for tuition exemption does not exclude such undergraduate students from consideration, on the same basis as other undergraduates, for cash grants which may be made to students of high scholastic standing upon demonstration of financial need.

Use of the Institute's Name

Caltech does not approve or endorse specific commercial products or services. Normally the Institute does not permit its name to be used at all in publicity for such products or services, but specific exceptions to this rule may be approved by the Vice Provost if they are deemed to be in the best interests of the Institute.

Other rules concerning the use of the Institute's name may be found in this chapter under "Consulting Activities" and "Candidacy for Public Office."

Institute Policies

The following and other Institute policies can be found at https://hr.caltech.edu/resources/institute-policies:

- Acceptable Use of Electronic Resources
- Compliance with Export Laws and Regulations
- Conflicts of Interest
- Disability and Reasonable Accommodation
- Environment, Health, and Safety
- Nondiscrimination and Equal Employment Opportunity
- Sex-and Gender-Based Misconduct
- Substance Abuse
- Unlawful Harassment
- Violence Prevention
- Whistleblower Policy

8.

Policies Relating to Students

Absence Reports

Although class attendance records are not required, faculty members are requested to report to the Dean of Students any continued absence on the part of students in their classes.

Auditing Courses

Persons not regularly enrolled in the Institute may audit courses if they obtain the consent of the instructor in charge of the course, and the Dean of Undergraduate Studies or Dean of Graduate Studies, as appropriate, and pay the required fee in the amount specified in the current issue of the *Caltech Catalog*. Registered students are not charged for auditing. No grades for auditors are turned in to the Registrar's Office, and no official record is kept of the result of the work done.

Course Changes

The phrase "course changes" is to be construed as including the introduction of new and the dropping of old subjects of instruction, and changes in the curriculum or requirements of any option of study.

1. All course changes are to be submitted first to the appropriate Division Chair, then, if approved, to the Chair of the Curriculum Committee and/or the Graduate Study Committee. Whenever new courses are involved, the Division Chair should see that each is provided with a course number, a total number of units (with the unit distribution as to class, laboratory, and preparation), the specific term or terms in which the course will be offered, a brief description to appear in the catalog, the prerequisites (if any), and, if possible, the name of the instructor.
2. On receipt of the recommendations of the faculty committees, the Faculty Board takes action, subject to possible reviews by the faculty as a whole as provided in the faculty bylaws.

It is obviously desirable that course changes appear in the *Caltech Catalog* for the academic year in which they go into effect. To this end, they should be initiated as early as possible. The courses cannot appear in the catalog for the next academic year unless they are approved at or before the last Faculty Board meeting of the academic year, which is normally in mid-May. Appropriate time should be allowed for consideration by the faculty committees in advance of the Faculty Board meeting.

Examinations

Special examinations for individual students are to be avoided except when required by schedule conflicts, illness, or other special circumstances. The time and place for special examinations are to be arranged by the instructor.

The last day for the removal of conditions and incompletes is scheduled about three weeks after the beginning of each term. The exact date appears in the calendar in the catalog. If an examination is necessary, it should take place before that date. These are not considered special examinations and are subject to the same rules as are other scheduled tests.

Faculty Responsibilities for Students

Faculty members are expected to act as advisors to the undergraduates. All freshmen are assigned to faculty advisors who interest themselves in the freshman's progress and advise on questions or problems. All members of the three upper classes are assigned to option advisors who interest themselves in the students' selection of courses, their progress toward their degrees, and, eventually, in their placement in industry or graduate school.

Serving as thesis advisor to a graduate student is often among the most important responsibilities of a faculty member. In addition, in the graduate options, graduate students may be academically associated with an informal group of the faculty governing the option. Faculty members from each area of graduate study are also available for consultation on problems concerning academic programs, degree requirements, financial aid, etc. Faculty members serve on thesis examining committees and oral examinations for graduate degrees.

Faculty/Student Relations

Coordination and cooperation between students and faculty with regard to campus affairs are secured through the presence of students on faculty committees through the Office of the Vice President for Student Affairs, and by means of other less formal mechanisms.

Guidelines for the Graduate Student-Faculty Advisor Relationship

This section is repeated in the Caltech Catalog under Graduate Policies and Procedures. Please see the catalog version for up-to-date page references.

The relationship between a faculty advisor and graduate student should be founded on mutual respect and open communication. Advisors and students should discuss the nature of their working relationship early and continue this discussion throughout their period of collaboration to ensure mutually understood and compatible expectations. These discussions should be frequent and open, and should include not only work, research goals, and performance reviews, but also change of status, time for personal and family responsibilities, time off (see catalog), and concerns about academic or work situations. Both the student and advisor have the obligation to initiate meetings as necessary to ensure the success of the relationship.

After achieving candidacy, each Ph.D. student should be assigned a thesis advising committee of three or more faculty members. This committee should meet informally at least once a year beginning in the fourth year of graduate study.

The graduate student-faculty advisor relationship should be guided by norms of fairness and professionalism. Both faculty and graduate students should avoid relationships that conflict with their respective roles and duties at Caltech. Both are bound by the prevailing policies prohibiting discrimination and harassment (see catalog). Concerns relating to academic or work situations should be raised promptly between the persons directly involved and handled informally if possible. Both students and advisors have the responsibility to raise and address concerns and conflicts promptly, honestly, and in a manner that conforms with academic integrity and professionalism. Caltech policy requires that students' concerns be addressed fairly and promptly and prohibits the retaliation or discrimination against students for appropriately voicing or raising a concern.

If a problem remains unresolved or if direct discussion is not possible, a student can seek assistance from Division officers (e.g., Option Representatives) or the graduate deans. At any time a student may request that discussions remain confidential. For more details about sources of assistance, consult the graduate option regulations (see catalog) and the Student Problem Resolution Process (see catalog).

Field Trips

Instructors in charge of field trips should notify the Registrar's Office at least five days in advance of the date of such trips. The Registrar's Office will, in turn, notify the instructors whose classes will be affected by the absence of students. In the case of small groups, students should notify their instructors.

The Honor System

The honor system at the Institute also covers course work including examinations, tests, laboratory reports, and homework. It applies to both undergraduate and graduate students. Instructors should always keep in mind that an honor system cannot work unless it has been made perfectly clear to the students how much collaboration, if any,

is permitted on laboratory reports and homework. This should be done at the first meeting of each term. It is the responsibility of the students to follow the announced ground rules.

Administration of the honor system is in the hands of the undergraduate student Board of Control and the graduate student Graduate Review Board, and any violation of the honor system that comes to the attention of an instructor should be reported to the Chairs of the respective boards or to one of the Deans—undergraduate or graduate as the case may be.

Length of Classes

Classes start on the hour and last fifty-five minutes. Classes should be dismissed promptly so that students will not be late to the next class. The hours from 4:00 p.m. to 7:00 p.m. and Monday evenings are usually free from classes. This tradition is an important one that allows our students, both undergraduates and graduates, to participate in athletics and in performance and activity courses, to attend research seminars, and to eat dinner in the student houses.

Overloading of Students

The faculty has gone on record as definitely opposing overloading of students through the requirement of more time in class, laboratory, or outside preparation than is allowed by the number of units allotted to a course. Instructors should use great care in determining whether a significant proportion (perhaps 20 percent) of their students find it necessary to put in extra time in laboratories, on laboratory reports, or on homework.

Scholastic Grading

The system of scholastic grading is explained in detail in the *Caltech Catalog*. In general, the faculty has gone on record as being opposed to the so-called "curve system" in which grades in a section or a course are determined by any method which results in a certain number of A's, B's, C's, etc., being automatically awarded. The instructor should have in mind a standard of excellence for each level and should award each grade on the basis of this standard. Thus, it might be possible for every member of a section in a given course to receive A's. As long as the selection of students—and perhaps the faculty's teaching abilities—cannot be perfect, this situation is not likely to occur, but if the Institute's objectives are being realized even fairly well, it is unreasonable to assume that in every section or course some students must necessarily receive low grades. For freshmen, term-end grades are limited to Pass/Fail for the first and second terms. All others are allowed to register for one course per term on a Pass/Fail basis.

Senior Ditch Day

The faculty has officially recognized Senior Ditch Day. This holiday, the date of which is determined and announced by the senior class, is a prerogative of the seniors. Other impromptu interruptions of the academic calendar, whether by class or by section, should not be permitted.

Summer Research

Undergraduate and graduate students in residence may be permitted, with the recommendation of their Division, to register for and to carry on research during the summer vacation period without additional tuition payment. Work for which stipends are paid is not eligible for academic credit. (See the Academic Calendar in the *Caltech Catalog* for the exact registration date for summer research).