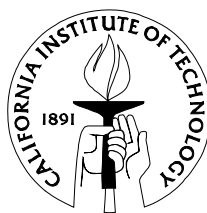


# Faculty Handbook



*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. On September 1, 2006, Dr. Jean-Lou Chameau assumed the Presidency.

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 for Business and Finance, Vice President for Development and Alumni Relations, Vice President for Public 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 Provost, 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 for Business and Finance is responsible for recommending and implementing policies concerning the Institute's business and financial operations.

The Vice President for Development and Alumni Relations is responsible for the staff functions involved in fund-raising, establishing and maintaining relations with the alumni association and the Associates, and related matters. The Vice President for Public Relations is responsible for the staff functions involved with press relations, publicity, and government and community relations. 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 for Business and Finance, the Vice President for Development and Alumni Relations, the Vice President for Public 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 Provost, the Chair of the Faculty, the Associate Vice President for Human Resources, the Assistant Vice President for Government and Community 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. The Division of Geological and Planetary Sciences operates the Kresge Building, Seismological Laboratory, in Pasadena.

### ***Support Groups***

Several groups are important means of support and of maintaining relations between the Institute and the local and national communities, but are not directly involved in teaching and research.

The Associates of the California Institute of Technology is comprised of public-spirited individuals interested in the advancement of learning. The nonprofit organization has been incorporated for the purpose of promoting the interests of the California Institute of Technology.

The Industrial Associates, a group of companies that have chosen to participate in an organized plan of cooperation with the Institute, is based on common interests in scientific and engineering research and in the training of scientists and engineers. This cooperation is maintained through an exchange of visits by personnel of the companies and faculty members, by special conferences, and by distribution of research reports.

The Earthquake Research Affiliates developed informally from a program designed by a group of companies that sponsored research at the Institute's Seismological Laboratory for many years. Member organizations are kept informed of current research in seismology and earthquake engineering through the distribution of publications, and through conferences, field trips, and informal exchanges with the Institute faculty.



# 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 June 2012)

#### *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, the University Librarian, and the Director of Athletics and Physical Education; 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  
 Instructor  
 Senior Research Associate  
 Senior Research Fellow  
 University Librarian  
 Director of Athletics and Physical Education

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 so long as they remain members of the faculty. 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 Students (*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 of Business and Finance, Vice President for Development and Institute Relations, 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 and Physical Education
- c. Committee on Exchange Programs and Study Abroad (CEPSA)
- d. Convocations
- e. Core Curriculum Steering Committee (CCSC)
- f. Curriculum
- g. Educational Outreach
- h. Foreign Students and Scholars
- i. Freshman Admissions
- j. Graduate Studies
- k. Health
- l. Institute Programs
- m. Library
- n. Patents and Relations with Industry
- o. Scholarships and Financial Aid
- p. Student Life and Housing
- q. Undergraduate Academic Standards and Honors
- r. 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. *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. 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.
- b. The *Athletics and Physical Education Committee* will be concerned with the formulation of policies pertaining to the Institute's program of physical education and athletics. 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 Director of Athletics and Physical Education and a member of the Athletic Council as selected by the President. The Director of Athletics and the Director of Admissions will be *ex officio* members 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 the Study Abroad Program will be an *ex officio* member of this committee, and the Registrar will be a non-voting member.
- d. The *Convocations Committee* will be responsible for the planning and execution of all formal convocations, such as Commencement, and other functions that the President of the Institute or the Chair of the faculty will request the Committee to administer. The Vice Chair of the Faculty, the Dean of Graduate Studies, and the Dean of Undergraduate Students 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 monitors the performance of the Core Curriculum courses and 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 Students will be an *ex officio* member of this committee, and the Registrar will be a non-voting member.
- 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 Students will be an *ex officio* member of this committee, and the Registrar will be a non-voting member.

- g. The *Educational Outreach Committee* will monitor and advise the faculty with respect to educational outreach programs involving Caltech. The committee is particularly concerned and involved with outreach efforts to precollege students from groups underrepresented at Caltech.
- h. 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 Scholars will be an *ex officio* member of this committee.
- i. The *Freshman Admissions Committee* will act with power on the admission of all students to the first year of undergraduate study. 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 three candidates, except that the Chair of the Division of Engineering and Applied Science will provide at least five candidates. The Director of Admissions will be an *ex officio* member of this committee. Student members of this committee will not read applications nor vote on admissions.
- j. The *Graduate Studies Committee* will exercise supervision over the scholastic requirements established by the faculty for all advanced degrees. It will be responsible for admission of students to graduate standing. It will act on petitions from graduate students. 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.
- k. The *Health Committee* will have surveillance over the Institute health programs, insofar as they are related to the undergraduate and graduate students and the faculty. The Dean of Graduate Studies, the Director of Health and Counseling Services, and the Director of Athletics will be *ex officio* members of this committee.
- l. The *Institute Programs Committee* will assist the student body and other Institute groups and organizations in arranging programs, and will initiate and produce programs and cultural events as the need arises.
- m. 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.
- n. 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 nonfiscal matters of faculty interest pertaining to relations with industry and the Industrial Associates Program of the Institute.
- o. The *Scholarships and Financial Aid Committee* will administer the award of merit scholarships to returning students and will monitor the granting of financial aid to undergraduate students in attendance at the Institute. The Chair of the Freshman Admissions Committee, the Director of Financial Aid, the Director of Admissions, and the Dean of Undergraduate Students will be *ex officio* members of this committee.
- p. The *Student Life and Housing Committee* will be concerned with matters relating to housing for undergraduate and graduate students. It will be concerned with the operations of all student houses. The Director of Athletics, the Dean of Undergraduate Students, the Dean of Graduate Studies, and the Master of Student Houses will be *ex officio* members of this committee. Members of the Housing Office staff, as determined by the Nominating Committee, can be non-voting members.
- q. The *Undergraduate Academic Standards and Honors Committee* will render final decisions on petitions for reinstatement, for excess units, and for leaves of absence. The committee will determine which undergraduate students will be recommended to the faculty for graduation with honor. The Registrar and the Dean of Undergraduate Students (or an Associate Dean designated by the Dean of Undergraduate Students) will be *ex officio* members of this committee.



- r. 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. 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 REPRESENTATION ON STANDING COMMITTEES OF THE FACULTY. The faculty may permit full-time registered students 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.
- (2) 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 representatives appropriate for the duration of their term.
- (3) Student 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., and the bylaws of the Graduate Student Council, as ensuring a choice of students who are acceptable to their constituencies. Any changes adopted by ASCIT or the GSC to procedures for selecting students must be presented to the Faculty Board for approval before any students 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 whether or not to recommend tenure promotion to the Board of Trustees for formal action.

### ***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 Associate Professor or 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). 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.

### ***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).

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 and Staff Appointments and Promotions

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 or Vice Provost and signed by the President 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 race, color, religion, national origin, age, sex, marital status, sexual orientation, nondisqualifying handicap or whether the individual is a disabled veteran or a veteran of the Vietnam Era. 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 five years with the understanding that a review at that time may lead to a renewal of the appointment for a further five-year period. A 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*.

### ***Faculty Members Emeriti***

It has been the tradition at Caltech that many retired 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 is 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 or resignation 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 Professors Emeriti are given 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 nontenure-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 option, 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 of the Vice Provost, 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. Within the scope of the general guidelines, senior research faculty (senior research associates and senior research fellows) 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.

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.

### ***Senior Research Associates***

Senior research associate 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 senior research associate, 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.

#### *Senior Research Fellows*

Appointments as senior research fellow are made for terms up to three years, but the rank of senior research fellow 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 senior research fellow exceed nine years. Renewal after the first two or three years as senior research fellow 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 title of faculty associate or senior faculty associate may be conferred on a few individuals who have high professional attainments and who would be expected to make a substantial contribution to the Institute's research program. All appointments with this title 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 senior research associates. Faculty associates 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. JPL senior faculty associates may use resources from such grants to offset their normal JPL salary only.

#### *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 continuous 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. In the case of a lecturer who does not hold another Institute appointment, no appointment will be made for a sixth year except on the basis of a review by a committee appointed by the Chair of the Division concerned, unless it is clear that the sixth year will be the last year. Subsequent to this, appointments will be extended on the basis of review no less frequently than every third year. The appointment of a Lecturer who holds another position will only be extended on the basis of reviews made at any time that the Lectureship has been held for five years without such review. 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 by a committee appointed 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*

Please see Chapter 8 of this handbook.

#### *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 IACC. 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. Membership in the Athenaeum if the visitor's status meets Athenaeum eligibility criteria.
4. Participation in Caltech's benefit plans, consistent with eligibility criteria for each program.
5. May not serve as principal investigators or co-investigators on 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.

### *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.

### *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 Ombuds Office 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 professors emeriti 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 Professors Emeriti*

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

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 a professor emeritus 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 professors emeriti to be principal investigators on research grants with the approval of the Division Chair and the Provost or Vice Provost. 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. 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 professors emeriti to make charges of their own salary to grants and to receive the funds charged.

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 age 67, 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 age 68.

This is just a summary of these transition options, full details may be found in 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.

### *Leave of Absence*

The major purpose of a leave of absence is to provide opportunity 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 the 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 leaves 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 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 faculty members 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, overseas appointments, or other special circumstances. Leaves of absences will not be extended beyond two years.

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. Faculty members should 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.

### ***Sick Leave***

Members of the voting faculty or 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***

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 professorial faculty member of either sex is entitled to full relief, with pay, from classroom teaching and administrative duties from the date of childbirth or adoption until the end of the first full academic term thereafter. A voting 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.

### ***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, Independence Day, Labor Day, Thanksgiving and the following day, and Christmas. Two additional floating holidays are designated each year by the President (see the Academic Calendar in the *Caltech Catalog* or the *Personnel Directory* 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 senior research fellow 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). In addition, the Institute pays a supplement to cover the estimated tax liability. 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*

#### *Preamble*

Research misconduct is historically a rare occurrence, especially at Caltech, where all members of the community are bound by a very effective code of honor. However, should an instance arise of either real or apparent misconduct, the Institute must act swiftly and decisively, while affording maximum possible protection both to the "whistle blower" (complainant) and to the accused (respondent). That is the intent of this policy.

The term *research misconduct* has been chosen instead of the narrower scientific misconduct to describe this policy. It refers to all research conducted at the Institute. The Chair of each Division is responsible for informing the Division's faculty, staff, and students of the Institute's policy with regard to research misconduct, and for interpreting this policy. This policy is not intended to deal with other problems, such as disputes over order of authorship, or violation of Institute or federal regulations, that do not amount to research misconduct.

#### *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.

#### *Findings*

A finding of research misconduct requires that:

- There be significant departure from accepted practices of the scientific community for maintaining the integrity of the research record;
- The misconduct be committed intentionally, or knowingly, or in reckless disregard of accepted practices; and
- The allegation be proven by a preponderance of evidence.

#### *Procedure*

The procedures to be followed have three stages: Inquiry, Investigation, and Adjudication, or Resolution. These are the stages required by regulations issued by the Federal government applicable to sponsored research. Those responsible for conducting each phase should bear in mind the following important responsibilities:

1. The Institute must vigorously pursue and resolve all charges of research misconduct.
2. All parties must be treated with justice and fairness, bearing in mind the vulnerabilities of their positions and the sensitive nature of academic reputations.
3. Confidentiality should be maintained to the maximum practical extent particularly in the inquiry phase.
4. All semblance of conflict of interest must rigorously be avoided at all stages.
5. All stages of the procedure should be fully documented.
6. All parties are responsible for acting in such a way as to avoid unnecessary damage to the general enterprise of academic research. Nevertheless, the Institute must inform appropriate government agencies of its actions, and if it is found that misleading data or information have been published, the Institute is

responsible for setting the public record straight, for example, by informing the editors of scholarly or scientific journals.

#### A. INQUIRY

The purpose of this stage is to determine, with minimum publicity and maximum confidentiality, whether there exists a sufficiently serious problem to warrant a formal investigation. It is crucial at this stage to separate substantive issues from conflicts between colleagues that may be resolved without a formal investigation.

##### 1. *Initiating the Inquiry*

All allegations of research misconduct arising from inside or outside the Institute, should be referred directly to the Division Chair (DC) concerned. If more than one Division is involved, more than one DC may be informed. If either the complainant or the DC perceives a possible conflict of interest the case may be taken directly to the Provost who will act as prescribed below for DCs, but the DC must be informed immediately and confidentially. A DC may initiate an inquiry without a specific complaint if it is felt that evidence of suspicious academic conduct exists.

When a complaint comes forth, the DC's first job is to provide confidential counsel. If the issue involved does not amount to research misconduct, satisfactory resolution through means other than this policy should be sought. However, if there is an indication that research misconduct has occurred, the DC must pursue the case even in the absence of a formal allegation. Moreover, the case must be pursued to its conclusion even if complainant(s) and/or respondent(s) resign from their positions at the Institute.

The DC should also counsel those involved that, should it be found at either the inquiry or the investigation stage that the allegations were both false and malicious, confidentiality may not be further maintained and, in fact, sanctions may be brought to bear against the complainant.

##### 2. *Inquiry Procedure*

The DC is responsible for conducting the inquiry (except, as noted above, where a conflict of interest might be perceived). The DC may call upon one or more senior colleagues for help where specific technical expertise is required, but this need should be carefully weighed against the importance of confidentiality at this stage. Confidentiality is likely to be a rapidly decreasing function of the number of persons involved in the inquiry.

The DC may wish to notify the President and Provost, and call upon Institute legal counsel at this stage. Every effort should be made to make personal legal counsel unnecessary for either complainant or respondent at this and all other stages, but all parties should recognize the Institute counsel always acts on behalf of the Institute, not one or the other party.

An inquiry is formally begun when the DC notifies the respondent in writing of the charges and process to follow. This and all other documents are to be preserved in a secure file in the Division offices for at least three years.

The nature of the inquiry will depend on the details of the case, and should be worked out by the DC in consultation with the complainant and respondent, with any colleague the DC calls on for assistance, and with Institute legal counsel. At this stage, every effort should be made to keep open the possibility of resolving the issue without damage to the position or reputation of either the complainant or the respondent. However, the DCs primary allegiance is not to the individuals but to the integrity of academic research, and to the Institute. If research misconduct has been committed, it must not be covered up.

The inquiry should be completed and a written record of findings should be prepared, within 30 days of its initiation. If the 30-day deadline cannot be met, a report should be filed citing progress to date and the reasons for the delay, and the respondent and other involved individuals should be informed.

##### 3. *Findings of the Inquiry*

The inquiry is completed when a judgment is made of whether a formal investigation is warranted. An investigation is warranted if a reasonable possibility of research misconduct exists. A written report shall be prepared that states what evidence was reviewed, summarizes relevant interviews, and includes the conclusions of the inquiry. The individual(s) against whom the allegation was made shall be given a copy of the report of the inquiry. If they comment on that report, their comments may be made part of the record. The DC must inform the complainant whether the allegations will be subject to a formal investigation.

If the allegation is found to be unsupported but has been made in good faith, no further action is required, aside from informing all parties, and attempting to heal whatever wounds have been inflicted. If confidentiality has been breached, the DC may wish to take reasonable steps to minimize the damage done by inaccurate reports. If the allegation is found not to have been made in good faith, the DC should inform the Provost and the President who will consider possible disciplinary action.

If a complainant is not satisfied with a DC's finding that the allegations are unsupported, the result may be appealed to the Provost, or if the Provost has made the finding, to the President.

#### 4. *Notifications*

The relevant responsible agency (or agencies in some cases) should be informed of the allegation upon completion of an inquiry, if (1) the allegation involves Federally funded research (or an application for Federal funding) and meets the Federal definition of research misconduct which is the same as the one given above, and (2) there is sufficient evidence to proceed to an investigation.

The relevant responsible agency should continue to be informed of the progress of the investigation, its outcome, and any actions taken.

- **Other Reasons to Notify the Agency.**

At any time during an inquiry or investigation, the institution will notify the relevant Federal agency if public health or safety is at risk; if agency resources or interests are threatened; if research activities should be suspended; if there is reasonable indication of possible violations of civil or criminal law; if Federal action is required to protect the interests of those involved in the investigation; if the Provost and DC believe the inquiry or investigation may be made public prematurely so that appropriate steps can be taken to safeguard evidence and protect the rights of those involved; or if the scientific community or public should be informed.

### B. INVESTIGATION

An investigation is initiated within 30 calendar days when an inquiry results in a finding that an investigation is warranted. The purpose of the investigation is to determine whether research misconduct has been committed. If an investigation is initiated, the Provost and DC should decide whether interim administrative action is required to protect the interests of the subjects, students, colleagues, the funding agency, or the Institute while the investigation proceeds. Possible actions might include temporary suspension of the research in question, for example. If there is reasonable indication of possible criminal violations, cognizant authorities must be informed by the Provost within 24 hours. Note the provisions of Section A.4 above requiring the Institute to notify the agency if it ascertains at any stage of the inquiry or investigation that specified conditions exist.

#### 1. *The Investigation Committee*

The Provost in consultation with the DC, shall appoint an Investigation Committee. The principal criteria for membership shall be fairness and wisdom, technical competence in the field in question, and avoidance of conflict of interest. Membership of the committee need not be restricted to the faculty of the Institute.

The respondent and complainant should be given an opportunity to comment, in writing, on the suitability of proposed members before the membership is decided. The committee should be provided with a budget that will enable it to perform its task. The Provost and DC should write a formal charge to the committee, informing it of the details of its task.

#### 2. *The Investigation Process*

Once the Investigation Committee is formed, it should undertake to inform the respondent of all allegations so that a response may be prepared. It is assumed that all parties, including the respondent will cooperate fully with the Investigation Committee. The committee should call upon the help of Institute legal counsel in working out the procedure to be followed in conducting the investigation. The complainant and respondent should be fully informed of the procedure chosen.

At this stage, the demands of confidentiality become secondary to the necessity that a vigorous investigation make a conclusive determination of the facts. Nevertheless, every attempt should be made to protect the reputations of all parties involved.

The investigation should be completed, and a full report filed with those parties requiring notice

within 120 days of its initiation. If this deadline cannot be met, an interim report of the reasons for delay and progress to date should be filed, with appropriate persons and agencies.

A draft of the committee report should be submitted to both complainant and respondent for comment before the final report is written. The respondent should be given the opportunity for a formal hearing before the Investigation Committee. Institute legal counsel should be called upon to assist in working out the procedure to be followed in conducting such a hearing.

If an investigation results in a finding, based on a preponderance of the evidence, that research misconduct occurred, an adjudication, or resolution phase follows whereby the recommendations are reviewed and appropriate action determined.

## C. RESOLUTION

Adjudication or resolution decisions are separated organizationally from the agency's or research institution's inquiry and investigation processes. Any appeals process should likewise be separated organizationally from the inquiry and investigation.

The committee findings may be grouped into two broad categories:

### 1. *No Finding of Research Misconduct*

All federal agencies or other entities initially informed of the investigation should be notified promptly. A full record of the investigation should be retained by the Institute in a secure and confidential file for at least three years. The Provost and DC should decide what steps need to be taken to clear the record and protect the reputations of all parties involved.

If the allegations are found to have been maliciously motivated, the Provost and DC may wish to recommend to the President appropriate disciplinary action. If the allegations are found to have been made in good faith, steps should be taken to prevent retaliatory actions.

### 2. *Finding of Research Misconduct*

The Provost and DC should decide on an appropriate course of action to deal with misconduct, to notify appropriate agencies, and to correct the scholarly or scientific record. The Provost and DC should forward the committee report to the President with a recommendation of sanctions and other actions to be taken. Possible sanctions include:

- Removal from the project
- Letter of reprimands
- Special monitoring of future work
- Probation or suspension
- Salary or rank reduction
- Termination of employment

The President should review the full record of the inquiry and investigation. The respondent may at this stage appeal to the President on grounds of improper procedure or a capricious or arbitrary decision based on the evidence in the record. New evidence may lead the President to call for a new investigation or further investigation, but not to an immediate reversal of the finding. After hearing any appeal and reviewing the case, the President should make a decision, or, in appropriate cases, recommend a final disposition to the Board of Trustees. The decision of the Board is final. In deciding what administrative actions are appropriate, the President 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.

For research sponsored by a relevant responsible agency (or agencies) a final report should be submitted to describe the policies and procedures under which the investigation was conducted, how and from whom information was obtained relevant to the investigation, the findings, and the basis for the findings, and include the actual text or an accurate summary of the views of any individual(s) found to have engaged in misconduct, as well as a description of any sanctions or other administrative action taken by the Institution.

In addition to regulatory authorities and sponsors, all interested parties should be notified of the final disposition of the case and provided with any legally required documentation. The list may include:

- The complainant
- Coauthors, coinvestigators, collaborators
- Editors of journals that have published compromised results
- Professional licensing boards and professional societies
- Other institutions that might consider employing the respondent
- Criminal authorities

### ***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.

### ***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<sup>1</sup> 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.<sup>2</sup>
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<sup>3</sup> 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<sup>3</sup> in a company that supports the professor's research, the 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

<sup>1</sup> The principles and rules also apply to emeritus faculty members who are active in research.

<sup>2</sup> 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.

<sup>3</sup> 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.



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, nor 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 for Business and Finance 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 for Business and Finance. 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.

### *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 Development 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 for Business and Finance, and the Vice President for Development 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 for Business and Finance, and the Vice President for Development and Alumni Relations.

The Vice President for Development 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 Assistant Vice President for Government and Community Relations, the Vice President for Public 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 for Business and Finance 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. A copy of the agreement may be obtained from Human Resources or the Faculty Records Office.

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 for Business and Finance. 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 of the Staff***

#### ***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.

#### ***Distribution of Technical Papers to the Industrial Associates***

The Office of Industrial Associates distributes preprints of journal articles, appropriate technical papers and reports, Ph.D. theses, and reprints from technical journals to the member companies on request.

### ***Research Involving Vertebrate Animals***

The Committee on Animal Care and Use 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.

### ***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 Relations within Development 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, except in unusual circumstances. Normally, each project should have a single Principal Investigator, with collaborating individuals listed as co-investigators.
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 for Business and Finance—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. Both new and renewal proposals for sponsored research are required to be reviewed and approved by the Administrative Committee on Sponsored Research, prior to acceptance of any award resulting from the submission. 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 and approved by the Administrative Committee on Sponsored Research and, when appropriate, the Executive Committee of the Board of Trustees before the Institute will execute the agreement or accept the award. 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 (for divisional or institutional research) shall be reviewed by the office of the Vice President for Development 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 except that no review and approval by the Administrative Committee on Sponsored Research is required.
  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 administrative procedure, "Travel Procedures and Reporting Instructions" 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.

In many cases, the Development Office may be able to provide travel assistance to faculty members who wish to attend national meetings and are willing to make visits to laboratories of Industrial Associate organizations that are in the vicinity of the meeting or on the way.

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 Section of Accounts Payable Department, itemizing expenses of the trip. Travel in connection with scheduled visits to laboratories that are members of the Industrial Associates is considered travel on Institute business.

#### *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 have attained permanent tenure status or hold the rank of senior research associate, or 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 a disability 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, and foster children, provided that foster children have been living in the home of an employee and shall have been supported primarily by the employee for at least three (3) years immediately prior to registration 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***

#### ***Where to find other Institute Policies***

The following policies can be found at <http://policies.caltech.edu/>

- Accommodations for Disabilities
- Acceptable use of Electronic Information Resources
- Conflict of Interest Policy
- Compliance with Export Control Laws
- Non Discrimination and Equal Employment Opportunity
- Sexual Violence
- Unlawful Harassment
- Substance Abuse
- Whistleblower policy

## 8.

## Policies for Postdoctoral Scholars and Research Faculty

### *Purpose of Caltech's Postdoctoral Program*

Postdoctoral and senior postdoctoral scholars form a vital part of Caltech's research community. By engaging in research beyond their Ph.D. training they advance knowledge in science and engineering while adding to their own experience and education. Postdoctoral scholars also contribute to the education of Caltech undergraduates and graduate students. Postdoctoral scholars always work under the close supervision of one or more Caltech professorial faculty members. In distinction to research faculty, who are members of the faculty, postdoctoral scholars and senior postdoctoral scholars are a separate group, neither faculty, nor staff, nor students.

### *Intellectual Independence and Academic Freedom*

The Institute requires that postdoctoral scholars and members of the research faculty be accorded a significant degree of intellectual independence and academic freedom in the performance of their duties, recognizing that the amount of such freedom can vary with disciplines and circumstances and must be consistent with the required association with the research program of the professorial sponsor. Although an important part of many postdoctoral scholars' appointments is the opportunity to acquire further knowledge and to learn new skills under the guidance of a member of the professorial faculty, Caltech's policy is to help postdoctoral scholars and research faculty develop their potential as independent scholars by providing them important measures of intellectual independence and academic freedom, and by providing them appropriate recognition in publications and in other results of their research.

Postdoctoral scholars do not conduct independent research programs and normally they do not act as principal investigators on grants or contract proposals. Exceptions to this policy require the approval of the relevant Division Chair and the Vice Provost. Because of their different situation, research faculty have more suitable opportunities to be principal investigators than do postdoctoral scholars, although such participation also requires the permission of the relevant Division Chair and the Vice Provost.

All postdoctoral scholars and senior postdoctoral scholars will be required to sign the Institute's non-academic patent and copyright agreement.

### *Academic Policies and Procedures*

The Institute's policies and procedures on academic issues such as technology transfer and research fraud apply to the professorial faculty, research faculty, postdoctoral scholars, students, and staff. To the extent that research faculty and postdoctoral scholars participate as principal investigators or as key members of research teams for sponsored projects, they are governed by the Institute's policies and procedures for sponsored research. The policies and procedures on academic issues and sponsored research are reproduced in the Faculty and Postdoctoral Scholars Handbooks.

### *Patents and Intellectual Property*

Postdoctoral scholars and research faculty have the same rights and responsibilities concerning patents, copyrights, and royalties as professorial faculty, students, and staff. Policies and procedures governing these matters are given in the Postdoctoral Scholars Handbook, the Faculty Handbook and, depending on the subject, in other administrative documents.

### ***Access to Data, Programs, and Samples***

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 which they helped develop while at Caltech, the Institute will negotiate with the departing individual 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.

### ***Teaching, Consulting and Professional Activities***

Postdoctoral scholars and research faculty are appointed to participate in the conduct of the Institute programs in research. Participation in the teaching program occurs only occasionally, is voluntary, and requires the approval of the professorial sponsor. Temporary appointment to the rank of lecturer is also required, and compensation for teaching is normally returned to the research budget. Consulting and significant participation in other outside professional activities also require the permission of the professorial sponsor; consulting for an organization in which the sponsor has a significant involvement or significant financial interest requires the approval of the Division Chair. When permitted, such activities are governed by the policies reproduced in the Postdoctoral Scholars and Faculty Handbooks.

### ***Administrative Policies and Processes***

The Institute has in place policies concerning administrative issues such as the use of the Institute's name, lobbying, travel, conflict of interest, conflict of commitment, harassment, and filing of grievances (see Chapters 4 and 7). With appropriate consideration of the status of the individuals where that is relevant, these policies apply to all members of the Caltech community.

### ***Educational Programs***

Postdoctoral scholars and research faculty cannot take Caltech classes for academic credit but can audit classes upon payment of the appropriate fee at the Institute with the permission of their professorial sponsor and the instructor (See Chapter 9, page 1). In addition, the Institute endeavors to provide occasional, informal programs of direct interest to research faculty and postdoctoral scholars on such career-oriented issues as research funding, grant management, and scientific ethics.

### ***Scholars from Foreign Countries***

The Institute will seek to obtain permanent residency for research faculty who are not U. S. citizens if there is a reasonable expectation that the individual will be associated with the Institute for several years. Because of the temporary nature of the appointment, the Institute does not seek permanent residency for postdoctoral scholars. It will, however, assist postdoctoral scholars to obtain official documentation so they can pursue research beyond their Ph.D. training and add to their own experience and education. Information on visas and related subjects is available from Caltech's Office of International Scholar Services.

### ***Appointments and Reappointments***

#### ***Terms***

All appointments must be sponsored or co-sponsored by a member of the professorial faculty. Appointments are normally made in increments of one year; however, multi-year appointments are optional. The rank of postdoctoral scholar can be renewed up to a maximum of six years.

Due to the intensity of commitment required of postdoctoral scholars and research faculty, the Institute makes such appointments with an expectation that they will devote themselves full-time to the research and education programs they have established with their faculty sponsors. For that reason, postdoctoral scholar and research faculty appointments are made on a full-time basis only. Scholars may hold no other concurrent appointments. In rare circumstances, and only with approval of the faculty sponsor, division chair, and vice provost,

postdoctoral scholars or research faculty may be permitted to take on additional assignments, the activities of which must be consistent with and supportive of their research.

Postdoctoral scholars who have held this rank for a minimum of one year may be promoted to the rank of senior postdoctoral scholar. The following documents are required for such appointments: curriculum vitae with publications and supporting memos from the faculty sponsor and division chair. Time served in the ranks of postdoctoral scholar and senior postdoctoral scholar combined cannot exceed a maximum of six years.

Persons who have held postdoctoral positions for a minimum of one year at other institutions may be appointed directly to the senior postdoctoral scholar rank. For such appointments the following documents are required: curriculum vitae with publications and letters of reference, and memos from the faculty sponsor and division chair. The position may be held for a maximum of six years.

Postdoctoral scholars or senior postdoctoral scholars may be promoted to senior research fellow. Promotion from either position to senior research fellow requires a divisional committee review that includes three external letters of reference and approval by the IACC. In no instance may the combined period of appointment as postdoctoral scholar, senior postdoctoral scholar, and senior research fellow exceed a total of nine years.

### *Salary*

Minimum salary is reviewed and determined each year by the Provost with the concurrence of the Institute Academic Council (IACC).

### *Limitations*

1. Caltech graduate students may be appointed postdoctoral scholars for up to one year, for the purpose of “tying up loose ends.” Any appointment beyond the initial one-year period requires IACC approval.
2. Completion of all requirements for a Ph.D. degree or its equivalent is required for virtually all appointments. Candidates who have not completed the Ph.D. may be appointed temporarily to a visiting or non-academic position.

### *The Standards for Notice*

Notice to a postdoctoral scholar or senior postdoctoral scholar of an intention to end an appointment prior to its expiration date is to be given in writing in accordance with the following standards:

1. For those who have been employed by the Institute for less than a year, the advance notice shall be three months;
2. For those who have been employed by the Institute at least one year but less than two years, the advance notice shall be six months; and
3. Those with two or more years at the Institute shall receive notice of such termination at least one year in advance.

In cases where termination of an appointment is for reasons of moral turpitude or other serious violation of Institute policy or practice, termination may be immediate and without prior notice.

### *Processes and Communication*

A faculty sponsor normally initiates a postdoctoral scholar’s appointment or reappointment by submitting a nomination to the appropriate division chair. If the division chair approves the nomination, it is sent to the Postdoctoral Scholars/Visitors Services in the Office of Human Resources for processing.

Appointments and reappointments are communicated to each individual concerned by means of an official letter signed by the president or vice provost. The recipient must sign and return an acceptance copy to the Postdoctoral Scholars/Visitors Services in the Office of Human Resources before the appointment can be effective.

### *Completion of Postdoctoral Scholar Appointments*

The Institute will provide departing postdoctoral scholars with certificates showing the start and end dates of their research experience (minimum of six (6) months), the scholar completes the period in good standing, and the postdoctoral scholar’s faculty sponsors concur with and sign the certificate.

## ***Affirmative Action and Employment Status***

Postdoctoral scholar positions require advertisement in the same manner as research faculty positions. Anyone holding the postdoctoral scholar or senior postdoctoral scholar rank is considered to be a temporary intern employee (it is hoped that certain loan repayments may be deferred for employees in this category). Names of postdoctoral scholars are listed in the *Caltech Catalog* in a special section for each division.

## ***Benefits***

### *Institute Facilities and Resources*

Postdoctoral scholars of both ranks have access to Caltech libraries, computing facilities, and all Institute resources available to non-academic employees and enumerated in Chapter 4 of the Postdoctoral Scholars Handbook. In addition, they are eligible for membership in the Athenaeum, they may sign up to use the athletic facilities, and they are entitled to free unassigned parking and to Institute housing, on a space-available basis.

### *Fringe Benefits*

1. **Medical and Dental Insurance**  
Medical and dental coverage is the same as that offered to all other employees and their families. To be eligible for such coverage, a postdoctoral scholar must have a minimum monthly salary of at least \$1,000 or an offset by external sources of funding. Regardless of the source of funding, postdoctoral scholars and research faculty are to be provided an opportunity to enroll in Caltech's health and dental insurance plans.
2. **Other Health and Welfare Programs**  
Depending on their sources of funding, postdoctoral scholars may participate in other Institute benefit programs such as long-term disability insurance, personal accident insurance, life insurance, travel insurance, health care spending accounts, and dependent care spending accounts.
3. **Retirement Plan**  
Effective July 2005, postdoctoral scholars who have been at Caltech more than 3 years and who have qualifying earnings will be eligible for participation in the staff retirement plan. Individuals in the staff retirement plan are not required to make personal contributions.  
As voting members of the faculty, senior research faculty are required to participate in the TIAA/CREF retirement plan.
4. **Tax-deferred Annuity**  
Depending on the tax status of their income, postdoctoral scholars and senior postdoctoral scholars may participate in Caltech's voluntary tax-deferred annuity savings program.
5. **Leaves of Absence**  
Postdoctoral scholars of both ranks are entitled to:
  - a. A 4-month unpaid leave of absence for pregnancy-related disability with reinstatement guaranteed, unless the position ceases to exist. During such periods the Institute will continue its contribution toward medical insurance coverage.
  - b. Up to 12 weeks per year of unpaid family care leave after completion of one year of employment. During such periods of absence the Institute will continue its contributions toward medical insurance coverage. Family care leave is permitted in connection with birth or adoption of a child, placement of a foster child, or serious illness of the scholar or the scholar's spouse, child, or parents. Reinstatement is guaranteed, unless the position ceases to exist for reasons unrelated to the leave.
6. **Vacation**  
Postdoctoral scholars of both ranks and senior research faculty are entitled to one month of vacation a year. Initially, they may take up to three weeks of vacation after having completed nine months of service. Such vacation time must be scheduled with the faculty sponsor. The maximum amount of vacation a postdoctoral scholar or senior research faculty may accumulate is 21 days (One month). Any unexpended vacation will be addressed at the time of termination, consistent with accrual limits.
7. **Sick Leave**  
Sick leave is a form of pay protection and is intended to be integrated with income from either Workers' Compensation or State Disability Insurance so as not to exceed the normal employee gross salary. Sick leave for postdoctoral and senior postdoctoral scholars will be accrued at the rate of 8 hours per month or a maximum of 12 days per one-year contract. Senior research faculty may take up to one month paid sick leave in any twelve-month period, or a maximum of six months if held this rank for two or more years

duration. Compensation will not be paid for unused sick leave during any contractual period but may be accumulated until termination.



## 9.

## 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 Students or Dean of Graduate Students, 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), the Dean of Graduate Studies, the Ombudsperson, the Assistant Vice President for Student Affairs, or the office of International Student Programs. 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 Grievance Procedure (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.

Most examinations are of the take-home variety, although a room for the examination may be reserved at the instructor's discretion. Even if a room is reserved, the instructor should not be present during the examination, and students should be free to come and go as they please. Instructors should specify clearly the ground rules for all examinations. 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).