

# Caltech Catalog

California Institute of Technology  
Pasadena, California 91125  
(626) 395-6811

September 2018

*The mission of the California Institute of Technology is to expand human knowledge and benefit society through research integrated with education. We investigate the most challenging, fundamental problems in science and technology in a singularly collegial, interdisciplinary atmosphere, while educating outstanding students to become creative members of society.*

While every effort has been made to ensure that this catalog is accurate and up to date, it may include typographical or other errors. The Institute reserves the right to change its policies, rules, regulations, requirements for graduation, course offerings, and any other contents of this catalog at any time.

You can view the *Caltech Catalog* online at [catalog.caltech.edu](http://catalog.caltech.edu). Please note that the contents of websites that link to online course entries are not part of the official catalog.

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## ACADEMIC CALENDAR 2018-19

### FIRST TERM 2018

*September 19–21*

International student orientation

*September 23–30*

New student check-in and orientation for undergraduates

*September 24–28*

New student check-in and orientation for graduate students

*September 27*

Undergraduate Academic Standards and Honors Committee—1 p.m.

*October 1*

Beginning of instruction—8 a.m.

*October 19*

Last day for adding courses and removing conditions & incompletes

*October 31–November 6*

Midterm examination period

*November 7*

Faculty meeting—noon to 1 p.m.

*November 12*

Midterm deficiency notices due—9 a.m.

*November 21*

Last day for dropping courses, exercising pass/fail option, and changing sections

*November 22–23*

Thanksgiving (Institute holiday)

*November 26–December 7*

Registration for second term, 2018-19

*December 7*

Last day of classes  
Last day to register for second term, 2018-19 without a \$50 late fee

*December 8–11*

Study period

*December 12\*–14*

Final examinations, first term, 2018–19

*December 14*

End of first term, 2018–19

*December 15–January 6*

Winter recess

*December 19*

Instructors' final grade reports due—9 a.m.

*December 24–25*

Christmas (Institute holiday)

*December 26–28, 31*

Special release days and floating holiday

### SECOND TERM 2019

*January 1*

New Year's Day (Institute holiday)

*January 7*

Beginning of instruction—8 a.m.

*January 8*

Undergraduate Academic Standards and Honors Committee—9 a.m.

*January 21*

Martin Luther King Day (Institute holiday)

*January 25*

Last day for adding courses and removing conditions & incompletes

*February 6–12*

Midterm examination period

*February 13*

Faculty meeting—noon to 1 p.m.

*February 18*

Presidents' Day (Institute holiday)

*February 19*

Midterm deficiency notices due—9 a.m.

*February 27*

Last day for dropping courses, exercising pass/fail option, and changing sections

*February 28–March 13*

Registration for third term, 2018–19

*March 13*

Last day of classes  
Last day to register for third term, 2018–19, without a \$50 late fee

*March 14–17*

Study period

*March 18\*–20*

Final examinations, second term, 2018–19

*March 20*

End of second term, 2018–19

*\*First due date for final examinations*

*Academic Calendar*

*March 21–31*  
Spring recess

*March 25*  
Instructors' final grades due—9 a.m.

### THIRD TERM 2019

*April 1*  
Beginning of instruction—8 a.m.

*April 2*  
Undergraduate Academic Standards and Honors Committee—9 a.m.

*April 19*  
Last day for adding courses and removing conditions and incompletes

*May 1-7*  
Midterm examination period

*May 10*  
Last day for admission to candidacy for the degrees of Master of Science and Engineer, and for scheduling an examination for the degree of Doctor of Philosophy

*May 13*  
Midterm deficiency notices due—9 a.m.  
Last day for seniors to remove conditions and incompletes

*May 22*  
Last day for dropping courses, exercising pass/fail option, and changing sections

*May 23–June 7*  
Registration for first term, 2019–20, and for summer research

*May 27*  
Memorial Day (Institute holiday)

*May 31*  
Last day of classes—seniors and graduate students

Last day for presenting theses for the degrees of Doctor of Philosophy and Engineer

*June 1–4*  
Study period for seniors and graduate students

*June 5\*–7*  
Final examinations for seniors and graduate students, third term, 2018–19

*June 7*  
Last day of classes—undergraduates  
Last day to register for first term,

*\*First due date for final examinations*

2019–20, without a \$50 late fee

*June 8–11*  
Study period for undergraduates

*June 10*  
Instructors' final grade reports due for seniors and graduate students—9 a.m.

*June 12*  
Curriculum Committee—10 a.m. Faculty meeting—2 p.m.-3 p.m.

*June 12\*–14*  
Final examinations for undergraduates, third term, 2018–19

*June 14*  
Commencement—10 a.m. End of third term, 2018–19

*June 19*  
Instructors' final grades due for undergraduates—9 a.m.

*June 26*  
Undergraduate Academic Standards and Honors Committee—9 a.m.

*July 4-5*  
Independence Day (Institute holiday)

### SUMMER TERM 2019

*June 17*  
Summer Term begins

*August 30*  
Summer Term ends

*September 2*  
Labor Day (Institute holiday)

### FIRST TERM 2019–20

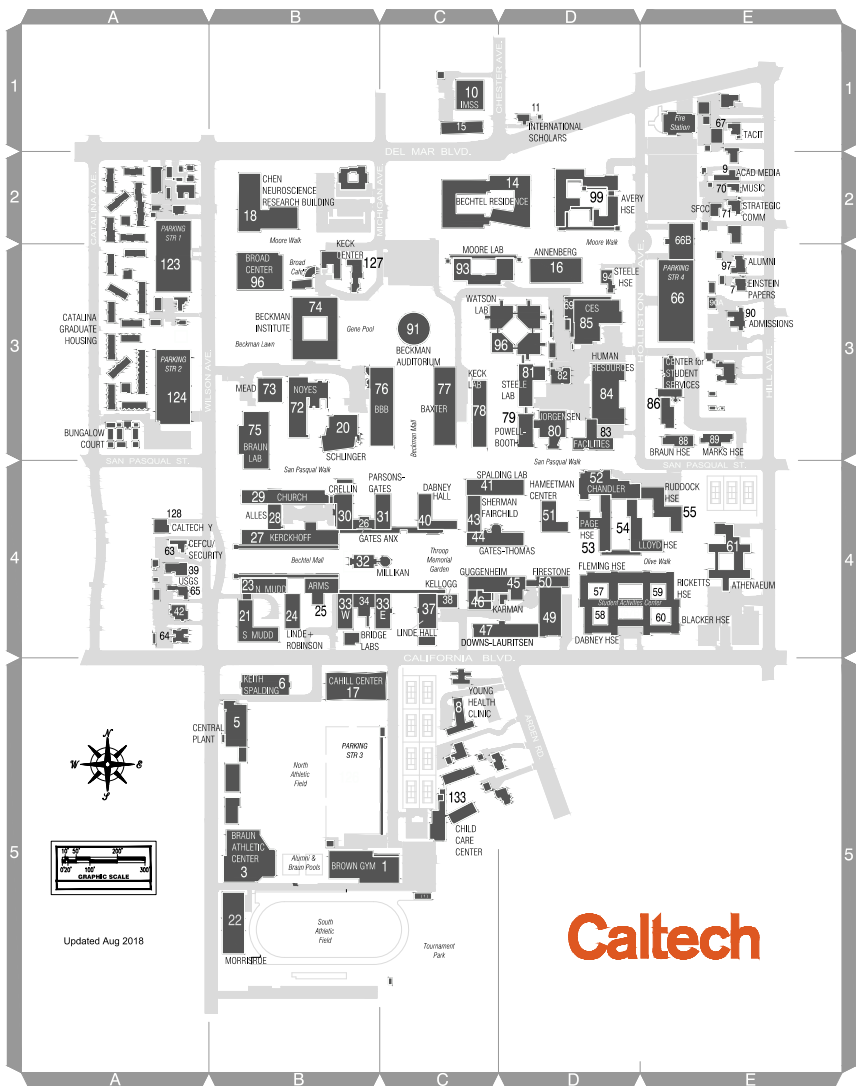
*September 18–20*  
International student orientation

*September 22–29*  
New student check-in and orientation for undergraduates

*September 23–27*  
New student check-in and orientation for graduate students

*September 26*  
Undergraduate Academic Standards and Honors Committee—1 p.m.

*October 1*  
Beginning of instruction—8 a.m.



## Caltech Campus Building Directory

263 S Chester (International Scholar Services)	11	D1	Firestone Laboratory	50	D4
275 S Hill (Theater Arts (TACIT))	67	E1	Fleming House	57	D4
287 S Hill (Rickenbaugh House)	98	E1	Gates Annex	26	B4
295 S Hill Academic Media	9	E2	Gates-Thomas Laboratory	44	C4
305 S Hill (Music House)	70	E2	Guggenheim Laboratory	45	C4
315 S Hill (Strategic Communications [front] SFCC [rear])	71	E2	Hameetman Center	51	D4
315 S Wilson	122	A2	Human Resources/Facilities Management Shops	84	D3
345 S Hill (Alumni House)	97	E2	Information Management Systems & Svcs (IMSS)	10	C1
355 S Holliston (Steele House)	94	D3	Jorgensen Laboratory	80	D3
363 S Hill (Einstein Papers House)	7	E3	Karman Laboratory	46	C4
375 S Wilson (Putrock House)	121	A3	Keck Center	127	B3
383 S Hill (Undergrad Admissions & Financial Aid)	90	E3	Keck Laboratories	78	C3
415 S Hill Ave	220	E3	Kellogg Radiation Laboratory	38	C4
505 S Wilson (Tyson House/Caltech Y)	128	A4	Kerckhoff Annex	27A	B4
515 S Wilson (Credit Union/Parking & Security)	63	A4	Kerckhoff Laboratories	27	B4
525 S Wilson (U.S. Geological Survey)	39	A4	LIGO	69	D3
535 S Wilson (Fitzhugh House/USGS)	65	A4	Linde Hall of Math and Physics	37	C4
551 S Wilson (Investment Office)	42	A4	Linde+Robinson Laboratory	24	B4
565 S Wilson (Audit Svcs & Inst Compliance)	64	A4	Lloyd House	54	D4-E4
Allies Laboratory	28	B4	Marks House	89	E3
Annenberg Center for Info Sci and Tech	16	D3	Mead Laboratory	73	B3
Arms Laboratory	25	B4	Millikan Library	32	B4
Athenaeum	61	E4	Moore Laboratory	93	C3
Avery House	99	D2	Morrisroe Astroscience Laboratory (IPAC)	22	B5
Baxter Hall	77	C3	Mudd Laboratories - North	23	B4
Beckman Auditorium	91	C3	Mudd Laboratories - South	21	B4
Beckman Behavioral Biology Labs (BBB)	76	B3-C3	Noyes Laboratory	72	B3
Beckman Institute	74	B3	Page House	53	D4
Bechtel Residence	14	C2-D2	Parking Structure 1 (North Wilson Avenue)	123	A3
Blacker House	60	E4	Parking Structure 2 (South Wilson Avenue)	124	A3
Braun Athletic Center	3	B5	Parking Structure 3 (California Avenue)	126	B5
Braun House	88	E3	Parking Structure 4 (Holliston Avenue)	66	E3
Braun Laboratories	75	B3	Parsons-Gates Hall of Administration	31	B4
Bridge Annex	34	B4	Powell-Booth Laboratory	79	D3
Bridge Laboratory - East	33E	B4	Ramo Auditorium	77	C3
Bridge Laboratory - West	33W	B4	Recycling Center	125	B2
Broad Café	96C	B3	Ricketts House	59	E4
Broad Center for the Biological Sciences	96	B3	Ruddock House	55	E4
Brown Gymnasium	1	B5	Satellite Utility Plant	66B	E3
Building 15 (271 S Chester)	15	C1	Schlinger Lab for Chemistry and Chem Eng	20	B3
Cahill Center for Astroscience and Astrophysics	17	B5	Sherman Fairchild Library	43	C4
Caltech Childcare Center	133	C5	South Undergrad Housing Complex Basement	57B	D4
Campus Housing Shop	135	A3	Spalding Lab, Eudora (Eudora Spalding Lab)	41	C4
Catalina Graduate Housing	100-120	A2-A3	Spalding, Keith (Keith Spalding Building)	6	B5
Central Engineering Services (CES)	85	D3	Steele Laboratory	81	D3
Central Plant (incl. Cogen & Cooling Towers)	5	B5	Student Activities Center	57B	D4
Chandler Dining Hall (Chandler Café)	52	D4	Student Services, Center for (CSS)	86	E3
Church Laboratory	29	B4	Synchrotron	49	D4
Crellin Laboratory	30	B4	Transportation & Grounds Operations	82	D3
Dabney Hall	40	C4	Undergraduate Admissions & Financial Aid	90	E3
Dabney House	58	D4	Watson Laboratories	95	C3-D3

# General Information





## INTRODUCTION

People who follow the news in science and engineering are often astonished the first time they see Caltech. Unadorned signs mark the borders of a campus that is just half a mile across. Inside, gardens, fountains, cafés, and patios fill sunny spaces between historic buildings. The small, park-like campus comes as a surprise, given Caltech's record of world-changing discoveries and inventions and the luminaries educated here.

Behind the gracious old façades—and several striking contemporary ones—are some of the world's most advanced laboratories. In addition, faculty and students develop and use facilities around the world and in space. They founded the Jet Propulsion Laboratory (JPL), which Caltech manages for NASA. JPL enables the nation to explore space for the benefit of humankind by developing robotic space missions as well as science missions that monitor Earth and the solar system. Caltech also manages major collaborations such as the Joint Center for Artificial Photosynthesis (JCAP), which is one of the Department of Energy's Energy Innovation Hubs, and the Laser Interferometer Gravitational-wave Observatory, or LIGO, which involves more than 1,200 scientists worldwide and, in September 2015, made the first-ever detection of ripples in spacetime. Faculty and students design instruments and experiments for the world's particle accelerators, seismic networks, pollution-research aircraft, deep-ocean submersibles, and ground- and space-based observatories studying Earth, the planets, and the cosmos.

Caltech students and faculty pioneered the fields of molecular biology, geochemistry, aerospace, earthquake engineering, geobiology, and astrophysics, to name just a few. They developed principles of jet flight, key tenets of seismology (including the Richter and moment magnitude scales), methodologies for integrated circuit design, empirical and laboratory approaches for economics and political science, and technology to view and study chemical reactions at the atomic level as they occur. They discovered fundamental building blocks of matter, the nature of chemical bonds, the specializations of the left and right brain hemispheres, the role played by chromosomes in heredity, the age of Earth, the stellar origins of heavy elements, and the geometry of the universe.

The impact of Caltech's dedication to fundamental research and tradition of technological innovation is evident in the more than 3,200 U.S. patents Caltech has obtained since 1980, outstripping other universities on a per capita basis. Forty to fifty Caltech inventions are commercially licensed each year and, since 1995, faculty and students have created 260 start-up companies. And, of course, these numbers—and the contributions to science and society mentioned above—do not touch on the accomplishments of alumni who have left Caltech for diverse careers around the world.

Caltech's history of achievement stems from the caliber of people who choose to learn and work here, and from their ready access to

other superb scholars and to cutting-edge facilities. When undergraduates arrive, they are immediately given the opportunity to discuss exciting and challenging problems in math, science, and engineering with people who respond in kind. Many work side by side with faculty on research or engineering projects before their first year is out. Together, faculty and students stretch themselves intellectually, moving ahead fast and sometimes leaving whole new fields in their wakes.

The following pages offer an overview of Caltech's aims and programs and a brief history of how it evolved into one of the world's major research institutions.

### **Mission, Educational Objectives, and Structure**

Caltech's mission is to expand human knowledge and benefit society through research integrated with education. We investigate the most challenging, fundamental problems in science and technology in a singularly collegial, interdisciplinary atmosphere, while educating outstanding students to become creative members of society.

Caltech provides an outstanding education that prepares students to become world leaders in science, engineering, academia, industry, and public service. The Institute aims for these educational outcomes:

- Graduates can analyze, synthesize, and communicate ideas.
- Graduates demonstrate integrity, personal and professional responsibility, and respect for others.
- Bachelor of Science graduates can identify, analyze, and solve challenging problems within and across science and engineering disciplines.
- Bachelor of Science graduates can apply their analytic skills to other areas of knowledge and understand issues important in our society.
- Master of Science graduates can apply advanced knowledge in a specialized area in preparation for their professional careers.
- Doctor of Philosophy graduates can independently identify, analyze, and solve fundamental research problems with breadth and depth.

Caltech is an independent, privately supported university. It has six academic divisions: Biology and Biological Engineering; Chemistry and Chemical Engineering; Engineering and Applied Science; Geological and Planetary Sciences; the Humanities and Social Sciences; and Physics, Mathematics and Astronomy.

### **Undergraduate Program**

Undergraduates earn Bachelor of Science (B.S.) degrees, with options (majors) available in applied and computational mathematics; applied physics; astrophysics; bioengineering; biology; business, economics, and management; chemical engineering; chemistry; computer science; economics; electrical engineering; engineering and applied science; English; geobiology; geochemistry; geology; geophysics; history; history and philosophy of science; information and data sciences; interdis-

ciplinary studies; materials science; mathematics; mechanical engineering; philosophy; physics; planetary science; and political science.

A Caltech undergraduate degree is based on a four-year residential experience (study abroad included) in which students have the time to explore their academic interests in a deep and rigorous way. “To expand human knowledge and benefit society” has been an essential part of Caltech’s mission statement since its inception, and the curriculum is designed to give students the tools necessary to accomplish these ambitious objectives. Through four years of intense classwork and research, students mature intellectually and acquire an interdisciplinary academic foundation upon which excellence, creativity, and curiosity are built. In addition, students develop life skills such as thinking critically, managing one’s time, collaborating with others, and achieving personal goals.

A Caltech education includes not just the depth of an option, but also breadth in the basic sciences, humanities, and social sciences. Required courses in biology, chemistry, humanities, mathematics, physics, and the social sciences expose students to diverse intellectual pursuits and help prepare them for the interdisciplinary nature of contemporary research in science and technology. Caltech offers more than 275 humanities and social science courses, and many students take more of these classes than is required. Students also take three or more terms of physical education, and 80 percent participate in an organized intramural/recreational competition each year—one of the highest participation rates in the country. About 25 percent participate in intercollegiate athletics.

Most students select an option near the end of their first year, begin to specialize during their second year, and concentrate on their chosen field in their third and fourth years. Some students participate in overseas programs at other major research universities in their junior or senior years. Throughout their education, students have opportunities to do hands-on research, and they often design their own faculty-mentored summer research projects (see SURF details on page 31). Premedical students may gain clinical experience via joint programs with four renowned hospitals.

Caltech offers students many academic options and opportunities for personal growth, and also offers unequaled training in rigorous thinking, scientific methodology, and creative problem solving. That training, the company of like minds, and Caltech’s collaborative ethic prepare students to take leadership roles in research, academia, and industry, and to find lifelong satisfaction in their work and friendships.

To learn more, see [www.admissions.caltech.edu](http://www.admissions.caltech.edu).

## **Graduate Program**

Caltech offers graduate students rigorous research training and a strong, flexible curriculum of course work. Graduate students make up more than half of the student body.

Graduate options include aerospace; applied and computational mathematics; applied mechanics; applied physics; astrophysics; bio-

chemistry and molecular biophysics; bioengineering; biology; chemical engineering; chemistry; civil engineering; computation and neural systems; computer science; computing and mathematical sciences; control and dynamical systems; electrical engineering; environmental science and engineering; geobiology; geochemistry; geology; geophysics; materials science; mathematics; mechanical engineering; medical engineering; neurobiology; physics; social and decision neuroscience; social science.

Jointly engaged with faculty to complete innovative research at the forefront of their fields, graduate students sustain Caltech's atmosphere of intellectual curiosity and creative activity.

Caltech admits students working toward the degree of Master of Science (M.S.), the degree of Engineer (Eng.), and the degree of Doctor of Philosophy (Ph.D.).

To learn more, see [www.gradoffice.caltech.edu](http://www.gradoffice.caltech.edu).

### **Postdoctoral and Senior Postdoctoral Scholars\***

More than 500 early-career scientists and engineers conduct research at Caltech as postdoctoral scholars. In addition, JPL hosts postdoctoral scholars whose studies cover many aspects of Earth, planetary, astrophysical, and technology research. All scholars work under the supervision of professorial faculty members or JPL researchers.

\* Information for newly appointed postdoctoral scholars is available through Human Resources ([www.hr.caltech.edu/work/postdocs](http://www.hr.caltech.edu/work/postdocs)) and the Caltech Postdoctoral Association ([www.cpa.caltech.edu](http://www.cpa.caltech.edu)). Upon arrival, scholars should call a postdoctoral-scholar specialist in HR (626-395-6586) to make appointments to activate their positions. In virtually all circumstances, postdoctoral scholars must have earned a doctorate from a duly accredited institution.

## **HISTORICAL SKETCH**

Caltech developed from a local manual-arts school established in Pasadena in 1891 by the Honorable Amos G. Throop. Initially founded as Throop University, it was later renamed Throop Polytechnic Institute. Known as the California Institute of Technology since 1920, it has long enjoyed the support of the citizens of Pasadena. As early as 1908, the Board of Trustees had as members Norman Bridge, Arthur H. Fleming, Henry M. Robinson, J. A. Culbertson, C. W. Gates, and George Ellery Hale. These men dedicated their time, their minds, and their fortunes to transforming a modest vocational school into a university capable of attracting to its faculty some of the world's most eminent scholars and scientists.

George Ellery Hale, astronomer and first director of the Mount Wilson Observatory, foresaw the development in Pasadena of a distinguished institution of engineering and scientific research. Hale knew that modern, well-equipped laboratories were essential to such an institution's growth, but he stressed to his fellow trustees that the

focus was to be on human beings, not machines. "We must not forget," he wrote in 1907, "that the greatest engineer is not the man who is trained merely to understand machines and apply formulas, but is the man who, while knowing these things, has not failed to develop his breadth of view and the highest qualities of his imagination. No creative work, whether in engineering or in art, in literature or in science, has been the work of a man devoid of the imaginative faculty."

The realization of these aims meant specializing, so the trustees decided in 1907 to discontinue the elementary school, the business school, the teacher-training program, and the high school, leaving only a college of science and technology that conferred Bachelor of Science degrees in electrical, mechanical, and civil engineering.

In 1910, Throop Polytechnic Institute moved from its crowded quarters in the center of Pasadena to a new campus of 22 acres on the southeastern edge of town, the gift of Arthur H. Fleming and his daughter Marjorie. The president, James A. B. Scherer, and his faculty of 16 members opened the doors to 31 students that September. When, on March 21, 1911, Theodore Roosevelt delivered an address at Throop Institute, he declared, "I want to see institutions like Throop turn out perhaps ninety-nine of every hundred students as men who are to do given pieces of industrial work better than any one else can do them; I want to see those men do the kind of work that is now being done on the Panama Canal and on the great irrigation projects in the interior of this country—and the one-hundredth man I want to see with the kind of cultural scientific training that will make him and his fellows the matrix out of which you can occasionally develop a man like your great astronomer, George Ellery Hale."

It would have surprised Roosevelt to know that within a decade the little Institute, known from 1913 as Throop College of Technology, would have again set its sights higher, leaving to others the training of more efficient technicians and concentrating its own efforts on Roosevelt's "hundredth man." On November 29, 1921—the year after the college was renamed the California Institute of Technology—the trustees declared it to be the express policy of the Institute to pursue scientific research of the greatest importance and at the same time "to continue to conduct thorough courses in engineering and pure science, basing the work of these courses on exceptionally strong instruction in the fundamental sciences of mathematics, physics, and chemistry; broadening and enriching the curriculum by a liberal amount of instruction in such subjects as English, history, and economics; and vitalizing all the work of the Institute by the infusion in generous measure of the spirit of research."

Three men were responsible for the change in the Institute. George Ellery Hale still held to his dream. Arthur Amos Noyes, professor of physical chemistry and former acting president of the Massachusetts Institute of Technology, served part of each year from 1913 to 1919 as professor of general chemistry and as research associate; then, in 1919, he resigned from MIT to devote himself full time to Throop as director of chemical research. In a similar way Robert Andrews Millikan

began, in 1916–17, to spend a few months a year at Throop as director of physical research. Scherer resigned as president in 1920 and, in 1921, when Norman Bridge agreed to provide a research laboratory in physics, Millikan resigned from the University of Chicago and became administrative head of the Institute as well as director of the Norman Bridge Laboratory.

The great period of the Institute's life began, then, under the guidance of three men of vision—Hale, Noyes, and Millikan. They were distinguished research scientists who soon attracted graduate students. In 1920, the enrollment was nine graduate students and 359 undergraduates with a faculty of 60; a decade later there were 138 graduate students, 510 undergraduates, and a faculty of 180. At the present time there are nearly 1,000 undergraduates, 1,200 graduate students, and some 300 professorial faculty and 700 postdoctoral scholars.

The Institute also attracted financial support from individuals, corporations, and foundations. In January 1920, the endowment had reached half a million dollars. In February of that year, it was announced that \$200,000 had been secured for research in chemistry and a like amount for research in physics. Other gifts followed from trustees and friends who could now feel pride in the Institute as well as hope for its future. The Southern California Edison Company provided a high-voltage laboratory with the million-volt Sorensen transformer. Philanthropic foundations bearing the names of Carnegie, Rockefeller, and Guggenheim came forth with needed help when new departments or projects were organized.

In 1923, Millikan received the Nobel Prize in Physics. He had attracted to the Institute such faculty as Charles Galton Darwin, Paul Epstein, and Richard C. Tolman. Caltech awarded its first Ph.D. in 1920. In 1924, the degree was awarded to nine candidates.

It was inevitable that the Institute would expand upon its fields; it could not continue to be merely a research and instructional center in physics, chemistry, and engineering. But the trustees pursued a cautious and conservative policy, not undertaking to add new departments except when the work done in them would be at the same high level as that in physics and chemistry. In 1925, a gift of \$25,000 from the Carnegie Corporation of New York made possible the opening of a department of instruction and research in geology. A seismological laboratory was constructed, and John P. Buwalda and Chester Stock came from the University of California to lead the work in the new division.

That same year, William Bennett Munro, chairman of the division of history, government, and economics at Harvard, joined the Institute faculty. Offerings in economics, history, and literature were added to the core of undergraduate instruction.

In 1928, Caltech began its program of research and instruction in biology. Thomas Hunt Morgan became the first chairman of the new Division of Biology and a member of Caltech's Executive Council. Under Morgan's direction, the work in biology developed rapidly, especially in genetics and biochemistry. Morgan received the Nobel Prize in 1933.

The Guggenheim Graduate School of Aeronautics was founded at Caltech in the summer of 1926, and a laboratory was built in 1929, but courses in theoretical aerodynamics had been given at the Institute for many years by Harry Bateman and Paul Epstein. As early as 1917, the Throop Institute had constructed a wind tunnel in which, the catalog boasted, constant velocities of 4 to 40 miles an hour could be maintained, "the controls being very sensitive." The new aeronautics program, under the leadership of Theodore von Kármán, included graduate study and research at the level of the other scientific work at the Institute, and what is now known as GALCIT (Graduate Aerospace Laboratories of the California Institute of Technology) was soon a world-famous research center.

In 1928, George Ellery Hale and his associates at the Mount Wilson Observatory developed a proposal for a 200-inch telescope and attracted the interest of the General Education Board of the Rockefeller Foundation in providing \$6 million for its construction. The board proposed that the gift be made, and Caltech agreed to be responsible for the construction and operation. The huge instrument was erected on Palomar Mountain and began operation in 1948. Teaching and research in astronomy and astrophysics thus became a part of the Caltech program.

From the summer of 1940 until 1945, Caltech devoted an increasingly large part of its personnel and facilities to furthering the national defense and war effort. Caltech's work during this period fell mainly into two categories: special instructional programs and weapons research. The research and development work was carried out, for the most part, under nonprofit contracts with the Office of Scientific Research and Development. Rockets, jet propulsion, and antisubmarine warfare were the chief fields of endeavor. Under Institute management, JPL continues to conduct a large-scale program of research for NASA and other agencies in the science and technology of robotic space exploration.

In the 1950s, in response to the growing technological component, and complexity, of societal problems, the Institute began to expand the fields in which it had substantial expertise. In the late 1960s and early 1970s, the Institute added to its faculty several economists and political scientists who initiated theoretical and applied studies of interdisciplinary issues. A graduate program in social sciences was added in 1972. Caltech students could now engage their talents in the development of the basic scientific aspects of economics and political science, and begin to use the principles from these sciences together with those from the physical sciences to formulate and address public policies.

In 1945, Robert A. Millikan retired as chairman of the Executive Council, although he served as vice chairman of the Board of Trustees until his death in 1953. Lee A. DuBridge became president of Caltech on September 1, 1946. Formerly chairman of the physics department and dean of the faculty at the University of Rochester, he came to the Institute after working for five years as wartime director of the MIT Radiation Laboratory—and remained for 22 years.

DuBridge was also committed to the concept of a small, select institution offering excellence in education. Facts and figures are only part of the story, but the statistical record of change during the DuBridge administration indicates how he held to that concept. The 30-acre campus of 1946 grew to 80 acres; the \$17 million endowment grew to more than \$100 million; the faculty of 260 became 550; the number of campus buildings increased from 20 to 64; and the budget went from less than \$8 million to \$30 million. Enrollment, however, remained relatively constant. In 1946 the total number of students, graduate and undergraduate, was 1,391. In 1968, the year DuBridge left, it was 1,492. Additionally, in 1953, DuBridge opened up the campus to female graduate students for the first time.

Harold Brown came to Caltech as president in 1969. A physicist who had received his Ph.D. from Columbia in 1949, he had succeeded Edward Teller as director of the University of California's Lawrence Radiation Laboratory in Livermore in 1960. President Lyndon Johnson named Brown Secretary of the Air Force in 1965, and Brown came to the Institute from that office. Under Brown's administration, Caltech admitted its first female undergraduate students, in 1970. In addition, six new campus buildings were dedicated during his tenure, and a major development campaign for \$130 million was under way when he resigned in 1977 to become Secretary of Defense under President Carter.

With Brown's departure, Robert F. Christy became acting president, and served in that capacity from 1977 to 1978, while continuing to serve as the Institute's vice president and provost.

Marvin L. Goldberger was appointed president in 1978. He had received his B.S. at the Carnegie Institute of Technology (now Carnegie Mellon University) and his Ph.D. at the University of Chicago. He came to Caltech from Princeton University, where he was the Joseph Henry Professor of Physics. Among the major accomplishments of the Goldberger administration were the addition of three new laboratories, the acquisition of a \$70 million grant for construction of the W. M. Keck Observatory to house the world's most powerful optical telescope, and a \$50 million pledge for the establishment of the Beckman Institute. Goldberger resigned in 1987 to become director of the Institute for Advanced Study in Princeton, New Jersey.

In the fall of 1987, Thomas E. Everhart became president, coming to Caltech from his position as chancellor at the University of Illinois at Urbana-Champaign. Everhart graduated magna cum laude with an A.B. in physics from Harvard, received his M.Sc. in applied physics from UCLA, and earned a Ph.D. in engineering from Cambridge University. He had gained international recognition for his work in the development of electron microscopy, and he had also done research on electron beams as applied to the analysis and fabrication of semiconductors. During his tenure in office, he oversaw construction of the Keck Observatory in Hawaii, the Moore Laboratory of Engineering, Avery House, the Braun Athletic Center, the Sherman Fairchild Library, and the Beckman Institute, and he directed the suc-



successful completion of a \$350 million campaign for Caltech. Everhart retired as president in October 1997, but he retains a faculty position as emeritus professor of electrical engineering and applied physics.

In October 1997, David Baltimore assumed the presidency of the Institute. One of the world's leading biologists, he received the 1975 Nobel Prize for his work in virology. Previously the Ivan R. Cottrell Professor of Molecular Biology and Immunology at MIT and founding director of its Whitehead Institute for Biomedical Research, Baltimore had also served as president of Rockefeller University, where he earned his doctorate in 1964.

He played a pivotal role in creating a consensus on national science policy regarding recombinant DNA research, served as chairman of the National Institutes of Health (NIH) AIDS Vaccine Research Committee, and in 1999 was awarded the National Medal of Science by President Clinton.

In late 2006, Baltimore stepped down from the Caltech presidency, returning to his research as the Institute's Robert Andrews Millikan Professor of Biology. During his administration, he successfully completed a \$100 million campaign to support biological research, resulting in the construction of the Broad Center for the Biological Sciences. He also launched a \$1.4 billion comprehensive campaign. By the time he returned to his lab, the campaign was near completion: three new laboratories had been funded, and the Thirty-Meter Telescope had passed its conceptual design review phase.

Jean-Lou Chameau became Caltech's eighth president in September 2006. The former provost and vice president for academic affairs at the Georgia Institute of Technology, he was also a Georgia Research Alliance Eminent Scholar and the Hightower Professor, and he earlier served as dean of the Georgia Tech College of Engineering. Chameau, whose research interests included sustainable technology, environmental geotechnology, soil dynamics, earthquake engineering, and liquefaction of soils, received his undergraduate education in France and his Ph.D. in civil engineering from Stanford University.

During his tenure at the Institute, Chameau oversaw the conclusion of the largest fundraising campaign in Caltech's history, and the construction of the Cahill Center for Astronomy and Astrophysics, the Annenberg Center for Information Science and Technology, the Schlinger Laboratory for Chemistry and Chemical Engineering, the Linde + Robinson Laboratory for Global Environmental Science, and the Earle M. Jorgensen Laboratory. Known for his commitment to cross-disciplinary collaboration, Chameau placed strong emphasis on improving the educational experience at Caltech, increasing diversity, and fostering research, entrepreneurial, and international opportunities for faculty and students. Chameau left Caltech in June 2013 to become president of the King Abdullah University of Science and Technology in Thuwal, Saudi Arabia.

Following Chameau's departure, Edward M. Stolper assumed the position of interim president from 2013-14, while continuing to serve as provost of the Institute.

On July 1, 2014, Thomas F. Rosenbaum took office as Caltech's ninth president. Rosenbaum was formerly the John T. Wilson Distinguished Service Professor of Physics at the University of Chicago, where he served as the University's provost for seven years. As provost, he had responsibility for a broad range of institutions and intellectual endeavors across the sciences, arts, and professional schools. He was deeply engaged with Argonne National Laboratory as the University's vice president for research and for Argonne National Laboratory from 2002 to 2006 and as a member of Argonne's Board of Governors.

Rosenbaum is an expert on the quantum mechanical nature of materials—the physics of electronic, magnetic, and optical materials at the atomic level—that are best observed at temperatures near absolute zero. His honors include an Alfred P. Sloan Research Fellowship, a Presidential Young Investigator Award, and the William McMillan Award for “outstanding contributions to condensed matter physics.” Rosenbaum is an elected fellow of the American Physical Society, the American Association for the Advancement of Science, and the American Academy of Arts and Sciences. He received his bachelor's degree in physics with honors from Harvard University and both an M.A. and a Ph.D. in physics from Princeton University.

Caltech has more than 24,000 living alumni all over the world, many of them eminent in their fields of engineering, science, law, medicine, academe, and entrepreneurship.

### Caltech Nobel Laureates

Robert A. Millikan	Physics	1923
Thomas Hunt Morgan	Physiology or Medicine	1933
Carl D. Anderson, B.S. '27, Ph.D. '30	Physics	1936
Edwin M. McMillan, B.S. '28, M.S. '29	Chemistry	1951
Linus Pauling, Ph.D. '25	Chemistry	1954
	Peace Prize	1962
William Shockley, B.S. '32	Physics	1956
George W. Beadle	Physiology or Medicine	1958
Donald A. Glaser, Ph.D. '50	Physics	1960
Rudolf Mössbauer	Physics	1961
Charles H. Townes, Ph.D. '39	Physics	1964
Richard Feynman	Physics	1965
Murray Gell-Mann	Physics	1969

Max Delbrück	Physiology or Medicine	1969
David Baltimore *	Physiology or Medicine	1975
Renato Dulbecco	Physiology or Medicine	1975
Leo James Rainwater, B.S. '39	Physics	1975
Howard M. Temin, Ph.D. '60	Physiology or Medicine	1975
William N. Lipscomb, Ph.D. '46	Chemistry	1976
Robert W. Wilson, Ph.D. '62	Physics	1978
Roger W. Sperry	Physiology or Medicine	1981
Kenneth G. Wilson, Ph.D. '61	Physics	1982
William A. Fowler, Ph.D. '36	Physics	1983
Rudolph A. Marcus *	Chemistry	1992
Edward B. Lewis, Ph.D. '42	Physiology or Medicine	1995
Douglas D. Osheroff, B.S. '67	Physics	1996
Robert C. Merton, M.S. '67	Economics	1997
Ahmed H. Zewail	Chemistry	1999
Leland H. Hartwell, B.S. '61	Physiology or Medicine	2001
Vernon L. Smith, B.S. '49	Economics	2002
Hugh David Politzer *	Physics	2004
Robert H. Grubbs *	Chemistry	2005
Martin Karplus, Ph.D. '54	Chemistry	2013
Eric Betzig, BS '83	Chemistry	2014
Arthur B. McDonald, Ph.D. '70	Physics	2015
Barry C. Barish*	Physics	2017
Michael Rosbash B.S. '65	Physiology or Medicine	2017
Kip S. Thorne, B.S. '62*	Physics	2017

\* *In residence*

## BUILDINGS AND FACILITIES

### On-Campus Buildings

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The first building on the current campus was Pasadena Hall, 1910 (later renamed Throop Hall in honor of the founder of the Throop Polytechnic Institute, the original name of Caltech, Amos Gager Throop) which stood on the site of the current Throop Memorial Garden until 1972. The decorative Calder Arches from this first building were retained and moved to the bridge between Crellin and Church Laboratories after Throop Hall was demolished.

**Gates and Crellin Laboratories of Chemistry:** first unit, 1917; second unit, 1927; third unit, 1937. The first two units were the gifts of Messrs. C. W. Gates and P. G. Gates of Pasadena; the third unit was the gift of Mr. and Mrs. E. W. Crellin of Pasadena. Gates (first unit), which was retired after suffering extensive damage in the 1971 earthquake, was rebuilt in 1983 as the **Parsons-Gates Hall of Administration**.

**Norman Bridge Laboratory of Physics:** first unit, 1922; second unit, 1924; third unit, 1925. The gift of Dr. Norman Bridge of Los Angeles, president of the Board of Trustees, 1896–1917.

**High Voltage Research Laboratory,** 1923. Built with funds provided by the Southern California Edison Company. Retired in 1959 with basic research completed and rebuilt in 1960 as the **Alfred P. Sloan Laboratory of Mathematics and Physics**.

**Dabney Hall,** 1928. The gift of Mr. and Mrs. Joseph B. Dabney of Los Angeles. A major renovation completed in 2004 was made possible by gifts from alumnus Capt. Tyler Matthew; alumnus Roger Davisson and his wife, Marjorie; alumnus William F. Horton and his wife, Glenna Berry-Horton; a distribution from the estate of alumnus George F. Smith; and a collective gift by the Caltech Associates.

**William G. Kerckhoff Laboratories of the Biological Sciences:** first unit, 1928; second unit, 1939; annex, 1948. The gift of Mr. and Mrs. William G. Kerckhoff of Los Angeles. He was a trustee in 1928.

**Guggenheim Aeronautical Laboratory,** 1929. Built with funds provided by the Daniel Guggenheim Fund for the Promotion of Aeronautics. A major renovation completed in 2008 was made possible by many private supporters, including Distinguished Alumnus Joe Charyk and his wife, Edwina; Distinguished Alumnus Allen Puckett and his wife, Marilyn; and alumnus Gordon Cann, through his estate.

**Athenaeum,** 1930. A clubhouse for the teaching, research, and administrative staffs of the Institute and the Huntington Library,

Art Collections, and Botanical Gardens, for the Associates of the California Institute of Technology, and for others who have demonstrated their interest in advancing the objectives of the Institute. The gift of Mr. and Mrs. Allan C. Balch of Los Angeles. He was president of the Board of Trustees, 1933–43.

**Undergraduate Houses, 1931.** With the support of many individuals, including alumni Alexander Lidow, Richard Beatty, and Ray Sidney, these houses were restored. They reopened in 2007.

*Blacker House.* The gift of Mr. and Mrs. R. R. Blacker of Pasadena.

*Dabney House.* The gift of Mr. and Mrs. Joseph B. Dabney of Los Angeles.

*Fleming House.* Built with funds provided by some 20 donors and named in honor of Mr. Arthur H. Fleming of Pasadena, president of the Board of Trustees, 1917–33.

*Ricketts House.* The gift of Dr. and Mrs. Louis D. Ricketts of Pasadena.

**W. K. Kellogg Radiation Laboratory, 1932.** The gift of Mr. W. K. Kellogg of Battle Creek, Michigan.

**Linde + Robinson Laboratory for Global Environmental Science, 1932.** Originally built as the Robinson Laboratory of Astrophysics with funding from the International Education Board of the Rockefeller Foundation, Robinson Lab originally served as the Pasadena headquarters of the Palomar Observatory staff as well as the Graduate School of Astrophysics. It was named in honor of Mr. Henry M. Robinson of Pasadena, member of the Board of Trustees, 1907–37, and founder of the California Institute Associates. An extensive renovation transformed the building into the Linde + Robinson Laboratory for Global Environmental Science in 2011 with the renaming in honor of a contribution by Vice Chair of the Board of Trustees and alumnus, Ronald K. Linde and his wife, Maxine.

**The Optical Shop/Synchrotron, 1933.** At the same time the Robinson Laboratory was being built, two other buildings were built to support creation of telescopes for Palomar Observatory: The Machine Shop (on the current site of the Downs-Lauritsen Laboratory); and the Optical Shop (now known as The Synchrotron). Funding for these buildings was also provided by the International Education Board of the Rockefeller Foundation.

**Charles Arms Laboratory of the Geological Sciences, 1938.** The gift of Mr. and Mrs. Henry M. Robinson of Pasadena, in memory of Mrs. Robinson's father, Mr. Charles Arms.

**Seeley W. Mudd Laboratory of the Geological Sciences, 1938.** The gift of Mrs. Seeley W. Mudd of Los Angeles, in memory of her husband.

**Gates–Thomas Laboratory of Engineering, 1945.** The Eudora Hull Spalding Trust provided original funding for the Franklin Thomas Laboratory of Engineering with the first unit completed in 1945 and the second unit completed in 1950. First named for Franklin Thomas (1885–1952), civil engineering professor, division chair, and dean of students, the building was completely renovated in 2015 and renamed the Gates–Thomas Laboratory of Engineering also honoring Charles C. Gates, Jr. (1921–2005) with funding for the renovation provided by the Gates Frontiers Fund through the vision of Diane G. Wallach and John S. Gates, together with the Fred L. Hartley Family Foundation, James E. Hall (BS '57) and his wife Sandy, and Li-San Hwang (PhD '65) and his wife Anne.

**Alumni Swimming Pool, 1954.** Provided by the Alumni Fund through contributions from the alumni of the Institute.

**Scott Brown Gymnasium, 1954.** Built with funds provided by the trust established by Mr. Scott Brown of Pasadena and Chicago, who was a member and director of the Caltech Associates.

**Norman W. Church Laboratory for Chemical Biology, 1955.** Built with funds provided through a gift and bequest by Mr. Norman W. Church of Los Angeles, who was a member of the Caltech Associates.

**Eudora Hull Spalding Laboratory of Engineering, 1957.** Built with funds allocated from the Eudora Hull Spalding Trust.

**Archibald Young Health Center, 1957.** The gift of Mrs. Archibald Young of Pasadena, in memory of her husband, who was a life member and officer of the Caltech Associates, 1926–56.

**Facilities Building and Shops, 1959.** Originally the Physical Plant Building, this was built with funds provided by many donors.

**Gordon A. Alles Laboratory for Molecular Biology, 1960.** Built with the gift of Dr. Gordon A. Alles of Pasadena, an Institute research associate in biology, an alumnus, and a member of the Caltech Associates, 1947–63; and with funds provided by the National Institutes of Health, Health Research Facilities Branch.

**Undergraduate Houses, 1960.** Built with funds provided by the Lloyd Foundation and other donors.

*Lloyd House.* Named in memory of Mr. Ralph B. Lloyd and his wife, Mrs. Lulu Hull Lloyd, of Beverly Hills. He was a member of the Board of Trustees, 1939–52.

*Page House.* Named in honor of Mr. James R. Page of Los Angeles, a member of the Board of Trustees, 1931–62, and chairman, 1943–54.

*Ruddock House.* Named in honor of Mr. Albert B. Ruddock of Santa Barbara, a member of the Board of Trustees, 1938–71, and chairman, 1954–61.

**Harry Chandler Dining Hall, 1960.** The gift of the Chandler family, the Pfaffinger Foundation, and the Times Mirror Company of Los Angeles.

**W. M. Keck Engineering Laboratories, 1960.** The gift of the W. M. Keck Foundation and the Superior Oil Company of Los Angeles. In 2017, the Andrew and Peggy Cherng Department of Medical Engineering was established, with Keck Laboratories becoming its epicenter.

**Alfred P. Sloan Laboratory of Mathematics and Physics, 1960.** Formerly the High Voltage Research Laboratory, 1923. Rebuilt in 1960 with funds provided by the Alfred P. Sloan Foundation.

**Graduate Houses, 1961:**

*Braun House.* Built with funds provided by the trustees of the Carl F Braun Trust Estate, in his memory.

*Marks House.* The gift of b David X. Marks of Los Angeles.

**Kármán Laboratory of Fluid Mechanics and Jet Propulsion, 1961.** The gift of the Aerojet-General Corporation, named in honor of Dr. Theodore von Kármán, professor of aeronautics at the Institute, 1929–49.

**Firestone Flight Sciences Laboratory, 1962.** The gift of the Firestone Tire and Rubber Company.

**Beckman Auditorium, 1964.** The gift of Dr. Arnold O. and Mabel Beckman of Corona del Mar. The late Dr. Beckman, an alumnus, was an Institute faculty member from 1928 to 1939. He joined the Board of Trustees in 1953, was chairman, 1964–74, and was chairman emeritus until his death in 2004.

**Harry G. Steele Laboratory of Electrical Sciences, 1965.** Built with funds provided by the Harry G. Steele Foundation and the National Science Foundation.

**Central Engineering Services Building, 1966.**

**Robert A. Millikan Memorial Building, 1967.** Built with a gift from Dr. Seeley G. Mudd and named in honor of Dr. Robert Andrews Millikan, director of the Bridge Laboratory of Physics and chair of the Executive Council of the Institute, 1921–45.

**Arthur Amos Noyes Laboratory of Chemical Physics, 1967.** Built with funds provided by the National Science Foundation and Mr. Chester F. Carlson, an alumnus, and named in honor of Dr. Arthur Amos Noyes, director of the Gates and Crellin Laboratories of Chemistry and chair of the Division of Chemistry and Chemical Engineering, 1919–36.

**Central Plant**, 1967.

**George W. Downs Laboratory of Physics and Charles C. Lauritsen Laboratory of High Energy Physics**, 1969. The Downs wing was built with funds provided by Mr. George W. Downs and the National Science Foundation. The Lauritsen wing was built with Atomic Energy Commission funds and named in honor of Dr. Charles C. Lauritsen, a member of the Institute faculty, 1930–68.

**Keith Spalding Building of Business Services**, 1969. Named in honor of Mr. Keith Spalding, Caltech trustee, 1942–61.

**Donald E. Baxter, M.D., Hall of the Humanities and Social Sciences**, 1971. Built with funds provided by Mrs. Delia B. Baxter of Atherton and named in honor of her late husband, Donald E. Baxter, M.D. Additional funds were given by the U.S. Department of Health, Education and Welfare. Dr. and Mrs. Simon Ramo provided funds for the completion of Ramo Auditorium within the hall. Dr. Ramo was a life member of the Board of Trustees.

**The Earle M. Jorgensen Laboratory**, 1971. Built with the gift of Mr. and Mrs. Earle M. Jorgensen, with additional funds provided by the Booth-Ferris Foundation and other private donors. Mr. Jorgensen was a member of the Board of Trustees, 1957–99. A full remodeling of the building was completed in June 2012 through funding provided by the Joint Center for Artificial Photosynthesis/Department of Energy, Lynda and Stewart Resnick through the Resnick Sustainability Institute, Gordon and Betty Moore and the Gordon & Betty Moore Foundation, the Ahmanson Foundation, and the Provost's Office.

**The Mabel and Arnold Beckman Laboratories of Behavioral Biology**, 1974. The gift of Dr. Arnold O. and Mabel Beckman of Corona del Mar. The late Dr. Beckman was chairman emeritus of the Board of Trustees.

**Seeley G. Mudd Building of Geophysics and Planetary Science**, 1974. Built with funds provided by Dr. Seeley G. Mudd, Mrs. Roland Lindhurst, Mr. and Mrs. Ross McCollum, Mr. and Mrs. Henry Salvatori, and the U.S. Department of Health, Education, and Welfare.

**Clifford S. and Ruth A. Mead Memorial Undergraduate Chemistry Laboratory**, 1981. Built with funds allocated from the Clifford S. and Ruth A. Mead Memorial Building Fund.

**Thomas J. Watson, Sr., Laboratories of Applied Physics**, 1982. Built with funds provided by the Watson family and other private donors. His son, Thomas J. Watson, Jr., was a member of the Board of Trustees, 1961–92.



**Braun Laboratories in Memory of Carl F. and Winifred H. Braun,** 1982. Built with funds provided by the Braun family, other private donors, and the National Cancer Institute. Various members of the Braun family have served on Caltech's Board of Trustees.

**Parsons-Gates Hall of Administration,** 1983. Formerly Gates Laboratory of Chemistry, 1917. Rebuilt in 1983 with funds provided by the Ralph M. Parsons Foundation and the James Irvine Foundation.

**Athletic Facility,** 1984. Built with funds provided by the Carl F Braun Trust and the Braun Foundation.

**Catalina Graduate Apartment Complex,** 1984, 1986, 1988. Four of the buildings have been named for Max and Ruth Alcorn, Frank and Elizabeth Gilloon, Fred and Marvis Maloney, and William C. and Verna Rockefeller, honoring their generosity to Caltech.

**David W. Morrisroe Astroscience Laboratory,** 1986. Originally built as the Infrared Processing and Analysis Center and renamed in 1995, the second-floor addition was built with funds provided by the late Dr. Arnold O. Beckman, chairman emeritus of the Board of Trustees.

**Wilson Avenue North Parking Structure,** 1987.

**Beckman Institute,** 1989. Built with funds provided by the Arnold and Mabel Beckman Foundation and other private donors. The late Dr. Arnold O. Beckman was chairman emeritus of the Board of Trustees.

**Braun Athletic Center,** 1992. Built with funds provided by the Braun family.

**Holliston Avenue Parking Structure/Satellite Utility Plant,** 1993.

**The Gordon and Betty Moore Laboratory of Engineering,** 1996. Built with funds provided by Dr. and Mrs. Gordon Moore. Dr. Moore is an alumnus, and a chairman emeritus of the Board of Trustees. Betty Moore is an honorary life trustee.

**Avery House,** 1996. Built with funds provided by Mr. R. Stanton Avery, who was a member of the Board of Trustees from 1971 until his death in 1997. He had been chairman, 1974–85, and chairman emeritus since 1986.

**Sherman Fairchild Library of Engineering and Applied Science,** 1997. Built with funds provided by the Sherman Fairchild Foundation.

**Powell-Booth Laboratory for Computational Science, 1999.**

Formerly the Willis H. Booth Computing Center, 1963, constructed with support from the Booth-Ferris Foundation and the National Science Foundation. Renovated in 1999 with grants from the Charles Lee Powell Foundation, the National Science Foundation, and the Booth-Ferris Foundation.

**Wilson Avenue South Parking Structure, 1999.**

**Center for Student Services, the Keck Wing, 2000.** Originally the Keck Graduate House, built with funds provided by the William M. Keck, Jr., Foundation, 1961.

**Center for Student Services, the Mosher-Jorgensen Wing, 2002.** Originally the Mosher-Jorgensen Graduate House, built with funds provided by Mr. Samuel B. Mosher and Mr. Earle M. Jorgensen, both of Los Angeles. Mr. Jorgensen was a member of the Board of Trustees, 1957–99.

**Broad Center for the Biological Sciences, 2002.** Made possible by a lead gift from Eli and Edythe Broad. Eli Broad is a member of the Board of Trustees.

**California Parking Structure, 2005.**

**Cahill Center for Astronomy and Astrophysics, 2009.** Made possible by a lead gift from Charles Cahill in honor of his late wife, Aniko Dér Cahill, and by gifts from trustee and alumnus Fred Hameetman and his wife, Joyce, alumnus Michael Scott, and other private individuals and foundations.

**Walter and Leonore Annenberg Center for Information Science and Technology, 2009.** Built with a lead gift from the Annenberg Foundation and with funds provided by Life Trustee Stephen D. Bechtel, Jr., and other private donors.

**Warren and Katharine Schlinger Laboratory for Chemistry and Chemical Engineering, 2010.** Built with funds provided by alumnus Warren Schlinger and his wife, Katharine, a former Caltech employee, along with other private donors.

**The Keck Center, 2013.** The Keck Center is the home of the Keck Institute for Space Studies (KISS) and features conference meeting room space suitable for the Caltech Board of Trustees, incorporating the historic Tolman-Bacher House within the grounds. The 2013 renovation/construction project was supported with funds from the W.M. Keck Foundation and Caltech.

**Caltech Childcare Center**, 2014. The Caltech Childcare Center is a facility located on the South Campus to provide day care space for children of the Caltech community.

**Bechtel Residence**, 2018. Named for Caltech Life Trustee Stephen D. Bechtel Jr., the Bechtel Residence is the first new undergraduate residence to open on the Caltech campus since 1996 and will provide an opportunity for all undergraduates to live on campus for the first time in the Institute's history.

**Hameetman Center**, 2019. The Hameetman Foundation, established by Fred Hameetman (BS '62) and his wife, Joyce in 2005, pledged a lead \$6.2 million gift to help kick-start a comprehensive renovation of the Winnett Student Center, now renamed the Hameetman Center in the Foundation's and family's honor. The Hameetman Center features a large public lounge, an expanded Red Door Marketplace, the Caltech Store, music rehearsal facilities, student club rooms, a multi-purpose room, and a conference room. The rehearsal facility is made possible thanks to a gift from emeritus professor of theoretical physics Steven Frautschi and his wife, Mie.

### **Off-Campus Facilities**

**William G. Kerckhoff Marine Biological Laboratory**, 1930, Corona del Mar. Rehabilitated with funds provided by the National Science Foundation in 1966.

**Jet Propulsion Laboratory (JPL)**, 1944, 4800 Oak Grove Drive, Pasadena. Administered by the Institute; owned and supported by the National Aeronautics and Space Administration.

**Palomar Observatory**, 1948, San Diego County. Site of the 200-inch Hale Telescope (1948) and the 48-inch Schmidt telescope (1949), built by the Institute with funds from the Rockefeller Foundation. The Schmidt was named the Samuel Oschin Telescope in 1987 in honor of benefactor Samuel Oschin of Los Angeles.

**Owens Valley Radio Observatory**, 1958, Big Pine. Built with funds provided by the Winnett Foundation, the Office of Naval Research, the National Science Foundation, and the Oscar G. and Elsa S. Mayer Charitable Trust.

**W. M. Keck Observatory**, Keck I (1991), Keck II (1996); Mauna Kea, Hawaii. Built with funds provided by the W. M. Keck Foundation. Site of the two 10-meter Keck Telescopes.

**Laser Interferometer Gravitational-wave Observatory (LIGO)**, 1999, Hanford, Washington, and Livingston, Louisiana. Built with funds provided by the National Science Foundation.

### Special Entities

Opening its doors in 1990, the **Beckman Institute** has been a major addition to Caltech. The mission of the scientists working there is to invent new methods, materials, and instrumentation for fundamental research in biology and chemistry that will open the way for novel applications of scientific discoveries to human needs.

**The Arnold and Mabel Beckman Laboratory of Chemical Synthesis**, 1986, occupying portions of Crellin Laboratory (as well as portions of Church Laboratory for Chemical Biology), was built with funds provided by the Arnold and Mabel Beckman Foundation.

**Space Infrared Telescope Facility Science Center**, 1998. Renamed the Spitzer Space Telescope Science Center, 2003. Located within the Keith Spalding Building of Business Services.

### Caltech Center for Diversity (CCD)

The Caltech Center for Diversity (CCD) mission is to provide education, advocacy, and allyship in order to increase institutional and personal capacity for diversity and ensure a community committed to equity and inclusive excellence. We create and implement campus-wide initiatives and programs that will increase the knowledge, skills, and attitudes for all members of the Caltech community to thrive in a diverse world.

*Awareness and Education.* We are committed to building the capacity for cultural competencies, skills, and action by designing workshops and trainings appropriate for all constituents on campus. We value consistent assessment and formative feedback to facilitate sustainable and lasting change.

*Advocacy through Collaboration.* We actively engage with the Caltech community to promote and provide access to information and resources that help achieve our academic and personal goals. The CCD provides programs and services to meet the specific needs of racially underrepresented groups, women, all sexual and gender identities (LGBTQ+), underserved, and ally communities on campus.

*Allyship.* We create spaces and skill building opportunities for all members of the community to engage with issues related to their multiple identities. We provide resources and promote an environment that is supportive for all.

If you are interested in getting involved with CCD, please check the center website: [www.diversitycenter.caltech.edu](http://www.diversitycenter.caltech.edu).

### **Center for Data-Driven Discovery (CD3)**

The mission of the Center for Data-Driven Discovery (CD3) is to assist Caltech researchers with the projects that are data-intensive and computational in nature. It is a part of a joint initiative on data science with the Center for Data Science and Technology at JPL.

The central focus of CD3 is the methodologies for handling and analysis of large and complex data sets, in facilitating the data-to-discovery process. It is about applications of data-driven computing in various scientific domains, such as biology, physics, astronomy, geophysics, etc.

CD3 also serves as a catalyst for new collaborations and projects between different scientific disciplines, and between the campus and JPL. Of a particular interest is the sharing and transfer of methodologies, where the solutions from one field can be reapplied in another one. The scientific staff of the Center has an expertise that spans various aspects of computational science, and works on a collaborative basis with research groups on the campus and at JPL, in helping develop novel, exploratory projects, and in the execution of larger, funded projects that involve data-intensive computing.

The Center also helps in the development of educational materials for training students in the research skills that are increasingly necessary for data-rich science in the 21st century.

### **Center for Teaching, Learning, & Outreach (CTLO)**

The Center for Teaching, Learning, & Outreach ([www.ctlo.caltech.edu](http://www.ctlo.caltech.edu)) supports Caltech's multifaceted educational efforts, including the design and instruction of undergraduate and graduate courses and curricula, formal and informal student learning, and educational outreach partnerships with K-12 teachers and students. With a commitment to evidence and innovation, CTLO focuses on:

- **Instructor Support:** Supporting effective course design and teaching methods to university faculty and teaching assistants (TAs). Topics regularly addressed through individual consultations, training programs, workshops, and courses include in-class techniques, choice and use of instructional technologies, feedback on teaching, and discipline-based educational research.
- **Student Learning:** Fostering opportunities for students to grow as teachers, mentors, and leaders. In addition to advising students on teaching and outreach-related projects, CTLO oversees the Caltech Project for Effective Teaching (CPET), a graduate student-led community offering seminars and Certificates of Interest and Practice in University Teaching, and collaborates with the undergraduate Academics and Research Committee (ARC) on course improvements, course ombuds, and other initiatives.
- **Educational Outreach:** Helping faculty and students to develop K-12 outreach programs, including collaborations with schools and districts in Pasadena and Greater Los Angeles. CTLO assists faculty on grant proposals with educational components, convenes educational outreach coordinators from across

Caltech's divisions, runs signature educational outreach programs for K-12 students and teachers during the summer and year-round, and serves as an interface for partner organizations offering K-12 opportunities at Caltech.

### **Hixon Writing Center (HWC)**

The Hixon Writing Center (HWC) at the California Institute of Technology promotes excellence in writing and communication. The HWC operates on the premise that writing is a mode of discovery and learning as well as a tool for communication, and thus strong writing skills are fundamental to inquiry, learning, and success across disciplines.

The HWC works actively with Caltech students, faculty, and the Caltech community. The HWC offers students the opportunity to meet with professional and peer tutors to discuss works-in-progress; these sessions help students accomplish short-term goals while they also promote the acquisition of skills that are valuable for long-term success. The HWC regularly holds presentations and workshops on communication-related topics that interest our students. HWC staff members are available to consult with Caltech faculty and TAs about best practices for incorporating, designing, and responding to writing assignments in courses across all disciplines. Finally, the HWC sponsors events and creates resources that support campus-wide discussions about the roles writing and communication play in teaching, learning, and research in science and engineering.

The HWC is a part of the division of Humanities and Social Sciences, and it is funded in part by a generous donation from Alexander P. and Adelaide F. Hixon. The HWC is open during the academic school year, and more information is available at [writing.caltech.edu](http://writing.caltech.edu).

## **LIBRARIES**

The Caltech Library advances the Institute's mission to expand human knowledge by catalyzing information discovery and sharing. The Library maintains extensive research collections, a variety of study spaces, state-of-the-art knowledge management platforms, and a user-focused program of instruction and outreach that enhances student success at Caltech. Visit the Library's website, [library.caltech.edu](http://library.caltech.edu), to access library collections and services or request research assistance from the Library.

The Sherman Fairchild Library (SFL) is the main library on campus. SFL is open 24/5 (24/7 during exam weeks), and offers a range of collaborative and private study spaces including five bookable group study rooms and the TechLab with 3-D printers. Laptops, kindles, electronic kits and more can be borrowed through the Library's eDevice lending program. All textbooks assigned for courses are available for short-term use through the Library's Course Reserves service.

The Library's interlibrary loan service, DocuServe, is located on the first floor of SFL. Users can obtain books and articles not owned by Caltech Library at no charge and typically within 24 hours or less.

SFL is complemented by three branch libraries: Humanities and Social Sciences (Dabney), Astrophysics (Cahill), and Geology (North Mudd). In addition, the Lookout, a flexible collaboration and study space with large displays is available on the 9th floor of Millikan.

The Library's digital repository of research by Caltech authors includes CaltechTHESIS.

### *Archives and Special Collections*

The Caltech Archives and Special Collections facilitate understanding of the roles of Caltech and its faculty in the history of science and technology by collecting, organizing, preserving, and presenting the papers and other media that document this history. Our more than 300 manuscript collections include the personal and professional papers of 14 Nobel laureates and 14 National Medal of Science recipients. Over 10,000 of our photographs can be viewed online, and we also maintain collections of artwork, rare books, and scientific instruments. These collections are all available to members of the Caltech community for educational and research purposes, as well as to qualified non-campus users. Please contact us at 626-395-2704 or [archives@caltech.edu](mailto:archives@caltech.edu) to arrange an appointment. More information, including finding aids for many of our collections, can be found at [archives.caltech.edu](http://archives.caltech.edu)

## **UNDERGRADUATE RESEARCH**

The Institute offers the opportunity for qualified students to engage in research early in their careers under the supervision of a faculty member. There are four principal avenues for undergraduate research: the senior thesis, the Summer Undergraduate Research Fellowships (SURF) program, research courses for academic credit, and research for pay under a faculty member's grant or contract. Students may combine these options but may not receive both pay and credit at the same time for the same piece of work.

The senior thesis involves original research under the mentorship of a faculty member, then documenting the methodology and accomplishments in scholarly form, and finally oral presentation of the results to an examination committee. This integrated effort develops research, writing, and presentation skills that together provide an excellent preparation for future graduate studies and/or professional life. Since senior thesis requirements vary by option, individual option representatives should be consulted.

The Summer Undergraduate Research Fellowships (SURF) program provides continuing undergraduate students the opportunity to work on an individual research project in a tutorial relationship with a mentor, usually a member of the Caltech/JPL research community,

but occasionally a faculty member at another college or university. Students write research proposals in collaboration with their mentors. Proposals and recommendations are reviewed by the SURF administrative committee, and awards are made on the basis of reviewer recommendation and available funding. The work is carried out during a 10-week period in the summer. Students may attend weekly seminars presented by members of the Caltech faculty and JPL technical staff and may participate in professional development workshops. At the conclusion of the summer, SURFers submit a written report describing the project, methods, and results of their work. On the third Saturday of October, students make oral presentations of their projects at SURF Seminar Day. About 20 percent of the students publish their work in the open scientific literature. In 2018, SURF students received awards of \$6,275. Applications are available online at [www.surf.caltech.edu](http://www.surf.caltech.edu) and are due in mid-February. Awards are announced in early April. To be eligible, students must be continuing undergraduates and have a cumulative GPA of at least 2.0. Students must complete the third quarter at Caltech (or at another school under a program approved by a dean). Students must be eligible for fall term registration as of the end of the June Undergraduate Academic Standards and Honors (UASH) Committee reinstatement meeting and must not be on medical leave or under disciplinary sanction. For further information regarding this program, contact the Student-Faculty Programs Office, 330 Center for Student Services, (626) 395-2885, [sfp@caltech.edu](mailto:sfp@caltech.edu). Visit the Student-Faculty Programs website at [www.sfp.caltech.edu](http://www.sfp.caltech.edu).

Most options also offer undergraduate research courses in order to encourage research participation; students should consult listings and descriptions of opportunities. Students registering for a research course during the summer do not have to pay tuition.

## STUDENT LIFE

### *Undergraduate Student Residences*

Seven of the undergraduate student residences are situated on both sides of the Olive Walk near the southeastern end of the campus. The original four—Blacker, Dabney, Fleming, and Ricketts—were built in 1931 from the plans of Mr. Gordon B. Kaufmann, in the Mediterranean style to harmonize with the adjacent Athenaeum. The other three, designed by Smith, Powell and Morgridge, were completed in 1960, and are named Lloyd, Page, and Ruddock.

Each of these seven residences is a separate unit with its own dining room and lounge, providing accommodations for between 65 and 100 students, depending on the facility. Each has its own elected officers; a long history of shared governance gives students a great deal of influence over their living environments. There are five undergraduate residential life coordinators (RLCs) in undergraduate campus housing, situated in different residences. An RLC is a specially trained full-time university employee, specializing in college student development,



community building, counseling, and crisis intervention. The RLCs supervise the resident associates (RAs) on programming and overall student wellness. The RLCs also assist Housing with the management and daily operations of the residences. Each residence has one or more RA, who are typically graduate students. Mail is delivered daily to the student mailboxes. Students should use their mailbox number, California Institute of Technology, Pasadena, CA 91126, to facilitate handling of mail at the campus post office. For more information, please visit [www.housing.caltech.edu](http://www.housing.caltech.edu).

#### *Avery House*

Made possible by a gift from trustee R. Stanton Avery, this undergraduate residence and innovative residential complex was designed by Moore, Ruble, Yudell, and completed in September 1996. Located at the north end of the campus, Avery has an RLC, two RAs, two faculty apartments, and rooms for about 136 undergraduates. Its dining facilities, meeting rooms, lounges, and library are designed to encourage informal faculty-student interaction and to attract all members of the campus community to join in this interaction. Avery hosts programs and social events that facilitate involvement between residents and faculty in residence.

#### *Bechtel Residence*

Established in the fall of 2018 and located at the northeast edge of campus, the Bechtel Residence is the first residence to open on campus since 1996. With the opening of Bechtel, the Institute is able, for the first time, to provide on-campus housing to all undergraduates for the duration of their academic career. Bechtel is named in honor of Caltech life trustee Stephen D. Bechtel, Jr., the founder of the S. D. Bechtel Foundation.

The 95,000-square-foot residence is a multigenerational residence open to all undergraduates with: 211 student bedrooms arranged as singles and in suites; six RA and one RLC apartments; and two faculty-in-residence apartments. Bechtel was intentionally designed to provide the community with the greatest flexibility in maximizing space as well as to encourage broader interaction, engagement, and residential life programming among residents. The facility includes three kitchens; eight common areas/study rooms; six laundry rooms; a 400-seat dining hall and servery; and support spaces.

#### *Hameetman Center*

The Hameetman Center is a new campus center built on the site of the former Winnett Student Center opening in 2019. The Hameetman Center replaces Winnett as Caltech's central community gathering place. The 24,000-square-foot two-story center is named in honor of the Hameetman Foundation and Caltech trustee Fred Hameetman (BS '62) and his wife, Joyce, who provided the initial funding to initiate the design of the reimagined campus hub. It features a large public lounge, an expanded Red Door Marketplace, the Caltech Store, music rehearsal facilities, student club rooms, a multi-

purpose room, and a conference room. The rehearsal facility is made possible thanks to a gift from emeritus professor of theoretical physics Steven Frautschi and his wife, Mie.

#### *Office of Residential Experience*

Using a collaborative approach, the Office of Residential Experience supports the overall student affairs mission by creating an inclusive residential experience for all students. The residential experience team includes professional and graduate student staff, as well as trained undergraduate leaders and faculty in residence.

#### *The Student Activities Center*

The SAC is located in the basement of the south undergraduate housing complex and is open for student use 24 hours a day. The SAC provides office space for the officers of the undergraduate student government, working space for student publications, rehearsal space for musical activities, and space for many other student-oriented functions.

Whether students are interested in music, publications, student government, gaming, photography, or simply finding a room for their group to meet in, the SAC will probably have what is needed. The center also houses the South House laundry room and has several club rooms, a small library, a shop, and a movie screening room—most are open 24 hours.

#### *Faculty-Student Relations*

Faculty-student coordination and cooperation with regard to campus affairs are secured through the presence of students on faculty committees, by faculty-student conferences, and by other mechanisms.

#### *Freshman Advisers*

Each member of the freshman class is assigned a faculty adviser and is a member of a small advising group. The adviser follows the freshman's progress and provides advice on any questions or problems that the freshman may have.

#### *Option Advisers*

Each member of the three undergraduate upper classes is assigned an option adviser, a faculty member in the option in which the student is enrolled. The adviser takes an interest in the student's selection of courses and progress toward a degree, and, eventually, in assisting the student toward satisfactory placement in industry or in graduate school. Normally, the association between student and adviser is established before the beginning of the sophomore year and continues through graduation.

### *Athletics, Physical Education & Recreation (APER)*

Caltech supports an extensive program of competitive athletics. As a member of NCAA Division III and the Southern California Intercollegiate Athletic Conference, Caltech participates in intercollegiate competition in 20 sports – 10 each for men and women. All teams compete during a regular season, with many also competing or qualifying for the conference tournament in their respective sport. Individual scholar-athletes and teams distinguishing themselves can earn the privilege of participating in NCAA regional and national championships.

Caltech also sponsors vigorous club sports programs and intramural competition. Club sports include Ultimate Frisbee, volleyball, badminton and soccer. Intramural competitions are contested by residence house teams in several sports, including soccer, dodgeball, kickball, Ultimate Frisbee, basketball, volleyball, and floorball. Approximately 25 percent of Caltech undergraduates participate in intercollegiate athletics and over 80 percent participate in some form of organized athletic competition each year.

Outdoor athletic facilities include a brand-new turf mixed-use baseball and soccer field, a second natural grass mixed-use field, an all-weather running track, eight tennis courts, and two 25-yard, eight-lane swimming pools. Indoor facilities include two full-size gymnasiums; four racquetball courts, two squash courts; a 5,000-square-foot weight room, satellite weight room and more than 55 pieces of cardio-respiratory equipment, including treadmills, exercise bikes and ellipticals; and a large multipurpose room for dance/aerobics, martial arts and a variety of group fitness courses.

The department is also responsible for management of Caltech's recreation programs and physical education curriculum.

More information can be found at [GoCaltech.com](http://GoCaltech.com).

### *Interhouse Activities*

The president of each undergraduate house represents that house on the Interhouse Committee (IHC), which helps to handle matters affecting the houses, in conjunction with staff from Student Affairs. The IHC works in conjunction with the APER department to conduct intramural competitions as described above, and conducts its own Discobolus Trophy competition, in which a house may challenge the house holding the trophy to a mutually agreed upon contest.

### *ASCIT*

The undergraduate student body forms the membership of a corporation known as the Associated Students of the California Institute of Technology, Inc., or ASCIT. Governed by a board of directors consisting of nine elected officers, it is involved in many aspects of student life; oversees publication of the student newspaper; a directory, the yearbook; a research-opportunities handbook; course review; and a literary magazine.

Besides overseeing many student publications and coordinating activities and policies, the ASCIT Board of Directors administers the corporation's finances. ASCIT sponsors a wide variety of special-interest clubs and programs, such as the Student Auxiliary Services Store, and the Students for the Exploration and Development of Space (SEDS).

The student government is active in campus affairs. The student members of each standing faculty committee ensure that undergraduate opinion is considered seriously. Excellent informal relations between students and faculty and between students and administration promote discussion of mutual concern and goodwill. Student-faculty conferences are held every other year and serve a very useful purpose to promote cooperation and communication.

#### *Graduate Student Council*

The Graduate Student Council (GSC) is the student government for Caltech graduate students. It is the mission of the GSC to maximize the quality of life for the graduate student community at Caltech. The GSC Board of Directors interacts with the Institute's administrative bodies and is formed of subcommittees dedicated to academic support, advocating graduate student issues, sharing student news, and organizing social events.

#### *Honor System*

The Honor Code, embodied in the phrase "No member shall take unfair advantage of any other member of the Caltech community," is the fundamental principle of conduct for all students and extends to all phases of campus life, including scholastic and extracurricular activities, relations among students, and relations between students and faculty. The Honor System is the most important tradition of the undergraduate student body. The Board of Control, which is composed of elected student representatives, is charged with monitoring the academic Honor System for undergraduates, investigating course work violations, and making recommendations to the dean of undergraduate students. The Conduct Review Committee, composed of students, faculty and staff, hears cases involving non-academic Honor System and Institute policy violations for undergraduate students, and also makes recommendations to the dean. At their discretion, the dean of undergraduate students, or his/her designee, may directly handle a matter also involving the Honor System, the Code of Conduct, and Institute Policies for undergraduate students.

The Honor System is also an important part of graduate student life. The Graduate Honor Council (GHC) is the body responsible for reviewing alleged honor code violations with respect to coursework. The GHC investigates and hears a case, then forwards its recommendations to the dean of graduate studies for final review and decision. The GHC consists of Co-Chairs and Honor Council Board Members. All Members of the Graduate Honor Council must be in good standing with the Office of Graduate Studies and must attend

a formal training before they may serve on a case. Examples of honor code violations include, but are not limited to, plagiarism, violations of the collaboration policy in a class and/or using resources that were strictly prohibited for homework and/or exams. Incidents that are not handled by the GHC include accusations of research misconduct, which are handled by the Office of Research Compliance; grade disputes, which are handled by the office of the provost; and Institute Policy violations which are handled by the office of the dean of graduate studies or the appropriate administrative organization.

#### *Student Body Publications*

The publications of the student body include a weekly paper, *The California Tech*; an undergraduate research journal, *CURJ*; a literary magazine, *The Totem*; a student handbook, *the little t*, which gives a survey of student activities and organizations and serves as a campus directory; a yearbook, *The Big T*; an online undergraduate research opportunities handbook, *UROH*; and *Caltech Letters*, an online campus publication designed to let students talk about their research and their viewpoints on science with the broader world. These publications, staffed entirely by students, provide an opportunity for interested students to obtain valuable experience in creative writing, photography, artwork, reporting and editing, advertising, and business management.

#### *Performing and Visual Arts*

The Institute provides directors and facilities for choirs, concert band, jazz band, symphony orchestra, numerous chamber music ensembles, guitar classes, a theater program, ceramics and studio arts classes. These activities are centered in the Music and Theater Arts houses on Hill Avenue along the eastern edge of campus. Rehearsals and performances are held mainly in Dabney Lounge and Ramo Auditorium.

#### *Student Societies and Clubs*

Special interests and hobbies are provided for by a broad and constantly changing spectrum of student clubs, some informal but most formally recognized by Caltech through Student Activities and Programs. The current list of clubs and more information about them can be found at <http://clubs.caltech.edu>.

The Institute has a chapter (California Beta) of Tau Beta Pi, the national scholarship honor society of engineering colleges. Each year the Tau Beta Pi chapter elects to membership students from the highest-ranking eighth of the junior class and the highest fifth of the senior class.

Special interests and hobbies are provided for by a broad and constantly changing spectrum of clubs, some informal but most formally recognized by Caltech through either ASCIT or the Graduate Student Council.

### *Student Shop*

The student shop is located in the Physical Plant complex. It is equipped by the Institute, largely through donations, and is operated by students. Qualified students may work on private projects that require tools and equipment not otherwise available. All students who have completed an appropriate machine shop training course are eligible to apply for membership in the student shop. Instruction on specific machines and tools can be provided as needed. Yearly dues are collected for maintenance and tool replacement.

### *The Caltech Y*

The Caltech Y is a unique nonprofit organization on campus. Founded by students for students, the Y challenges the Caltech community to see the world with a broader perspective and a deeper understanding of social issues. Through community service projects, outdoor adventures, social activities, and cultural events, the Y encourages students to become active participants during their years here. The Caltech Y helps students plan events, meetings, and initiatives on campus and provides the resources and equipment needed for successful programs. Some of the many Y-sponsored activities include the Y hike in the California Sierras, Alternative Spring Break, Make-a-Difference-Day, World Fest, the Social Activism Speaker Series, and the D.C. Science Policy Trip. The Y also provides services to the Caltech community, such as low-cost rentals on camping equipment, discounted tickets, and much more.

### *Religious Life*

In addition to several groups active on campus, houses of worship of many different denominations are within walking distance or are only a short drive from campus.

Caltech offers a meditation/prayer room, referred to as the “Quiet Space,” for any Caltech member of any denomination or faith in the Hameetman Center.

Caltech Affiliated Organizations:

- Bridges @ Caltech
- Caltech Christian Fellowship (CCF)
- Caltech Graduate Christian Fellowship
- Caltech Latter-Day Saint Student Association
- Catholic Small Faith Community
- Christians on Campus at Caltech
- The Organization of the Associated Students of the Indian Sub-continent (OASIS)

These are a selection of some of the religious organizations that were active on campus and formally registered as student groups in 2017-18. As with many campus clubs and groups, the level of activity varies from year-to-year and there are also many informal groups, which serve various student interests.

### *Special Meals*

If you have a dietary restriction that requires a special request, please contact Caltech Dining Services at [dining@caltech.edu](mailto:dining@caltech.edu). If your restriction rises to the level of a disability, please visit the CASS website at <http://www.cass.caltech.edu/> to request accommodation.

### *Public Events*

Beckman and Ramo Auditoriums serve as the home of the professional performing arts programs on the Caltech campus. Each year, more than 50 lectures, outreach programs, performing arts events, and films are presented at Caltech. Tickets, often with discounts available, are offered to Caltech students for all events in Beckman and Ramo Auditoriums. Visit [www.events.caltech.edu](http://www.events.caltech.edu) for more information.

### *Student Auxiliary Services*

The Student Auxiliary Services, Gift & Technology Store (<http://caltechstore.caltech.edu>) is located on the first floor of the new Hameetman Center. Established in the 2018-2019 academic year with a lead gift from The Hameetman Foundation, the Hameetman Center (formerly the Winnett Student Center) is now renamed in the Foundation's and Fred Hameetman (BS '62) and his wife, Joyce's honor. Owned and operated by the Institute, the store serves the students, faculty, and staff, carrying a stock of Caltech authors' books, insignia merchandise, gift items, school supplies, computer hardware and accessories that support Caltech's educational and research mission. Also located on the first floor of the new Hameetman Center is the redesigned Red Door Marketplace that offers freshly brewed coffee and tea, full menu, and bakery items.

## **STUDENT WELLNESS SERVICES**

### *Health Form*

Prior to initial registration, each admitted student is *required* to submit a completed Health Form that includes medical and immunization history. Information regarding the completion of the Health Form is sent as part of the Orientation Packet at the time of notification of admission for incoming freshmen, and accepted graduate students are provided instructions by the Graduate Office. The Health Form must be received no later than August 1, 2018.

### *Student Health Insurance*

Students have the option to waive the Caltech student insurance plan (United HealthCare Student Resources) during the waiver period each year, provided they show proof of adequate alternative coverage. Students will be automatically enrolled in the Caltech plan if a waiver is not submitted. The Caltech plan provides coverage (with deductible and copay) for most hospital and surgical costs, as well as the cost of outpatient treatment for injury, illness, and psychotherapy. Students

must be enrolled in order to maintain eligibility for coverage. Students on an approved medical leave can continue coverage for up to one year; the cost of the plan premiums will be the responsibility of the student.

Complete coverage and exclusion details can be found here: [benefits.caltech.edu/health/students/medical](http://benefits.caltech.edu/health/students/medical).

If the Caltech plan has been waived, students are advised to ensure that their alternative coverage provides access to medical and mental health providers close to campus. All enrolled students, regardless of insurance coverage, are eligible for basic medical and psychological care and occupational therapy services through payment of the health fee. Students who require specialty or longer-term care will be referred to community providers using their health insurance; costs associated with this care are the responsibility of the student.

### *Health Services*

The Archibald Young Health Center is staffed by a physician Medical Director, nurse practitioners, and a medical assistant. The following services are available by appointment: clinic consultation and treatment of basic medical problems; referral to specialists; laboratory tests and orders for radiology tests (X-ray and ultrasound are provided off-site); sexual health services, STI screening, and gynecological exams, including annual pap and contraceptive needs; prescription written for most medications and common vaccinations; allergy injection services. Students may make appointments via the Student Health Portal, or by calling Health Services at 626-395-6393.

### *Counseling Services*

Counseling Services is staffed by licensed clinical psychologists, social workers, and a consulting psychiatrist. Initial appointments are designed to assess the unique needs of each student and provide recommendations for a treatment plan. The following services are available following an initial appointment, based on recommendations for care: individual, couple, and group psychotherapy, crisis intervention, substance abuse evaluation and treatment, psychiatric medication evaluation and management, workshops, and referrals. To ensure an individualized approach to supporting student mental health, Counseling Services does not have pre-determined session limits. However, students who would benefit from specialty care or longer-term treatment will be assisted with referrals to providers in the community. Counseling appointments are available by calling 626-395-8331.

### *Crisis Services*

A range of options are available to students experiencing distress or psychological crisis. After-hours support may be accessed anytime the office is closed by calling 626-395-8331 (press '2' to be connected to a clinician). Students can access same-day appointments by informing the receptionist that they have an urgent concern. The Counseling Services website contains many resources and additional information



for students experiencing distress or friends and family who may wish to connect students with support.

#### *Occupational Therapy Services*

Occupational Therapy Services supports students with their “occupations,” the things that students need, want, or are expected to do. Topics of consultation include academic work, habits, routines, values, and lifestyle goals. Occupational Therapy Services is staffed by a licensed occupational therapist. Initial appointments are designed to identify a student’s goals and follow up visits build skills and provide accountability. Students may make an initial appointment by calling 626-395-8331.

## **CAREER DEVELOPMENT**

#### *Career Services*

The Career Development Center (CDC) provides assistance to students in the areas of career planning and employment. Assistance is available in areas such as career choice, résumé preparation, interviewing, graduate school application, and job search strategies. Career and vocational interest tests can also be taken on the recommendation of one of the career counseling staff members.

#### *General Information*

All students are encouraged to visit and make use of the Career Development Center early in their student careers.

#### *Walk-In Counseling*

Several days a week, students can “walk in” to consult with a career counselor without an appointment. This allows students to deal with time-sensitive or quickly answered concerns without having to make an appointment.

#### *CDC Online and the CDC Library*

The CDC’s website contains information about the center’s programs and activities, as well as links to career, educational, and employment resources nationwide ([www.career.caltech.edu](http://www.career.caltech.edu)). Students can schedule appointments for career counseling, register and post resumes for online recruiting, view work-study or tutoring job postings online. The CDC library contains information on graduate, and professional schools, employers, career options and job hunting skills.

#### *Graduate and Professional School Advising*

The CDC provides advice on applying to Ph.D. and master’s programs in the sciences or applied sciences, economics, medicine, public health, environmental sciences, business, law, and other fields. Workshops and individual advising are available on the graduate school admissions process, essay writing, and related topics. The CDC’s library and website have helpful resources.

### *Pre-Health Careers Advising*

Students planning to apply to medical, dental, veterinary, or pharmaceutical graduate school have access to a wide range of advising services through the CDC. Students can obtain relevant medical research experience through the Caltech summer preceptorship program, which has placements with hospitals in the LA area. The pre-health adviser is available to work with students throughout the process from freshman year to graduation.

Students planning to apply to graduate school or professional graduate degrees are encouraged to plan ahead and to utilize the resources of the CDC in making choices about and implementing choices related to graduate studies.

### *On-Campus Recruiting Program*

Through the on-campus recruiting program, employment interviews are arranged by the CDC with companies that seek full-time employees pursuing B.S., M.S., Eng., or Ph.D. degrees. Many firms also recruit students for summer internships or jobs. All students, Caltech postdoctoral scholars, and recent alumni are eligible to participate.

### *Career Fairs*

Each year two career fairs are organized by the CDC and held in October and January.

A diverse range of companies send representatives to campus to talk to Caltech undergraduates, graduate students, and postdoctoral scholars about permanent employment, summer jobs, or internship opportunities with students. Many firms hold information sessions and conduct on-campus interviews.

### *Work-Study and Employment Listings*

Job listings are maintained in the Career Library and through Handshake for students seeking full-time or work-study employment. One popular online resource is Caltech's tutoring service, through which Caltech students are hired to work as paid tutors for students attending high school in the local area. (See also the student employment section on page 212.)

### *Summer Internships and Jobs*

Students are encouraged to establish a relationship with the CDC staff during the fall term to start the summer job process.

The CDC website has a special section on internships, many firms recruit on campus or at the career fairs for interns, or list positions on Handshake, the CDC online job listing resource. Students may wish to confer with the summer internship career counselor to develop a plan to find summer work that will support or complement long-term career objectives. The CDC provides job-search assistance, including résumé preparation advice, mock interview training, and advice on evaluating job offers. Many employers, eager to hire Caltech students, provide or supplement transportation and housing as part of their summer employment package.

### *Employment Experience of Recent Graduates*

Each year Caltech surveys graduating students' future plans. Over several years, approximately 35 percent of graduating seniors immediately pursue graduate study, primarily PhD programs, 55 percent pursue full-time employment, 10 percent have not accepted offers yet, and 10 percent pursue other options, such as creating a start-up, fellowships for graduate study abroad, travel, or additional study in order to enter a new area of interest, etc. At the M.S. degree level, about 90 percent continue in graduate school, and the remainder accept employment. Of those receiving the Ph.D. degree, about 60 percent accept post-doctoral, faculty or other academic/research positions, about 40 percent pursue positions in areas such as national laboratories, industry, STEM teaching, public policy, etc.

## **CALTECH ALUMNI ASSOCIATION**

The mission of the Caltech Alumni Association (CAA) is to promote the interests of Caltech as a world standard of academic excellence by strengthening the ties of goodwill and communication between the Institute, its alumni, and its students, and by maintaining programs to serve their needs.

The Caltech Alumni Association empowers the alumni community to thrive and connect with Caltech, current students, and each other. We treat all students as future alumni with whom we want to build a lifelong relationship. Each year, CAA programs provide all students with the opportunity to have a meaningful connection with an alumna/us, and provide alumni with the chance to share what they have learned in their life after Caltech with current students.

The Caltech Alumni Association's purpose is to be a relevant and impactful organization by helping to create a highly connected network of alumni and current students who celebrate the unique culture of Caltech, thrive socially and professionally, and help transform the world.

*Alumni House is located at 345 South Hill Avenue*

*Find out more about our programs for students and alumni at [www.alumni.caltech.edu](http://www.alumni.caltech.edu).*

## **INTERNATIONAL STUDENT PROGRAMS**

As the definitive immigration resource for international students, International Student Programs (ISP) is responsible for advising students on all immigration-related matters, such as visa acquisition, employment authorization, extensions of stay, and more. In addition, ISP provides programs that assist international students and their dependents in adjusting to life in the United States. ISP plans and promotes events that celebrate international education and cultures

of the world, address cross-cultural adjustment, and provide opportunities for international students to establish a sense of community at Caltech. Prior to the fall term, ISP hosts International Student Orientation to provide an introduction to academic and social life at Caltech and in the United States. All incoming international students are required to participate. Please contact ISP at [isp@caltech.edu](mailto:isp@caltech.edu) for more information on current programs, or visit ISP online at [www.international.caltech.edu](http://www.international.caltech.edu).

## AUDITING COURSES

Persons affiliated with 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 studies, as appropriate, and pay the required fee (contact the Bursar's Office for audit fee). The fees are nonrefundable.

Auditing cards may be obtained in the Registrar's Office.

Regularly enrolled students and members of the faculty are not charged for auditing. Auditing cards are not required, but the instructor's consent is necessary in all cases. No grades for auditors are reported to the Registrar's Office, and no official record is kept of the work done.

## GRADES AND GRADING

All permanent grades recorded for freshmen during the first and second terms they are enrolled will be either P, indicating "passed," or F, indicating "failed." The temporary grade of I ("incomplete") may be used as it is for other students. The temporary grade of E may be given to freshmen as described below for other students. It may also be used in a continuing course if the performance of the freshman concerned is not significantly below the current passing level, and if the student is maintaining a steady and substantial improvement; an E given for this reason will be automatically changed to a P if the freshman earns a P for the following term, and will change to an F if the student receives an F for the following term. The grade may not be used in this way for two successive terms nor for the last term of the course.

If a first-quarter or second-quarter freshman is enrolled in a course in which the instructor gives letter grades, the registrar will record P for all passing grades. No grades given to a freshman during the first and second quarter in which they are enrolled will be used in computing the cumulative grade-point average.

For all students beyond the first and second quarters of their freshman year, graduate and undergraduate, letter grades will ordinarily be used to indicate the character of the student's work: A, excellent; B, good; C, satisfactory; D, poor; E, conditional; F, failed; I, incomplete.

P may also be used as described below under *Pass/Fail Grading*. In addition, grades of A+ and A-, B+ and B-, C+ and C-, and D+ may be used. In any situation in which no grade is reported, the grade shall be assumed to be F.

At their discretion, instructors may give students who have not completed their work for a course by the end of the term a grade of E. The grade E indicates deficiencies that may be made up without repeating the course. If the instructor does not specify a date on the grade report sheet for completion of the work, students receiving an E will have until Add Day of the following term to complete their work for that course. Instructors may, however, require the work for the course to be completed by an earlier date. If a student receives an E and does not complete the work by the date specified by the instructor or by Add Day, the grade will be changed to an F. Adequate time must be afforded to instructors to grade the work and to submit the final grade to the registrar.

It is the responsibility of a student receiving an E to confirm that the registrar has recorded the terms for satisfying the completion of the work in the course.

With the written permission of the instructor, a student may extend the E grade past Add Day of the following term, but doing so will cause an additional E grade to be registered. Each additional extension of the E will be until the date specified by the instructor or until Add Day of the following term, but in each case will require the written permission of the instructor and the registering of an additional E grade.

After an undergraduate student has been awarded the grade of E six times, he or she is not eligible to receive E grades in any subsequent term. A petition for an E in a subsequent term may be approved by the Undergraduate Academic Standards and Honors (UASH) Committee in an exceptional case. Such a petition requires the support of the instructor and the dean or associate dean of undergraduate students.

The grade I is given only in case of sickness or other emergency that justifies noncompletion of the work at the usual time. It is given at the discretion of the instructor, after approval by the dean or associate dean of students or the dean of graduate studies. The time period within which the grade of I is to be made up should be indicated on the grade sheet, or students receiving an I will have until Add Day of the following term to complete their work for the course. As in the case of the E grade, the grade of I shall not be considered in calculating a student's grade-point average.

Students receiving grades of E or I should consult with their instructors not later than the beginning of the next term in residence as to the work required and the time allowed. This time should, in most cases, coincide with the date fixed in the calendar for removal of conditions and incompletes (Add Day), and in fact if no other time is specified, this date will be assumed. However, except under extraordinary circumstances, the time for the completion of the work will not be extended beyond one year after the date in which the grade of

E or I was given. An E will turn into an F one year after the date on which the E was given, and an I grade will turn into a W (standing for “withdrawn”) one year after the date on which the I grade was given. That circumstances are so extraordinary that it allows waiving of this one year rule requires the agreement before that one year anniversary of the Dean of Undergraduate Students, Chair of UASH, and Executive Officer of the department in which the course was taken. Grades of E and I shall not be considered in calculating a student’s grade-point average.

*Failed* means that no credit will be recorded for the course. The units, however, count in computing the student’s grade-point average, unless the course was taken on a pass/fail basis. He or she may register to repeat the subject in a subsequent term and receive credit without regard to the previous grade, the new grade and units being counted as for any other course, but the original F and units for the course remain on the record.

Grades other than E, I, and W are assumed to be based on work completed and evaluated at the time of grade submission. A grade once recorded will only be changed on the basis of error. Such a change may be made only with the approval of the Undergraduate Academic Standards and Honors Committee or of the Graduate Studies Committee, whichever has jurisdiction.

Petitions by undergraduate students for late drops (i.e., requests to drop a course after Drop Day) will be considered by the UASH Committee. Timely submission of petitions is encouraged. The usual criterion for a late drop is documentation that the student in fact discontinued submitting assignments and exams in that course before Drop Day, but did not file a timely drop request. If approved, a W will be recorded on the student’s transcript in place of a grade for that course. W’s will not be included in the computation of the student’s grade-point average. Courses will be expunged from the student’s record only in exceptional circumstances, at the discretion of the UASH Committee. Petitions from graduating seniors submitted later than the first UASH meeting following graduation (which normally takes place shortly after graduation) will not be accepted for consideration, except to correct an error by the Institute.

*Grade-Point Average:* Grade-point average is computed by dividing the total number of credits earned in a term or an academic year by the total number of units taken in the corresponding period. Units for which a grade of F has been received are counted, even though the course may have subsequently been repeated. Grades of P or F obtained in courses graded on a pass/fail basis are not included in computing grade-point average.

Each course at the Institute is assigned a number of *units* corresponding to the total number of hours per week devoted to that subject, including classwork, laboratory, and the normal outside preparation. Credits are awarded as shown in the table below.

<i>No. of Units</i>	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F
1	4	4	4	3	3	3	2	2	2	1	1	0
2	9	8	7	7	6	5	5	4	3	3	2	0
3	13	12	11	10	9	8	7	6	5	4	3	0
4	17	16	15	13	12	11	9	8	7	5	4	0
5	22	20	18	17	15	13	12	10	8	7	5	0
6	26	24	22	20	18	16	14	12	10	8	6	0
7	30	28	26	23	21	19	16	14	12	9	7	0
8	35	32	29	27	24	21	19	16	13	11	8	0
9	39	36	33	30	27	24	21	18	15	12	9	0
10	43	40	37	33	30	27	23	20	17	13	10	0
11	48	44	40	37	33	29	26	22	18	15	11	0
12	52	48	44	40	36	32	28	24	20	16	12	0
13	56	52	48	43	39	35	30	26	22	17	13	0
14	61	56	51	47	42	37	33	28	23	19	14	0
15	65	60	55	50	45	40	35	30	25	20	15	0

*Pass/Fail Grading:* The following regulations apply:

- First-quarter and second-quarter freshmen receive pass/fail grades in all courses by virtue of their classification as freshmen by an admissions committee or, for students whose status after the first year is uncertain, by the Undergraduate Academic Standards and Honors Committee.
- All other students, undergraduate and graduate, in courses with numbers under 200 will receive letter grades unless the course is designated “graded pass/fail” or unless, when it is allowed, the student files with the Registrar’s Office a completed Pass/Fail Course Selection Card not later than the last day for dropping courses.
- In courses with numbers 200 or greater that are not designated either “graded pass/fail” or “letter grades only,” the instructor may decide separately for each student what class of grades to use.
- All research courses shall be designated “graded pass/fail.” All reading courses, seminar courses, or other courses that do not have a formal class structure shall be designated “graded pass/fail” unless the option secures an exemption from the Curriculum Committee or the Graduate Studies Committee and from the Faculty Board.
- A grade on the pass/fail system should be P if it would have been a D or better on the letter grade system. (Note that there is no D- grade.) The standards of failure in courses in which

only pass/fail grades are used should be the same as they would be if the course were letter graded.

- Any instructor may, at his or her discretion, specify prior to registration that his or her course, if not classified by the above regulations, is to be graded on a “letter grades only” basis or is to be graded pass/fail only, subject to possible review by the responsible option. The registrar must be notified of such specification two weeks before the beginning of registration. (Note: If the grading scheme is changed during the term, it is changed for everyone.)
- Each term, any student may select, subject to such requirements as may be imposed by the student’s option, two elective courses in which he or she is to be graded on a pass/fail basis if it is not designated as “letter grades only” and is not specifically required for the degree in his or her option. To make this election, a completed Pass/Fail Course Selection Card must be submitted to the Registrar’s Office on or before the last day for dropping courses that term. This election may be reversed or reinstated at any time before the deadline. The election must be approved and the card signed by the student’s adviser. The instructor must be notified and should sign the card to indicate that this has been done; the instructor must allow any eligible student to make this election.
- Of the units offered to satisfy the requirements for the Bachelor of Science degree, no more than 90 may be in courses graded pass/fail because of the student’s election.

#### *Procedures for Resolving Disputes over Grading*

At Caltech, the instructor has full responsibility for assigning grades to students enrolled in a course. On occasion, a student may not understand how a grade was determined and may seek further information. The student should first meet with the instructor or teaching assistant to discuss the grade. If after doing so the student believes the grade is unjustified or capricious, the following procedures are available.

Before the end of the term following the term when the grade was issued, the student should contact the academic mediator, appointed by the provost, who will work with the student and instructor to resolve the problem. If the mediation effort is unsatisfactory to the student, he or she may request a formal review by an appropriate executive officer or academic officer. The executive officer will review the case and report the decision in writing to the student. If the executive officer decides that a change of grade is warranted, or if the student requests a further appeal, these shall be requested of the division chair. At the discretion of the division chair, a committee may be appointed to review the case. The committee members should interview everyone involved in the case (the student, the course instructor, the teaching assistant, and anyone else with relevant information), and make a written recommendation to the division chair. Only the division chair can authorize the registrar to enter a new grade in the student’s transcript.



## NOTICES AND AGREEMENTS

### Academic Records of Veterans

The Institute maintains a written record of a student's previous education. This is part of the student's official transcript, and included on this is a summary of any prior college-level education. A true copy of a transcript of college-level work at other institutions is maintained as part of the student's record. The amount of credit granted for prior training is indicated on the student's official transcript and, where this results in the shortening of a required training period in the case of a veteran, the Veterans Administration is notified.

The Institute's official transcript for each student shows the progress that student is making at the Institute. There is a record of each course enrolled in each term with a grade recorded for the course. The total number of units earned is kept so that the record will show continued progress toward the degree sought. The final grades are recorded at the end of each term of the school year, and the accumulative permanent record has on it grades for all subjects taken at the Institute. No student is allowed to enroll repeatedly in a course and withdraw without penalty. If a student enrolls in a course, he or she is expected to complete the course or receive a failing grade unless he or she withdraws from the course prior to the deadline for dropping courses. All students must maintain a minimum load equivalent to 12 quarter hours each term; no student may drop courses that would bring him or her below this level of effort. At any time when the student falls below the required number of units, fails to receive satisfactory grades, or engages in unsatisfactory conduct, the record is marked to indicate this, and the student is forbidden to continue at the Institute.

The grading system of the Institute is A+ (excellent) to F (failed). An A+ is equivalent to 4.3 and an F to 0.0. A student must maintain a grade-point average of 1.9 in any term in order to be able to enroll in a successive term at the Institute. A minimum 1.9 overall grade-point average is required for graduation. A student who drops below the required average (1.9 for a given term) is dismissed and must petition for reinstatement. A student may be reinstated by the Undergraduate Academic Standards and Honors Committee and, if so, is required to earn a 1.9 GPA during the immediately following term. The Veterans Administration is notified when a veteran is academically dismissed or is making unsatisfactory progress toward a degree. Since the Institute requires all students to carry a minimum full load that corresponds to 12 quarter hours each term, any student who finishes a term in good standing is considered to have made satisfactory progress. If a student withdraws from a course before the final date for withdrawal, no grade is given in that course. The time spent in school counts, however, and the student may be considered to have not made satisfactory progress in the event of such withdrawal.

In order to withdraw from any course, a student must submit a withdrawal card. This shows the date on which the student was last in

official attendance in that course. If a student reenrolls in that course and successfully completes it, that fact will be noted on his or her official transcript.

## Access to Student Records

The Institute maintains educational records for each student that include name, address, student identification number (including Social Security number), information on parents, guardian, and spouse, general information on academic status at the Institute, previous school data, results of standardized admissions examinations, courses previously taken or being taken, credits, grades, as well as other educational records. Applicants for financial aid have an additional file holding those records. The Family Education Rights and Privacy Act (FERPA) and Caltech policy afford students certain rights as well as establish limitations with respect to student educational records. These rights and limitations are as follows:

1. Caltech permits disclosure of educational records, without consent of the student, to Institute officials with legitimate educational interests in them. An Institute official is a person employed by the Institute in an administrative, supervisory, academic or research, or support-staff position (including security personnel and health and diversity center staff), a person or company with whom the Institute has contracted (such as an attorney, auditor, consultants, contractors, or collection agent), a person serving on the Board of Trustees, or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another Institute official in performing his or her tasks. An Institute official has a legitimate educational interest if he or she needs to review an educational record in order to fulfill his or her professional responsibility. They are available to the registrar, provost, president, general counsel, vice president for development and institute relations, vice president for student affairs, dean of graduate studies, dean of undergraduate students, director of financial aid, and faculty of the Institute and their respective staffs for the normal academic and business purposes of the Institute. Records involving financial aid are maintained by the director of financial aid, and are available to the director and staff, to the dean of graduate studies and staff, to the Faculty Committee on Scholarships and Financial Aid, and to the Faculty Committee on Graduate Study, for the purpose of granting and administering the Institute's financial aid program. Except as authorized by federal or state law or regulation, none of these education records nor any personally-identifiable information contained therein, other than directory information (see below), may be made available to anyone else, other than the student, without the consent of the student. Where the student consents to disclosure of personally-identifiable information from the student's education

- records and Caltech chooses to disclose such information, if the student so requests, the Institute will provide the student with a copy of the records disclosed. The Institute will maintain a record of each request for access to and each disclosure of personally-identifiable information from the education records of a student, as required by applicable federal law or regulation.
2. Students are allowed access to their educational records as follows: A student may inspect and review his or her academic transcript during normal working hours. To inspect and review other records, the student must provide a written request to the registrar or to the director of financial aid or to the dean of graduate studies or to the dean of undergraduate students, or their designees, as appropriate. A mutually-convenient time will be arranged within 45 days after receipt of the request for the student to inspect and review the records in his or her file. At that time the student may examine all educational records in the file with the exception of those specifically exempted by Part 99 of Title 34 of the Code of Federal Regulations. If circumstances effectively prevent the student from exercising their right to review their education records, the Institute will make other arrangements. If a student believes the educational records relating to the student contain information that is inaccurate, misleading, or in violation of the student's rights of privacy, the student may ask the Institute to amend the record. The Institute will decide whether to amend the records as requested within a reasonable time after receiving the request. If the registrar, or the director of financial aid, or the dean of graduate studies, or the dean of undergraduate students, or their designees, decide not to amend the record as requested, the student will be informed of the decision and of his or her right to a hearing. The student will have, on request, an opportunity for a hearing to challenge the content of the records on the grounds that the information contained in the records is inaccurate, misleading or in violation of the privacy rights of the student. To request a hearing, the student must submit a written request to the vice president for student affairs or his or her designee. The vice president for student affairs or his/her designee will schedule such a hearing within a reasonable time after receipt of the request and will notify the student at a time reasonably in advance of the hearing of its date, time, and place. The student will be afforded a full and fair opportunity to present evidence relevant to the issues raised and may be assisted or represented by individuals of his or her choice at his or her own expense, including an attorney. The decision of the vice president or designee will be in writing, will be rendered within a reasonable time after the conclusion of the hearing, and will be final. This decision will be based solely upon the evidence presented at the hearing and will include a summary of the evidence and of the reasons for the decision. If, as a result of the hearing, the

Institute decides that the information is inaccurate, misleading, or otherwise in violation of the privacy rights of the student, the Institute will amend the record accordingly, and inform the student of the amendment in writing. However, if, as a result of the hearing, the Institute decides that the information is not inaccurate, misleading, or otherwise in violation of the privacy rights of a student, it will inform the student of the right to place in the educational records a statement commenting on the information in the records and/or setting forth any reasons for disagreeing with the decision of the Institute. If the Institute places a statement in the education records of the student, the Institute will maintain the statement with the contested part of the record for as long as the record is maintained and will disclose the statement whenever it discloses the portion of the record to which the statement relates.

3. The Institute considers the following to be directory information: a student's name, UID, addresses (permanent, campus and local/off-campus, and email), associated telephone listings, ID photograph, date and place of birth, major field of study, year in school, current enrollment status, expected date of graduation, name of academic adviser, participation in officially recognized activities and sports, weight and height if a member of an athletic team, dates of attendance, degrees and awards received, thesis title, hometown, and most recently attended educational agency or institution. Directory information may be made available to requestors at the Institute's discretion. Any student may, however, have part or all of this information withheld by notifying the registrar in writing. That information will then be withheld for the balance of that academic year. If the information is to be withheld in subsequent years, new requests must be filed.
4. A student will not be required to waive any rights regarding access to educational records. However, a student may voluntarily waive in writing right of access to confidential statements made by third parties respecting admission to educational agencies or institutions, applications for employment, or the receipt of an honor or honorary recognition. In case of waiver, the confidential statements will be used solely for the purposes for which they were specifically intended, and the student will, upon request, be notified of the names of all persons making such confidential statements. If a student should desire to waive right of access, he or she may contact the registrar for more information.
5. The Institute reserves the right to destroy from time to time any and all educational records that it maintains on a student, except to the extent that the law requires their maintenance for a longer period of time. However, where access to records has been requested, no destruction of those records will be allowed to take place until such access has been granted or denied.

6. Students who believe their rights under FERPA may have been violated may file a complaint with the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue SW, Washington D.C. 20202-4605.

### *Transcripts of Records*

A student, or former student, may request that official transcripts of his or her records be forwarded to designated institutions or individuals. Requests should be filed at the Registrar's Office at least five days before the date on which the transcripts are to be mailed.

### **Accreditations and Authorizations**

The California Institute of Technology is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges, 985 Atlantic Ave., Ste. 100, Alameda, CA 94501; (510) 748-9001. In addition, the Institute is authorized by the California State Department of Education, Office of Private Postsecondary Education, to operate as a private postsecondary educational institution and, by the same agency, to train veterans in the programs of the Veterans Administration.

The Engineering Accreditation Commission of ABET, Inc. (111 Market Place, Suite 1050, Baltimore, MD 21202-4012; 410-347-7700), has accredited Caltech's B.S. program in mechanical engineering. Further, the Committee on Professional Training of the American Chemical Society has approved Caltech's B.S. program in chemistry.

The documents describing these accreditations and authorizations are on file and may be inspected in the Registrar's Office and the Provost's Office; the office of the Division of Engineering and Applied Science also has the documentation for ABET.

### **Student Problem Resolution Process**

Caltech provides a variety of routes, most of them informal, by which students may bring complaints, which do not fall within the jurisdiction of other Policies or the Honor System, for consideration and resolution. For example, in academic matters, students may begin with faculty-student conversations that may extend to the deans, the option representatives, the division chairs, the registrar, or to various committees having faculty and student members. Non-academic matters can be dealt with informally by student leaders, resident associates, residential life coordinators, deans, and other student affairs offices. The Graduate Student Council (GSC) and the Associated Students of the California Institute of Technology (ASCIT) may become involved in some complaints, and sometimes ad hoc groups are formed to make recommendations.

The Problem-Resolution Process (Process) is intended to deal with complaints by currently enrolled students for which reasonable efforts by the available informal routes have not led to an acceptable resolution.

The first step in this Process is for the student to consult with the appropriate deans. One of the deans will then determine if the issue falls under this Process and, if appropriate, may appoint a facilitator to help resolve the issue. If the student's issue involves a decision or action of a dean, the vice president for student affairs or designee may appoint a facilitator to help resolve the issue.

A facilitator will assist the student in trying to work out the problem. If the student is not satisfied with the results, the student may file a written notice of appeal to the vice president for student affairs or their designee. The decision of the vice president or designee is final.

If a student has a complaint about Caltech's compliance with academic program quality and accrediting standards that they believe warrants further attention after exhausting the steps outlined above, they may contact the WASC Senior College and University Commission (WSCUC) at [www.wscuc.org/comments](http://www.wscuc.org/comments). WASC is the academic accrediting body for Caltech. An individual may contact the Bureau for Private Postsecondary Education (BPPE) for review of a complaint. BPPE may be contacted at 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833, website: [www.bppe.ca.gov](http://www.bppe.ca.gov); telephone: (916) 431-6959; fax: (916) 263-1897. Prospective students may contact WASC or the BPPE with complaints as well.

### **Student Patent and Computer Software Agreement**

The California Institute of Technology (Caltech) has a responsibility to see that inventions and copyrightable materials (including software) developed in connection with Caltech be used for the public benefit, and be consistent with Caltech's contractual obligations. In view of the patent and copyright policies of Caltech in force on this date and as may from time to time be amended, and my use of and access to Caltech facilities and equipment, I agree to the following:

Caltech retains all rights in inventions and computer software I generate as a student at the Caltech campus, Jet Propulsion Laboratory (JPL), and other facilities owned or managed by Caltech, with the following exceptions:

1. When I generate copyrightable computer software or other written work at Caltech in connection with my enrollment in Caltech's educational program, such as in course work, homework, theses and publications, I understand that I will retain ownership of copyrights to these works, and I hereby grant to Caltech an irrevocable royalty-free nonexclusive license to use such computer software and written work for educational and research purposes, including the right to grant sublicenses. If the work is generated at JPL or any Caltech owned or managed facility, I also hereby grant to the United States Government ("Government") a royalty-free, nonexclusive license to use such computer software and written work for purposes for or on behalf of the Government, to the extent Caltech or the Government requires such a license.
2. When I make inventions, write computer software or other written work entirely on my own time, without using Caltech's

equipment or facilities (other than incidental use of electronic information resources as is permitted under Caltech policy), and without using Caltech funds, I retain ownership of those inventions, software and written work.

I agree to assign, and hereby do assign, to Caltech all inventions and copyrightable materials that I develop with the use of funds administered by Caltech, or in the course of my duties at or for Caltech, including JPL, or with use of other facilities owned or managed by Caltech, apart from those for which I retain rights under numbered paragraphs 1 and 2 of this agreement, and all copyrights, patent applications and patents relating to those inventions and copyrightable materials.

I agree to execute all papers required to apply for, obtain, maintain, issue and enforce the assigned copyright registrations, patents and applications; and to provide reasonable assistance regarding those copyrights, patents and patent applications, including testifying in any related patent office proceeding, dispute or litigation. Expenses for the copyrights and patent applications, and for the assistance set forth in the preceding sentence, shall be borne entirely by Caltech.

I agree to notify Caltech promptly of all such assigned inventions or copyrightable materials.

I understand that if Caltech receives funds from the licensing of the assigned copyrightable materials or patents in excess of unreimbursed expenses associated with obtaining, maintaining and enforcing those copyrights and patents, I will share in these funds according to the established Caltech policy, procedures and practice in effect on the date that the patent application is filed or the computer software is completed, in the same manner as a member of the academic staff and employees.

I agree to notify Caltech of any funding of which I am aware that may have supported an assigned invention described in the preceding paragraphs. This is to ensure Caltech's compliance with its obligations, including the provisions of the Federal Bayh-Dole Act and implementing regulations. For work done at JPL, I agree to have all scientific and technical publications reviewed, pursuant to JPL policy, prior to public release to ensure compliance with U.S. export control laws.

I understand that Caltech relies on this agreement when it enters into contracts with others and obligates itself with respect to inventions and computer software developed at Caltech.

*Revised 03-23-2015*

### **Student Retention and Persistence Rates**

Most undergraduates enter Caltech at the freshman level. Of the 235 freshmen enrolled during the 2016-17 academic year, 231 reenrolled in the first term of the 2017-18 academic year and are progressing, yielding a persistence rate of 98 percent after all allowable exclusions. Of the 244 freshmen enrolled during the 2011-12 academic year, 217 graduated by June 2017, yielding a graduation rate for this group of 89 percent after allowable exclusions.

At the graduate level, most students enter Caltech to pursue either the degree of Master of Science or Doctor of Philosophy or, occasion-

ally, both. Of the 227 entering graduate students enrolled in a Ph.D. program during the 2016-17 academic year, 218 reenrolled in the first term of the 2017-18 academic year and are making satisfactory academic progress, resulting in a persistence rate of 96 percent. Of the 27 entering graduate students enrolled in M.S. programs during the 2016-17 academic year, 8 earned a terminal M.S. degree within one year, while two were admitted into the Ph.D. program.

### **Student Events**

Caltech is committed to providing its students, faculty and staff with an environment that promotes safe and responsible social interaction. Caltech recognizes that student activities are an important part of campus life. Students are required to follow Event Planning Procedures: [studaff.caltech.edu/policies](http://studaff.caltech.edu/policies)

## **CODE OF CONDUCT**

### **The Caltech Community's Statement on Ethical Conduct**

We are all part of the Caltech community whether we are located on campus, at JPL, at observatories or anywhere else in the universe. As members of the Caltech community, we expect that each of us will embody the high standards that have gained Caltech its worldwide reputation. In 2012, members representing the Caltech community began a conversation on ethical conduct. These discussions focused on the overarching values of our community. As a result of these discussions, we describe, in detail, these values in 11 short statements.

1. Strive for Excellence
  - We commit to excellence in all things in process as well as outcomes, knowing that only the process is truly under our control.
  - Responsibility and accountability are the hallmarks of our community.
2. Act with Integrity
  - We uphold integrity in all we do.
  - We hold ourselves accountable for the outcomes of our actions.
3. Encourage Open, Honest, and Respectful Discourse
  - We encourage open, honest, and respectful discourse from and between all members of the community, regardless of position, length of service, or role.
  - We treat one another with civility.
4. Respect and Promote Freedom of Inquiry
  - We encourage curiosity in research, scholarship, and exploration, and we create the conditions where inquiry can flourish.
5. Foster a Supportive and Diverse Community
  - Every member of the Caltech community treats one another with dignity and respect.
  - We value different perspectives, opinions, and ideas.
  - We enable one another's excellence.
  - We support the health and wellness of all community members.



6. Commit to Education
  - The opportunity for excellence in education exists at all levels and in formal and informal ways that benefit students, employees, and members of our community.
  - We are committed to being great educators—as leaders, mentors, and friends—not only of our students, but also of our community, our peers and colleagues, and ourselves.
7. Conduct Work Responsibly
  - We fulfill the obligations of our role.
  - We are responsible stewards of the Institute resources entrusted to us, including the environment, equipment and facilities, money and people.
  - We respect the environment and are conscious of our impact.
8. Protect the Interests of Those Who Place Their Trust in Us
  - We are forthright with our students, their parents, employees, managers, and people who rely on us for leadership and accountability at all levels.
  - We hold ourselves to the highest standards of integrity in peer reviews, scientific evaluations, and recommendations.
  - We represent ourselves accurately and factually to our peers, sponsors, and the general public.
  - We are open and honest in all our dealings with the government, external agencies, taxpayers, and donors.
  - We honor our obligations to donors and sponsors.
9. Provide and Maintain a Safe Environment for Learning and Working
  - We create, provide, and maintain a safe environment for ourselves and for others.
  - We foster the physical, mental, and emotional well-being of our community.
10. Obey the Law and Comply with Institutional Policies
  - We are scrupulous in all business dealings.
  - We are truthful, forthright and accurate when preparing all books, records, documents, reports, and publications.
  - We adhere to local, state, and federal laws and regulations.
  - We deal honestly with government in all matters.
11. Represent Caltech
  - We represent Caltech whether we are based on campus, at JPL, our observatories, or anywhere else in the world.
  - We are ambassadors and advocates, embodying the high standards that we set for ourselves and to which we are held by others.
  - We are committed to the Institute and its mission recognizing that our actions as individuals reflect on Caltech.

As members of the Caltech community, we embrace the letter and the spirit of these principles. Each member is personally responsible for incorporating these principles into their own actions and is encouraged to speak up if they, in good faith, believe the Institute or any individual is falling short of living up to them. We are proud of Caltech and to share the community's commitment to these values.

# INSTITUTE POLICIES

## Acceptable Use of Electronic Information Resources

Caltech provides electronic information resources (including, but not limited to, computers, computer accounts and services, networks, software, electronic mail services, electronic information sources, video and voice services, servers, web pages, cellular phones and related services) to assist members of the Caltech community in the pursuit of education and research. This policy, in conjunction with other applicable Caltech policies, sets forth the acceptable use of all electronic information resources owned or managed by Caltech, and describes the rights and responsibilities of Caltech and of faculty, staff, students, and other members of Caltech community with respect to the use of these resources.

Electronic information resources provided by Caltech are intended to be used to carry out the legitimate business of Caltech, although some incidental personal use is permitted. Faculty, staff, students, and other members of Caltech community (“users”) who use Caltech’s electronic information resources should be guided by the Caltech Code of Conduct. Passwords issued to users are for their use only and should not be shared with others. Users assume responsibility for the appropriate use of Caltech’s electronic information resources and agree to comply with all relevant Caltech policies and all applicable local, state, and federal laws. Examples of inappropriate or unauthorized use of Caltech’s electronic information resources include:

- sending a communication or using electronic information resources, including web pages, that illegally discriminate against, harass, defame, or threaten individuals or organizations;
- engaging in illegal conduct or conduct that violates Caltech policy;
- destruction of or damage to equipment, software, or data belonging to others;
- disruption or unauthorized monitoring of electronic communications;
- interference with use of Caltech systems;
- violations of computer security systems;
- unauthorized use of accounts, access codes, or identification numbers;
- use that intentionally impedes the legitimate computing activities of others;
- use for commercial purposes;
- use for political or lobbying activities that jeopardize Caltech’s tax exempt status and, therefore, violates Caltech policy;
- violation of copyrights, software license agreements, patent protections and authorizations, or protections on proprietary or confidential information;
- unauthorized use of Caltech’s trademarks;
- violating copyright laws by downloading and sharing files;

- violations of privacy;
- academic dishonesty;
- sending chain mail;
- spamming;
- downloading, viewing, and/or sharing of materials in violation of Caltech's policy regarding Unlawful Harassment, including Sexual Misconduct (<http://www.hr.caltech.edu/services/policies/>);
- intrusion into computer systems to alter or destroy data or computer programs (e.g., hacking or cracking); or
- sending communications that attempt to hide the identity of the sender or represent the sender as someone else.

Caltech will apply this policy consistent with applicable requirements under Federal and State law and its obligations under the European Union General Data Protection Regulation with respect to protection of personal data of individuals located in the European Union. This policy will not be construed or applied in a manner that improperly interferes with employees' rights under the National Labor Relations Act.

Caltech's electronic information resources are Caltech property and users should not have an expectation of privacy with respect to their use of these resources or any of the data, files, or other records generated by, stored or maintained on them. Password capabilities and other safeguards are provided to users in order to safeguard electronic messages, data, files, and other records (including computer files and records, electronic mail, and voice mail) from unauthorized use. These safeguards are not intended to provide confidentiality from Caltech with respect to personal messages or files stored on electronic information resources owned and managed by Caltech.

In order to protect the integrity of its electronic information resources, Caltech routinely monitors and examines network transmission patterns such as source/destination addresses/ports, flags, packet size, packet rate, and other indicators of traffic on its servers, which may at times include full packet capture. Caltech does not routinely capture or examine the content of electronic mail messages. Caltech will follow up on any system and/or account that appears to be compromised or is in the process of being compromised.

Caltech typically does not review the content of electronic messages or other data, files, or records generated, stored, or maintained on its electronic information resources; however, it retains the right to inspect, review, or retain the content of any such messages, data, files, and records at any time without prior notification. Any such action will be taken for reasons Caltech, within its discretion, deems to be legitimate. These legitimate reasons may include, but are not limited to, responding to lawful subpoenas or court orders; investigating misconduct (including research misconduct); determining compliance with Caltech policies and the law; and locating electronic messages, data, files, or other records related to these purposes. Users must therefore understand that any electronic messages, data, files, and

other records generated by, stored, or maintained on Caltech electronic information resources may be electronically accessed, reconstructed, or retrieved by Caltech even after they have been deleted.

Caltech access to the content of electronic mail, data, files, or other records generated, stored, or maintained by any user for reasons such as those described in the previous paragraph must be authorized as follows: (1) by the Provost for any situations that require access to electronic materials associated with faculty and other academic personnel; (2) by the vice president of administration and chief financial officer for staff and postdoctoral scholars at campus or the JPL director for human resources for employees and postdoctoral scholars at JPL; (3) by the vice president for student affairs for students; or (4) by the general counsel for the purposes of complying with legal process and requirements or to preserve user electronic information for possible subsequent access in accordance with this policy. In all cases, the Office of the General Counsel should be consulted prior to making a decision on whether to grant access. In the case of a time-critical matter, if the authorizing official is unavailable for a timely response, the general counsel may authorize access.

In conclusion, the use of Caltech electronic information resources is a privilege, not a right, and Caltech may revoke this privilege or decline to extend this privilege at any time. Inappropriate use of Caltech resources may result in administrative discipline up to and including separation from Caltech. Suspected illegal acts involving Caltech electronic information resources may be reported to state and/or federal authorities, and may result in prosecution by those authorities. Any questions concerning the appropriate use of any of Caltech's electronic information resources or relevant Caltech policies should be directed to the provost, the general counsel, the chief information officer, the associate vice president for human resources, the JPL director for human resources, the dean of undergraduate students, or the dean of graduate studies.

## **Compliance with Export Laws and Regulations**

*The mission of the California Institute of Technology is to expand human knowledge and benefit society through research integrated with education. We investigate the most challenging, fundamental problems in science and technology in a singularly collegial, interdisciplinary atmosphere, while educating outstanding students to become creative members of society.*

Export control laws and regulations as referred to in this Policy include a number of federal laws and regulations that impact an export or import transaction such as those of the Departments of State, Commerce, Treasury, Defense, Energy and U.S. Customs. These laws have existed for many years, however, the events of September 11, 2001 and subsequent events around the world have pushed national security concerns to the forefront. The U.S. government has responded to global security concerns by tightening the export control regulations that govern the transfer of U.S. strategic technology for national security and foreign policy reasons and in furtherance of economic

objectives.

The export control laws are intended to control the transfer of sensitive information or goods to individuals, entities or countries of concern and, under certain conditions, to foreign persons. The regulations contain a fundamental research exclusion and specific university exemptions that allow most of the research activities being performed at U.S. colleges and universities to be carried out without the need of export licenses or other restrictions, subject to certain conditions.

Caltech is an institution of higher learning conducting fundamental research in science and engineering. The fundamental research exclusion, however, does not fully relieve us of our responsibility to comply with the export control regulations.

The fundamental research exclusion, as defined in the U.S. export regulations, applies to basic and applied research in science and engineering performed by colleges and universities, so long as that research is carried out openly and without restrictions on publication or access to or dissemination of the research results.

The presidential National Security Decision Directive 189 (NSDD 189) recognizes the important contributions that U.S. universities make in science and engineering that allow our nation to remain innovative and competitive. NSDD 189 provides the framework for the fundamental research exclusion.

The fundamental research exclusion applies only to research conducted in the United States. This exclusion allows most of the activities conducted at Caltech to be performed without the need of an export license. However, there are certain activities and information that are not covered by the fundamental research exclusion and remain subject to the export control laws and regulations.

Examples of these are:

1. Receipt by Caltech of third-party export controlled information which requires that appropriate measures be taken to ensure that the information is properly safeguarded. Under certain conditions, the disclosure of specific information and the provision of specific types of services to foreign persons (non-U.S. citizens, non-legal permanent residents, or non-U.S. legal entities) inside the United States (“deemed exports”);
2. Travel abroad: Engaging in specific activities with persons and entities abroad, even if the information relied upon is publicly available;
3. The export of controlled items and information outside the United States including: controlled hardware, software and technology; and
4. Financial transactions or other dealings involving prohibited parties or sanctioned countries.

The export control laws and regulations may apply to research activities whether or not they are funded by grants or contracts.

Caltech takes its freedom to publish and its commitment to openness in research very seriously. Caltech’s policy, as set forth in the Faculty Handbook, does not allow acceptance of any government con-

tract or grant that requires classified research to be carried out on campus or which impinges upon Caltech's freedom to publish and otherwise disseminate the results of its research. For that reason, Caltech undergraduate students shall not be given certain export-controlled technology, i.e., ITAR-controlled technical data, software, and items, if such access would jeopardize their ability to publish.

The export control laws are administered by the U.S. Department of Commerce through its Export Administration Regulations (EAR – dual-use items), the U.S. Department of State through its International Traffic in Arms Regulations (ITAR – space and military items), and the U.S. Department of Treasury through its Office of Foreign Assets Control (OFAC – economic and trade sanctions). These laws control the conditions under which certain information, technologies, and commodities can be transmitted overseas to anyone, including U.S. citizens, or to a foreign person on U.S. soil. Caltech is committed to comply fully with these federal laws and regulations.

To that end, Caltech has established an Export Compliance Office and has appointed a Director for Export Compliance who also functions as Caltech's Empowered Official. The Empowered Official is the person who has legal authority to sign export control license applications and other requests for export approval on behalf of Caltech, and is the person responsible for developing and implementing export compliance programs, campus procedures, awareness programs for faculty and training programs for staff.

Caltech expects all faculty and staff to comply fully with all applicable export control laws and regulations. Noncompliance may result in violations that can subject both the individual and Caltech to civil sanctions and criminal penalties.

It is the responsibility of Caltech faculty and staff to ensure Caltech's compliance with this policy.

The following individuals have been designated as contacts regarding export control issues:

Adilia F. Koch, Director for Export Compliance, (626) 395-4469 or the Export Compliance Office staff at (626) 395-2641 or [export@caltech.edu](mailto:export@caltech.edu).

### **Conflicts of Interest Policy**

The mission of Caltech is to expand human knowledge and benefit society through research integrated with education. In pursuit of this mission, Caltech adheres to the Eleven Principles comprising its code of conduct and strives for the highest level of integrity and public confidence. Caltech's integrity rests on the personal integrity of each of us who is called upon to act on behalf of Caltech. Caltech is committed to ensuring that decisions made on its behalf reflect the highest ethical standards and that its research and instruction remain a rigorous and open inquiry, unencumbered by conflicts of interest, real or perceived, that might affect the sound judgment of its trustees, officers, senior management, faculty, students, postdoctoral scholars, and staff. Each of us, therefore, is responsible for identifying and resolving conflicts

between personal and institutional interests. We each must act in the best interests of Caltech and refrain from taking part in any transaction where we do not believe in good faith that we can act impartially.

Individual conflicts of interest may affect Caltech's trustees, officers, faculty, postdoctoral scholars, or staff. An individual conflict of interest is a situation that may compromise an individual's professional judgment in carrying out Institute business due to an external relationship that directly or indirectly affects the interest of the individual or an immediate family member. Each situation that presents a potential for conflict of interest must be fully disclosed to Caltech, and managed or eliminated before moving forward. Conflicts of interest also include conflicts of commitment which are situations in which external activities, either paid or unpaid, interfere with an employee's primary obligation and commitment to Caltech.

In academic research, the term conflict of interest refers especially to situations in which financial or other personal considerations may compromise, or may have the appearance of compromising, an investigator's professional judgment in conducting or reporting research. The bias can affect collection, analysis, and interpretation of data, hiring of staff, and procurement of materials, sharing of results, choice of protocol, and the use of statistical methods. Conflicts of interest can affect all scholarly fields.

Caltech has established these conflict of interest policies and procedures that apply to all Caltech employees, including faculty, to ensure compliance with Caltech's ethical standards as well as with the laws, rules, and regulations that govern Institute activities, while fostering and sustaining an environment of openness and integrity.

#### *Individual Conflicts of Interest*

The broad principles in this policy encompass a variety of situations, many of which do not fall into patterns for which specific guidelines may be established. Conflicts of interest inevitably arise from time to time in everyday business life; some may appear to be inconsequential or may even be advantageous to Caltech. It is important, however, that all employees make timely disclosure of any such conflict of interest. Each employee should apply his or her sense of integrity and common sense to disclose any circumstances that are, may become, or may give the appearance of a possible conflict of interest. Supplementing this broad policy statement are the following rules to be observed on specific matters:

1. Each employee has a duty to act in the best interest of Caltech and avoid actions that would call into question the integrity of the employee or Caltech.
2. An employee who has directly or through family or business connections, a material interest in suppliers of goods or services, or an interest in contractors or potential contractors with Caltech, should not act on behalf of Caltech in any transaction

involving that interest. No employee should participate in the selection, award, or administration of a contract with any party with whom he/she is negotiating regarding potential employment or any arrangement concerning potential employment.

3. An employee should avoid outside activity involving obligations which may conflict or appear to conflict with Institute interests, including its interest in the employee's full- or part-time services (i.e. a conflict of commitment). Outside employment, directorships, consulting or similar arrangements, must be disclosed to the Division Chair for faculty, the staff member's supervisor and the Associate Vice President for Human Resources for campus staff and the JPL Ethics office for JPL staff. Campus and JPL staff are required to obtain approval prior to engaging in outside activities. Campus and JPL staff must complete the Request for Outside Activity form as required in Personnel Memorandum PM 9-3.
4. To avoid the appearance of a conflict of interest, an employee should provide full disclosure of any business or financial enterprise or activity in which he/she is involved which might influence, or might appear to influence, his/her official decisions or actions on Institute matters.
5. An employee should refrain from personal activities that include, but are not limited to, the purchase or sale of securities, real property, or other goods or services in which he/she could use or might appear to have the opportunity to use, for personal gain, confidential information or special knowledge gained as a result of his/her relationship with Caltech.
6. An employee should refrain from unauthorized disclosure of non-public information concerning Caltech. Additionally, an employee should not use non-public information accessed through the performance of a government contract for personal gain.
7. No employee should make unauthorized use of Institute resources for his/her personal benefit or for the benefit of any other person. Incidental personal use of resources is authorized by Caltech. See Institute Policy on Acceptable Use of Electronic Information Resources and JPL Rules.
8. It is sound practice to discourage gifts and favors from people with whom Caltech has a business relationship. Personal gifts of more than nominal value should be tactfully declined or returned to avoid any appearance or suggestion of improper influence. Any employee involved in awarding or administering contracts using federal or other government funds should keep in mind that state and federal law contain prohibitions against



soliciting or accepting gratuities, favors or anything of monetary value from contractors or potential contractors.

9. Any employee doing business on behalf of Caltech with specific vendors should refrain from participating on leisure trips with representatives of those vendors. Such trips are not appropriate, even when a staff employee pays a fee to the vendor to participate in such trips.
  
10. No employee should act in any Institute matter involving a member of his/her immediate family including, but not limited to, matters affecting family members' employment or evaluation or advancement in Caltech, without first making full disclosure to the Division Chair for faculty, the staff member's supervisor and the Associate Vice President for Human Resources for campus staff and the JPL Ethics office and HR office for JPL staff. Such disclosure should include the nature of the familial relationship and the impact or potential impact of the employee's action on such family member. Immediate family includes spouse or domestic partner and children. The employment of relatives as that term is defined in Personnel Memorandum (PM 9), is subject to the conditions and restrictions described in PM 9, including the requirement to complete the Nepotism Evaluation process whenever a relative of an employee is considered for employment in the same organization as the employee.

Any employee who believes that his/her conduct or activities may or may appear to conflict with these guidelines or activities or otherwise create a conflict of interest, should make an appropriate disclosure. You may also report possible conflicts of interest by calling the Compliance Hotline at 626-395-8787 or submitting a compliance hotline form. JPL employees should consult Laboratory requirements, and seek guidance and/or report possible conflicts of interest by contacting the JPL Ethics Office.

#### *Additional Faculty Responsibilities*

It is acknowledged that, in their wider roles as academicians and professionals, the faculty may be subject to conflicts of interest that are not necessarily financial and that are not within the scope of a policy that is designed to address conflicts of interest in the employer-employee setting. For example, this policy is not designed to address conflicts that may be encountered in service to a professional society. Academic and professional activities not covered by this policy are best handled within the ethical guidelines established by the Faculty Handbook. Faculty members must be aware of potential conflicts to ensure an open and productive environment for research and teaching. Conflicts of interest may arise when faculty members have the opportunity to influence Caltech's business decisions or when outside relationships may or may appear to compromise the integrity of decisions made as teachers and researchers. A faculty member's general com-

mitment to Caltech requires that the member perform his/her responsibilities to Caltech and appropriately use his/her own judgment in deciding whether to engage in a variety of extramural activities, within the confines set forth in the Faculty Handbook. As a result, the

Institute relies on its faculty to be alert to the possible effect of outside activities on the integrity of his/her decisions and on his/her ability to fulfill his/her obligations to Caltech. Accordingly, in addition to the conflict rules set forth above, the following guidance is provided for faculty:

1. Some activities and interests are unlikely to lead to serious conflicts of interest and do not require disclosure. An example is a faculty member's entitlement to royalties or honoraria for published scholarly works and other writings or occasional lectures. Likewise, no serious conflicts arise when a faculty member serves as a consultant to a government agency, receives royalties under Institute royalty-sharing policies or owns equity in a business solely for the faculty member's consulting activities.
2. Disclosure to the Division Chair is mandatory if the faculty member directs students into a research area and, as a result, the faculty member intends to realize financial gain. An example is a research area within the ambit of a business in which the faculty member has a significant ownership interest or which employs the faculty member as a consultant. Any involvement of undergraduates, graduate students or postdoctoral scholars in the outside professional activities of the faculty member directing the student's research must be specifically approved in advance by the Division Chair. The student or postdoctoral scholar must also sign the written disclosure to signify understanding of the issues involved.
3. Disclosure to the Division Chair is mandatory if the faculty member has a significant interest in a business under circumstances that link the fortunes of the business to the faculty member's research.
4. Disclosure to the Division Chair is required if the faculty member is to receive sponsored support for research from a business for which the faculty member is a consultant, or in which the faculty member has a significant financial interest.

#### *Conflict of Interest Requirements Imposed by Federal Sponsors*

The National Science Foundation (NSF) and Public Health Service (PHS) have issued specific rules regarding the disclosure of significant financial interests and the management of financial conflicts of interest as a condition for submitting proposals and accepting awards of financial support from these agencies. Members of the Caltech Community proposing or working on any activity funded by NSF or PHS (includ-

ing the National Institutes of Health) are required to comply with Caltech's Policy and Procedures for Managing Conflict of Interest Requirements Imposed by Federal Sponsors.

#### *Institutional Conflicts of Interest Policy*

Institutional conflicts of interest differ from individual conflicts of interest. An institutional conflict of interest is a situation in which the research, teaching, outreach, or other activities of Caltech may be compromised because of an external financial or business relationship held by Caltech that may bring financial gain to Caltech.

#### *Institutional Conflicts of Interest*

Caltech has many legitimate interests that may at times conflict. Management of institutional conflicts of interest is by its very nature more complex than that of individual conflicts of interest. External relationships to sponsors and supporters of the institution, the local community's acceptance of economic development activities, the institution's obligations as a charitable organization receiving preferential tax treatment, and the institution's perception of its teaching, research, and academic missions all impact how potential conflicts of interest are managed. The examples and issues presented below do not necessarily constitute inappropriate conflicts of interest. Each situation must be judged on the facts and merits of the relationship with an eye to what reasonable individuals outside Caltech might consider to be appropriate. Any activity, financial and/or operational, that may bring into question Caltech's reputation, integrity, and objectivity should be considered for possible conflicts of interest. The following are examples of potential situations that may give rise to institutional conflicts of interest:

1. Significant gifts to Caltech from a commercial sponsor of research may raise questions about the influence of the company on Caltech's research programs and how they are managed. Similar concerns arise when individual companies sponsor research or provide significant consulting income to a significant number of faculty members within a single academic division. Gifts or promise of gifts, in exchange for favorable terms on a technology license or a first look at intellectual property may also pose a problem.
2. The acquisition of goods and services for Caltech represents a large portion of Caltech's expenditures. Purchasing goods and services from companies that sponsor research at Caltech, or who are licensees of Institute technology, may raise issues similar to those raised by large gifts from commercial sponsors.
3. A potential institutional conflict of interest exists simply by Caltech having a license agreement with, or an equity position in, a company sponsoring a faculty member's research. In these situations, there may be, or may appear to be, a bias to accept terms and conditions that would facilitate the company's success.

### *Reporting Institutional Conflicts of Interest*

If you identify a situation that appears to be an Institutional Conflict of Interest, you should report the situation to either the Vice President for Administration and CFO or to the Provost on campus or to the Associate Director for Business at JPL. You may also make a report by calling the campus Compliance Hotline at 626-395-8787 or the JPL Ethics Office at 818-354-6338 or submitting a compliance hotline form.

### **Disability and Reasonable Accommodation**

It is Caltech's policy to comply fully with the Americans with Disabilities Act, the Rehabilitation Act, and other applicable federal and state laws to ensure equal opportunity for qualified persons with disabilities, including disabled veterans. Caltech does not discriminate based on physical or mental disability, and is committed to ensuring that there is no unlawful discrimination in any of its academic or employment programs, services, activities, or in terms and conditions of employment.

As required by law, Caltech will make reasonable accommodations to qualified individuals with known disabilities including student employees, faculty, postdoctoral scholars, staff, and job applicants, so that they can perform the essential functions of the job, unless doing so creates an undue hardship for Caltech. Caltech also will provide reasonable accommodations to employees with pregnancy-related conditions consistent with federal and state law.

The following individuals have been designated as contacts for disability related issues, and as coordinators under the Rehabilitation Act. Individuals who wish to request an accommodation should contact the appropriate Caltech representative.

#### **Undergraduate and Graduate Students:**

Lesley Nye, 626-395-6351  
Associate Dean of Undergraduate Students

Katheryn G. (Kate) McAnulty, 626-395-6346  
Associate Dean for Graduate Studies

#### **Faculty:**

Stacey Scoville, 626-395-6320  
Administrator to the Provost

#### **Staff and Postdoctoral Scholars:**

Campus  
Marian Bower, 626-395-5740  
Disability and Leave Manager

JPL  
Arlene Cass, 818-354-9750  
Human Resources Consultant

As part of Caltech's commitment to make reasonable accommodations, Caltech will participate in a timely, good faith, interactive process with the individual and the appropriate Institute representative to determine effective reasonable accommodations, if any, that can be made in response to a request for accommodation. Caltech has the right to request documentation of the individual's disability. By working together in good faith, Caltech will attempt to implement reasonable accommodations that are appropriate and consistent with its legal requirements.

After engaging in the interactive process and after Caltech has determined if a reasonable accommodation is available, an individual with a disability who disagrees with the Caltech's determination may file an appeal. Appeal procedures may be obtained from the campus/JPL coordinators listed on the previous page.

Employees and applicants also may file a complaint with the U.S. Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, and the U.S. Department of Labor, Office of Federal Contract Compliance Programs, or the U.S. Department of Education, Office for Civil Rights. Students may file complaints with the U.S. Department of Education Office for Civil Rights at (415) 486-5555 (or [ocr.sanfrancisco@ed.gov](mailto:ocr.sanfrancisco@ed.gov)) or (800) 421-3481 (or [OCR@ed.gov](mailto:OCR@ed.gov)). Complaints may also be directed to the Bureau for Private Postsecondary Education at <http://bppe.ca.gov>.

*Related Policies and Procedures:*

- Nondiscrimination and Equal Employment Opportunity
- Unlawful Harassment
- Procedures Regarding Unlawful Harassment

**Environment, Health, and Safety**

Caltech including its division the Jet Propulsion Laboratory ("JPL"), is committed to conducting activities in a manner that promotes the safety and health of faculty, staff, postdoctoral scholars, students, and visitors, applies sound practices in environmental stewardship and minimizes risk to Caltech property. Activities at Caltech are to be conducted in accordance with the following guiding principles:

- The responsibility for implementing and maintaining a safe environment rests on all faculty, staff, postdoctoral scholars, students, and visitors at Caltech.
- Faculty, supervisors and managers are responsible for establishing good environmental, health and safety practices in their laboratories, classrooms and workplaces and for providing safe equipment and facilities for faculty, staff, postdoctoral scholars, students, and visitors.
- All faculty, staff, postdoctoral scholars, students and visitors are

expected to keep themselves informed of conditions affecting their health and safety, participate in safety training, follow proper environmental, health and safety policies and procedures, and report accidents and potentially unsafe or illegal conditions or practices promptly to their supervisor or manager or other appropriate office.

- Caltech activities must comply with all applicable federal, state, and local environmental, health and safety laws and regulations.

### *Roles and Responsibilities*

Caltech has the responsibility to establish environmental, health and safety policies and procedures and provide resources to ensure compliance with environmental and safety laws. Caltech performs these functions through the following committees and administrative and management structure:

#### *Institute Environment, Health and Safety Committee*

Caltech's Environment, Health and Safety Committee ("IEHSC") is responsible for recommending campus-wide environmental, health and safety policies to the President.

The IEHSC is responsible for making recommendations regarding the allocation of Institute resources so as to maintain environmental (e.g., air emissions, soil contamination, water discharges, hazardous waste management) and workplace health and safety compliance. In addition, the committee monitors developments through the campus Environment, Health, and Safety Office to ensure that Institute policies are observed, remain current, and are consistent with the anticipated changes in regulatory requirements.

#### *Campus Environment, Health, and Safety Office*

The Environment, Health, and Safety Office ("EHS"), which reports to the Associate Vice President for Facilities, is responsible for providing technical, regulatory, and related-advisory services to the campus community. EHS works in partnership with the academic divisions and administrative departments to develop and implement safety programs that provide technical guidance and training support relevant to the operations of the laboratories and workplace, are practical to carry out, and comply with the law. This includes general orientation in prudent laboratory practices, emergency response procedures, occupational safety, and familiarity with Institute environmental, health and safety policies and procedures. EHS also initiates site reviews to assess potential hazards and determine effective controls, and coordinates hazardous waste training and hazardous waste disposal. EHS, working closely with the Office of the General Counsel, reviews legislation, recommends policies, provides regulatory agencies with required data and reports, and investigates and reports environmental, health and safety incidents.

### *Campus Division Chairs and Department Heads*

The Caltech campus consists of divisions conducting research and educational activities, and administrative departments supporting the operations of Caltech. It is the responsibility of each division chair and department head to ensure that their units conduct operations in accordance with applicable laws and regulations and implement Caltech's environmental, health and safety policies and procedures. Division chairs and department heads maintain responsibility for day-to-day management and implementation of their environmental, health and safety programs.

Division chairs and department heads may designate an individual with the authority to implement, manage, and enforce environmental, health and safety compliance programs within the division or administrative office. With guidance and assistance from EHS, the responsible individual (i.e. the division chair, department head or their designee) shall manage the environmental, health and safety activities in the division or department.

### *JPL Office of Safety and Mission Success*

The Office of Safety and Mission Success at JPL ("JPL OSMS") establishes and leads the Environmental, Health and Safety and Mission Assurance Programs for projects, programs and major tasks. JPL OSMS appropriately manages risks and enhances the probability of mission safety and success. In this capacity, JPL OSMS is an independent organization, reporting directly to the JPL Director. JPL OSMS continually assesses risk and provides infrastructure to ensure that JPL maintains compliance with the JPL Prime Contract and applicable federal, state and local environmental, health and safety requirements. JPL OSMS applies knowledge, innovation and independence to achieve successful missions that inspire the world while safeguarding JPL's people, assets and reputation.

### *JPL Environmental, Health and Safety Program Management*

The JPL Occupational Safety Program Office, the JPL Systems Safety Program Office and the JPL Environmental Affairs Program Office are chartered with establishing and leading programs related to occupational safety, systems safety and environmental compliance, respectively, and are tasked with appropriately managing risks and enhancing the probability of mission safety and success. These JPL program offices, working closely with the Office of the General Counsel, review legislation, recommend policies, provide regulatory agencies with required data and reports, and investigate and report environmental, health and safety incidents. Each of the environmental, health and safety program management offices has office-specific policies that are detailed in JPL Rules!

### *Campus and JPL Manager and Supervisor Responsibilities*

All managers and supervisors, both academic and administrative, at campus and JPL, are responsible for conducting operations in accordance with all applicable laws and regulations and Caltech policies, practices and programs.

Managers are responsible for ensuring that areas under their management have adequate resources for environmental, health and safety programs, practices and equipment. Managers are also responsible to ensure that those areas under their management are in compliance with Caltech's environmental, health and safety policies, practices and programs.

Supervisors, including Principal Investigators ("PIs"), with guidance and assistance from the environmental, health and safety offices listed above, are responsible for implementing environmental, health and safety policies, practices and programs, ensuring that workplaces, including laboratories and equipment, are safe and well-maintained, training and informing employees, students, and visitors about workplace-specific hazards and safety procedures, providing personal protective equipment, correcting violations, investigating incidents and complaints, overseeing proper storage and disposal of hazardous materials, enforcing policies (including appropriately disciplining employees and students who violate environmental and safety requirements), and appropriately documenting activities and processes.

Faculty bear full responsibility for the safety of work undertaken in their laboratories but can designate an individual to implement and manage the day-to-day activities related to environmental and safety practices within their research group.

#### *All faculty, staff and students*

All faculty, staff, postdoctoral scholars and students at campus and JPL are responsible for:

- Keeping themselves informed of conditions affecting their health and safety,
- Participating in safety training programs as required by the governing organization's policy and their supervisors,
- Performing work in a safe and prudent manner,
- Adhering to health and safety practices in their workplaces, classrooms, and laboratories, and
- Advising of or reporting potentially unsafe practices, illegal activities or serious hazards in the workplace, classroom or laboratory, and cooperatively participating in the investigation and/or remediation of any incidents.

The success of Caltech's environmental, health and safety management activities requires the active involvement of individuals through participation in training, compliance with established environmental, health and safety procedures, and reporting hazards and potential violations.

It is the responsibility of all faculty, staff, postdoctoral scholars and students at Caltech to disclose fully any activity that may result in a violation of environmental, health or safety laws or regulations, and to cooperatively participate in the investigation and remediation of any incidents.



### *Visitors and Contractors*

Visitors and those who do business with Caltech either at Campus or JPL, such as contractors, consultants and vendors, are responsible for performing their work in a manner that protects Caltech from environmental, health and safety risks and complies with all applicable federal, state and local laws and regulations and all applicable environmental, health and safety policies, practices and programs.

### *Reporting*

In matters of actual or potential regulatory enforcement action, investigations, or employee complaints, the appropriate environmental, health and safety office will work closely with the Office of the General Counsel to coordinate Caltech's response to external regulatory agencies concerned with workplace health, safety, and environmental compliance.

Any questions or concerns regarding compliance should be brought to the attention of the appropriate manager or supervisor or to the appropriate environmental, health and safety office. Alternatively, concerns can be raised with the appropriate division chair or vice president at campus, or the OSMS Director at JPL. In addition, concerns can be raised anonymously for campus through the anonymous hotline (626) 395-8787 or (888) 395-8787 or online at Caltech Hotline or, for JPL, through the anonymous hotline (818) 393-6483, or the NASA Safety Reporting System.

### *Sanctions*

Caltech expects all faculty, staff, postdoctoral scholars and students to be vigilant in complying with all environmental, health and safety requirements and to properly conduct their activities at Caltech.

Local, state and federal laws and regulations establish civil and criminal penalties for violations of environmental, health and safety laws and regulations, including substantial fines and possible imprisonment.

Caltech views compliance with all laws, regulations, and Institute guidelines as conditions of employment, and violation of such requirements shall be considered grounds for disciplinary action up to and including termination of employment or involuntary leave/expulsion from Caltech.

## **Nondiscrimination and Equal Employment Opportunity**

Caltech is committed to equal opportunity for all persons regardless of sex, race, color, religion, national origin, citizenship, ancestry, age, marital status, physical or mental disability, medical condition, genetic information, pregnancy or perceived pregnancy, gender, gender identity, gender expression, sexual orientation, protected military or veteran status or any other characteristic or condition protected by the state and federal law. It is the policy of Caltech to provide a work and academic environment free of discrimination as required by federal and state law. Discrimination is an act or communication that inter-

feres with an individual's or a group's ability to participate fully in the Caltech community on the basis of any protected condition or characteristic. Harassment on the basis of any legally protected characteristic is a form of discrimination and is likewise prohibited by this policy. The law prohibits discrimination by co-workers and third parties as well as supervisors and managers. Interns, volunteers and persons performing services under a contract with Caltech are also covered by this policy. Caltech will take all reasonable steps to eliminate discrimination, and harassment in its work and academic environment.

Caltech is an equal employment opportunity and affirmative action employer and will, whenever possible, actively recruit and include for employment members of underrepresented minority groups, females, protected veterans or individuals with disabled veteran status, and otherwise qualified persons with disabilities. Caltech will hire, transfer, recruit, train and promote based on the qualifications of the individual to ensure equal consideration and fair treatment of all. All other employment actions, such as work assignments, appointments, compensation, evaluations, training, benefits, layoffs, and terminations are governed by this policy. Personnel actions will be reviewed to ensure adherence to this policy.

Caltech's Associate Vice President for Human Resources and JPL's Director for Human Resources have been assigned to direct the establishment of and to monitor the implementation of personnel procedures to guide our Affirmative Action programs. They will have responsibility to review and update the Affirmative Action plans annually, including responsibility for the audit and reporting system. A notice explaining Caltech's policies will remain posted.

The following individuals have been designated as Equal Employment Opportunity Coordinators: the Provost is the coordinator for faculty, the Assistant Vice President for Equity and Equity Investigations is the coordinator for campus staff and volunteers, the Associate Deans of Students are the coordinators for undergraduate students and interns, the Dean of Graduate Studies is the coordinator for graduate students and interns, and the Director for Human Resources at the Jet Propulsion Laboratory is the coordinator for employees, interns and volunteers assigned there. The Assistant Vice President for Equity and Equity Investigations has been designated as Caltech's Title IX Coordinator. The contact number is (626) 395-3132, email: [TitleIXCoordinator@caltech.edu](mailto:TitleIXCoordinator@caltech.edu), or the office in Room 205, Center for Student Services. The Title IX Coordinator is supported by three deputy coordinators. <https://titleix.caltech.edu/>

Inquiries concerning the interpretation and application of this policy should be referred to the appropriate designated individual. Management is responsible for monitoring decisions regarding personnel actions to ensure that these decisions are based solely on the individual's merit, and on legitimate, nondiscriminatory job requirements for the position in question and the reasonableness of any necessary accommodations for persons with a disability.

Individuals who witness or experience conduct they believe to be in violation of this policy are urged to contact any of the above men-

tioned coordinators, the individuals identified in Caltech's harassment policy, the Caltech Office of Equity and Title IX or JPL Employee Relations Group immediately. In addition they may utilize Caltech's anonymous hotline at 626-395-8787. Complaints will be investigated promptly. Confidentiality will be maintained to the extent possible. Supervisors and managers are required to report any complaints of discriminatory conduct to one of the above-designated coordinators so that Caltech can try to resolve the complaint internally. Individuals who violate this policy may be subject to disciplinary action up to and including termination of employment or permanent separation from Caltech.

In addition, employees who believe they have been subject to harassment or discrimination have the right to file a complaint with the Federal Equal Employment Opportunity Commission or the California Department of Fair Employment and Housing, which have the authority to remedy violations. Employees, students and others participating in Caltech's educational programs and activities may file complaints with the U.S. Department of Education Office for Civil Rights at (415) 486-5555 (or [ocr.sanfrancisco@ed.gov](mailto:ocr.sanfrancisco@ed.gov)) or (800) 421-3481 (or [OCR@ed.gov](mailto:OCR@ed.gov)). Complaints may also be directed to the Bureau for Private Postsecondary Education at <http://bppe.ca.gov>.

Caltech will conduct a fair, timely, and thorough investigation into complaints within the scope of this Policy to determine what occurred and take reasonable steps to remedy the effects of any discrimination and prevent recurrence of the behavior. Caltech provides all parties with appropriate due process and reaches reasonable conclusions based on the evidence collected. Caltech takes appropriate action, including disciplinary measures, when warranted.

Employees and applicants shall not be subjected to harassment, intimidation, threats, coercion, discrimination, or retaliation because they have engaged in or may engage in any of the following activities: filing a complaint; assisting or participating in an investigation, compliance review, hearing or any other activity related to the administration of any federal, state, or local law requiring equal opportunity; opposing any act or practice made unlawful by any federal, state or local laws requiring equal opportunity; exercising any state legal right protected by federal, state or local law requiring equal opportunity.

To ensure equal employment opportunity and nondiscrimination, each member of the Caltech community must understand the importance of this policy and his/her responsibilities to contribute to its success. The President of Caltech fully supports Caltech's equal opportunity and affirmative action policies.

*Related Policies and Procedures:*

- Unlawful Harassment
- Procedures Regarding Unlawful Harassment
- Sexual and Gender-based Discrimination and Harassment and Sexual Misconduct
- Disability and Reasonable Accommodation

## Sexual Misconduct

### Sexual Misconduct Resources 24/7

Your safety is important. If you have an immediate safety, medical or mental health concern, please contact the following resources.

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### Safety Resources

Campus Security (626) 395-5000

- Safety situations, contact mental health and/or law enforcement resources and provide transportation vouchers to off-campus resources. Security can contact the caller's choice of a confidential or other resource. Not a confidential resource. JPL Protective Services Division (818) 393-3333, (818) 354-3333
- Safety situations, contact mental health and/or law enforcement resources and arrange for transportation to off-campus resources. Security can contact the caller's choice of a confidential or other resource. Not a confidential resource.

### Medical Resources

Note that Medical Providers (but not psychological counselors) must notify the police regarding assaultive or abuse conduct, including sexual assault.

Huntington Memorial Hospital (626) 421-7733, 100 W. California Blvd., Pasadena, CA, 91105

- Emergency and trauma services. Social workers available to provide counseling as needed. Confidential resource.

The Rape Treatment Center at Santa Monica-UCLA Medical Center (310) 319-4000, [www.911rape.org](http://www.911rape.org)

- 24-hour emergency medical treatment for victims of sexual assault including forensic services (the "rape kit"). Confidential resource.

San Gabriel Valley Medical Center Sexual Assault Response Team (SART) (626) 289-5454, (SART) Hotline: (877) 209-3049, 438 West Las Tunas, San Gabriel, CA, 91776

- 24-hour medical care, emotional support and comprehensive exams including forensic evidence collection (the "rape kit"). SART is the immediate connection to an on-call nurse for sexual assault services. Confidential resource.

Caltech Student Health Services 626-395-6393

- Medical consultation, lab and radiology services, pharmacy, allergy clinic, women's health and sexual health services. Health practitioners will not report sexual assault information to the Institute, but California law requires health practitioners to report details of injuries resulting

from domestic violence, sexual assault, and other crimes involving patients they treat to a local law enforcement agency.

### Off-Campus Mental Health Resource

Peace Over Violence (626) 584-6191, (626) 793-3385, (24 hours)  
892 N. Fair Oaks Avenue, Suite D, Pasadena, CA, 91103

- 24-hour emergency services offer victims of sexual assault, domestic violence and stalking emotional support, information, compassion, accompaniment, referral and advocacy services. Confidential resource.

### On-Campus Mental Health Resource

Student Counseling Services (626) 395-8331, (after hours and weekends, press “2” to be connected to a clinician)

- Individual psychotherapy and counseling, consultation, referrals, psychiatric evaluation and medication, and crisis intervention for students. Confidential resource.

Staff and Faculty Consultation Center 626-395-8360

- Professional counseling services for staff, faculty and postdocs. Confidential resource.

Caltech Center for Diversity Taso Dimitriadis 626-395-8108, Erin-Kate Escobar 626-395-3221

- Confidential resource and support for students.

#### *I. Policy*

All members of the Caltech community have the right to be treated, and the responsibility to treat others, with dignity and respect. These principles are fundamental to the educational and intellectual mission of Caltech. It is the policy of Caltech to provide a work and academic environment free of unlawful discrimination, harassment and sexual misconduct. Caltech will not tolerate such conduct and is committed to educating the community in ways to prevent its occurrence.

This policy prohibits all forms of sexual or gender-based discrimination, harassment and sexual misconduct, including sexual assault, non-consensual sexual contact, dating violence, domestic violence, sexual exploitation, and stalking (Prohibited Conduct). Caltech also prohibits retaliation against an individual who reports, submits a complaint, or who otherwise participates in good faith in any matter related to this policy.

Caltech will take prompt and equitable action upon receiving a report of Prohibited Conduct to determine what occurred and will take reasonable steps to stop and remedy the effects of any such conduct and prevent its recurrence. Caltech provides all parties with

appropriate due process and will reach reasonable conclusions based on the evidence collected. Caltech will take appropriate action, including disciplinary measures, when warranted, up to and including termination of employment or changes to student enrollment status, including permanent separation from the Institute.

## *II. Scope*

This policy applies to all current students, faculty, supervisory and nonsupervisory staff, postdoctoral scholars, volunteers, interns, vendors, independent contractors, persons performing services under contract with the Institute, visitors, and any other individuals regularly or temporarily employed, studying, living, visiting, or otherwise participating in Caltech's educational programs or activities.

This policy applies to Prohibited Conduct occurring on Institute-controlled property, at Institute-sponsored events, in Institute programs or activities, by Institute affiliated organizations and off-campus where the conduct has continuing adverse effects on any member of the Caltech community in any Caltech program or activity.

Members of the Caltech community are encouraged to promptly report Prohibited Conduct to Caltech or consult with a confidential resource, regardless of where the incident occurred, or who committed it. An individual who has experienced sexual misconduct is encouraged to immediately seek assistance from a medical provider and report the incident to local law enforcement. Reports to Caltech and law enforcement may be pursued simultaneously.

Even if Caltech does not have jurisdiction over the person accused of Prohibited Conduct, Caltech will still take prompt action to provide for the safety and well-being of the individual reporting and the campus community, including taking reasonable steps to stop and remedy the effects of the Prohibited Conduct and to prevent recurrence of the behavior.

When used in this policy and accompanying procedures, complainant refers to the individual who reportedly is the subject of the Prohibited Conduct and respondent refers to the individual who is reported to have engaged in the Prohibited Conduct.

In the event an act of discrimination is not simply about an individual, but has broader implications, including affiliation with a student organization, this policy will also apply. No student organization or residential facility may discriminate against anyone in the Caltech community based on a protected characteristic.

## *III. Prohibited Conduct*

Sexual and gender-based discrimination, harassment and sexual misconduct violate Title VII of the Civil Rights Act of 1964, as amended, Title IX of the Education Code, and California law. All forms of such conduct are prohibited under this policy, including sexual or gender-based discrimination, sexual or gender-based harassment, and

sexual misconduct, including sexual assault, non-consensual sexual contact, dating violence, domestic violence, sexual exploitation and stalking (Prohibited Conduct). All individuals are protected against Prohibited Conduct regardless of gender, sexual orientation, gender identity or gender expression. Prohibited Conduct can be committed by individuals of any gender, regardless of an individual's gender identity, gender expression, or sexual orientation, and can occur between individuals of the same gender or different genders, strangers or acquaintances, as well as people involved in intimate or sexual relationships. Organizations affiliated with the Institute or that use Caltech property or resources in connection with their activities also are prohibited from engaging in Prohibited Conduct.

Attempts or threats to commit Prohibited Conduct are equally covered by this policy.

A. Sex or Gender-Based Discrimination refers to disparate treatment based on sex, sexual orientation, gender identity, or gender expression.

The following are examples of conduct that may constitute sexual or gender-based discrimination:

- Denying an employee a promotion because they are gay or straight.
- Rejecting a student from house membership because they are transgender.
- Limiting membership in a student club or activity to members of one sex.

B. Sexual or Gender-Based Harassment

Sexual Harassment is pervasive and/or severe unwelcome sexual advances, requests for sexual favors, and other conduct of a sexual nature when:

- Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education; or
- Submission to or rejection of such conduct by an individual is used as the basis for decisions affecting that individual's employment or academic terms or status; or
- Such conduct has the purpose or effect of unreasonably interfering with an individual's performance or creating an intimidating, hostile, or offensive environment.

Gender-Based Harassment is harassment based on an individual's actual or perceived sex, gender, gender identity or gender expression including harassing or bullying conduct based on the individual's gender expression, gender identity, transgender status, gender transition, or nonconformity with sex stereotypes.

Sexual or gender-based harassment by peers, coworkers, managers or third parties such as visitors, vendors, or contractors is a form of prohibited sex discrimination where the objectionable conduct creates a hostile educational or work environment. The determination of whether an environment is hostile is based on the totality of the circumstances, including but not limited to: (1) the frequency of the conduct; (2) the nature and severity of the conduct; (3) whether the conduct was physically threatening; (4) the effect of the conduct on the complainant's mental or emotional state, with consideration of whether the conduct unreasonably interfered with the complainant's educational or work performance or educational programs or activities; (5) whether the conduct was directed at more than one person; (6) whether the conduct arose in the context of other discriminatory conduct; and (7) whether the conduct implicates concerns related to academic freedom or protected speech.

A single isolated incident may create a hostile environment if the incident is sufficiently severe, particularly if the conduct is physical. For example, a single incident of unwanted physical conduct of a sexual nature, like grabbing an intimate body part, may be sufficiently severe to constitute a hostile environment. In contrast, isolated or sporadic comments of a sexual nature typically will not be sufficient to constitute a hostile environment. Behavior of a harassing nature that does not rise to the level of unlawful harassment but is nevertheless determined to be inappropriate may subject the offender to disciplinary action.

The following are examples of conduct that, depending on the nature, frequency and severity, may constitute sexual or gender-based harassment:

- Sending unwanted sexually-oriented jokes to a student or work group email list.
- Displaying explicit sexual pictures in common areas of Institute housing or on a work computer station where others can view it.
- Unauthorized sharing or posting sexually explicit photos of another, including a current or former partner.
- Making or using derogatory comments, epithets, slurs, or jokes of a gender-based or sexual nature.
- Surreptitiously taking pictures or videos of individuals, especially of private or intimate areas of their body.
- Observing, recording, viewing, distributing or allowing another to observe, record, view or distribute, intimate or sexual images of another individual without that individual's consent.
- Ostracizing individuals from group activities because of their sex, gender or gender identity, gender expression, sexual orientation or because they objected to harassing behavior.
- Pursuing, following or showing up uninvited at or near places like classrooms, residence, workplace or other places frequented by an individual.
- Making unwelcome graphic comments about an individual's



- body, using sexually degrading words to describe an individual.
- Engaging in unwanted suggestive or obscene communications.
  - Engaging in unwelcome touching, fondling or groping of a sexual nature.
  - Making unwanted sexual advances.
  - Promising a benefit to someone in exchange for engaging in sexual activity.
  - Exposing one's genitals to another without consent.
  - Surveillance and other types of observations, whether by physical proximity or electronic means.

Even when relationships are consensual, care must be taken to eliminate the potential for harassment or other conflicts. It is not acceptable to treat other similarly-situated individuals, who are not in the consensual relationship, less favorably. Caltech practice, as well as more general ethical principles, prohibits individuals from participating in evaluating the work or academic performance of those with whom they have amorous and/or sexual relationships, or from making hiring, salary, or similar decisions regarding those individuals. Sexual or romantic relationships between an undergraduate student and a faculty, postdoctoral scholar or staff member are not permitted.

Upon learning about a relationship that violates this policy, the supervisor, dean, or division chair has the authority and responsibility to review and remedy any direct administrative or academic relationship between the involved individuals.

When a consensual personal relationship arises and a power differential exists, consent may not be considered a defense to a claim of sexual harassment. The individual in the relationship with greater power will be held responsible.

### C. Sexual Misconduct

Prohibited sexual misconduct includes any sexual conduct that occurs by force or threat of force or without consent, including where the person is incapacitated. Prohibited sexual conduct includes, but is not limited to:

Sexual assault is defined as having or attempting to have sexual intercourse with another individual by force or threat of force, without consent, including where the person is incapacitated. Sexual intercourse includes the penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person.

Non-consensual sexual contact is defined as having sexual contact with another individual by force or threat of force, or without consent, including where the person is incapacitated. Sexual contact includes intentional contact with the intimate body parts of another (whether directly or through clothing), touching any part of the body of another in a sexual manner, or disrobing or exposure of another. Intimate body parts includes breast, genitals, groin, anus, or buttocks.

Sexual exploitation occurs when an individual takes non-consensual or abusive sexual advantage of another for their own or another's benefit or advantage.

### *Affirmative Consent*

Affirmative consent is a crucial component of the Caltech policy. Affirmative consent is the affirmative, conscious, and voluntary agreement to engage in sexual activity.

- It is the responsibility of each person involved in the sexual activity to ensure that they have the affirmative consent of the other or others to engage in the sexual activity.
- Lack of protest or resistance does not mean consent, nor does silence mean consent.
- Affirmative consent must be ongoing through a sexual activity and can be revoked at any time.
- The existence of a dating relationship between the persons involved, or the fact of past sexual relationship between them, should never by itself be assumed to be an indicator of consent.

It is not a valid excuse that the respondent believed that the complainant affirmatively consented to the sexual activity if the respondent knew or reasonably should have known that the complainant was unable to consent to the sexual activity under any of the following circumstances:

- The complainant was asleep or unconscious
- The complainant was incapacitated due to the influence of drugs, alcohol, or medication, so that the complainant could not understand the fact, nature or extent of the sexual activity
- The complainant was unable to communicate due to a mental or physical condition.

It is not a valid excuse to alleged lack of affirmative consent that the respondent believed that the complainant consented to the sexual activity under either of the following circumstances:

- The respondent's belief arose from the intoxication or recklessness of the respondent.
- The respondent did not take reasonable steps, in the circumstances known to the respondent at the time, to ascertain whether the complainant affirmatively consented.

### *Incapacitation*

A person who is incapacitated is not capable of giving effective consent to sexual activity. An incapacitated person lacks the physical and mental capacity to make informed, reasonable judgments about whether or not to engage in sexual activity. A person who is incapacitated may not be able to understand where they are, whom they are with, how they got there, or what is happening.

A person may be incapacitated by a temporary or permanent mental or physical condition, sleep, unconsciousness, or be incapacitated as a result of consumption of alcohol or drugs. Incapacitation is a state beyond mere intoxication or “drunkenness.” Just because someone is under the influence of alcohol or drugs does not necessarily mean that a person is incapacitated. Impairment must be significant enough to render a person unable to understand the fact, nature, or extent of the sexual activity. In evaluating affirmative consent in cases involving incapacitation, Caltech considers the state of incapacitation of the reporting party and the knowledge of the respondent.

Intoxication, even to the point of incapacitation, does not relieve an individual from responsibility for a policy violation when they engage in sexual conduct without the affirmative consent of the other party or parties.

**Intimate Partner Violence**, also referred to as domestic violence or dating violence, means violence committed against a person who is a spouse or former spouse, a cohabitant or former cohabitant, a person with whom they have a child, or with whom they have a previous or current dating, romantic, intimate, sexual relationship or has cohabitated with the victim, as a spouse or intimate partner, by person similarly situated to a spouse under the law of the state where the violence occurred, and by any other person against an adult or youth victim who is protected from that person’s acts under the laws of the state where the violence occurred.

**Stalking** is a course of conduct directed at an individual that would cause a reasonable person to fear for his safety or the safety of others, or suffer substantial emotional distress. Course of conduct means two or more acts, including, but not limited to, acts in which the stalker directly, indirectly, or through third parties, by any action, method, device or means, follows, monitors, observes, surveils, threatens, or communicates to or about a person or interferes with the person’s property. Reasonable person means a reasonable person under similar circumstances and with similar identities to the victim. Stalking that is sex or gender-based should be reported and will be handled pursuant to this policy and applicable procedures. Stalking that is not sex or gender-based is covered by the Violence Prevention policy and should be reported to Security at campus or the Protective Services Division at JPL and will be handled pursuant to that policy. The following are examples of conduct that depending on the frequency and severity may constitute stalking:

- Unwanted communication, including face-to-face contact, telephone calls, voice messages, emails, text messages, postings on social networking sites, written letters, or gifts;
- Posting picture(s) or information of a sexual nature on social networking sites or other websites;
- Sending repeated unwanted or unsolicited email or chat requests;
- Posting private pictures or videos on school bulletin boards or internet sites;

- Installing spyware on another person's computer;
- Surveillance or other types of observation, including staring or peeping.

#### *IV. Retaliation*

Retaliation against any member of the Caltech community for making a good-faith report of sexual violence, or for participating in an investigation, proceeding, or hearing conducted by Caltech or a state or federal agency, is strictly prohibited. Overt or covert acts of retaliation, reprisal, interference, discrimination, intimidation, or harassment against an individual or group for exercising their rights under Title IX or other federal and state laws violates this policy and is unlawful. Caltech will take steps to prevent retaliation and will take prompt and appropriate corrective action to stop, and remedy its effects, if retaliation occurs. Individuals who violate this policy may be subject to disciplinary action up to and including termination of employment or permanent separation from Caltech.

#### *V. Privacy*

Caltech will maintain the privacy of all individuals involved in a report of Prohibited Conduct to the extent possible. All Caltech employees who are involved in the Institute's response, including the Title IX Coordinator, Deputy Coordinators, and investigators, receive specific instruction about respecting and safeguarding private information. Throughout the process, every effort is made to protect the privacy interests of all individuals involved, in a manner consistent with the need for a thorough review of the matter.

Privacy generally means that information related to a report of Prohibited Conduct will only be shared with those individuals who have a "need to know." These individuals will be discreet and will respect the privacy of all individuals involved.

#### *VI. Preservation of Evidence*

Because sexual violence may involve physical trauma and is a crime, individuals who have experienced sexual violence are urged to seek medical treatment as soon as possible. They are strongly encouraged to preserve all physical and digital evidence of the violence. This may be needed to prove criminal sexual violence, or for obtaining a protective order. Individuals who have experienced sexual violence should not shower, bathe, douche, eat, drink, wash their hands, or brush their teeth until after they have had a medical examination. They should save all the clothing

they were wearing at the time of the violence. Each item of clothing should be placed in a separate paper bag, not a plastic bag. They should not clean or disturb anything in the area where the sexual violence occurred. Digital evidence relating to the incident, such as texts, emails, and social media posts, should be also be preserved.

Caltech also encourages individuals who have experienced sexual misconduct to seek immediate psychological support and advocacy services provided by Caltech or community services. Campus Security and the Protective Services Division at JPL will contact on-campus and on-lab resources, provide information regarding off-campus resources for support and advocacy, medical treatment, and forensic evidence collection, and will arrange for transportation to access off-campus resources.

24-Hour a Day/7 Days a Week

Campus Security (reporting and/or to reach confidential or other resources)

(626) 395-5000

Security can assist with safety situations, contact law enforcement, provide transportation vouchers to off-campus resources and contact mental health resources. The caller must simply provide a phone number where the confidential or other resource can reach the caller. Names and other information regarding the incident need not be provided to Campus Security.

JPL Protective Services Division (reporting and/or to reach confidential or other resources)

(818) 393-3333

(818) 354-3333

The JPL Protective Services Division can assist with safety situations, contact law enforcement, arrange for transportation to access off-campus resources, and contact the caller's choice of a confidential or other resource. The caller must simply provide a phone number where the confidential or other resource can reach the caller. Names and other information regarding the incident need not be provided to the Protective Services Division.

A. On-Campus Confidential Resources

Caltech offers members of the Caltech community the choice of seeking confidential counseling. These confidential counseling services are intended for the personal benefit of the individual and offer a setting where various courses of action can be explored. Except as otherwise provided below, confidential resources will not share information without the express permission of the individual. Speaking to a confidential resource is not a report to Caltech, and no investigation will be triggered.

1. Caltech Mental-Health Professionals

Caltech's mental-health professionals in Student Counseling Services and the Staff and Faculty Consultation Center will not report any information about an incident to Caltech, including to the Title

IX Coordinator unless requested by their client. These professionals are prohibited from breaking confidentiality unless there is an imminent threat of harm to self or others or as otherwise permitted by law. When a report involves suspected abuse of a child under the age of 18, these confidential resources are required by state law to notify child protective services and/or local law enforcement. They can be contacted 24 hours a day/7 days a week.

- For Students:  
 (626) 395-8331 Student Counseling Services  
 (626) 395-8331 after hours, press #2 to be connected to on-call service
- For faculty, campus staff, and postdoctoral scholars:  
 (626) 395-8360 Staff and Faculty Consultation Center  
 (626) 395-5000 after hours via Security
- For JPL employees:  
 (800) 367-7474 Empathia/Life Matters  
 identify yourself as a JPL employee  
 or visit [mylifematters.com](http://mylifematters.com) (Password: JPL)

## 2. Caltech Center for Diversity

Designated confidential resources (identified below) in the Caltech Center for Diversity can generally talk to a complainant or respondent without revealing any personally-identifying information about an incident to Caltech. While maintaining an individual's confidentiality, the Caltech Center for Diversity will report the nature, date, time and general location of an incident to Security for purposes Clery reporting. This information will be included in aggregate statistics (with no identifying information) for inclusion in Caltech's Annual Security Report, if required.

- Taso Dimitriadis (626) 395-8108
- Erin-Kate Escobar (626) 395-3221

## 3. On-Campus Medical Resources

Caltech's Student Health Center is committed to providing compassionate and quality medical help to a student who has experienced sexual violence. Caltech's medical professionals in the Student Health Center will not report any information about an incident to Caltech, including the Title IX Coordinator, unless requested by their client. Note that medical providers (but not psychological counselors) are required to notify law enforcement when they receive a report of assaultive or abusive conduct, including sexual assault.

Student Health Services  
(626) 395-6393  
1239 Arden Rd  
Pasadena, CA 91106

## B. Off-Campus Resources

Peace Over Violence (24-hour emergency services offer victims of sexual assault, domestic violence and stalking emotional support, information, compassion, accompaniment, referral and advocacy services.)

892 N. Fair Oaks Avenue, Suite D  
Pasadena, CA 91103  
(626) 584-6191  
(626) 793-3385 (24 hours)

San Gabriel Valley Medical Center (24-hour medical care, emotional support and comprehensive exams including forensic evidence collection (the “rape kit”). The Sexual Assault Response Team (SART) Hotline provides immediate connection to on-call nurse for sexual assault services.”). Note that medical providers (but not psychological counselors) are required to notify law enforcement when they receive a report of assaultive or abusive conduct, including sexual assault.

438 West Las Tunas Drive  
San Gabriel, CA 91776  
(626) 289-5454  
Sexual Assault Response Team (SART) Hotline: (877) 209-3049  
(24 hours)

The Rape Treatment Center at Santa Monica-UCLA Medical Center (24-hour emergency medical treatment for victims of sexual assault, including forensic services (the “rape kit”). Note that medical providers (but not psychological counselors) are required to notify law enforcement when they receive a report of assaultive or abusive conduct, including sexual assault.

(310) 319-4000  
[www.911rape.org](http://www.911rape.org)

Huntington Memorial Hospital (24-hour emergency and trauma services. Social workers available to provide counseling as needed).

100 W. California Blvd.  
Pasadena, CA 91105  
(626) 421-7733

Planned Parenthood (Health clinic for emergency contraception and disease prevention, pregnancy resources, birth control and family planning).

1045 N. Lake Avenue  
Pasadena, CA 91104  
(626) 798-0706

### *VIII. Reporting to Caltech*

Anyone who witnesses, experiences, or is otherwise aware of conduct that the individual believes to be in violation of this policy, including retaliation, is urged to contact Caltech immediately. Individuals are encouraged to report to the Title IX Coordinator or a Deputy Title IX Coordinator.

#### A. Title IX Coordinator and Deputy Coordinators

The Title IX Coordinator is responsible for coordinating Caltech's compliance with Title IX and for Caltech's overall response to conduct falling under Title IX. The Title IX Coordinator oversees all Title IX complaints, monitors outcomes, identifies and addresses any patterns of systemic problems that arise, and assesses effects on the campus climate. The Title IX Coordinator also oversees the implementation and application of Caltech's Title IX related policies within the scope of Title IX and coordinates Caltech's response to all complaints of sexual violence under Title IX to ensure consistent treatment of parties involved, and prompt and equitable resolution of complaints.

The Title IX Coordinator is supported by three Deputy Coordinators all of whom can answer questions regarding Title IX.

#### Title IX Coordinator

April Castaneda,

Assistant Vice President for Equity and Equity  
Investigations

Phone: (626) 395-3132

E-mail: [TitleIXCoordinator@caltech.edu](mailto:TitleIXCoordinator@caltech.edu)

Office: 205 Center for Student Services

#### Deputy Title IX Coordinator for Faculty

Melany Hunt

Phone: (626) 395-4231

E-mail: [hunt@caltech.edu](mailto:hunt@caltech.edu)

Office: 265 Gates-Thomas

#### Deputy Title IX Coordinator for staff and postdoctoral scholars

Ofelia Velazquez-Perez

Phone: (626) 395-3819

E-mail: [Ofelia.Velazquez-Perez@caltech.edu](mailto:Ofelia.Velazquez-Perez@caltech.edu)



Office: 206 Central Engineering Services  
Deputy Title IX Coordinator for JPL  
Jackie Clennan-Price  
Phone: (818) 354-2983  
E-mail: Jackie.A.Clennanprice@jpl.nasa.gov  
Office: Human Resources T1720-149

## B. Responsible Employees

If an individual discloses Prohibited Conduct to any responsible employee, the responsible employee must report to the Title IX Coordinator all relevant details about the alleged conduct. At campus, the following are responsible employees:

- Title IX Deputies
- Staff members with a supervisory or managerial role, who do not have legally protected confidentiality
- Security Officers
- Residential Life Coordinators
- Resident Associates
- Coaches
- Employee Relations consultants
- Faculty members who supervise a research laboratory or group, or who have administrative responsibilities.

At JPL, the following are Responsible Employees:

- Title IX Deputy for JPL
- Supervisors and managers
- Employee Relations Representatives
- Human Resources Business Partners
- Education Office staff

Caltech is committed to protecting the privacy of all individuals involved in a report of Prohibited Conduct. All employees involved in the response to a report of Prohibited Conduct understand the importance of properly safeguarding private information. Caltech will make every effort to protect individuals' privacy interests consistent with Caltech's obligation to investigate reports made to Caltech.

If a member of the Caltech community would like support and guidance in filing a complaint, they may contact the Title IX Coordinator or a Deputy Coordinator, one of the Deans or Associate Deans, the Director of Employee & Organization Development in Human Resources, or the JPL Section Manager of Talent Management or Human Resources Business Partners at JPL. They may also contact the EEO Coordinators identified in the Nondiscrimination and Equal Employment Opportunity Policy.

### C. Anonymous Reporting

Caltech provides the following resources for anonymous reporting:

Campus Hotline (626) 395-8787 or (888) 395-8787  
 JPL Ethics Hotline (818) 354-9999  
 JPL Protective Services Division's Workplace Violence Hotline  
 (818) 393-2851  
 For either Campus or JPL by submitting a compliance Hotline  
 Contact Form

Contacting one of these anonymous reporting resources may trigger an investigation, and if the reporting party shares personally identifying information, they will be notified if an investigation occurs.

### D. Notification of Law Enforcement

Individuals who have experienced sexual violence are encouraged to notify local law enforcement. Caltech will provide assistance in notifying law enforcement if the individual so chooses. An individual who has experienced sexual violence also has the right to decline to notify law enforcement or Caltech.

Caltech has an obligation under California law to report incidents of sexual violence to law enforcement; however, Caltech will not report identifying information about the complainant without the complainant's consent after being notified of their right to have personally identifying information withheld. If the complainant does not consent to be identified, personally identifying information about the respondent also will not be provided.

Pasadena Police Department  
 Call 911 for Emergency Response  
 Non-Emergency Response: (626) 744-4241  
 207 N. Garfield Ave.  
 Pasadena, CA 91101

#### *IX. Requests for Confidentiality or that Complaint Not Be Pursued*

In matters falling under Title IX, if a member of the Caltech community discloses an incident to the Title IX Coordinator, a Deputy Title IX Coordinator or a Responsible Employee, but requests that their name not be used, that the Institute not pursue an investigation, or that no disciplinary action be taken, Caltech must weigh the request against its obligation to provide a safe, non-discriminatory environment.

The Title IX Coordinator or designee will weigh the request for confidentiality against factors including, but not limited to, the seriousness of the conduct, circumstances that suggest there is a significant risk that the accused will commit further acts of Prohibited

Conduct, whether there was a weapon involved, and the age of a student victim.

The Title IX Coordinator or designee will determine the appropriate manner of resolution. The Title IX Coordinator or designee will attempt to address the conduct consistent with the complainant's request not to use their name or their request not to pursue an investigation or that no disciplinary action be taken, while also protecting the health and safety of the complainant and the Institute community.

Caltech's ability to fully investigate and respond may be limited if the complainant requests anonymity or declines to participate in an investigation. Caltech will, however, take other action to limit the effects of the prohibited conduct and prevent its recurrence.

In those instances where the Title IX Coordinator or designee determines that Caltech must proceed with an investigation despite the request of the complainant, the Title IX Coordinator or designee will inform the complainant of Caltech's intention to initiate an investigation. The complainant is not required to participate in the investigation.

In all cases, the final decision on whether, how, and to what extent Caltech will conduct an investigation, and whether other measures will be taken in connection with the report of prohibited conduct, rests solely with the Title IX Coordinator or their designee.

#### *X. Reports Involving Minors*

Every member of the Caltech community, who knows of, or reasonably suspects, child abuse, including any Prohibited Conduct involving a minor, has a personal responsibility to report to Caltech Security or the JPL Protective Services Division immediately. A minor under the age of sixteen is not considered to be capable of giving valid affirmative consent to sexual activity under this policy. Caltech employees who are mandated reporters have additional reporting obligations, including reporting immediately to LA County Child Protection and/or the local police department. See the Violence Prevention policy for more information.

#### *XI. False Reports*

Caltech will not tolerate intentional false reporting of incidents. A good faith complaint that results in a finding of "no violation" is not considered a false report. However, when a complainant or third party is found to have fabricated allegations or to have given false information with malicious intent or in bad faith, they may be subject to disciplinary action.

#### *XII. Emergency Notifications and Timely Warnings*

In the event of a dangerous situation on campus that involved an immediate threat to the health or safety of students or employees,

Caltech will issue an Emergency Notification consistent with its Emergency Notification procedures. In the event Caltech believes that there is a serious or

continuing threat to the campus community, Caltech will issue a Timely Warning consistent with its Timely Warning procedures. Emergency Notifications and Timely Warnings do not disclose the name of the victim.

### *XIII. Clery Reporting*

The Clery Act requires Caltech to issue an Annual Security and Fire Safety Report, which includes crime statistics for sexual assault (rape, fondling, incest and statutory rape), domestic violence, dating violence and stalking. Campus Security gathers these crime statistics from security reports, Pasadena Police Department information, JPL and reports by Campus Security Authorities. Crime statistics do not disclose any identifying information about a complainant, respondent, witnesses or others. For more information and statistics for the past three years, see the current Annual Security and Fire Safety Report.

### *XIV. Contacting Government Agencies*

Employees, students and others participating in Caltech's educational programs or activities may direct questions regarding Title IX or file complaints with the U.S. Department of Education Office for Civil Rights, (415) 486-5555, [ocr.sanfrancisco@ed.gov](mailto:ocr.sanfrancisco@ed.gov) or (800) 421-3481, [OCR@ed.gov](mailto:OCR@ed.gov). In addition, employees may file complaints with the California Department of Fair Employment and Housing (DFEH) at <https://www.dfeh.ca.gov/contact-us> or the United States Equal Employment Opportunity Commission (EEOC) at <https://www.eeoc.gov>. Complaints can also be directed to the Bureau for Private Postsecondary Education at <http://bppe.ca.gov>.

NASA funded program participants may file a complaint at [AssistedProgramComplaint@nasa.gov](mailto:AssistedProgramComplaint@nasa.gov) or find more information at <https://missionstem.nasa.gov/filing-a-complaint.html>. NSF funded program participants may file a complaint with the Office of Diversity and Inclusion at [programcomplaints@nsf.gov](mailto:programcomplaints@nsf.gov), (703) 292-8020 or find more information at <https://www.nsf.gov/od/odi/harassment.jsp>.

### *XV. Informational Resources*

Information on Prohibited Conduct, as well as copies of Caltech's Sexual and Gender-Based Discrimination and Harassment and Sexual Misconduct, Nondiscrimination and Equal Employment Opportunity, Unlawful Harassment, and Violence Prevention Policies are available from Caltech's Title IX Coordinator and Deputy Coordinators, Caltech's EEO Coordinators, Human Resources, Student Affairs and Deans offices, the Caltech Center for Diversity, Resident Associates, the Staff and Faculty Consultation Center, and Employee

& Organizational Development at campus, and the Deputy Title IX Coordinator, EEO Coordinator, and Human Resources Business Partners at JPL. The Policies are published in the Caltech Catalog and on the following Caltech and JPL websites: Caltech Human Resources, JPL Human Resources, Title IX, and Student Affairs.

### **Procedures for Responding to and Resolving Complaints of Prohibited Conduct at Caltech**

Caltech will take prompt and appropriate action to address all reports of Prohibited Conduct in a fair and impartial manner. The complainant, respondent, and all other participants in the process will be treated with dignity, care and respect.

Caltech's policy reflects its commitment to support and encourage individuals who have been subjected to Prohibited Conduct to come forward. Caltech takes all allegations of Prohibited Conduct seriously and responds appropriately. Caltech's policy is also intended to ensure that individuals accused of engaging in Prohibited Conduct are not prejudged; that they have notice and a full and fair opportunity to respond to allegations before findings and conclusions are reached; and that decisions are based on the evidence gathered in a process that is fair to both complainants and respondents.

Caltech will conduct a fair, impartial, timely and thorough investigation that provides all parties with appropriate due process to ensure that the parties receive notice and an opportunity to be heard as described in these and related procedures.

These procedures are for the benefit of the Caltech community and do not apply in cases involving complainants and/or respondents who are not current Caltech students, faculty, staff, postdoctoral scholars, volunteers, and interns. When a complaint involves a third party who is not affiliated with Caltech, Caltech's ability to investigate and take action against the person accused of Prohibited Conduct may be limited. However, in all cases, Caltech will conduct an inquiry into what occurred and take prompt action as is practicable to provide for the protection and well-being of the complainant and the campus community.

### **Reporting to Caltech**

A member of the Caltech community who wishes to report Prohibited Conduct should do so as soon as possible after the incident, although reports (hereinafter "complaints") may be made at any time. Complaints can be made orally or in writing. Complaints should be brought to the attention of the Title IX Coordinator or a Deputy Title IX Coordinator, or other responsible employee listed in the policy, who will then notify the Title IX Coordinator in cases falling under Title IX.

Title IX Coordinator  
 April Castaneda  
 Phone: (626) 395-3130  
 E-mail: TitleIXCoordinator@caltech.edu  
 Office: 205 Center for Student Services

## Initial Title IX Assessment

For reports of Prohibited Conduct covered by Title IX, Caltech's Title IX Coordinator or designee will make an initial assessment of the complaint which will include an immediate assessment of any risk of harm to individuals or to the campus community and will take steps necessary to address those risks. These steps may include interim protective measures to provide for the safety of the complainant and the campus community as described in the policy.

The complainant will be provided with information on the complainant's rights and options under the Institute's Sexual and Gender-Based Discrimination and Harassment and Sexual Misconduct policy (hereinafter the policy) and these procedures, written materials about the availability of, and contact information for, on- and off-campus resources and services, and coordination with law enforcement. The need for and types of interim measures also will be discussed. Appropriate interim measures will be instituted and may be modified. The imposition of interim measures is not indicative of a determination of responsibility or any other outcome.

The Title IX Coordinator may also meet with the respondent and other relevant parties as part of the initial assessment. If the Title IX Coordinator meets with the respondent, the individual will be provided with information on the respondent's rights and options under the policy and these procedures, and written materials about the availability of, and contact information for campus resources and services.

The initial assessment will proceed to the point where a reasonable assessment of the safety of the individual and of the campus community can be made, whether there is a potential violation of the policy, and if there is a potential policy violation an appropriate approach to resolution can be determined. Thereafter, the Title IX Coordinator may refer the complaint for the appropriate disposition, depending on a variety of factors, such as the complainant's request that their name not be used, complainant's request that no investigation into a particular incident be conducted or that no disciplinary action be taken, the risk posed to any individual or the campus by not proceeding, the nature and seriousness of the allegations, whether there have been other reports/complaints of Prohibited Conduct involving the respondent, and whether the allegations are contested. The Title IX Coordinator will obtain the complainant's agreement to proceed with the proposed approach to resolution. In implementing the approach, the Title IX Coordinator will inform and coordinate with the appropriate responsible Caltech decision maker(s): Provost, Assistant Vice President for Human Resources, Deans, Associate Deans, Associate Vice President for Human Resources on campus, or Director for Human Resources at JPL.

Caltech will investigate reports of Prohibited Conduct consistent with its obligations under applicable law. The Title IX Coordinator will seek consent from the complainant to proceed with action. If the complainant does not consent, Caltech will still take all reasonable steps to protect the complainant, including instituting appropriate

interim measures. If the Complainant refuses to have their name disclosed to the respondent, the Title IX Coordinator will explain that Caltech's ability to investigate and respond may be limited. If the complaint includes allegations that may constitute a possible crime, the Title IX Coordinator will notify the complainant of their right to file a criminal complaint or to choose not to notify law enforcement. If a complainant requests that the complaint not be pursued, the request will be considered consistent with the provisions of Section IX. of the policy.

In cases of alleged Prohibited Conduct at JPL not falling under Title IX, the above described initial assessment will be done by the JPL Title IX Coordinator or their designee.

### **Interim Measures**

Interim measures are actions taken by Caltech in response to a report of Prohibited Conduct. Upon receipt of a report, Caltech will take prompt measures to protect the rights of the parties as appropriate. Caltech will immediately assess whether there is a threat to the complainant, the respondent and/or other members of the community and will take steps necessary to address such risks. These steps may include interim safety measures, which may be made at any time, to provide for the safety of individuals and the campus community.

Appropriate administrative changes and/or academic changes may be made, if requested and reasonably available, at any stage in the process to protect the rights of either party. They will be made by the Title IX Coordinator in coordination with responsible administrators. For students, these changes might include changes to housing arrangements, counseling services, academic accommodations, "no contact" orders, stay away letters, or persona non grata status, escorts, limitations on extracurricular or house activities, changes to classes and/or housing, Caltech-imposed leave for the respondent, as well as any other remedy that can be tailored to the involved individuals to achieve the goals of this policy.

Changes affecting faculty, postdoctoral scholars and staff, including employees at JPL, might include transfer of supervisory or evaluative responsibility regarding grading, supervision, tenure review, letters of recommendation, and/or changes to office assignments.

When taking steps to separate a complainant and respondent, Caltech will endeavor to minimize the burden on the complainant. Care will be taken to protect both parties with the greatest degree of privacy possible. If a complainant wishes to seek a temporary restraining order or similar judicial order, Caltech will help the complainant with that process.

The imposition of interim measures is not indicative of a determination of responsibility or any other outcome. These measures may be modified at any time and may be kept in place after a final investigative decision is reached.

All parties are expected to comply with any interim measures that may be imposed. Failure to comply with interim measures may be

grounds for disciplinary action. A party may be found in violation of the policy for failure to comply with an interim measure even if they are found responsible for the underlying report of prohibited conduct.

### **Informal Options**

Individuals who believe they have been subjected to Prohibited Conduct may choose to resolve their concerns informally. In general, the goal of the informal options is to quickly end offending behavior without utilizing disciplinary action. Individuals with an official status at Caltech, such as faculty, managers, or supervisors, are expected to follow up with the complainant to make sure that the issue has indeed been resolved. Mutually agreeable administrative changes are sometimes possible to ease an uncomfortable situation. Individuals are not required to try to resolve their concerns informally before making a formal complaint. Complainants should consider at the outset whether such changes might be desirable. Informal options include:

- Talking personally with the offending individual, or writing a letter asking them to stop. This is a personal step taken solely among the relevant parties.
- Speaking to members of the Student Counseling Services, the Staff and Faculty Consultation Center, or the Caltech Center for Diversity on campus and the JPL Employee Assistance Program/Life Matters at JPL. Such conversations are confidential and are not communicated to individuals within or outside Caltech.
- Resolving the complaint informally with the help of a third party who has a faculty, supervisory, or managerial position at Caltech. The goal here is also to allow the parties to resolve complaints without an investigation and without elevating the complaint within Caltech. However, a person in one of these official positions is obligated to follow up with the Title IX Coordinator and complainant to be sure the situation has been resolved. This action might include referring the complaint to an appropriate individual within Caltech or sharing some of this information with other persons holding positions of responsibility at Caltech.

### **Formal Options**

A complainant alleging Prohibited Conduct may elect to pursue a formal option. Formal options include:

#### **Administrative Resolution**

In cases alleging Prohibited Conduct covered by Title IX, the Title IX Coordinator or designee, with the complainant's and the respondent's agreement, may offer the opportunity to resolve the complaint by Administrative Resolution. Administrative Resolution provides an opportunity for the respondent to accept responsibility for their alleged conduct and proceed to a resolution without a formal investigation.



Complainants and respondents participating in this process may have an adviser of their choice accompany them when reporting, or responding to, allegations of Prohibited Conduct. The adviser may not speak on behalf of the individual they are accompanying.

If the Administrative Resolution option is agreed to by a complainant, the Title IX Coordinator will meet with the respondent to review the allegations. The Title IX Coordinator will provide the respondent with information on the respondent's rights and options under the policy and these procedures, and written materials about the availability of, and contact information for, campus resources and services. The Title IX Coordinator will offer the respondent the opportunity to resolve the complaint by Administrative Resolution by accepting responsibility for the alleged conduct. If the respondent elects to acknowledge that the alleged conduct occurred and takes responsibility for the alleged conduct, the respondent will sign a written acknowledgement and the matter will be referred to the appropriate decision maker for a decision concerning sanctions and any other remedial action that may be appropriate. The complainant and respondent will both be notified simultaneously in writing of the resolution, including any sanctions against the respondent. Either party may only appeal the sanction imposed.

In cases of alleged Prohibited Conduct at JPL not falling under Title IX, the above described Administrative Resolution process will be administered by the JPL EEO Officer or their designee.

If the respondent contests responsibility for the alleged conduct, the Administrative Resolution process will be concluded and the case will be referred for formal investigation or other resolution as appropriate.

### **Remedy-Based Resolution**

In appropriate cases at any time during the process, the Title IX Coordinator or the decision maker may propose a Remedy-Based Resolution (RBR) as a means of resolving a complaint of Prohibited Conduct. The intent of a RBR is to address the underlying issues that contributed to the subject incident by imposing non-disciplinary remedies focused on education around issues of concern, remediation of problematic and unhealthy behaviors and the use of other strategies to remedy the situation. Both parties must voluntarily agree to all of the terms of the RBR as the complete and final resolution of the Title IX complaint(s).

### **Mediation**

In appropriate cases as determined by the Title IX Coordinator, mediation may be offered to the parties. Mediation is a process whereby a facilitator (mediator) works with the complainant and respondent to attempt to reach a mutually agreeable resolution of a complaint of Prohibited Conduct. Both parties must voluntarily agree to all of the terms of a mediated resolution as the complete and final resolution of the Title IX complaint(s).

## Formal Investigation

The following procedures apply to formal investigations of complaints of Prohibited Conduct.

Caltech's policy reflects its commitment to encourage victims of Prohibited Conduct to come forward by ensuring that they feel secure and supported in the knowledge that Caltech takes all allegations of Prohibited Conduct seriously and responds appropriately. At the same time, Caltech's policy and procedures for investigating complaints of Prohibited Conduct are intended to ensure that individuals accused of Prohibited Conduct are not prejudged and are provided with adequate notice and an opportunity to be heard regarding allegations made against them. Decisions are based on the evidence developed through a process that is fair to both accusers and respondents.

For complaints involving responding parties outside the Institute, the Title IX Coordinator will oversee the investigation. For complaints involving students, the Title IX Coordinator will refer the the investigation to a deputy Title IX Coordinator for students. For complaints not involving students, the Title IX Coordinator will refer the investigation to a deputy Title IX Coordinator. If the respondent is a staff member, volunteer, or postdoctoral scholar, the Title IX Coordinator for Human Resources will take the lead. If the respondent is a faculty member or other academic personnel, the Title IX Coordinator for faculty will take the lead. The Title IX Coordinator will be informed of the outcome of the investigation and any appeal in order to carry out their responsibilities to consult on sanctions, monitor outcomes, identify and address any patterns, and assess effects on the campus climate.

- The purpose of the investigation is to determine the facts relating to the complaint.
- All participants involved in the investigation will receive a fair and impartial process and be treated with dignity, care, and respect.
- The complainant and respondent may have an adviser of their choice accompany them when reporting, or responding to, allegations of Prohibited Conduct. The adviser may not speak on behalf of the individual they are accompanying.
- Caltech's investigation will occur independently from any legal/criminal proceedings that may take place. Caltech may defer fact gathering for an appropriate time during a criminal investigation.
- Investigators will be trained regularly in issues related to Prohibited Conduct, trauma-informed interviewing techniques and how to conduct an investigation process that protects the safety of all involved and promotes accountability. The investigators chosen must be impartial and free of any conflict of interest.

- The complainant and respondent will be provided with a copy of the Sexual and Gender-Based Discrimination and Harassment and Sexual Misconduct policy and accompanying procedures.
- Either party may object to an investigator(s) on the grounds that the investigator has a conflict or cannot be impartial by notifying the Title IX Coordinator in writing. Objections will be evaluated and the parties will be notified in writing of the determination.
- Within a reasonable length of time after the complaint has been filed, the respondent will be notified in writing of the nature and alleged factual bases underlying the complaint and the respondent will have a reasonable amount of time to prepare their response before any initial or follow-up investigatory interview.
- The parties may share or discuss information relating to the complaint with others to the extent necessary to the preparation or presentation of their respective case.
- Parties may not personally ask questions of each other in the proceedings, but they may suggest questions for the investigators to ask the other party. The investigators will have sole discretion to determine the appropriateness of and whether to use, the questions submitted, including whether a question is likely to elicit relevant information.
- The complainant and respondent will be informed that Caltech does not tolerate retaliation, takes steps to prevent retaliation, and takes strong responsive action if retaliation occurs. The complainant and respondent will be advised to notify Caltech immediately if retaliation occurs.
- The investigation will be treated as private to the extent possible and all parties will be advised to maintain privacy. This is not intended to prohibit or limit a party's ability to communicate with their adviser, potential witnesses or others who they may need to confer with in connection with the preparation of their case. Caltech administrators will be informed on a need-to-know basis. Caltech will make reasonable and appropriate efforts to preserve the complainant's and respondent's privacy and protect the confidentiality of information.
- The complainant and respondent will be given equal opportunity to present their cases separately to the investigator(s), to suggest others who might be interviewed, and to present other evidence. The investigator(s) will, if appropriate, interview other parties to reach findings and conclusions. \
- The investigator(s) will make available to both parties relevant evidence gathered to allow them the opportunity to respond.

- In complaints covered by Title IX, the investigators will investigate any allegations that alcohol or drugs were involved in the incident.
- Consistent with federal and state law, the investigators will not ask questions or seek evidence of the complainant's prior sexual conduct with anyone other than the respondent. Furthermore, evidence of a prior consensual sexual, romantic or intimate relationship between the complainant and respondent itself does not imply consent or preclude a finding of Prohibited Conduct.
- All parties who participate in investigative interviews may submit written statements. The parties will be afforded reasonable time to prepare for any investigatory interviews.
- Investigatory meetings will not be recorded by any party involved in a case.
- Both parties will be kept informed of the status of the investigation.
- Complaints will be investigated and resolved within a reasonably prompt time frame after the complaint has been made, generally within 60 days (not including any appeal), though this time frame may be extended depending on factors, including but not limited to, the complexity of the case.
- The complainant and respondent will have the opportunity to review and provide written comments on the draft report.
- After the report is accepted by the decision maker, the complainant and respondent will be provided access to the final report before they are informed of the outcome.
- The complainant and the respondent will be notified in writing of the outcome of the process and any change in the result that occurs prior to the result becoming final at the same time. Such notice shall include the option to appeal.
- Investigative files will be maintained in the Title IX Coordinator's office.
- Extensions of time, and other exceptions to or modification of these procedures can be made by the Title IX Coordinator or designee, Provost, Dean or Associate Deans, Associate Vice President for Human Resources, or Director for Human Resources at JPL.

### **Student Policy Violations: Complainants and Witnesses**

A student who participates as a complainant or witness in an investi-

gation of sexual assault, dating violence, domestic violence or stalking generally will not be subject to disciplinary sanctions for a violation of Caltech's student conduct policies, including but not limited to the Substance Abuse policy, at or near the time of the incident, unless Caltech determines that the violation was egregious, including but not limited to, an action that places the health or safety of any other person at risk or involves plagiarism, cheating, research misconduct or other forms of academic dishonesty.

### **Standard of Evidence**

The investigator(s) will use the preponderance of evidence standard in determining whether Prohibited Conduct occurred. A preponderance of the evidence means that it is more likely than not that the incident occurred. When the investigator(s) is presented with two different but plausible versions of the incident, credibility determinations may affect the outcome.

### **Findings and Conclusions**

The investigator(s) will report their findings and conclusions regarding the charges to the appropriate Caltech decision maker from the same area as the respondent for a decision (the Provost for faculty, the relevant Dean for students, the Assistant Vice President for Human Resources for postdoctoral scholars and campus staff, or the Deputy Director for Human Resources at JPL for JPL employees).

The conclusions that the investigation might reach include, but are not limited to, the following possibilities:

1. A violation of Caltech policy occurred.
2. Inappropriate behavior occurred, but did not constitute a violation of Caltech policy.
3. The complaint was not supported by the evidence.
4. The complaint was brought without any basis or without a reasonable, good faith belief that a basis existed.

### **Resolution**

As soon as practicable after receiving the findings and conclusions of the investigator(s), the appropriate Caltech decision maker from the same area as the respondent will make a decision concerning resolution of the complaint, including imposing sanctions against the respondent if appropriate (the Provost for faculty, the relevant Dean for students, the Assistant Vice President for Human Resources for postdoctoral scholars and campus staff, or the Deputy Director for Human Resources at JPL for JPL employees). The decision maker shall consult with the Title IX Coordinator and any other administrators that they deem appropriate in determining any sanctions for policy violations. The complainant and respondent simultaneously will be

informed in writing of the results of the investigation and the parties' right to appeal and the procedures for appeal.

If a violation of Caltech policy has occurred, appropriate sanctions will be imposed. Depending on the severity of the case and the respondent's role at Caltech, any one or more of the sanctions listed below may be imposed:

- Verbal warning
- Training
- Mandatory counseling/coaching
- A formal written warning placed in the respondent's file
- Exclusion from participation in certain activities for specified period of time
- Banned from campus
- Suspension of the right to accept new graduate students or postdoctoral scholars
- Transfer of advisees
- Removal from positions of administrative responsibility
- Removal from housing
- Removal from a supervisory position
- Involuntary leave of absence/suspension
- Expulsion
- Termination of employment
- Permanent separation from the Institute
- Revocation of admission
- Other sanctions instead of, or in addition to, those specified above
- Multiple sanctions may be imposed

If the respondent was found not to have violated Caltech's policy, but the investigation concluded that the individual committed some other wrongful or improper act, appropriate corrective action will be taken. Effective corrective action may also require remedies for the complainant and/or the broader Caltech community. Caltech will take appropriate measures to prevent the reoccurrence of any Prohibited Conduct, and to correct any discriminatory effects on the complainant and others, as appropriate.

Results of disciplinary proceedings may be disclosed consistent with applicable law, including FERPA, Title IX, and the Clery Act. Upon request, Caltech will disclose the results of a disciplinary proceeding against a student who is the alleged perpetrator of any crime of sexual violence to the alleged victim.

### **Appeals**

Appeals must be in writing and submitted within ten (10) calendar days of notification of the decision. Appeals of decisions resulting from the Formal Investigation process must be on the grounds that a procedural error occurred that significantly affected the outcome of the investigation, there is new evidence which would have affected the outcome that was not available at the time of the proceeding, or the

sanction is substantially disproportionate to the findings. Appeals of decisions resulting from the Administrative Resolution process must be made on the grounds that the sanction is substantially disproportionate to the acknowledged conduct.

If a party submits an appeal, the other party will have the opportunity to submit a written response to the appeal within ten (10) calendar days of the filing of the appeal. The complainant and the respondent simultaneously will be informed, in writing, of the outcome of the appeal. Appeal decisions are final.

Decisions of the Provost may be appealed to the Office of the Provost or designee. Decisions of the Dean of Undergraduate Students or Dean of Graduate Studies may be appealed to the Vice President for Student Affairs or designee. Decisions of the Assistant Vice President for Human Resources may be appealed to the Associate Vice President of Human Resources or designee. Decisions of the Deputy Director for Human Resources at JPL may be appealed to the Director for Human Resources at JPL or designee.

### Further Complaints

If the corrective action does not end the Prohibited Conduct, the complainant should immediately notify the Title IX Coordinator or a Deputy Title IX Coordinator, the Provost or a Division Chair, Dean or Associate Dean, EOD Director; or at JPL, the Section Manager, Talent Management. In such cases, the complainant has the right to file another complaint.

#### *Related Policies:*

- Nondiscrimination and Equal Employment Opportunity
- Unlawful Harassment
- Procedures Regarding Unlawful Harassment
- Violence Prevention

### Substance Abuse

Caltech is committed to providing a safe, healthy, and productive work and academic environment for all its faculty, staff, postdoctoral scholars and students. Consistent with the Drug-Free Workplace Act of 1988 and the Drug-Free Schools and Communities Act Amendments of 1989, it is a Caltech policy to maintain a work and academic environment free from drug and alcohol abuse. Faculty, staff, postdoctoral scholars and students are required to comply with this policy and the related guidelines provided by the academic divisions and student organizations.

The unlawful use, manufacture, distribution, cultivation, dispensation, possession, sale, or purchase of or offer to sell or purchase controlled substances\* or alcohol on the Caltech campus or its offsite locations, including the Jet Propulsion Laboratory ("JPL"), or as any part of its activities, is prohibited. Controlled substances include, but are not limited to, marijuana, heroin, cocaine, LSD, and amphetamines. **Despite recent changes to California law, marijuana still is a controlled**

**substance under federal law, and therefore, the use, manufacture, distribution, cultivation, dispensation, possession, sale, purchase of or offer to sell or purchase marijuana on the Caltech campus or its offsite locations, including JPL, or as any part of its activities, continues to be prohibited.** In addition, every employee is required to remain free from the influence of controlled substances, alcohol, or any substance that may impair the employee's ability to perform their job duties safely or productively, or that may otherwise impair their senses, coordination, or judgment while on duty. Any employee reporting to work (or otherwise at work) under the influence of, or having present in their body, any prescribed drug, alcohol, or other substances or medication that may adversely affect the employee's ability to work in a safe, productive, or efficient manner, must advise their supervisor. Caltech may require an employee to submit to drug and alcohol testing consistent with Institute policy and applicable federal and state law.

As a condition of continued admission, every student is required to comply with this policy. As a condition of employment, all Caltech employees (this includes faculty, staff, postdoctoral scholars and student employees), regardless of their location, are required to comply with this policy. A Caltech employee who violates this policy will be subject to disciplinary action up to and including termination of employment. A violation of this policy is likely to result in termination, even for a first offense. Similarly, all students, not just student employees, should understand that disciplinary action including involuntary leave or expulsion from Caltech may be invoked for violation of this policy and that intoxication is never an excuse for misconduct. Legally, institutions of higher education may contact parents when their adult child violates a school's alcohol or drug policy. If a student's behavior with respect to alcohol and drugs presents a danger to themselves or others, Caltech may inform the parents.

A faculty, staff, postdoctoral scholar or student who is convicted (including a plea of *nolo contendere* [no contest]) of a criminal drug statute violation occurring in the workplace or on Caltech property must notify Caltech in writing within five (5) calendar days after the conviction. Campus employees should inform the Executive Director of Human Resources and students should inform their dean. JPL employees should inform the People Services Section Manager in Human Resources.

Persons who are not employees of Caltech, but who perform work at Caltech for its benefit (such as contractors and their employees, temporary employees provided by agencies, visitors engaged in joint projects at Caltech, etc.), are required to comply with this policy. Violation of this policy is likely to result in being barred from the workplace even for a first offense.

### *Health Risks*

The use of any mind- or mood-altering substance, including alcohol, can lead to psychological dependence which is defined as a need or craving for the substance and feelings of restlessness, tension, or anxi-



ety when the substance is not used. In addition, with many substances, use can lead to physical tolerance, characterized by the need for increasing amounts of the substance to achieve the same effect and/or physical dependence, characterized by the onset of unpleasant or painful physiological symptoms when the substance is no longer being used. As tolerance and psychological or physical dependence develop, judgment becomes impaired and the individual often does not realize they are losing control over the use of the substance and that they need help.

It is impossible to predict accurately how an individual will react to a specific drug or to alcohol because effects vary depending on the person, environmental variables, the dosage and potency of the substance, the method of taking the substance, the chronicity of use, and whether the substance is taken in conjunction with other substances. Illegal drugs have particularly unpredictable effects due to variability in dosage and purity. Further, the overall potency of street drugs has increased dramatically over the past two decades, making users increasingly susceptible to negative effects.

Alcohol acts as a depressant to the central nervous system and can cause serious short- and long-term damage. Short-term effects include nausea, vomiting, and ulcers; more chronic abuse can lead to brain, liver, kidney, and heart damage, and even to eventual death. Ingesting a large amount of alcohol at one time can lead to alcohol poisoning, coma, and death. Drugs such as LSD, amphetamines, marijuana, and alcohol alter emotion, cognition, perception, physiology, and behavior in a variety of ways. Health risks include but are not limited to depression, apathy, hallucinations, paranoia, and impaired judgment, and all substances have an adverse effect on pregnancy and the fetus. When two or more substances are combined, the effect is often stronger than their additive sum.

#### *Local, State, and Federal Legal Sanctions*

Local, state, and federal laws establish severe penalties for violations of drug and alcohol statutes. These sanctions, upon conviction, may range from a fine to life imprisonment. In the case of possession and distribution of illegal drugs, these sanctions could include the seizure and summary forfeiture of property, including vehicles. It is especially important to know that federal laws have established penalties for illegally distributing drugs to include life imprisonment and fines in excess of \$10,000,000. Some examples of local or state laws are as follows.

- Unlawful possession of a narcotic drug is punishable by imprisonment in the state prison.
- The purchase, possession, or consumption of any alcoholic beverages (including beer and wine) by any person under the age of 21 is prohibited.
- It is illegal to provide alcohol to a person under the age of 21.
- Serving alcohol to an intoxicated person is prohibited.

- Selling any alcoholic beverages, except under the authority of a California Alcoholic Beverage Control License, is prohibited.
- It is a felony to induce another person to take various drugs and “intoxicating agents” with the intent of enabling oneself or the drugged person to commit a felony. The person who induced the other may be regarded as a principal in any crime committed.
- Any person found in a public place to be under the influence of an intoxicating liquor or drug and unable to care for their own safety, or who is interfering with the use of a public way, is guilty of disorderly conduct, which is a misdemeanor.

In addition, pursuant to federal law, a student’s eligibility for federal financial aid may be suspended if the student is convicted, under federal or state law, of any offense involving the possession or sale of illegal drugs.

#### *Resources for Staff, Faculty, Postdoctoral Scholars and Students*

Caltech recognizes drug and alcohol abuse and dependency as treatable conditions and offers faculty, staff, postdoctoral scholars and students support programs for individuals with substance use problems. Faculty, staff, and postdoctoral scholars are encouraged to seek assistance for drug- and alcohol-related problems through the Caltech Staff and Faculty Consultation Center (SFCC) at campus and the Employee Assistance Program (EAP) at JPL. Individuals can contact the SFCC by calling (626) 395-8360, and the EAP by calling (800) 367-7474. Students are encouraged to seek assistance from the Student Counseling Center (SCC) at (626) 395-8331. In addition, faculty, staff, postdoctoral scholars, and students can seek confidential referral information through the Center for Diversity at (626) 395-3221.

The staff of the SFCC, the EAP and the SCC will help employees and students to identify appropriate treatment resources and will refer them to counseling, treatment, or rehabilitation programs, as appropriate. Health insurance plans provide varying amounts of coverage for substance-abuse programs to address substance abuse and rehabilitation. Individuals may contact their health providers or Caltech Human Resources Benefits office at campus at (626) 395-6443, or JPL at (818) 393-3191, for plan details. Information obtained regarding a faculty, staff, postdoctoral scholar or student during voluntary participation in services at the SFCC, EAP, SCC, or any related program will be treated as strictly confidential, and no information, including whether or not an individual is receiving services, will be shared with third parties, except by written consent or as required by law.

#### *Drug and Alcohol Awareness Program*

Caltech has established and will maintain a drug and alcohol awareness program to educate faculty, staff, postdoctoral scholars and students about:

1. Caltech’s substance abuse policy;
2. the dangers of drugs and alcohol in a work and academic environment;

3. faculty, staff, postdoctoral scholar and student assistance programs; and
4. disciplinary action that may be imposed on faculty, staff, postdoctoral scholars and students for violations of this policy.

Caltech will distribute to all faculty, staff, postdoctoral scholars and students a copy of this policy on an annual basis.

#### *Supervisor's Responsibilities*

If an employee is suspected of violating this policy, the employee's supervisor should consult with the Director of Employee and Organizational Development (EOD) at campus or the Employee Relations Department of the Human Resources Directorate at JPL regarding appropriate actions, which may include an investigation, and discipline up to and including termination of employment. If a supervisor believes an employee's behavior raises safety concerns for the employee or others, the supervisor must take immediate action, including calling EOD on campus or the Employee Relations Department of the Human Resources Directorate at JPL, to assess and address the situation and to remove the employee from the worksite if necessary.

#### *Caltech Sanctions*

Caltech will impose sanctions for violations of this policy. These sanctions will be consistently enforced and penalties will depend on the severity of the offenses. Penalties may include employment termination and student suspension or expulsion from Caltech, and referral to law enforcement for the most serious violations of the law and this policy. Disciplinary action may be invoked entirely apart from any civil or criminal penalties that the faculty, staff, postdoctoral scholars and students might incur.

### **Unlawful Harassment**

It is the policy of Caltech to provide a work and academic environment free of unlawful harassment ("harassment"). Harassment is the creation of a hostile or intimidating environment in which inappropriate conduct, because of its severity and/or persistence, is likely to interfere with an individual's work or education, or adversely affects an individual's living conditions. Harassment in any form, based on sex, race, color, age, national origin, ethnicity, ancestry, physical or mental disability, medical condition, genetic information, pregnancy, marital status, religion, gender, gender expression or gender identity, sexual orientation, military or veteran status, or any other characteristic protected by state or federal laws ("protected characteristics"), is unlawful and is strictly prohibited, as are all forms of sexual intimidation, exploitation, and violence. Caltech is committed to educating the community in ways to prevent its occurrence. Complaints concerning sexual and gender-based discrimination and harassment and sexual misconduct are governed by the Sexual and Gender-based

## Discrimination and Harassment and Sexual Misconduct Policy.

Harassment becomes unlawful where 1) enduring the offensive conduct becomes a condition of continued employment, or 2) the conduct is severe or pervasive enough to create a work environment that a reasonable person would consider intimidating, hostile, or abusive. Anti-discrimination laws also prohibit harassment against individuals in retaliation for filing a discrimination claim, testifying, or participating in any way in an investigation, proceeding, or lawsuit under these laws; or opposing employment practices that they reasonably believe discriminate against individuals, in violation of these laws.

Petty slights, annoyances, and isolated incidents (unless extremely serious) will not rise to the level of illegality. To be unlawful, the conduct must create a work environment that would be intimidating, hostile, or offensive to reasonable people.

Offensive conduct may include, but is not limited to, offensive jokes, slurs, epithets or name calling, physical assaults or threats, intimidation, ridicule or mockery, insults or put-downs, offensive objects or pictures, and interference with work performance.

Caltech will conduct a fair, timely, and thorough investigation into complaints within the scope of this policy to determine what occurred and take reasonable steps to remedy the effects of any harassment and prevent recurrence of the behavior. Caltech provides all parties with appropriate due process and reaches reasonable conclusions based on the evidence collected. Caltech takes appropriate action, including disciplinary measures, when warranted. Caltech requires any employee, who is responsible for directing or supervising other Caltech employees or evaluating the work of students, to regularly participate in training regarding harassment, and the prevention of abusive conduct, consistent with federal and state legal requirements.

Behavior evidently intended to dishonor protected characteristics such as race, gender expression or identity, national origin or ethnic group, religious belief, sexual orientation, age, or disability is contrary to the pursuit of inquiry and education and may be discriminatory harassment and violate the law. Some kinds of behavior that are clearly intended to harass, while inappropriate and not tolerated at Caltech, may not be unlawful. These types of behavior may be dealt with through the student disciplinary process or through supervisory intervention, including the Caltech progressive disciplinary process. However, in order to make an accurate judgment as to whether incidents are unlawful, the full context in which the actions were taken or statements made must be considered. Every complaint is considered based on the totality of the circumstances. A single incident, if unusually severe, may constitute harassment.

The following are examples of behaviors that may constitute harassment:

- An adviser tells a student not to take a certain course because the adviser says that other minority students have had difficulty in the course.
- A disabled individual is not included in an off-site outing because of lack of mobility.

- A supervisor assigns only menial tasks to a minority staff member whose job and qualifications merit more complex work.
- A student tells racially offensive jokes within a study group session with other students.
- An individual is ostracized from group activities because of their national origin.
- Making or using derogatory comments, epithets, slurs or jokes based on age.

### *Scope*

This policy applies to all members of the Caltech community (students, faculty, supervisory and nonsupervisory staff, postdoctoral scholars, volunteers, interns, vendors, independent contractors, persons performing services under contract with Caltech, visitors and any other individuals regularly or temporarily employed, studying, living, visiting, or otherwise participating in Caltech's employment and education programs and activities). This policy applies to conduct occurring on Institute controlled property, at Institute sponsored events and in Institute employment and education programs and activities regardless of location.

Members of the Caltech community are encouraged to report unlawful harassment regardless of where the incident occurred or who committed it (i.e., a stranger or non-stranger). Even if Caltech does not have jurisdiction over the person accused of harassment, Caltech will still take prompt action and reasonable steps to remedy the effects of the harassment and prevent any reoccurrence of the behavior.

### *Prohibition against Retaliation*

No member of the Caltech community will be retaliated against for making a good-faith report of harassment or for participating in an investigation or proceeding conducted by Caltech, or by a state or federal agency. Overt or covert acts of retaliation, reprisal, interference, discrimination, intimidation or harassment against an individual or group for exercising their rights under federal and state laws is unlawful. Caltech will take steps to prevent retaliation and will take prompt and appropriate corrective action if retaliation occurs. Individuals who violate this policy may be subject to disciplinary action up to and including termination of employment or permanent separation from Caltech.

### *Privacy*

Caltech will maintain the privacy of all individuals involved in a report of harassment to the extent possible. Privacy generally means that information related to a report of harassment will only be shared with those individuals who have a "need to know." These individuals will be discreet and will respect the privacy of all individuals involved.

### *Confidentiality*

Confidentiality generally means that information shared by an indi-



- Caltech Center for Diversity (students):  
(626) 395-3221 or (626) 395-8108
- Sexual Misconduct Prevention Coordinator (students):  
(626) 395-2961
- Campus Hotline: (626) 395-8787 or (888) 395-8787
- JPL Ethics Hotline: (818) 354-9999

### *Reporting to Caltech*

Anyone who witnesses, experiences, or is otherwise aware of conduct that they believe to be in violation of this policy, including retaliation, is urged to contact Caltech immediately. To report a claim or request any assistance and guidance, contact the Office and Equity and Title IX at campus or the JPL Employee Relations Group at JPL. The following individuals have been designated as Equal Employment Opportunity Coordinators (EEO Coordinators): the Provost is the coordinator for faculty, the Assistant Vice President for Equity and Equity Investigations is the coordinator for campus staff and volunteers, the Associate Deans of Students are the coordinators for undergraduate students and interns, the Dean of Graduate Studies is the coordinator for graduate students and interns, and the Director for Human Resources at the Jet Propulsion Laboratory is the coordinator for employees, interns and volunteers assigned there. The Assistant Vice President for Equity and Equity Investigations has been designated as Caltech's Title IX Coordinator. The contact number is (626) 395-3132, email: TitleIXCoordinator@caltech.edu, or the office in Room 205, Center for Student Services.

Any person in a supervisory role must report any complaints of unlawful harassment of which they become aware to one of the designated EEO Coordinators listed above

If a member of the Caltech community would like support and guidance in filing a complaint, they may contact one of the Deans or Associate Deans, the Assistant Vice President for Equity and Equity Investigations in Human Resources, JPL's Manager of Employee Relations, or the JPL Section Manager of Talent Management or Human Resources Business Partners at JPL. They may also contact the EEO Coordinators identified above.

### *Anonymous Reporting*

Although Caltech encourages victims to talk to someone, Caltech provides the following resources for anonymous reporting:

- Campus Hotline: (626) 395-8787 or (888) 395-8787
- JPL Ethics Hotline: (818) 354-9999
- JPL Protective Services Division's Workplace Violence Hotline:  
(818) 393-2851 For either Campus or JPL by submitting a  
compliance Hotline Contact Form

Campus Security can also receive anonymous reports of sexual violence at (626) 395-5000.

Contacting one of these anonymous reporting resources may trigger an investigation, and if the reporting party shares personally identifying information, they will be notified if an investigation occurs.

### *Contacting the Outside Agencies*

In addition, employees who believe they have been unlawfully harassed have the right to file a complaint with the federal Equal Employment Opportunity Commission or the California Department of Fair Employment and Housing which have the authority to remedy violations. Employees, students and others participating in Caltech's educational programs and activities may file complaints with the U.S. Department of Education Office for Civil Rights (415) 486-5555, ocr.sanfrancisco@ed.gov or (800) 421-3481 or OCR@ed.gov. Complaints may also be directed to the Bureau for Private Postsecondary Education at <http://bppe.ca.gov>.

### *Informational Resources*

Information on unlawful harassment, as well as copies of Caltech's Nondiscrimination and Equal Employment Opportunity, Unlawful Harassment, and Sexual Misconduct, and Violence Prevention policies are available from Caltech's Title IX Coordinator and Deputy Coordinators, Human Resources, Student Affairs and Deans offices, the Caltech center for Diversity, Resident Associates, the Staff and Faculty Consultation Center, and Employee & Organizational Development at campus, and Employee Relations and the Human Resources Business Partners at JPL. The policies are published in the Caltech Catalog and on the following Caltech websites: Caltech Human Resources, JPL Human Resources, Title IX, and Student Affairs.

### *Related Policies and Procedures:*

- Nondiscrimination and Equal Employment Opportunity
- Procedures Regarding Unlawful Harassment
- Sexual and Gender-based Discrimination and Harassment and Sexual Misconduct Policy
- Violence Prevention

## **Violence Prevention**

It is the policy of the Caltech to provide a safe and secure environment for all members of the Caltech community, including faculty, staff, postdoctoral scholars, students and third parties, including minors, by maintaining an environment of respect, providing conflict resolution processes, and by establishing preventative measures as well as providing assistance and support to victims. This policy specifically addresses Caltech's position on the prevention, reduction, and management of violence to provide a safe working and learning environment for its faculty, staff, postdoctoral scholars, students and third parties engaged in any Institute activity or program.

All members of the Caltech community shall cooperate to maintain a safe environment.



Caltech does not tolerate violence or threats of violence committed by or against faculty, staff, postdoctoral scholars, students or third parties, including minors on its campus, at JPL or at any Institute locations or any Institute activity or program. All weapons are banned from Institute premises, activities and programs unless written permission is given by Campus Security or the Jet Propulsion Laboratory (JPL) Protective Services Division. Faculty, staff, postdoctoral scholars and students who violate this policy will be subject to disciplinary action, up to and including termination of employment or involuntary leave/expulsion. Individuals who intentionally bring false accusations about a violation of this Policy against another will be subject to disciplinary action, up to and including termination of employment or involuntary leave/expulsion.

### **Definitions**

**Acts of violence** include any physical action, whether intentional or reckless, that harms or threatens the safety of another individual at Caltech.

**A threat of violence** includes any behavior that by its very nature could be interpreted by a reasonable person as intent to cause physical harm to another individual.

**Child abuse** includes serious endangerment of a child's physical or mental health due to injury by act or omission (neglect), including acts of sexual abuse.

**Institute or facilities** include all Institute locations, including the Jet Propulsion Laboratory and off-campus locations where faculty, staff, postdoctoral scholars and/or students are engaged in Institute activities or programs.

**An At-Risk Individual** is a faculty member, staff member, postdoctoral scholar, student, or other person who is a potential target or victim of violence. An At-Risk Individual also may be a threat to self or others.

**Intimidation** is engaging in actions that include, but are not limited to, behavior intended to frighten in order to compel or deter.

**Minor** is anyone under the age of 18 years (also referred to as a "child" or "children").

**Mandated Reporter** is an employee who is required by law to make a report to the appropriate authorities whenever, in their professional capacity, or within the scope of their employment, they have knowledge of or observe a child they know or reasonably suspect has been the victim of child abuse or neglect. All athletic coaches, including

assistant coaches and graduate assistants involved in coaching are Mandated Reporters. In addition, Institute employees whose duties bring them into direct contact with children under 18 years of age on a regular basis or who supervise employees whose duties bring them into contact with children on a regular basis are Mandated Reporters as to child abuse or neglect occurring at Caltech or at an official activity of, or program conducted by, Caltech. Certain other professionals at Caltech, such as doctors, nurses and psychologists, are also Mandated Reporters.

**Persons** include Institute faculty, staff, postdoctoral scholars, students and third parties.

**Stalking** is a course of conduct directed at an individual that would cause a reasonable person to fear for his or safety or the safety of others, or suffer substantial emotional distress. Course of conduct means two or more acts, including, but not limited to, acts in which the stalker directly, indirectly, or through third parties, by any action, method, device or means, follows, monitors, observes, surveils, threatens, or communicates to or about a person or interferes with the person's property. Reasonable person means a reasonable person under similar circumstances and with similar identities to the victim. Stalking that is sex or gender-based should be reported and will be handled pursuant to the Sexual Misconduct policy and applicable procedures. Stalking that is not sex or gender-based is covered by this policy.

**Third Parties** are individuals who are not Institute faculty, staff, postdoctoral scholars or students, such as relatives, acquaintances, guests, contractual personnel, consultants, vendors, visitors, volunteers, customers, clients, others engaging in sponsored activities, external affiliates, or others.

**Victim** is an individual who has experienced or witnessed an act or acts of violence or threats of violence or intimidation as outlined in this Policy.

**Weapon** is any instrument or substance capable of producing bodily harm, in any manner, under any circumstances, and at a time and place that manifests intent to harm or intimidate another person or that warrants alarm for the safety of another person. This includes a replica that could be mistaken for a real weapon.

Examples of actions or activities that violate Caltech's Policy include, but are not limited to:

- Physical violence or the threat of physical violence against persons or property.
- Any verbal or physical conduct and/or harassing or intimidating behavior that causes a person to reasonably fear for his or her safety, or the safety of others including the safety of friends or

family.

- Possessing, brandishing, or using a weapon in a manner that is not required by the individual's position while involved in any Institute activity or program on or off premises.
- Threatening or intimidating communications including notes, voice messages, telephone calls, electronic communications such as emails, texts and social media, and intra-office or regular mail directed towards a person(s) or facilities.
- Intimidation or stalking a person.
- Intentional destruction or threat of destruction to property owned or controlled by Caltech or NASA.
- Acts of violence or threats of violence, on or off Institute premises, if the threats or acts affect the legitimate interests of Caltech.

### *Reporting Violence*

Any individual who experiences or observes a threat, an act of violence, or an unauthorized weapon must immediately notify Campus Security or JPL Protective Services Division, or law enforcement. An individual at a non-campus or non-JPL location must immediately notify local law enforcement.

Campus Security	626-395-5000
JPL Protective Services Division	818-354-3530

If an individual becomes aware of behavior that might violate this Policy, the individual must immediately notify one of the following managers or offices:

Employee's supervisor/management	
Campus Human Resources – EOD	626-395-8039
Dean of Students	626-395-6351
Dean of Graduate Studies	626-395-6346
Provost Office	626-395-6320
Assistant Vice President for Equity And Equity Investigations, Title IX Coordinator	626-395-3132
Campus Security	626 395-5000
Caltech Ethics Help Line	626-395-8787
JPL Human Resources	818-354-7506
JPL Protective Services Division	818-354-3530
JPL Workplace Violence Hotline	818-393-2851
JPL Ethics Help Line	818-354-9999 or 866-405-7536

Caltech will handle all reports of violence in a confidential manner, with information released as determined to be appropriate by Caltech. Managers are required to immediately report any known incidents of violent, threatening, or intimidating behavior to Caltech Security, JPL Protective Services Division, Human Resources, the Deans or the Provost, whether that behavior is observed on or off Institute premises when any Institute activity or program is involved.

Caltech policy prohibits retaliation against any faculty, staff, post-doctoral scholar, student, or third party who, in good faith, reports a violation or suspected violation of this Policy.

### *Reporting Child Abuse*

Every member of the Caltech community who knows of, or reasonably suspects, child abuse has a personal responsibility to report to Caltech Security or the JPL Protective Services Division immediately. Mandated Reporters have the additional responsibility to report immediately or as soon as practicably possible by telephone and to submit a written follow up report within 36 hours of receiving information concerning the incident to the LA County Child Protection Hotline (800) 540-4000 (or from out of state (213) 639-4500) or to the Pasadena Police Department 911 (for emergencies) or (626) 744-4501 (for non-emergencies), or to another local police department. A Suspected Child Abuse Report (SCAR) can be completed online (where the initial report was made to the LA County Child Protection Hotline) at <https://mandreptla.org>. Mandated Reports will be provided the opportunity for training by Caltech and must sign an "Employee Acknowledgement of Mandated Reporter Status."

### *Investigating Violence*

All reports of inappropriate behavior or conduct that violates or appears to violate any aspect of this Policy will be taken seriously, properly investigated and dealt with accordingly. Appropriate Institute personnel will conduct an independent investigation of the alleged threat or incident. Based on the findings of the investigation, individuals who violate any aspect of this Policy may be subject to disciplinary action up to and including any of the following: termination of employment, involuntary leave/expulsion, removal from the premises, or being restricted from access to Institute facilities. Additionally, the commission of such acts that may violate state or federal laws may be referred to law enforcement agencies for investigation.

### *Possession and Use of Firearms and Weapons*

No unauthorized firearms or other weapons shall be brought onto Institute or NASA property or to Institute activities or programs, with the exception of weapons authorized by the Chief of Security on campus or the Division Manager of the Protective Services Division at JPL.

### *Resources*

The Staff and Faculty Consultation Center and the Student Counseling Center at campus or Empathia/Life Matters at JPL may provide resources such as intervention, consultation or referral for clinical evaluation or treatment, including arranging for counselors to work with at-risk individuals, and victims and observers of an incident. In addition, training is available from Human Resources regarding violence prevention, public safety awareness, and child abuse. Contact information for these and other resources are:

### *General Information*

## Campus

Security	626-395-5000
Staff and Faculty	626-395-8360
Consultation Center	
Human Resources -EOD	626-395-8039
Dean of Students	626-395-6351
Dean of Graduate Studies	626-395-6346
Student Counseling Center	626-395-8331
Provost	626-395-6320
Assistant Vice President for Equity And Equity Investigations, Title IX Coordinator	626-395-3132
Caltech Center for Diversity	626-395-6207
Caltech Ethics Help Line	626-395-8787

## JPL

Protective Services Division	818-354-3530
Human Resources	818-354-7506
Empathia/Life Matters	800-367-7474
Ethics	818-354-6338
Ethics Help Line	818-354-9999
Workplace Violence Hotline	818-393-2851

### *Exceptions*

Any exception to this policy requires the approval of the Chief of Security for campus, or the Division Manager for the Protective Services Division for JPL.

### *Related Policies*

- Unlawful Harassment
- Sexual and Gender-Based Discrimination and Harassment and Sexual Misconduct

## **Whistleblower Policy**

It is important to Caltech that employees disclose violations or potential violations of law or serious breaches of conduct without the fear of retaliation. Caltech policy prohibits retaliation against an individual who makes a good faith disclosure of suspected wrongful conduct. Any individual who engages in retaliation in violation of this policy will be subject to disciplinary action up to and including termination of employment or permanent separation from Caltech.

It is Caltech's policy to comply with applicable laws and regulations, including whistleblower rights and remedies provided under 41 USC Section 4712, which are summarized at Enhancement of Employee Whistleblower. As employees of Caltech, each individual is responsible for making sure his or her conduct fully complies with all laws and regulations as well as Institute policies. Caltech expects employees with knowledge of specific acts that they reasonably

believe violate the law or Caltech policy to disclose those acts to an appropriate Caltech official.

If an employee believes they have been the subject of retaliation for making a good faith disclosure, they are encouraged to contact their supervisor or one of the following offices: Human Resources, JPL Ethics Office, Audit Services and Institute Compliance (ASIC), or the Office of General Counsel. Anyone with questions or concerns regarding inappropriate or improper activities within Caltech may use one of the anonymous reporting mechanisms outlined below.

Web Hotline:

<http://asic.caltech.edu/hotline.htm>

Telephone Hotline:

(626) 395-8787 or Toll Free (888) 395-8787

Interoffice Mail:

Audit Services and Institute Compliance  
MC 250-64

U.S. Mail:

Audit Services and Institute Compliance  
565 S. Wilson Avenue, Pasadena, CA 91106

JPL Ethics Line:

(818) 354-9999 or Toll Free (866) 405-7536

## STUDENT AFFAIRS POLICIES

In addition to the Institute Policies listed above, there are a number of Student Affairs policies, procedures and guidelines on the student affairs website:

- Alcohol and Other Drugs Campus Initiatives
- Fire Safety
- Firearms and Other Dangerous Materials
- Good Samaritan
- Hazing
- Missing Students
- Murals
- Operation of Unmanned Aircraft Systems and Other Airborne Objects on Campus
- Student Problem Resolution Process
- Undergraduate Student Policy on Alcohol and Other Drugs
- Use of Alcohol at Student Events

For the text of the full policies, please see the Student Affairs website at [studaff.caltech.edu/policies](http://studaff.caltech.edu/policies).

