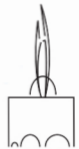
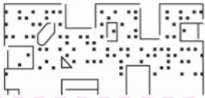


# MIT Facts 2018



# **MIT Facts 2018**

Massachusetts  
Institute of  
Technology

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Cambridge, Massachusetts 02139-4307  
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[web.mit.edu](http://web.mit.edu)

January 2018

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An online version of *MIT Facts*, with links to additional information about the topics covered here, is available at [web.mit.edu/facts](http://web.mit.edu/facts).

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Center spread: Campus map by MIT Department of Facilities and Wing-Ip Ngan, with ship by Marius Ursache.

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# MIT at a Glance

## History



Incorporated by the Commonwealth of Massachusetts on April 10, 1861

## Motto



*Mens et manus—*  
“Mind and Hand”

## Campus



166 acres (0.67 km<sup>2</sup>) in Cambridge, Massachusetts  
18 student residences on campus  
26 acres (0.11 km<sup>2</sup>) of playing fields  
20+ gardens and green spaces  
50+ publicly sited works of art

## Employees



12,607, including faculty

## Faculty



Professors (all ranks): 1,047  
Other teaching staff: 867  
Student-faculty ratio: 3:1

## Selected Honors



(Current and Former MIT Community Members)

89 Nobel Laureates  
58 National Medal of Science winners  
29 National Medal of Technology and Innovation winners  
50 MacArthur Fellows

## Undergraduate Financial Aid 2016–2017



Students attending tuition-free: 35%

Students awarded need-based MIT scholarship: 57%

Average need-based MIT scholarship: \$42,081



## Freshman Admission Class of 2021

Applicants: 20,247

Admits: 1,438 (7%)



## Students, 2017–2018

Total: 11,466

Undergraduates: 4,547

Women: 2,092 (46%)

Minorities: 2,130 (47%)

Graduate students: 6,919

Women: 2,391 (35%)

Minorities: 1,262 (18%)



## Undergraduate Costs, 2017–2018

Tuition and fees:

\$49,892

Room and board:

~\$14,720



## Undergraduate Majors and Minors

Major programs: 54

Minor programs: 58

Pirate certificate: 1



## International Students, 2017–2018

Undergraduate students: 470

Graduate students: 2,868

Exchange, visiting, special students: 603

## Mission

The mission of MIT is to advance knowledge and educate students in science, technology, and other areas of scholarship that will best serve the nation and the world in the 21st century.

The Institute is committed to generating, disseminating, and preserving knowledge, and to working with others to bring this knowledge to bear on the world's great challenges. MIT is dedicated to providing its students with an education that combines rigorous academic study and the excitement of discovery with the support and intellectual stimulation of a diverse campus community. We seek to develop in each member of the MIT community the ability and passion to work wisely, creatively, and effectively for the betterment of humankind.

## Leadership

### Origins

The Institute admitted its first students in 1865, four years after the approval of its founding charter, and admitted its first woman student shortly thereafter in 1871. MIT's opening marked the culmination of an extended effort by William Barton Rogers, a distinguished natural scientist, to establish a new kind of independent educational institution relevant to an increasingly industrialized America. Rogers stressed the pragmatic and practicable. He believed that professional competence is best fostered by coupling teaching and research and by focusing attention on real-world problems. Toward this end, he pioneered the development of the teaching laboratory.

Today MIT is a world-class educational institution. Teaching and research—with relevance to

the practical world and transforming society for the better as guiding principles—continue to be its primary purpose. MIT is independent, coeducational, and privately endowed.

## Presidents of the Institute



<b>2012</b>	L. Rafael Reif
<b>2004</b>	<b>2012</b> Susan Hockfield
<b>1990</b>	<b>2004</b> Charles Marsteller Vest
<b>1980</b>	<b>1990</b> Paul Edward Gray
<b>1971</b>	<b>1980</b> Jerome Bert Wiesner
<b>1966</b>	<b>1971</b> Howard Wesley Johnson
<b>1959</b>	<b>1966</b> Julius Adams Stratton
<b>1948</b>	<b>1958</b> James Rhyne Killian, Jr.
<b>1930</b>	<b>1948</b> Karl Taylor Compton
<b>1923</b>	<b>1930</b> Samuel Wesley Stratton
<b>1921</b>	<b>1922</b> Ernest Fox Nichols
<b>1909</b>	<b>1920</b> Richard Cockburn Maclaurin
<b>1900</b>	<b>1907</b> Henry Smith Pritchett
<b>1897</b>	<b>1900</b> James Mason Crafts
<b>1881</b>	<b>1897</b> Francis Amasa Walker
<b>1879</b>	<b>1881</b> William Barton Rogers
<b>1870</b>	<b>1878</b> John Daniel Runkle
<b>1862</b>	<b>1870</b> William Barton Rogers



## Administrative Organization

The Institute's chief executive officer is the president. Senior academic and administrative officers include the provost, chancellor, executive vice president and treasurer, senior vice president and secretary of the Corporation, deans, vice presidents, vice chancellor, chancellor for academic advancement, associate provosts, director of libraries, CEO of the MIT Alumni Association, Institute community and equity officer, and deputy executive vice president.

MIT's academic departments and institutes—each under the leadership of a head or director—are organized within five schools that encompass numerous degree-granting programs and interdisciplinary centers, laboratories, and programs whose work cuts across traditional departmental boundaries.

The MIT faculty determines the Institute's educational policy. The faculty meets monthly and conducts much of its business through elected standing committees.

The Institute's board of trustees, known as the Corporation, includes 70 distinguished leaders in engineering, science, industry, education, and other professions, and (ex officio) the MIT chairman, president, executive vice president and treasurer, secretary of the Corporation, CEO of the Alumni Association, and three representatives of the Commonwealth of Massachusetts. The Corporation also includes some 36 emeritus members. Approximately 73% of the members of the Corporation are MIT alumni.

## Faculty and Staff

# 12,607

Faculty and staff

# 1,047

Faculty (professors of all ranks)

# 239

Women faculty

# 3:1

Student:faculty ratio  
(undergraduates only)

Minority group representation among faculty includes **American Indian or Alaska Native, Native Hawaiian/Pacific Islander, Black, Hispanic, and Asian.**

### Faculty and Staff, as of October 2017

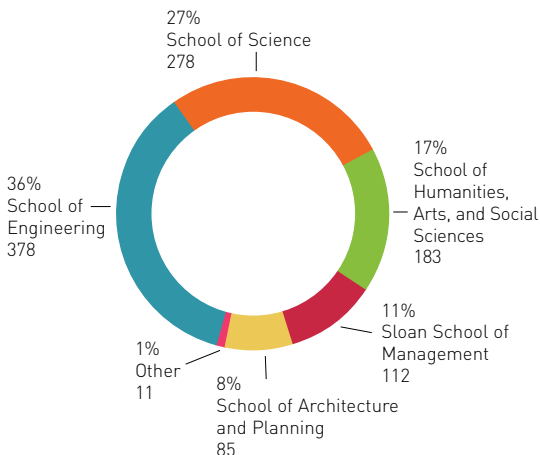
Category	Number
Faculty	1,047
Other academic staff	4,493
Research staff	1,653
Administrative staff	2,807
Support staff	1,647
Service staff	824
Clinical/Medical staff	136
<b>Total</b>	<b>12,607</b>

The MIT faculty instructs undergraduate and graduate students and engages in research.

### Teaching Staff

Category	Number
Professors	662
Associate professors	219
Assistant professors	166
Senior lecturers, lecturers, and professors emeriti	685
Instructors (including technical instructors)	147
Professors of the practice and adjunct faculty	35
<b>Total</b>	<b>1,914</b>

### Distribution of Faculty by School



Many MIT staff are international scholars (i.e., non-US citizens, non-US permanent residents) from around the world who come to the United States for teaching, research, collaboration, and other purposes. This diverse group of professionals includes visiting scientists, professors, artists, and scholars, as well as postdoctoral fellows and associates, lecturers, instructors, research associates and scientists, and tenure-track faculty. During academic year 2016–2017, MIT hosted 2,379 international scholars (75% men, 25% women) from 96 countries.

### International Scholars, by Region

Region	%
Asia	42.5%
Europe	35.0%
Middle East	8.0%
North America	6.0%
Mexico, Latin America, and the Caribbean	5.0%
Africa	2.5%
Oceania	1.0%

## Awards and Honors

Members of the MIT community have received accolades too numerous to list. Several of the most notable honors and awards won by MIT community members over the years are highlighted below, with winners currently on faculty and staff listed.

# 89

## Nobel Prizes

Faculty members **Bengt Holmström**, economics (2016), **H. Robert Horvitz**, medicine/physiology (2002), **Wolfgang Ketterle**, physics (2001), **Robert C. Merton**, economics (1997), **Richard R. Schrock**, chemistry (2005), **Phillip A. Sharp**, medicine/physiology (1993), **Susan Solomon**, peace (co-chair of IPCC Working Group One recognized under Intergovernmental Panel on Climate Change, 2007), **Samuel C. C. Ting**, physics (1976), **Susumu Tonegawa**, medicine/physiology (1987), and **Frank Wilczek**, physics (2004).

# 58

## National Medals of Science

Faculty members **Sallie W. Chisholm** (2012), **Ann M. Graybiel** (2001), **Rudolf Jaenisch** (2011), **Robert S. Langer** (2006), **Susan Lindquist** (2010), **Stephen J. Lippard** (2004), **Phillip A. Sharp** (2004), **Susan Solomon** (1999), **JoAnne Stubbe** (2008), and **Robert A. Weinberg** (1997).

# 29

## National Medals of Technology and Innovation

Faculty member **Robert S. Langer** (2012).

# 19

## John Bates Clark Medals

Faculty members **Daron K. Acemoglu** (2005), **Esther Duflo** (2010), **Amy Finkelstein** (2012), and **Parag Pathak** (2018).

# 15

## A. M. Turing Awards

Faculty members **Timothy Berners-Lee** (2016), **Shafi Goldwasser** (2012), **Silvio Micali** (2012), and **Ronald Rivest** (2002), and staff members **Butler W. Lampson** (1992) and **Michael Stonebraker** (2014).

# 5

## Pulitzer Prizes

Faculty members **Junot Díaz** (2008) and **John H. Harbison** (1987), and staff member **Deborah Blum** (1992).

# 2

## Millennium Technology Prizes

Faculty members **Tim Berners-Lee** (2004) and **Robert S. Langer** (2008).

# 48

## MacArthur Fellows

Faculty members **Regina Barzilay** (2017), **Angela M. Belcher** (2004), **Tim Berners-Lee** (1998), **James J. Collins** (2003), **Erik D. Demaine** (2003), **Junot Díaz** (2012), **Esther Duflo** (2009), **Amy Finkelstein** (2018), **Linda G. Griffith** (2006), **John H. Harbison** (1989), **Dina Katabi** (2013), **Eric Lander** (1987),

Heather N. Lechtman (1984), Nergis Mavalvala (2010), John A. Ochsendorf (2008), David C. Page (1986), Lisa Parks (2018), Daniela L. Rus (2002), Sara Seager (2013), Peter W. Shor (1999), Marin Soljačić (2008), Frank Wilczek (1982), Heidi L. Williams (2015), Jack Wisdom (1994), and staff members Amy B. Smith (2004), Richard M. Stallman (1990), and George Zweig (1981).

## 10

### Institute Professors

The title of **Institute Professor** is the highest honor awarded by the faculty and administration at MIT. The current Institute Professors are Sallie W. Chisholm, Ann M. Graybiel, John H. Harbison, Robert S. Langer, Thomas L. Magnanti, Ronald Rivest, Phillip A. Sharp, Marcus A. Thompson, Daniel I. C. Wang, and Sheila Widnall. Institute Professors emeriti are Emilio Bizzi, Noam Chomsky, John M. Deutch, Peter A. Diamond, Jerome I. Friedman, Barbara H. Liskov, John D. C. Little, Mario J. Molina, Joel Moses, Isadore M. Singer, and Robert M. Solow.

## 234

National Academy of  
Sciences Members

## 210

National Academy of  
Engineering Members

## 52

National Academy of Medicine Members

## 190

Guggenheim Fellows

## 33

Fulbright Scholars

## **Schools and Departments**

### **School of Architecture and Planning**

Architecture (Course 4)

Media Arts and Sciences (MAS)

Urban Studies and Planning (Course 11)

### **School of Engineering**

Aeronautics and Astronautics (Course 16)

Biological Engineering (Course 20)

Chemical Engineering (Course 10)

Civil and Environmental Engineering (Course 1)

Electrical Engineering and Computer Science  
(Course 6)

Institute for Data, Systems, and Society (IDS)

Institute for Medical Engineering and Science

Materials Science and Engineering (Course 3)

Mechanical Engineering (Course 2)

Nuclear Science and Engineering (Course 22)

### **School of Humanities, Arts, and Social Sciences**

Anthropology (Course 21A)

Comparative Media Studies/Writing  
(CMS/Course 21W)

Economics (Course 14)

Global Studies and Languages (Course 21G)

History (Course 21H)

Humanities (Course 21)

Linguistics and Philosophy (Course 24)

Literature (Course 21L)

Music and Theater Arts (Course 21M)

Political Science (Course 17)

Science, Technology, and Society (STS)

### **MIT Sloan School of Management**

Management (Course 15)



## School of Science

Biology (Course 7)  
Brain and Cognitive Sciences (Course 9)  
Chemistry (Course 5)  
Earth, Atmospheric, and Planetary Sciences  
(Course 12)  
Mathematics (Course 18)  
Physics (Course 8)

## Degrees Offered

Bachelor of Science (SB)  
Master of Applied Science (MASc)  
Master of Architecture (MArch)  
Master of Business Administration (MBA)  
Master of Business Analytics (MBAn)  
Master in City Planning (MCP)  
Master of Engineering (MEng)  
Master of Finance (MFin)  
Master of Science (SM)  
Engineer (each degree designates the field in  
which it is awarded)  
Doctor of Philosophy (PhD)  
Doctor of Science (ScD)

## Admission

The selection process at MIT is holistic and student centered: each application is evaluated within its unique context. No school, state, or regional quotas are applied; neither is preference given to those with alumni relations. Selection is based on outstanding academic achievement as well as a strong match between the applicant and the Institute, including:

- Alignment with MIT's mission
- Collaborative and cooperative spirit
- Initiative and risk taking
- Hands-on creativity
- Intensity, curiosity, and excitement
- Balancing hard work with downtime

*Selected 2017 Undergraduate Admissions  
Statistics*

**20,247**

Applications for freshman admission

**1,438 (7%)**

Offers of admission

**1,098**

Freshmen enrolled

**46%**

Female

**68%**

Attended public  
high schools

**49**

US states  
represented

**11%**

International citizens  
from 61 countries

**18%**

Among the first generation in  
their family to attend college

## Graduate Admission

Applicants for graduate degree programs are evaluated for previous performance and professional promise by the department in which they wish to register.

### *Selected 2017 Graduate Admissions Statistics*

**27,634**

Applications for graduate study

**3,383 (12%)**

Offers of admission

**2,208 (65%)**

Students registered in  
advanced degree programs

For more information, visit [mitadmissions.org](http://mitadmissions.org).

## Enrollments 2017–2018

# 11,466

Students

---

# 4,547

Undergraduates (40%)

# 2,092

Women (46%)

# 2,130

US minority groups (47%)

---

# 6,919

Graduate students (60%)

# 2,391

Women (35%)

# 1,262

US minority groups (18%)

In 2017–2018, MIT students come from all 50 states, the District of Columbia, four territories, and 129 foreign countries.

For more information, visit [web.mit.edu/registrar](http://web.mit.edu/registrar).

## Undergraduate Enrollment, by School

**First-year, undeclared second-year, and special undergraduate students**      **Number**

First-year\*      1,099

Undeclared second-year\*      8

Special undergraduate students      58

**By school**      **Majors**      **2nd Majors**

Architecture and Planning      30      3

Engineering      2,455      59

Humanities, Arts, and Social Sciences      74      40

Management      86      15

Science      737      92

\*MIT students do not enroll in an academic department until the start of their sophomore year, and may defer decision on a course of study until the end of that year.

## Graduate Enrollment, by Degree Level and School

**School**      **Master's**      **Doctoral**      **Special**

Architecture and Planning      455      203      1

Engineering      1,021      2,105\*      129

Humanities, Arts, and Social Sciences      27      303      0

Management      1,325      176      7

Science      10      1,155      2

**Total**      **2,838**      **3,942**      **139**

\*Includes 184 students working on Harvard degrees only through the Harvard-MIT Health Sciences and Technology Program.

## Minority Group Representation among Students

Minority group	Undergraduate	Graduate
African American	283	101
American Indian or Alaska Native	6	7
Asian American	1,196	776
Hispanic	645	378
Native Hawaiian or other Pacific Islander	0	0
<b>Total</b>	<b>2,130</b>	<b>1,262</b>

## International Students

There are 3,338 international students enrolled in degree programs at MIT—470 undergraduates (10%) and 2,868 graduate students (41%)—for the current academic year. Additionally, there are 603 exchange, visiting, and special students on campus.

## International Students, by Region

Region	%
Asia	52%
Europe	21%
Latin America and the Caribbean	8%
North America	7%
Middle East	7%
Africa	3%
Oceania	1%

Note: Percentages are rounded.

## Tuition and Financial Aid

### Undergraduate Tuition and Living Expenses

**\$49,892**

2017–2018 tuition and fees (9 months)

**~\$14,720**

Room and board, depending on the student's housing and dining arrangements

**~\$2,818**

Books and personal expenses

### Undergraduate Financial Aid

The Institute's undergraduate financial aid program ensures that an MIT education is accessible to all qualified candidates regardless of their financial circumstances. MIT provides financial aid to meet the full price of an MIT education, based on the calculated financial need of the family. In 2016–2017, 90% of undergraduates received \$143.3 million in financial aid from all sources, with MIT being the largest source. For students with a family income under \$80,000, the Institute ensures that scholarship funding from all sources will allow them to attend MIT tuition free.

Financial need is the difference between the price to attend MIT and the family's ability to finance that price, which is determined using information parents provide on the Free Application for Federal Student Aid (FAFSA) and the College Scholarship Service (CSS) Profile. The first \$3,400 of financial need is met with an offer of a student loan/term-time job. The remaining need, if any, is met with an MIT scholarship. Students receiving scholarships and grants from sources outside MIT may use this financial aid to replace the student loan/term-time job.

### **Selected Undergraduate Financial Aid Statistics, 2016–2017**

Average need-based MIT scholarship	\$42,081
Average need-based financial aid award	\$49,317
Students awarded a need-based MIT scholarship	57%
Students attending tuition free	35%
Class of 2017 graduates with no student loan debt	71%
Average student loan debt for those who borrowed	\$19,819
Average term-time earnings for those who worked	\$3,496



## Graduate Tuition and Living Expenses

Graduate students generally incur greater expenses than undergraduates. Most attend the Institute for a calendar year rather than an academic year, increasing the cost of tuition.

# \$49,892

2017–2018 tuition and fees (9 months)  
(specific programs and departments  
may have different tuition amounts)

# \$16,510

2017 summer tuition for students  
enrolled in courses

MIT's residential system can accommodate 38% of its graduate students; the rest find housing in the Boston/Cambridge area. Graduate students' costs for housing, food, books, medical insurance, and incidentals vary widely depending on marital status, quality-of-life expectations, and housing arrangements. For example, monthly charges for on-campus housing range from \$700 to \$1,926 for single students and from \$1,403 to \$2,075 for family housing.

## Graduate Financial Aid

Financial aid for graduate students is in large part provided by individual departments, and the amount of aid varies significantly. Financial support includes fellowships, traineeships, teaching and research assistantships, and loans. Most forms of support are granted for merit, while others are granted for financial need or a combination of merit and need.

### Doctoral Student Support, by Type and School, 2016–2017

School	RA	FE	TA	Other or none
Architecture and Planning	52%	17%	19%	11%
Engineering	60%	20%	8%	11%
Humanities, Arts, and Social Sciences	26%	35%	19%	19%
Management	42%	39%	16%	4%
Science	48%	34%	15%	2%
Doctoral total	53%	26%	12%	9%

RA=research assistantship, FE=fellowship, TA=teaching assistantship

## Academics

MIT's strength—as represented by its official seal and motto, *mens et manus*, mind and hand—is the fusion of academic knowledge with practical purpose.

### Undergraduate Education

MIT believes the best education occurs when students are self-motivated and engaged participants in a dynamic community of learners. Thus, an MIT undergraduate education combines rigorous academics with a “learning-by-doing” approach.

One avenue for student engagement is the Undergraduate Research Opportunities Program (UROP), pioneered at MIT in 1969 and now emulated in academic institutions around the globe. UROP offers students the opportunity to join a faculty-led research team or to initiate their own research project.

Students may also choose to participate in the Undergraduate Practice Opportunities Program (UPOP), which provides them with real-world skills, coaching, experiential workshops, company field trips, one-on-one counseling, networking events, exclusive panel discussions with major companies, and access to internships with more than 2,000 employers.

Another unique feature of an MIT education is the Independent Activities Period, a special four-week term in January that encourages students to set their own agenda within a creative and flexible environment.

As part of a complete MIT experience, undergraduates are encouraged to add an international

dimension to their education. Students may choose from Institute-wide or departmental study-abroad programs. They may also decide to conduct research abroad, assist with building sustainable communities overseas, or venture out on fieldwork or internships arranged through MIT International Science and Technology Initiatives or the International Development Initiative.

MIT undergraduates can also take advantage of cross-registration at several Boston-area universities and art schools. Leadership training opportunities include the Bernard M. Gordon–MIT Engineering Leadership Program and ROTC programs in the United States Army, Navy/Marine Corps, and Air Force.

### ***Selected Undergraduate Facts***

- MIT offers 54 undergraduate major and 58 minor programs.
- MIT's General Institute Requirements ensure that all students are broadly educated in the physical, natural, and social sciences, and in the humanities and arts.
- The first semester at MIT is graded on a pass/no record basis.
- Freshmen seeking a more collaborative environment can choose to participate in an alternative learning community such as the Concourse Program, Experimental Study Group, Media Arts and Sciences Freshman Program, or Terrascope.
- Each year nearly 60% of MIT undergraduates participate in UROP, with 91% having done so by the time they graduate.
- Nearly 50% of graduating seniors in the Class of 2017 reported participating in an international experience while at MIT.

## **Majors**

Aerospace Engineering	French
American Studies*	German
Ancient and Medieval Studies*	History
Anthropology	Humanities and Engineering**
Archaeology and Materials	Humanities and Science**
Architecture	Latin American and Latino/a Studies*
Architecture Studies	Linguistics and Philosophy
Asian and Asian Diaspora Studies*	Literature
Biological Engineering	Management
Biology	Materials Science and Engineering
Brain and Cognitive Sciences	Mathematical Economics
Business Analytics	Mathematics
Chemical Engineering	Mathematics with Computer Science
Chemical-Biological Engineering	Mechanical Engineering
Chemistry	Mechanical and Ocean Engineering
Chemistry and Biology	Music
Civil and Environmental Engineering	Nuclear Science and Engineering
Comparative Media Studies	Philosophy
Computer Science and Engineering	Physics
Computer Science and Molecular Biology	Planning
Computer Science, Economics, and Data Science	Political Science
Earth, Atmospheric and Planetary Sciences	Russian and Eurasian Studies*
Economics	Science, Technology and Society**
Electrical Engineering and Computer Science	Spanish
Electrical Science and Engineering	Theater Arts
Finance	Urban Science and Planning with Computer Science
	Women's and Gender Studies*
	Writing

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\*Major-departure, \*\*Joint major or 2nd degree

## Graduate Education

MIT graduate programs provide collaborative environments for advanced study, where students work together with faculty to extend the boundaries of knowledge.

Traditionally a leader in engineering and science graduate education, MIT has also attained national prominence for its doctoral programs in mathematics, architecture, management, and the humanities. Top-ranked graduate programs in architecture; neuroscience; economics; linguistics; management; media studies; political science; science, technology, and society; supply chain management; and urban studies have broadened the spectrum of graduate education at the Institute.

There is no cap on the number of graduate students admitted to MIT. Applicants apply directly to the academic department or degree-granting program of interest, and departments admit as many as they can support based on their research assistantship, teaching assistantship, and fellowship resources, as well as the number of faculty available to advise on research.

Cross-registration opportunities at Harvard, Wellesley, and with the Graduate Consortium in Women's Studies are available for graduate students. The Harvard-MIT Health Sciences and Technology Program and the MIT-WHOI Joint Program in Oceanography/Applied Ocean Science and Engineering also present interdisciplinary options for graduate students. Other study opportunities are available at Brandeis and Tufts.

## MIT Libraries

The MIT Libraries are an engine for creating, sharing, and safeguarding knowledge at the Institute and beyond. The Libraries work to improve access to the world's collective knowledge in many ways.

***Equipping scholars with the best content and the skills to use it.*** The Libraries provide access to tens of millions of items, both physical and digital, and to collections from libraries worldwide. Library specialists led nearly 300 classes last year to help people navigate resources, manage data, or think critically as consumers and creators of information.

***Offering a place to study—and gather, tinker, discover, and question.*** The Libraries' five locations welcome over 500,000 visitors annually for quiet study, using collections, working collaboratively, and creating new knowledge. The Libraries sponsor many community events, from data rescue hackathons to meditation sessions.

***Sharing MIT research with the world.*** Scholarly works by Institute authors made freely available through the Libraries have been downloaded more than 8.5 million times, in 89% of the world's countries. Since 2009, 46% of faculty articles have been shared openly, a high-water mark among academic research libraries.

***Preserving the Institute's record of research and learning.*** With 22 million tangible items and one terabyte of digital items, the Institute Archives serves as the "memory" of MIT. The Libraries work to ensure these resources can always be accessed and studied, no matter how technologies evolve.

***Solving big challenges in information science and scholarly communication.*** Library research initiatives aim to develop new models for producing, managing, sharing, preserving, and discovering scholarly information in a digital age.

For more information, visit [libraries.mit.edu](http://libraries.mit.edu).

## **Computing on Campus**

The computing environment at MIT supports an impressive array of information technologies and resources.

***MITnet.*** MIT's network infrastructure in the Cambridge/Boston area is made up of 7,300 miles (11,748 km) of fiber, 6,100 wireless access points, and 4,000 switches that provide on-campus wired connectivity. The Institute also owns and operates the MIT Regional Optical Network—a 2,500-mile (4,023-km) optical ring connecting researchers in Boston, New York City, and about 10 other locations. MIT's 100-gigabit connection to Internet2 links the Institute to the Energy Sciences Network, which in turn provides access to the CERN Large Hadron Collider. In addition, MIT has 10-gigabit dedicated connections to Amazon, Comcast, and VMware.

***Mobility.*** MIT is a fully wireless campus. The MIT Mobile App connects the community to the people directory; the campus map; information about shuttles, dining, and events; and more.

***Cloud-based infrastructure and services.*** Over 85% of MIT's managed servers have been transitioned to a Cloud environment. In addition, the MIT community has access to several enterprise Cloud



applications, including CrashPlan, Dropbox, Duo Security, and LastPass.

***Athena and Kerberos.*** Athena is MIT's main academic computing environment, which powers computing clusters (labs), private workstations, remote access servers, and personal machines throughout campus. Kerberos was originally developed at MIT to secure network services on Athena, and is now a widely adopted protocol for network authentication.

***Systems.*** Stellar/LMOD, MIT's course management system, currently houses 1,000 sites containing course materials, assignments, and other resources. WebSIS, the student information system, provides access to personal records, course information, and scheduling.

***Support.*** The central IT Service Desk handles approximately 25,000 telephone calls, 10,000 in-person requests, and 55,000 emails per year. The Distributed Support teams provide dedicated IT consulting and support to 55 departments, labs, and centers. An extensive Knowledge Base draws on the cumulative IT expertise at MIT to deliver more than 10,000 self-help articles to the community.

For more information, visit [ist.mit.edu](http://ist.mit.edu).

## Open Learning

MIT Open Learning works to transform teaching and learning at MIT and around the globe through the innovative use of digital technologies by:

- Supporting MIT faculty and students in bold experiments in digital teaching and learning to enhance residential education
- Promoting and enabling quantitative, rigorous, interdisciplinary research on teaching and learning
- Providing platforms for technological advances in education
- Sharing research and best practices by convening and partnering with teachers, schools, universities, companies, governments, and nongovernment organizations
- Extending MIT's knowledge and classroom to the world

Rapidly evolving technologies are revolutionizing education. On campus, MIT Open Learning partners with MIT instructors to facilitate and advance use of digital technologies for MIT students. More than 90 MIT instructors have taught over 120 courses using the residential platform, reaching over 95% of MIT undergraduates. Additionally, in 2017 MIT piloted a full-credit online residential course, helping to accommodate students who were studying abroad.

MIT Open Learning offers an array of programs and services.

- Digital Learning Lab is a joint program with MIT's academic departments that is the engine behind much of MIT's learning innovation. Digital Learning scientists and fellows within the lab advance learning strategies and initiatives across campus.

- MITx courses on edX are massive open online courses (MOOCs) that extend MIT's learning to the world. As of summer 2017, more than 2.7 million unique learners from over 200 countries earned over 160,000 course certificates.
- MicroMasters is a professional and academic credential for online learners. Learners who pass a set of MITx graduate-level courses and exams earn a MicroMasters credential, and can apply for an accelerated, on-campus, master's degree program at MIT and other top universities.
- MIT xPro provides professional development opportunities to a global audience via online courses and programs.
- MIT Bootcamps are intense new ventures leadership programs that challenge participants to develop a sustainable new venture in a week. Innovators come from around the world to learn from MIT faculty and MIT-trained mentors.
- OpenCourseWare (OCW) offers free, open, publicly accessible web-based materials from more than 2,400 MIT courses, including more than 100 full video courses. MIT's OCW site logged an average of 2.3 million visitors per month in 2016–2017.
- MIT Integrated Learning Initiative (MITili) is a rigorous, interdisciplinary research program to further our understanding of learning and education.
- Abdul Latif Jameel World Education Lab (J-WEL) was launched in May 2017 by MIT and Community Jameel, and will convene a global community of collaborators for sustainable, high-impact transformation in education.

For more information, visit [openlearning.mit.edu](http://openlearning.mit.edu).

## Campus Life

### The Campus

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**166**

Acres (0.67 km<sup>2</sup>)

**20+**

Gardens and  
green spaces

**18**

Residence halls  
on campus

**50+**

Publicly sited  
works of art

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In 1916, MIT relocated from Boston to Cambridge, where the campus now extends more than a mile (1.6 km) along the Cambridge side of the Charles River. The heart of the campus is a group of interconnecting buildings, designed by architect W. Welles Bosworth (Class of 1889), that facilitate interaction and communication among MIT's schools and departments.

The architecture on campus now showcases a range of styles, from neoclassical through modernist, brutalist, and deconstructivist. Among the timeless landmarks on campus are buildings designed by leading architects such as Alvar Aalto, Frank Gehry, Steven Holl, I. M. Pei '40, and Eero Saarinen. Inside, you will find state-of-the-art facilities that support MIT's ongoing research efforts in multiple disciplines. These facilities range from wet labs, clean rooms, and makerspaces to wind tunnels, robot test labs, and, soon, a 200,000-square-foot

(18,581 m<sup>2</sup>) nanotechnology and advanced imaging center.

For students, the campus has 18 residence halls, each with its own distinctive personality and community. Urban and walkable, the campus encourages sustainable practices in many ways, offering gardens and green spaces, bicycle shares, and free shuttles. At its edges, it merges with various Cambridge neighborhoods, including Kendall Square—where the close association of industry and research expertise has made this area the most innovative square mile on the planet.

## **Housing**

### ***Undergraduates***

Most undergraduates live on campus in one of MIT's 10 Institute houses, or in one of 41 MIT-affiliated fraternities, sororities, and living groups. (The Institute also offers undergraduate housing in a property in Boston.) All unmarried first-year students must live in one of the Institute's residence halls. Each on-campus dormitory has a live-in head of house who is usually a senior faculty member. Students may elect to remain on campus following their freshman year or move to a fraternity, sorority, or independent living group. The current number of undergraduates living on campus is 3,370.

In 2017–2018, approximately 2,000 students were affiliated with a fraternity, sorority, or independent living group (FSILG); approximately 1,000 of them chose to live in an FSILG community as an alternative to a traditional residence hall.

### ***Graduate Students***

More than 2,000 single graduate students live in MIT's six campus houses. Two campus apartment complexes accommodate over 400 graduate and undergraduate students with families. Approximately 90 graduate students live in undergraduate dorms as graduate resident tutors.

## The Arts

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**60+**

Music, theater,  
visual arts, writing,  
and dance groups

**12**

Museums  
and galleries  
on campus

**70%**

Incoming freshmen  
with training  
in the arts

**>50%**

Undergraduates  
enrolled in arts  
courses each year

---

The arts at MIT are rooted in experimentation, risk taking, and imaginative problem solving. The Institute offers highly regarded degree programs in architectural design; art, culture, and technology; comparative media studies; history, theory, and criticism of architecture and art; music; theater arts; and writing in several of these fields. Undergraduate minors are also offered in several of these fields. Many MIT faculty have received awards, including the Pulitzer Prize, Grammy Award, Guggenheim Fellowship, and MacArthur Fellowship, in recognition of their work in the arts. MIT students are also strong contributors to the vibrant arts culture that permeates campus life.

The MIT Museum draws nearly 150,000 visitors each year to programs and exhibitions that explore the foundations and frontiers of science and technology. Highlights include the world's finest collection of holograms, robots

and robotic devices, and Arthur Ganson's kinetic sculptures. The Mark Epstein Innovation Gallery gives visitors direct access to some of the latest MIT research, and the Kurtz Gallery for Photography features changing exhibitions of renowned photographers. The Institute's Architecture and Design Collection, housed at the museum, ranks among the top architectural drawing collections in the world. The museum also produces the annual Cambridge Science Festival, featuring 10 days of programs and activities citywide serving over 50,000 people.

The MIT List Visual Arts Center is the contemporary art museum at MIT. Its core mission is to exhibit, collect, and commission visual arts for MIT. The List presents six to eight exhibitions annually in conjunction with a broad range of education programs for the MIT community and the general public. It also maintains and adds to MIT's permanent collection of more than 3,500 artworks that includes over 50 publicly sited sculptures and hundreds of paintings, prints, photographs, and drawings located throughout MIT's campus. The List Center commissions new works for the MIT Public Art Collection through the MIT Percent-for-Art Program, and oversees the Student Loan Art Program that allows MIT students to annually borrow original works of art from the collection to hang in their living spaces.

The MIT Center for Art, Science & Technology facilitates and creates opportunities for artists at MIT and beyond to exchange ideas and collaborate with engineers and scientists. The center fosters a culture where the arts, science, and technology thrive as interrelated, mutually informing modes of exploration, knowledge, and discovery.



The Eugene McDermott Award in the Arts at MIT celebrates innovative talents in all arts disciplines and is one of the most generous cultural honors in the United States. Recent recipients of the award include singer and actress Audra McDonald (2018), architect David Adjaye (2016), and artist Olafur Eliasson (2014).

## Athletics and Recreation

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**33**

Varsity sports  
(16 men's,  
15 women's, 2 coed)

**33**

Club teams,  
with 800+  
participants

**18**

Intramural sports,  
with 4,000 participants  
from the MIT community

**>25**

Different classes  
to satisfy GIRs

---

MIT's Athletics, Physical Education, and Recreation Department offers opportunities for sports instruction and participation at all levels.

As part of the General Institute Requirements (GIRs), each student must earn eight points through physical education courses and complete the swim requirement. Seasonal offerings include golf, sailing, broomball, and ice-skating, while additional specialty courses include scuba, backpacking, top-rope climbing, kayaking, downhill skiing, and snowboarding.

- Approximately 20% of undergraduates join a team during their time at MIT.
- MIT competes mainly against Division III New England colleges, but also routinely participates in regional and national championships.
- The Institute has earned 271 Academic All-America citations, the most for any Division III program in the nation.
- MIT provides group exercise and wellness classes, personal and group training, a variety of aquatic classes, and sport skill instruction for those who wish to engage in other recreational programs.

With 10 buildings and 26 acres (0.11 km<sup>2</sup>) of playing fields, MIT boasts one of the most expansive athletic complexes in New England. The Zesiger Sports and Fitness Center on the west side of campus features two swimming pools, a fitness center, international-scale squash courts, and a multi-activity court. Roberts Field and Barry Field, lighted sports-turf venues, are adjacent to the Zesiger Center. The summer of 2016 saw full renovation of Briggs Field (softball), Fran O'Brien Field (baseball), and the grandstands and track and field facilities at Steinbrenner Stadium. The east side of campus is served by the Alumni Pool and Wang Fitness Center, located in the Stata Center at the edge of Kendall Square.

## **MIT Traditions**

### ***Hacking***

MIT culture distinguishes itself not only for its seriousness of purpose but also for its unique sense of humor, as expressed through “hacking.” Hacks at the Institute are elaborate but benign practical

jokes, perpetrated anonymously—on campus, around Cambridge, or even farther afield—that amaze for their creativity, cleverness, and difficulty of execution. A 1958 prank in which the Harvard Bridge was measured in increments of fraternity pledge Oliver Smoot has achieved such fame that “smoot” has been incorporated into the American Heritage Dictionary and is included as a unit of measure in Google Earth. The bridge still displays its quirky unit of measure today.

Although not officially sanctioned, hacks can be appreciated for their technical prowess and humorous digs at rival institutions, for example in the astonishing emergence of a large black weather balloon with MIT written all over it in the middle of a Harvard-Yale football game in 1982, or in the 2006 cross-country theft of Caltech’s Fleming Cannon. Other famous hacks involve rather large objects falling from building rooftops (the Baker House Piano Drop) or appearing where they don’t belong, most notably on MIT’s Great Dome, which over the years has been graced by a Hilltop Steakhouse plastic cow, a Campus Police cruiser, the Wright Flyer, an MIT fire truck, and the Apollo Lunar Module.

### ***Pirate Certificate***

Not content to just produce exceptional graduates in the usual fields of study, the Institute also offers its swashbuckling students the opportunity to become certified pirates. Students who complete four physical education courses—archery, fencing, pistol (or rifle), and sailing—are eligible to receive a Pirate Certificate, officially awarded by the Department of Athletics, Physical Education, and Recreation. In addition to receiving a tangible

document printed on faux parchment, newly minted pirates are rumored to swear a secret oath. Although they are no longer lily-livered land-lubbers, their pirating activities nevertheless are limited to “entertainment purposes only.”

### ***Brass Rat***

In a ritual long enjoyed by MIT undergraduates, a committee of sophomores gathers each year to design their class ring, which is ceremoniously revealed during the spring term. The history of MIT’s class ring dates back to 1929 when a student committee convened to design what is formally known as the “Standard Technology Ring.” Featuring a beaver on top (an industrious, nocturnal, American animal), the Boston and Cambridge skylines on the sides, and the MIT seal and dome on the shank, the ring also incorporates unique design elements related to each individual graduating class. Made of gold, the ring’s nickname, “the Brass Rat,” derives from its color—similar to brass—and the prominence of the beaver mascot—resembling a rat.

A concrete symbol of an MIT education, the distinctive Brass Rat is recognized worldwide and instantly identifies MIT alumni to one another, serving as a reminder of the bond that all MIT students share.

### ***F.A.T. Chain Reaction***

For 20 years, the Friday After Thanksgiving (F.A.T.) Chain Reaction has been a highly anticipated event that brings participants together to link their homemade contraptions to form one enormous, collaborative chain reaction, which is then set off as the culmination of the afternoon. Partici-

pants range from Girl Scout troops to artists and engineers, from MIT clubs to middle schools and family teams. More than 1,500 people attend this giant chain reaction each year.

### ***MIT Mystery Hunt***

The MIT Mystery Hunt is a puzzle hunt competition that takes place on the MIT campus every year in January. The hunt challenges each participating team to solve a large number of puzzles that lead to an object (called a “coin”) hidden somewhere on campus. The winning team gets to write the subsequent year’s hunt.

Mystery Hunt was launched in 1981 and is widely regarded as one of the oldest and most complex puzzle hunts in the world. It attracts more than 2,000 people every year and has inspired similar competitions at universities, companies, and cities around the world.

### ***Pi Day***

In true MIT fashion, the Institute typically releases admission decisions on Pi Day (March 14), an annual celebration of the mathematical constant. Frequently, these admissions decisions are released at 6:28 p.m., which is known colloquially as “Tau time” ( $\pi \times 2$ ). An exception was made for the release time of early decisions on March 14, 2015—known as “Super Pi Day” as the date reflects the full first five digits of Pi (3.1415)—when admissions decisions were released at 9:26 a.m. in order to continue with the next three digits of Pi. MIT Admissions creates a humorous video to accompany the announcements and celebrate the tradition, and posts it to the MIT Admissions Blog.

## MIT and the Community

MIT is an integral member of its host city of Cambridge, a diverse and vibrant community noted for its intellectual life, history, and thriving innovation climate. With a campus nestled between Central and Kendall Squares, and across the Charles River from Boston's Seaport District, the Institute is in an optimal position to engage in collaborative endeavors with its neighbors and to contribute to the growing innovation community.

The city's approximately 110,000 residents, including more than 36,000 college and university students, together form a lively community within its 6.26 square miles (16.2 km<sup>2</sup>). Cambridge is pedestrian and bicycle friendly, with 82 parks and playgrounds, six subway stations, a commuter rail line, 29 bus routes, multiple shuttles, 44 bike sharing stations, and numerous dedicated bicycle lanes and bike-ways, enabling visitors and students to get around the city and the MIT campus without a car.

***Service to the community.*** Since its founding, MIT has maintained a commitment to be a good neighbor and serve the local community. The Institute actively supports nonprofit organizations that address local challenges by providing educational programs, financial resources, representation on boards and committees, volunteer engagement, and the use of MIT facilities. In addition, members of the MIT community support the Institute's Community Service Fund, which provides assistance for nonprofits where MIT volunteers are at work.

The Institute's Priscilla King Gray Public Service Center provides programming, guidance, information, and support to students, faculty, and staff interested in public service, and serves as a

resource for both MIT and the community at large. More information is available at [web.mit.edu/mitpsc](http://web.mit.edu/mitpsc).

***Economic impact and innovation catalyst.*** MIT has a far-reaching impact on the economy of the region. The Institute is Cambridge's second largest employer and largest taxpayer, representing 14.5% of the city's revenue stream. MIT pays taxes on its commercial property and provides an annual payment in lieu of taxes (PILOT) for property that is used for academic purposes and is legally tax exempt. In fiscal year 2017, the Institute made a voluntary PILOT contribution of approximately \$2 million to the City of Cambridge and paid approximately \$55 million in real estate taxes.

MIT is a magnet for investment and fuels the innovation economy with the research, start-ups, and talent pool that it generates. Kendall Square, at the eastern end of MIT's campus, is the seat of a thriving innovation cluster in which MIT plays a catalyzing role.

In 2017, MIT received City Council approval to rezone an underutilized 14-acre (0.06-km<sup>2</sup>) parcel in Kendall Square to accommodate housing, commercial and lab space, retail, open space, and a variety of active community uses. In guiding the redevelopment, MIT's goal is to make the region's innovation ecosystem even stronger, creating a dynamic and welcoming place to live and work, which will attract the industries of tomorrow and fuel academic and commercial research collaborations—all of which will help Kendall Square thrive over time by sustaining its creative evolution.

For more information, visit [ogcr.mit.edu](http://ogcr.mit.edu).

## Sustainability

MIT is committed to leadership in sustainability and strong climate action at the local level, making strides to reduce the greenhouse gas emissions of the MIT campus, using the campus itself as a test bed for sustainability innovation and education, and partnering with the cities of Cambridge and Boston.

In a five-year Plan for Action on Climate Change released in 2015, the Institute set a goal to reduce its campus emissions by at least 32% below 2014 levels by 2030 and to strive to reach carbon neutrality as soon as possible. From 2014 through 2017, MIT has reduced its total emissions by 16%. MIT's off-site renewable energy project contributed 9% of the reduction in 2017, and on-campus measures have reduced emissions 7% since 2014. MIT's Greenhouse Gas Reduction Strategy lays out a roadmap and a timeline for implementing its highest-priority measures over the next five years, providing a clear pathway toward achieving the Institute's near-term emissions reduction goals.

New construction and major renovation projects on campus aim to meet the national LEED Gold (version 4) certification standard, reflecting MIT's dedication to building healthy, high-performance facilities that meet high standards of sustainability. To date, eight buildings have achieved LEED Gold Certification, and the Morris and Sophie Chang Building (E52) recently earned LEED Platinum Certification. MIT's proactive Capital Renewal program is engaged in continuous renewal and renovation projects that ensure the buildings are able to support the community's educational, research, and student life activities.



MIT has a vibrant ecosystem of student and staff groups promoting sustainability on campus, such as the Graduate Student Council and the Undergraduate Association's committees on sustainability, as well as the Working Green Committee, Staff for Sustainability. Initiatives range from a monthly swapfest called Choose to Reuse to student hackathons, which engage students, industry, and thought partners in finding real-life solutions to sustainability challenges.

As a founding member of the Cambridge Compact for a Sustainable Future, MIT works with Cambridge, Harvard University, and more than 15 local businesses and organizations to achieve a more healthy, livable, and sustainable future. MIT is also a member of the Boston Green Ribbon Commission.

### ***Sustainability Facts***

- Eighty-six percent of MIT commutes to campus in ways other than driving alone in a car, such as by using public transit, or by bicycling, walking, and ride-sharing to work.
- Through its Access MIT program, the Institute provides generous subsidies for low-carbon commuting—including subway, bus, bicycling, and commuter rail.
- MIT sponsors two Hubway bike rental stations on campus, and four more rental stations are accessible to campus. MIT also provides Hubway membership subsidies for employees and students.

- In 2016, MIT partnered with Boston Medical Center and Post Office Square Redevelopment Corporation on a Power Purchase Agreement and now purchases electricity from Summit Farms, a 650-acre (2.63-km<sup>2</sup>), 60-megawatt solar farm in North Carolina.
- MIT offers 132 courses related to sustainability, opportunities to integrate the campus as a living lab into research projects and coursework, and an undergraduate minor in environment and sustainability.
- MIT has many offices, programs, centers, and initiatives working every day to address climate change, ranging from the MIT Office of Sustainability, the Environmental Solutions Initiative, the Climate CoLab, and many more. Visit [climateaction.mit.edu](http://climateaction.mit.edu) to learn more.

## Research

The soul of MIT is research. For more than 150 years, the Institute has married teaching with engineering and scientific studies—and produced an unending stream of advancements, many of them world changing. Examples of some of MIT’s historical achievements follow:

- 1930s** Pioneering high-speed photography
- 1940s** Engineering practical microwave radar
- 1957** Achieving the first chemical synthesis of penicillin
- 1950s** Building the magnetic core memory that made digital computers possible
- 1960s** Developing the inertial guidance systems for the Apollo space program
- 1960s** Developing the world’s first biomedical prosthetic device
- 1977** Inventing the first workable public key cryptographic system
- 1986** Creating the first free-standing hologram
- 1988** Discovering the smallest known, most abundant photosynthetic bacteria in the ocean
- 1994** Developing a robot that can “learn” exercises from a physical therapist, guide a patient through them and, for the first time, record biomedical data on the patient’s condition and progress
- 1996** Using new genetic and multiple-cell monitoring technologies to demonstrate how animals form memory about new environments

- 2002** Creating the first acrobatic robotic bird—a small, highly agile helicopter for military use in mountain and urban combat
- 2007** Genetically reprogramming skin cells to cure a mouse model of sickle-cell anemia
- 2009** Finding a way to use RNA interference to silence multiple genes at once

This stream of discovery continues. Here are just a few accomplishments from this decade:

- 2010** Designing computer techniques that automatically decipher ancient languages
- 2011** Building a new radar technology system that can see through walls up to 60 feet (18.3 m) away
- 2012** Demonstrating experimentally the existence of a fundamentally new magnetic state called a quantum spin liquid
- 2013** Developing a new steelmaking process that produces no emissions other than pure oxygen
- 2014** Designing a new paper strip diagnostic test to rapidly diagnose Ebola and other viral hemorrhagic fevers
- 2015** Designing the bandage of the future: a sticky, stretchy, gel-like material that can incorporate temperature sensors, LED lights and other electronics, as well as tiny drug-delivering reservoirs and channels that can release medicine in response to changes in skin temperature and be designed to light up if medicine is running low

**2016** Making the first direct detection of gravitational waves reaching the Earth (in collaboration with Caltech and others around the world), confirming Albert Einstein's prediction from 100 years ago

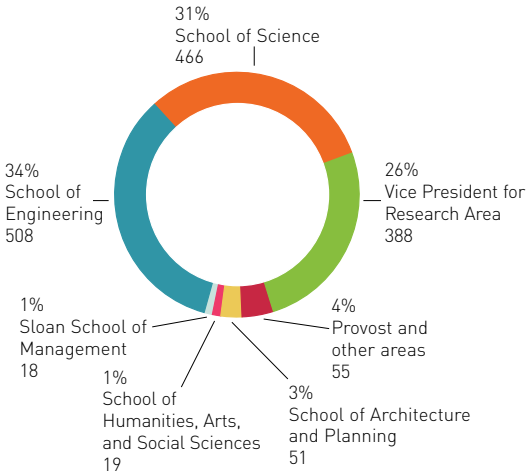
**2017** Adapting a CRISPR protein that targets RNA, rather than DNA, for use as a rapid, inexpensive, highly sensitive diagnostic tool with the potential to transform research and global public health

Undergraduates can plunge directly into this world of exploration through the Undergraduate Research Opportunities Program, which offers students a chance to collaborate on cutting-edge research as junior colleagues of Institute faculty.

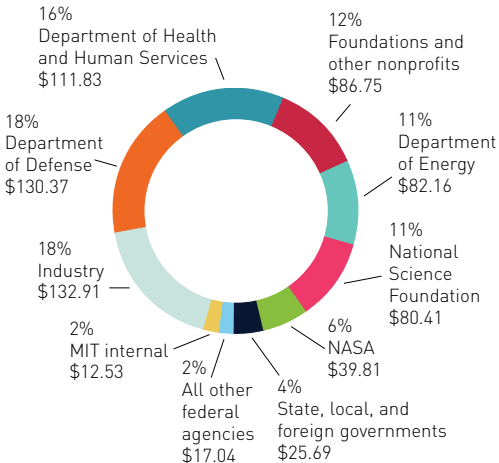
During the academic year, approximately 3,735 researchers (including some 1,505 postdoctoral scholars and 552 visiting faculty and scientists) work with MIT faculty and students. Approximately 2,600 graduate students are primarily supported as research assistants and 715 are appointed as teaching assistants; 1,700 are supported on fellowships. Postdoctoral scholars pursue a program of research and training under the direction of an MIT faculty member and are widely distributed.

As an institution, MIT encourages interdisciplinary research across department and school boundaries while focusing on tackling great challenges for society at large. More interdisciplinary teams are found off-campus in nearby Lexington, Massachusetts, at MIT Lincoln Laboratory, a federally funded research and development center focused on national security.

## Distribution of Postdoctoral Scholars, by School/Area



## Research Expenditures, by Primary Sponsor (in Millions),\* Fiscal Year 2017 Total: \$719.51



\*Figures are rounded.

## Research Centers, Labs, and Programs

Today's researchers tackle complex problems that cannot be resolved within a single academic discipline—and MIT constantly creates and evolves academic organizations that foster interdisciplinary work.

Abdul Latif Jameel Poverty Action Lab  
Abdul Latif Jameel World Water and Food  
Security Lab  
Center for Archaeological Materials  
Center for Bits and Atoms  
Center for Collective Intelligence  
Center for Computational Engineering  
Center for Computational Research in Economics  
and Management Science  
Center for Energy and Environmental  
Policy Research  
Center for Environmental Health Sciences  
Center for Global Change Science  
Center for Information Systems Research  
Center for International Studies  
Center for Real Estate  
Center for Transportation and Logistics  
Clinical Research Center  
Computer Science and Artificial Intelligence  
Laboratory  
Concrete Sustainability Hub  
Deshpande Center for Technological Innovation  
Division of Comparative Medicine  
Edgerton Center/D-Lab  
Haystack Observatory  
Initiative on the Digital Economy  
Institute for Data, Systems, and Society  
Institute for Medical Engineering and Science  
Institute for Soldier Nanotechnologies  
Institute for Work and Employment Research  
Internet Policy Research Initiative  
Joint Program on the Science and Policy of  
Global Change

Knight Science Journalism Program  
Koch Institute for Integrative Cancer Research  
Laboratory for Financial Engineering  
Laboratory for Information and Decision Systems  
Laboratory for Manufacturing and Productivity  
Laboratory for Nuclear Science  
Legatum Center for Development and  
    Entrepreneurship  
Leventhal Center for Advanced Urbanism  
Lincoln Laboratory  
Martin Trust Center for MIT Entrepreneurship  
Materials Processing Center  
Materials Research Laboratory  
McGovern Institute for Brain Research  
Microsystems Technology Laboratories  
MIT Center for Art, Science, and Technology  
MIT Energy Initiative  
MIT Environmental Solutions Initiative  
MIT Innovation Initiative  
MIT Kavli Institute for Astrophysics and Space  
    Research  
MIT Media Lab  
MIT.nano  
MIT Portugal Program  
MIT Program in Art, Culture, and Technology  
MIT Sea Grant College Program  
MIT–Woods Hole Oceanographic Institution Joint  
    Program in Oceanography/Applied Ocean  
    Science and Engineering  
Nuclear Reactor Laboratory  
Operations Research Center  
Picower Institute for Learning and Memory  
Plasma Science and Fusion Center  
Research Laboratory of Electronics  
Simons Center for the Social Brain  
Singapore–MIT Alliance for Research and  
    Technology  
Sociotechnical Systems Research Center  
Women’s and Gender Studies Program



## Research Affiliations—Major Collaborators

MIT's research extends out through collaborations with leading institutes and consortia around the world.

Broad Institute

Charles Stark Draper Laboratory

Howard Hughes Medical Institute

Massachusetts Green High Performance

Computing Center

Northeast Radio Observatory Corporation

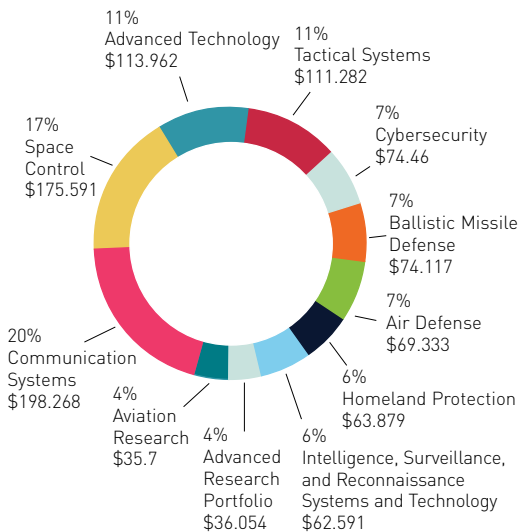
Ragon Institute of MGH, MIT and Harvard

Whitehead Institute for Biomedical Research

## Lincoln Laboratory

MIT's Lincoln Laboratory, located in Lexington, Massachusetts, is a federally funded research and development center (FFRDC) that develops advanced technology to address national security needs. Its core competencies are in sensors, information extraction (signal processing and embedded computing), communications, and decision support, all supported by a broad research base in advanced electronics. Other areas of innovative research and development are cybersecurity, autonomous systems, bioengineering, and homeland protection. The laboratory has a strong emphasis on field-testing prototype systems, and, as a Department of Defense FFRDC, the laboratory transitions technologies to both the military services and industry. Approximately 3,535 MIT employees work at Lincoln Laboratory.

## Lincoln Laboratory Program Funding, by Mission Area (in Millions),\* Fiscal Year 2017\*\* Total: \$1,015



\*Figures are rounded.

\*\*Lincoln Lab's fiscal year runs from October 1 to September 30.

## MIT and Industry

Since its founding, MIT has fostered a problem-solving approach that encourages researchers to work together across departments, fields, and institutional boundaries. The resulting collaborations have included thousands of fruitful partnerships with industry and other leading research institutions.

More than 700 companies are working with faculty and students both in Institute-wide programs such

as the Industrial Liaison Program (part of the Office of Corporate Relations and the main conduit between corporations and MIT) and the MIT Energy Initiative, and in smaller collaborations.

Research sponsored directly by industry totaled \$148 million in fiscal year 2017, or 21% of all MIT research funding. According to the National Science Foundation, MIT consistently ranks at the top in industry-financed research and development expenditures among all universities and colleges without a medical school.

The Technology Licensing Office (TLO) moves innovations and discoveries from the lab to the marketplace for the benefit of the public and to amplify MIT's global impact. The TLO cultivates an inclusive environment of scientific and entrepreneurial excellence, and bridges connections from MIT's research community to industry and startups by strategically evaluating, protecting, and licensing technology. In fiscal year 2017, the TLO received 794 invention disclosures (including 84 from Lincoln Laboratory), filed 271 US patents, had 298 US patents issued, executed 137 licenses and options, had 25 companies formed using MIT intellectual property, and received \$53.6 million in total licensing revenue.

MIT's strong corporate connection also is reflected in its extensive business-oriented curricula, such as the Leaders for Global Operations program, System Design and Management program, Sloan Fellows Program in Innovation and Global Leadership, Supply Chain Management program, and other degree programs that offer an industry internship component.

MIT Sloan Executive Education offers programs that combine innovation and entrepreneurship with strategic thinking and global leadership for mid- to senior-level executives. Led by senior faculty, programs provide participants with the tools and frameworks they need to create and lead successful organizations.

MIT Professional Education provides engineering, science, and technology professionals a gateway to renowned MIT expertise, research, and knowledge through advanced education programs designed for working professionals.

## **Entrepreneurship and Innovation**

MIT's preeminence in entrepreneurship is rooted in its founding. As one of the first land-grant colleges, the Institute was designed to deliver a practical education rather than to focus on the classical education that was provided by many private universities of that era. This emphasis on practice is infused into the entrepreneurship curriculum and programming, which emphasizes learning by doing. Over the course of the 2016–2017 academic year, more than 60 entrepreneurship courses were offered, as well as not-for-credit boot camps over the Independent Activities Period, and the summer MIT delta v accelerator program, formerly known as the MIT Global Skills Accelerator program.

There are more than 80 resources dedicated to fostering entrepreneurship and innovation at MIT, including:

- The Bernard M. Gordon–MIT Engineering Leadership Program promotes leadership and communications skills among undergraduate engineers.
- The Deshpande Center for Technological Innovation funds innovative faculty research and supports faculty in technology commercialization.
- DesignX is an entrepreneurial accelerator for endeavors from the School of Architecture and Planning that aims to transform cities and the built environment.
- The Legatum Center for Development and Entrepreneurship supports MIT students creating ventures focused on solving challenges in developing economies.
- The Lemelson-MIT Program promotes invention at MIT, in particular among students, through the Lemelson-MIT National Collegiate Student Prize Competition.
- The Martin Trust Center for MIT Entrepreneurship supports students with an entrepreneurship curriculum, programming, coaching and mentoring from entrepreneurs in residence, and connections to the MIT and broader entrepreneurial communities.
- The MIT Enterprise Forum, part of Technology Review, produces programs and events through its worldwide network of chapters for technology entrepreneurs and the communities where they reside.
- The MIT Innovation Initiative combines opportunities for hands-on innovation and entrepreneurship education, building a dynamic innovation infrastructure across campus and fostering a connected community of innovation science researchers focused on global relevance and impact.

- The MIT Sandbox Innovation Fund Program provides selected teams of MIT student innovators up to \$25,000 in seed funding, tailored educational opportunities, advising and mentoring, and access to materials and makerspace resources.
- The MIT Startup Exchange is a web community for the MIT innovation ecosystem composed of MIT Industrial Liaison Program members, MIT-connected startups, and employees and alumni with active startup engagements.
- The Samuel Tak Lee MIT Real Estate Entrepreneurship Lab aims to create a new generation of socially responsible entrepreneurs and academics in the fields of architecture, planning, and real estate through faculty funding, graduate fellowships, online courses, programs, and more.
- The Technology Licensing Office assists MIT inventors in protecting their technology and in licensing that technology to startups and to existing companies.
- The Venture Mentoring Service matches student, faculty, staff, and alumni entrepreneurs with talented mentors.

MIT also has a wealth of student clubs and initiatives involved in entrepreneurship or innovation, among them the MIT \$100K Entrepreneurship Competition, the MIT Clean Energy Prize, and conferences such as Hacking Arts and Hacking Medicine.

MIT's educational efforts in entrepreneurship and innovation have an impressive impact at local, regional, and global levels. A 2015 report suggested that 30,000 companies founded by MIT alumni were active as of 2014, employing 4.6 million people

and producing annual revenues of \$1.9 trillion, equivalent to the world's 10th largest economy. MIT alumni form hundreds of new companies each year, and approximately 40% of MIT founders are serial entrepreneurs, starting multiple companies. Twenty-three percent of MIT alumni's new firms are founded outside the United States.

## **Alumni**

### **MIT Students after Graduation**

During 2016–2017, MIT Global Education and Career Development (GECD) hosted 144 different employers for 2,749 interviews held on campus and 1,072 employers who posted over 2,595 jobs. Computer technology companies (21%), consulting (17%), financial services (15%), aviation/aerospace (14%), and consumer products (9%) were the top five industries participating in on-campus recruiting and accounted for 76% of total recruiters.

### ***Undergraduates after Graduation***

- Twenty-four percent of 2017 bachelor's degree graduates had internships that led to a full-time job offer.
- Twenty percent found jobs through on-campus recruiting and MIT-sponsored job listings.
- Nineteen percent found jobs through various networking venues, including MIT faculty and administrators, GECD contacts, and professional conferences.
- Eighteen percent found jobs through a career fair.
- Eighty-seven percent of all graduating seniors completed internships while at MIT.

Fifty-four percent of MIT undergraduates took jobs after graduation; 37% went on to graduate school. The top graduate school destinations were MIT, Stanford, Harvard, University of California at Berkeley, Princeton, California Institute of Technology, Columbia, Northwestern, University of California at San Diego, University of Chicago, and University of Michigan.

### **Graduate Students after Graduation**

- Eighty-one percent of master's students graduating from MIT entered the work sector and 11% went on to further study.
- While 95% of PhD students planned to work after graduation, 1% continued their education. Of those with confirmed employment, 42% had postdoctoral positions.

#### **Top Employment Sectors for 2017 MIT Graduates, by Degree Type**

<b>Employment sector</b>	<b>Bachelor's</b>	<b>Master's</b>	<b>PhD</b>
Aerospace/defense	9%	5%	4%
Computer technologies	23%	15%	11%
Consulting	14%	25%	5%
Education	3%	2%	24%
Energy/utilities	2%	2%	4%
Engineering (all fields)	24%	17%	24%
Finance/banking	14%	16%	3%
Health/medicine	3%	2%	9%



The top employers for bachelor's degree recipients were Google, Microsoft, General Motors, Accenture, Facebook, Amazon, MIT, Northrop Grumman, Goldman Sachs, US Navy, Apple, Bain & Company, Boeing, McKinsey, and Oracle.

The top employers for master's degree recipients were Amazon, McKinsey, Boston Consulting Group, Bain & Company, Deloitte, Facebook, US Army, US Navy, Google, MIT, US Air Force, Apple, Ernst & Young, Microsoft, and PricewaterhouseCoopers.

The top employers for doctoral degree recipients were MIT, Harvard, Google, UC Berkeley, Apple, McKinsey, Princeton, Columbia, Draper, Microsoft, Northwestern, Stanford, University of Chicago, and University of Washington.

### Average Salaries Earned by MIT Graduates Entering Industry Positions, by Degree

<b>Degree</b>	<b>Mean</b>	<b>Median</b>
Bachelor of Science	\$88,381	\$85,000
Master of Science	\$87,812	\$85,000
Master of Engineering	\$108,973	\$115,000
Master of Business Administration	\$129,403	\$130,000
PhD entering postdoctoral positions	\$59,807	\$55,000
PhD entering other positions	\$119,265	\$117,500

## MIT Alumni Association

The MIT Alumni Association is a gateway to one of the most diverse, talented, and invigorating communities in the world: the 136,079 living MIT alumni. It provides services and resources that strengthen alumni's ties to MIT and to each other, from face-to-face gatherings to a suite of online services.

More than 14,750 alumni volunteer their services for the Institute, serving as class and club officers, educational counselors, and members of the MIT Corporation and its visiting committees. In fiscal year 2017, the Annual Fund reported \$81.9 million in gifts from 44,031 alumni, students, parents, and friends.

## Geographic Distribution of Alumni\*

United States and Possessions	104,662
Mid-Atlantic	26,497
New England	26,389
West	21,457
Southwest and South Central	8,676
Great Lakes	7,724
Southeast	7,023
Northwest and Great Plains	6,125
Alaska and Hawaii	520
Puerto Rico, the Virgin Islands, and other US territories	251
Asia	7,974
Europe	6,103
North America (other than US)	1,923
South America	1,532
Pacific Islands and Australia	582
Africa	505
Central America	80
<b>Total</b>	<b>123,361</b>

\*Includes only alumni with known addresses.

## Building MIT's Resources

The MIT Campaign for a Better World officially launched in May 2016 with the ambitious goal of raising \$5 billion to meet humanity's urgent global challenges through the vision and talent of the people of MIT.

The Campaign is guided by six priority areas that span the full breadth of the Institute:

- **Discovery Science:** Transforming our world through fundamental scientific research
- **Health of the Planet:** Addressing critical environmental and sustainability challenges facing humankind
- **Human Health:** Defining the future of health through advances from bench to bedside across a broad range of disciplines
- **Innovation and Entrepreneurship:** Accelerating the journey from idea to impact
- **Teaching, Learning, and Living:** Reimagining education for the 21st-century learner
- **The MIT Core:** Attracting extraordinary students and faculty and providing them with the resources they need to thrive

Thanks to the enthusiasm and generosity of friends and alumni, the Institute closed fiscal year 2017 with an additional \$589 million in new gifts and pledges and had raised \$3.6 billion towards the Campaign goal.

## Financial Data

### Year-end Statistics (in Millions)\*, Fiscal Year 2017

#### Value of Plant and Invested Assets

Asset	Value (in millions)
Land, buildings, and equipment, net book value	\$3,397.1
Market value of endowed funds	\$14,832.5
Market value of total investments	\$19,045.3

#### Gifts and Pledge Payments to MIT

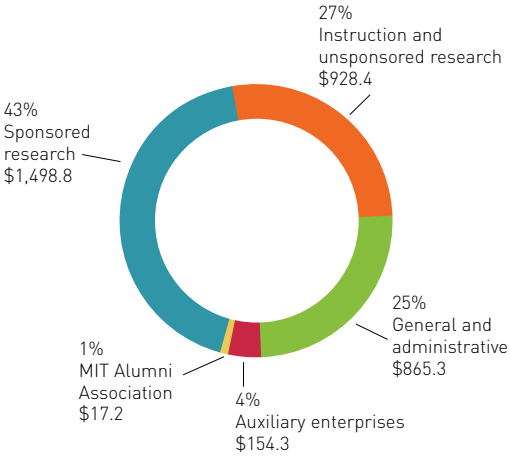
Source	Amount (in millions)
Individuals	\$195.8
Corporations	\$91.5
Foundations	\$390.5
Other	\$5.0
<b>Total</b>	<b>\$682.8</b>

#### Gift and Pledge Payment Designations

Designation	Amount (in millions)
Faculty chairs	\$33.7
Scholarships and other undergrad- uate aid	\$20.0
Undergraduate education and student life	\$43.0
Graduate fellowships	\$12.8
Research and education programs	\$468.7
Construction and renovations	\$41.6
Unrestricted	\$53.3
Undesignated and miscellaneous	\$9.7
<b>Total</b>	<b>\$682.8</b>

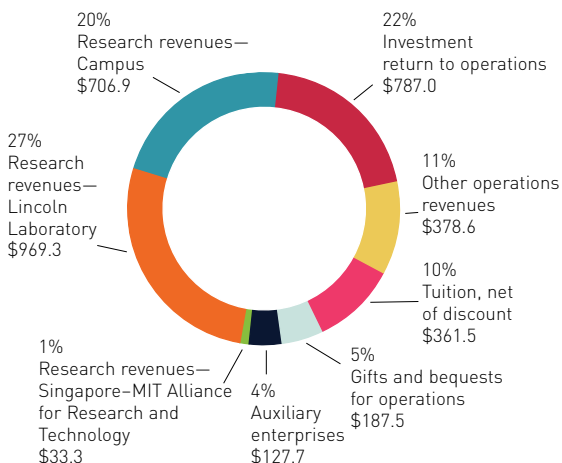
\*Figures are rounded.

# Operating Expenditures (in Millions)\* Fiscal Year 2017 Total: \$3,464



\*Figures are rounded.

## Operating Revenues (in Millions)\* Fiscal Year 2017 Total: \$3,551.8



\*Figures are rounded.

## Accreditation

MIT is accredited by the New England Commission of Higher Education (formerly the Commission on Institutions of Higher Education of the New England Association of Schools and Colleges, Inc.).

Inquiries regarding MIT's accreditation status by the Commission should be directed to [accreditation@mit.edu](mailto:accreditation@mit.edu).

New England Commission of Higher Education  
3 Burlington Woods Drive, Suite 100  
Burlington, MA 01803-4514  
telephone 781-425-7785  
email [info@neche.org](mailto:info@neche.org)

Many degree programs at MIT are accredited by specialized professional accrediting bodies, including ABET, the Association to Advance Collegiate Schools of Business, the American Chemical Society, the National Architectural Accrediting Board, and the Planning Accreditation Board. Academic departments can provide information on the accreditation of the specific degree programs they offer.




*People who love discovery and problem-solving typically love to collaborate and work with people who see things from a different perspective. The beautiful result, as we have discovered at MIT over decades, is that when people of many backgrounds work together to address big human challenges...they come to value each other as human beings, united in a struggle larger than themselves.*

*—President L. Rafael Reif*



Massachusetts  
Institute of  
Technology

A few of the most visited locations on campus are highlighted below:

- W16 Kresge Auditorium
- W20 Student Center
- N52 MIT Museum
- 7 Information Center
- 10 Lobby 10 and Great Dome
- K Killian Court
- N North Court
- 32 Stata Center
- 76 Koch Building
- E14 Media Lab
- E15 List Visual Arts Center
- E51 Wong Auditorium, Tang Center
- E62 Sloan School
-  Kendall T Station

whereis.mit.edu  
m.mit.edu

