



## MIT TODAY

It is difficult to determine the character of a university from written material because it is largely defined by people. Even if we could accurately represent MIT as it is today, it will have changed by the time you become a college freshman. Change is inherent to universities, since a quarter of the students are new each year. During their years here, students themselves change. However, we hope to give you a feeling for what MIT is, the kinds of people who are here, and the kinds of opportunities that are available. Perhaps this will help you decide whether MIT is a place where you might be able to grow and learn, to change yourself and MIT for the better.

It is not possible for any college to be the best one for every student. Each has its characteristics, some more significant than others. Wherever you are, the education you receive is related to the effort you expend getting it. We hope this booklet will help you distinguish that which differentiates MIT from other universities, and define more clearly the experiences that could be "MIT" for you.

Jerome B. Wiesner

President

## MIT IS...

a really human place, willing to bend over backwards for you. . .

a university, founded in 1861, coed since 1871...

a tough place — sometimes exhilarating — where one can develop his or her own individuality. . .

130 acres of residential campus in Cambridge, Massachusetts, bordering the Charles River for a mile, overlooking downtown Boston. . .

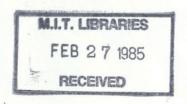
a life of discovery, knowledge, challenge. . .

a community of 4050 undergraduates (370 women, 3680 men) and 3250 graduate students (260 women, 2990 men), ten percent of whom are from minority groups, and fifteen percent of whom are foreign students. . .

superb teaching and terrific facilities.

a faculty of 1000, 150 of whom are from foreign countries.





# **ACADEMICS**

It's easy to be snowed by MIT's reputation before you get here, but once you're part of it, although it's no less impressive, you see it from a different viewpoint.

There is an excitement at MIT that comes from being at the forefront of research and discovery. The textbooks you use are often written by the professors teaching your classes. Student-initiated projects make the news because they solve real problems. A professor you know wins a Nobel Prize.

Although teaching and research in engineering were the original sources of its reputation, MIT has always been more than an "Institute of Technology." That base of science and engineering has provided background for extensive research in the environment, economics, psychology, political science, linguistics, architecture, management, and urban studies, as well as the history and philosophy of science and the humanities.

Professors can be the greatest people in the world to get to know – but you have to take the initiative in that direction. The same faculty teaches both undergraduate and graduate students. The faculty members are among the most outstanding in their fields, yet they are interested in their students as well as in their research. For example, Harold E. ("Doc") Edgerton, the "Father of Stroboscopic Photography," has helped develop techniques in sonar and underwater photography, which he has used in research with Jacques Cousteau. He teaches a strobe project laboratory, open to freshmen, and invites undergraduates to join him in research concerned with seismic profiling with short pulse sonar. Salvador E. Luria, a recent Nobel Prize winner in medicine, teaches general biology, open to all undergraduates.



# UNDERGRADUATE PROGRAM

"We expect the student here to work extremely hard at his own education. We want him to pursue his studies in a mature manner and in his own personal style. We seek an ever higher standard by which to measure his performance as a potential contributor to a better society. We ask a lot of him. In return, we must be prepared to give him a wide opportunity to formulate his plans, to have full access to the resources of MIT, and to write his own educational ticket, to the extent that this makes sense."

Howard W. Johnson Chairman of the Corporation

Within the curriculum there is enough flexibility for the willing student to design his own degree program.

Half of the requirements you'd want to take anyway.

Based on a philosophy emphasizing fundamentals, versatility, and self-reliance, MIT's academic program is flexible in many ways. A departmental major does not have to be designated until the end of your sophomore year. Even later, you can switch with little difficulty to another field. Interdepartmental majors are becoming fairly common.

Much of this flexibility is due to the core curriculum, including the General Institute Requirements, which forms a part of every student's program. These requirements consist of two terms of calculus and two terms of physics, one term of chemistry or biology, eight terms of humanities, three science or math subjects from different fields, and one project lab subject. There are several subjects to choose from to fulfill each requirement. Together these account for half of the minimum units required for graduation.

The rest of the units needed for graduation are taken within the guidelines of your departmental program, which always provides a significant number of unrestricted electives. There The requirements aren't too bad — but if you don't like science and math, don't come here even if you do want to major in economics instead. You'll still have to take them to get a degree.

is usually some overlap between the Institute and departmental requirements, allowing more free time for electives. Most students take extra electives, earning more than the minimum number of units required for a degree, since there is no restriction on the number of subjects you may take and the variety offered is enticing.

There is pressure at MIT, but it is largely self-induced. Students work to achieve their own potential, rather than in competition with other students. The philosophy of testing at MIT places a premium on the understanding of basic principles and procedures, and students frequently work in groups to solve problem sets and understand new concepts. Grading



Pass/fail requires you to figure out for yourself why you want to learn.

Interphase helped give me the background I needed in physics that I just didn't get from the course I'd had in high school.

Coming from the inner city, MIT was different, and Interphase helped me get used to it. policies are liberal; less than one percent of the freshman class leaves because of academic difficulties. All freshmen are graded on a pass/fail basis, regardless of the level of the subjects they study. This helps students from widely different school systems get used to MIT without the threat of grades.

#### Interphase - A Summer Program

Even the "basic" subjects at MIT presuppose a solid background in high school math and science. MIT recognizes its responsibility to able but academically disadvantaged students, primarily minority students such as Blacks, Puerto Ricans, Chicanos, and Native Americans. To help such students make a successful transition from high school to the pace and style of MIT, a summer program has been established offering subjects in math, physics, and the humanities, which build on the regular entrance requirements. Admitted students who we feel could benefit from the program are invited to attend, on an optional, costs-paid basis.

### Fields of Study

In addition to the major fields of study listed on the following page, undergraduate subjects are also offered in five fields in which only advanced degrees are given: linguistics, meteorology, nuclear engineering, nutrition and food science, and psychology. This is the first year that undergraduate majors in oceanography and astronomy are being offered.

A large number of students go on to medical or law schools or go into the teaching profession after graduating from MIT. You can prepare well for any of these alternatives, regardless of the course you major in. A set of subjects has been approved for Massachusetts Teachers Certification. Advisory programs in the fields of medicine, law, and education have been developed by the Committee on Preprofessional Advising and Education.

So much freedom is given the student that it is easy for an undisciplined freshman to go astray — doing minimal work in subjects and not realizing how he has hurt himself until the first quizzes.

Major fields of study leading to the S.B. degree with the percentage of upperclass students enrolled in each School:

School of Architecture		7%
Architecture Urban Studies and Planning Visual Design	History, Theory, and Criticism of Visual Art	S
School of Engineering		41%
Aeronautics and Astronautics Chemical Engineering Civil Engineering Electrical Engineering	Mechanical Engineerin Metallurgy and Materials Science Ocean Engineering	g
School of Humanities and Soci	al Science	12%
Anthropology Economics History Humanities and Engineering Humanities and Science	Literature Music Philosophy Political Science	
School of Management		6%
Special Program in Management Management Science	General Management Behavioral Science in Management	
School of Science		34%
Astronomy Biology and Life Sciences Chemistry Earth and Planetary Sciences	Interdisciplinary Science Mathematics Oceanography Physics	ce

## FRESHMAN PROGRAM

Advisors are the anchovies of MIT; either you love them, or you have no use for them.

Every freshman has an advisor (who has volunteered for the job) assigned on the basis of similar research, career, or recreational interests. Advisors want to develop personal relationships with their students, as well as help them plan their academic programs. The freshman is generally expected to take the initiative in the relationship, because most advisors do not want to impose.

Self-paced study is great if you take advantage of it properly, but it's easily abused, too. With a little self-discipline, it's wonderful. I wouldn't trade for regular methods.

Nearly all freshmen include subjects which meet the requirements in math, physics, and humanities in their programs. Many of these subjects are taught in a self-paced style. Any of the versions provides appropriate preparation for all the possible majors. Since grading freshman year is on a pass/fail basis, some students try to complete as many of the core requirements as they can, although it is wiser to use the year to try some elective subjects and seminars, sampling a variety of fields.

During freshman year you should explore enough fields so you know a lot more than when you started, but by the end you should realize how much you've got left to discover.

Elective subjects include foreign languages (French, German, Russian, and Spanish), humanities, and all other subjects (undergraduate or graduate) for which the student has sufficient preparation. Army, Navy, and Air Force ROTC subjects are also available as electives.

Undergraduate seminars offer a unique opportunity for freshmen to meet with a faculty member in a small group in an informal setting to discuss a topic of mutual interest. Often professors involved in a seminar will request that their advisees be those students who are in the seminar. This arrangement usually improves the student-advisor relationships as well as classroom relationships. This spring, on the average, each freshman registered for two electives; 300 freshmen also participated in seminars.

A list of some of the electives and seminars offered this year follows:

#### Electives

Aircraft and
Spacecraft Design
Architectural Design
Black Literature in America
Combustion and
Air Pollution
Education and Society
Electrocardiography
Elementary Number Theory
Introduction to Computation
Introduction to Electron
Microscopy
Introduction to Psychology
and Brain Science

Language and its Structure Managerial Economics Philosophy and Critique of the Black Movement Survey of Earth and Planetary Sciences Techniques of Metal Sculpture The Politics of National Economic Control Urban Social Structure and Process Water, Air, and Interface Vehicles

You should take at least one seminar – there's no better way to get to know a professor, you can learn a lot, and it's fun.

#### Seminars

Antarctic Ecology
Diver's Wet Suit Heating System Design
Engineering and Urban
Problems
High Energy Physics – Elementary Particles
Malnutrition
Noise and Man
Ocean Engineering
Laboratory

Optical Illusions
Probability, Communications, and Gambling
Recycling of Materials
The Emerging Nations
Weather Forecasting
What is Medicine?
Who Designs the Environment?
Women in the Professions
X-ray and Electron Optics

After reviewing all the options available, a program like the following could be developed:

You know, you take a subject and learn the theories and equations and you think you know it, and then about a year and a half later it dawns on you – that's what it was all about!

Subjects	Units*
First Term Septer	nber - December
Introduction to Chemical Structure, Bonding, and Mechanism	5-0-7
Physics I (with physiological applications)	5-0-7
Calculus I (self-paced)	4-0-8
Self-Definition: Writing and Thinking	3-0-6
Seminar: Stroboscopic Light	0-6-0
Total Units	51
Independent Activities Period	January
Independent Activities Period Second Term	
en industrian de las ad	February - May
Second Term	February - May 5-0-7
Second Term Physics II (with physiological applications)	February - May 5-0-7
Second Term Physics II (with physiological applications) Calculus II (self-paced)	February - May 5-0-7 4-0-8 3-0-6
Second Term Physics II (with physiological applications) Calculus II (self-paced) Self-Definition: Writing and Thinking	3-3-6

<sup>\*</sup>Each unit represents one hour per week. The units for each subject are the total of the hours (shown in sequence) allotted to recitation and lecture; lab, design or field work; and preparation.

How often we have wished for an opportunity to learn for the sake of learning, with no marks, no finals, no required subjects. During IAP, the opportunity is yours.

IAP is the pause that refreshes . . . and it's the real thing.



#### Independent Activities Period (IAP)

The fall term starts in early September and ends before Christmas, and the spring term starts the first week in February and ends in late May. This leaves Christmas vacation free from the worry of impending finals, and the month of January free from any regularly scheduled classes. During this time, called "Independent Activities Period," over 600 special activities, including seminars, mini-courses, labs, workshops, and lectures, are offered on campus. Students are not required to return to MIT for IAP (although more than two-thirds have done so in the past). Off-campus activities have included work at the Woods Hole Oceanographic Institution, with which MIT sponsors joint programs, a trip to India to examine dams, and a research cruise to the Bahamas.

The main idea of IAP is to give students a different kind of learning experience between terms. The time may be devoted to research, study in a field of the student's interest, relaxation, travel or a visit home, exploration of Boston and New England, investigation of new fields, or to work. The campusbased IAP activities have been fascinating. To list only a few, this year they included: An Introduction to Cacti, Mass Transportation, Winemaking and Fermentation, Computer Music Laboratory, Glassblowing, Automobile Repair, Toy Design, Quantum Magneto-Optics, and Skiing.

### Advanced Placement

Advanced placement and degree credit is offered for subjects in MIT's curriculum which have been successfully completed before enrollment. This is usually determined by the scores achieved on the CEEB Advanced Placement Examinations; generally a score of 4 or 5 is acceptable. If you qualify for placement, your background will have been judged equivalent to the prerequisites for more advanced work, so you should find those subjects not only possible to understand but also

more enjoyable than repeating material you've already learned. Pass/fail grades are given for all subjects studied freshman year, including advanced subjects. For information concerning the specific exams honored, consult the General Catalogue or write for the advanced placement leaflet.

Working on an under-graduate research project was the first time that my education became really relevant to me — I was applying what I had learned in a classroom to a real-life problem.

Student-faculty interaction is good in programs like USSP, ESG, and Concourse. If you're interested in working closely with the faculty

consider one of these.

## Undergraduate Research

The Education Research Center lists hundreds of faculty members from all departments engaged in research activities who are interested in working with undergraduates (including freshmen). A student may receive either academic credit on a pass/fail basis or hourly pay for his efforts, but not both. Some of the advantages of getting involved in research are establishing ties with faculty members, acquiring lab techniques, and trying out possible majors or careers.

## Three Alternatives to the "Standard" Program

The Experimental Study Group (ESG), the Unified Science Study Program (USSP), and Concourse offer full-time programs of study engaged in by about 100 freshmen, a smaller group of sophomores, and about 40 faculty members. All programs stress individual initiative and close student-faculty relationships. ESG emphasizes independent study and experimentation with new ideas and methods of learning. Participants may direct their program toward fulfilling regular requirements, or they may follow their own academic interests. Freshmen in USSP formulate and concentrate on their own projects, supplemented by seminars, special lectures, and independent study. Students in each of these two programs are given credit for one-fourth of the units required for graduation each year they participate; but they are not guaranteed credit for the General Requirements, in which proficiency must be demonstrated.

Concourse is the most structured of the three programs. Interdisciplinary in nature, it explores the relatedness as well as the content of several areas of knowledge. Students meet in general sessions with faculty and in small working groups to carry out projects of their choosing. A student who satisfactorily completes Concourse will have covered basic materials in math, science, and humanities prerequisite for more advanced work, and will be given credit for the General Requirements.

Advisor assignments for students who join one of these programs are made from the faculty associated with the program. This usually leads to a more sensitive advisor-student relationship, since the faculty members become well acquainted with the students in the program.















# LIFE OUTSIDE THE CLASSROOM

Education is a life-long process; it does not begin or end at a specific age, nor does it take place only in a structured classroom. At MIT, a large part of learning occurs in informal settings — in dorm rooms, political rallies, visits to the Museum of Fine Arts, nights at the Symphony, or just walking along the river alone. All these things contribute to individual development. Perhaps this "extracurricular education" is really the process of realizing the learning possibilities that exist all around us — and this is probably more important in the long run than what you learn in first-term calculus.

MIT's residences offer testimony to the variety of student life-styles available.

Residence

Unless they live at home or are over 21, freshmen are are required to live in an MIT dorm or fraternity. None of the dorms houses only freshmen. Living with upperclassmen has advantages – their experience with Boston and Cambridge and with courses and instructors is often valuable to freshmen.

The residence decision is like choosing candy from a Whitman's sampler. You look for chocolate-covered cherry, but are happy with whichever you pick.

Both women's and men's housing is available, and a number of the dorms and fraternities are coed. Freshmen choose where they want to live during Residence/Orientation week, before classes start in the fall. Although not required to live on campus after freshman year, less than one-quarter of the undergraduates move to apartments.

MIT doesn't hassle the individual much – you're on your own as far as life-style goes. MIT's philosophy toward regulations is: the fewer, the better. There are none regarding curfews, visiting hours in the dorms, cars on campus, or alcoholic beverages (except the Massachusetts state law). Students are expected to be considerate of the rights of others.

### **Athletics**

The athletic program at MIT is designed to encourage students to develop an interest and to participate in some form of physical recreation. More than 1000 students are involved

I'm convinced MIT philosophy is the salvation of intercollegiate athletics.

Jack Barry, former basketball coach.

I'd never been on any teams in high school . . . in fact, I disliked athletics. Now I'm on the sailing team and I'm thinking of trying to organize a women's track team.

Take advantage of the fan-

in the intercollegiate program, which includes 22 sports with men's teams and 6 with women's teams. A 1970 NCAA survey revealed that MIT sponsors a wider intercollegiate sports program than any other college or university in the country. Women's intercollegiate sports include basketball, crew, fencing, field hockey, sailing, and swimming. For men, varsity and freshman teams are sponsored in baseball, basketball, crew, cross-country, fencing, golf, gymnastics, hockey, lacrosse, pistol, rifle, sailing, skiing, soccer, squash, swimming, track and field, tennis, water polo, and wrestling.

The intramural program is run entirely by students. It attracts a majority of the undergraduate men and women, along with some graduate students and staff members. Some of the teams are coed. The program emphasizes participation; in the 18 sports represented, over 1500 contests are held.

Club sports, such as cricket, judo, karate, rugby, weight lifting, and white-water kayaking, are less formally organized than varsity teams, but also provide intercollegiate competition and add to the already wide variety of activities at MIT.

#### Activities

There's always something to do on campus. During the week, seminars and special lectures are given regularly; political celebrities are frequent speakers. Film classics are shown weeknights by the humanities department. There are over 100 student organizations in which to get involved, including three newspapers, a literary magazine, and an engineering journal. A partial list of other activities is given on the following page.

On weekends, the Lecture Series Committee sponsors recent movies on campus for 50¢; student-produced plays and musicals are regular features. A free coffee house is located in the Student Center. Of course, there are always informal get-togethers in the living groups.

In addition to office space for student activities, the Student Center has art and darkroom facilities, bowling lanes, a pool room, grill, cafeteria, a department and book store, post office, barber shop, a tailor and dry cleaning shop, an optometrist, and a library open 24 hours a day. However, MIT is not a self-sufficient community, nor should it be. Being located between the centers of Boston and Cambridge guarantees a wealth of resources available to MIT students.



#### Some Student Organizations

Alpha Phi Omega (service fraternity)
Art Association
Black Students' Union
Chinese Students Club
Concert Jazz Band
Club Latino
Debate Society
Dramashop
Film Society
Folk Dance Club
Gilbert and Sullivan Society
Glee Club
Hillel
Lecture Series Committee

Move on Over (women's lib)
Outing Club
Science Fiction Society
Skydiving Club
Students for a Democratic
Society
Symphony Orchestra
Tiddlywinks Association
United Christian Fellowship
Urban Action
White Water Club
WTBS (AM-FM radio station)
Young Americans for Freedom
Zero Population Growth



## THE SETTING

The centers of Boston and Cambridge are close enough to MIT so walking and bicycling are practical means of transportation. The subway system connects Boston and Cambridge and works well, for times when you want to get there quickly. It is only ten minutes and a 25-cent subway fare to the bus or train stations in Boston, and 20 minutes and a three-dollar cab fare to Logan International Airport.

The area is a curious blend of the historic and modern, of the traditional and student life-styles. Over 100,000 students attend colleges within five miles of downtown Boston. As cities go, it's fairly friendly, and it's a great place for long walks on beautiful spring afternoons.

Hitch-hiking makes everything accessible.

If you don't like New England weather, just wait a minute.

One of the main advantages of Boston is its central New England location. A drive of an hour or two brings you to Cape Cod and the beaches of the National Seashore, to New Hampshire and its White Mountain National Forest, or to the coasts of northern Massachusetts, New Hampshire, and Maine. Half an hour from campus are rural areas. The four distinct seasons of New England combine with the varied landscape to offer unlimited possibilities for recreation – skiing, mountain climbing, hiking, camping and swimming.



# HOW TO APPLY

If you've read this far and think MIT might be right for you, here's how to apply:

**High School Preparation** 

Required subjects for entrance are four years of English (three for those who satisfy other requirements in 3 years), math through trigonometry, and the equivalent of one year of chemistry and one of physics (these may be taken in a two-year integrated program). If the math and science required is covered before your senior year, you should probably take the more advanced subjects that are offered. If you have not taken one of the requirements, you may still apply, but you would have to make up the subject in summer school before your freshman year.

More than 80 percent of the students in each class have attended public high schools; many are small schools with limited curricula.

### **Entrance Examinations**

In order to apply you must take the following College Board (CEEB) tests:

- 1. Scholastic Aptitude Test (SAT)
- 2. Three Achievement Tests (ACH), one in each of the following groups:
- 1) Level I or Level II Mathematics
- 2) Chemistry or Physics
- 3) English Composition or American History and Social Studies or European History and World Cultures.

You should probably plan to take the tests more than once. They may be taken any number of times (MIT will use the highest score you get in each test) and at any time, but no later than January of your senior year.

If you complete physics or chemistry in your junior year, it would be best to take the achievement test in that subject in May or July of that year, while the material is still fresh in your mind. If you must take a test in December or January in a science you are studying senior year, we will try to interpret the score fairly.

The content of your math courses should determine whether you take the Level I or Level II Math test. Both are weighed equally in the admissions decision. Plan your tests after talking with your guidance counselor and your teachers. Application for the tests should be made directly to:

College Entrance Examination Board Box 592 Princeton, N.J. 08540 or Box 1025 Berkeley, California 94701

#### Interview

A personal conference is required as part of the final application. If you live close to Cambridge, you will be expected to come to the Admissions Office. Otherwise, you will be referred to a member of the MIT Educational Council, a group of alumni located throughout the country who are chosen for their interest in counseling students about college and career planning.

You must arrange to have an interview between May 1 of your junior year and January 10 of your senior year.

### Schedule

Freshmen may enter MIT only in September. The final application, with all supporting material (except January test

scores), is due at the Admissions Office by January 10 of the calendar year of entrance.

The Admissions Committee completes the selection of the freshman class early in the spring, and most candidates are informed of the decision on their applications before April 1.

Each year there are a few students who are admitted to MIT who feel they can use a year off between high school and college for some personally productive endeavor. Deferral of the offer of admission is possible for one year, if the intervening year is not spent in another college or university.

#### **Early Action**

If you have taken all of the required tests before your senior year, if you return all the application material by November 1, and if you request early action in writing, your application will be reviewed by December 1. If you are clearly acceptable, an offer of admission will be made. Otherwise, your application will be held without prejudice for consideration at the regular time. If you are admitted under early action, you are not required to reply to the offer until May 1, the Candidates' Reply Date.

### **Minority Students**

In recruitment and selection, MIT takes into account the social, educational, and financial backgrounds of able but academically disadvantaged students, particularly Blacks, Puerto Ricans, Chicanos, and Native Americans who are interested in MIT's fields of study. For students who need additional support, a special introductory summer program and continuing counseling and tutoring are available. These programs are designed to help students move quickly into full participation in MIT's academic program.

#### Financial Aid

MIT administers an extensive program of financial aid in an attempt to assure that all admitted students are provided the opportunity to attend. No one should be discouraged from applying for admission to MIT because of anticipated financial difficulties.

Financial assistance is provided to all admitted students equal to their "need" as determined by the Financial Aid Office following College Scholarship Service guidelines. It is important to note that an application for aid has no bearing on an application for admission.

"Financial need" is the difference between MIT's standard budget, as set forth below, and a student's resources, consisting of a parental contribution, summer earnings and a share of the student's personal assets. Costs at the Institute for 1972-73 are estimated as follows: tuition, \$2900; room and board, \$1750; student health program, \$120; and books and materials \$230. In addition, about \$500 should be allowed for clothing and other personal expenses. Students should be aware also that other agencies provide many programs of financial assistance, such as state tax-supported grant and loan programs.

An application for financial aid and a full description of MIT's aid program (including broad need analysis guidelines) are included with each application for admission. Students requesting financial aid must return the application to the MIT Financial Aid Office by January 10 of their senior year. A Parents' Confidential Statement, available from your school or the College Scholarship Service (Box 176, Princeton, New Jersey 08540), must also be completed and filed by that date. Questions about financial aid may be directed to the Student Financial Aid Office at any time.







## VISITS TO MIT

What impressed me most about MIT was that everyone seemed to be actively interested in learning, and had a depth and sincerity to their personalities.

Prospective freshman, after a visit.

Some things about a university you can learn only by living there. A visit may help answer some of your questions. We encourage you to come visit MIT. You are welcome any time during the year except during the month of February. The Admissions Office is open from 9-12 and from 1-4 for conferences every weekday, except the usual national holidays and Patriots Day, April 16, 1973. It is located in the main building at 77 Massachusetts Avenue in Cambridge. No appointment is necessary for an interview. Members of our staff are always pleased to talk with interested students. Student-guided tours of the campus leave the office each weekday (except holidays) at 10 a.m. and 2 p.m.

If you would like to stay overnight on campus, arrangements can be made for you to stay with a student for a night during the fall and spring terms. Please write at least a week in advance to the Admissions Office, indicating the day and time you expect to arrive at MIT.

For more information, please write to:

Director of Admissions Massachusetts Institute of Technology Cambridge, Massachusetts 02139



